



CATALOGUE 2019

PRESSURE & VOLUME FLOW

measuring & regulating, Air Treatment



THE COMPANY



AirCom has been a reliable global partner in pneumatics for decades. AirCom specialises in compressed air treatment, as well as pressure and flow rate control for gas and liquid media. AirCom supplies a variety of instruments and pressure regulators which are used in many areas of industry, such as mechanical engineering, medical technology, the chemical and pharmaceutical industry and testing and laboratory equipment. AirCom products can be found in every industry.

Experienced specialists in electronics, pneumatics, hydraulics and control technology are available to help you choose devices for your specific applications and tasks.

Many of the pressure regulators and instruments are in stock, for direct shipment. The delivery time as well as further documentation and technical data can also be accessed in the AirCom online shop.

PRODUCT-LINE	FRL	A	FRL	B	Coalescing filters SST products	C	Precision regulators Miniature valves	D	Electronic products	E
---------------------	-----	----------	-----	----------	------------------------------------	----------	--	----------	------------------------	----------



AIRCOM PNEUMATIC GMBH

Siemensstraße 18 · 40885 Ratingen · 40851 Postfach 4001 · Tel. +49(0)21 02/7 33 90-0 · Fax +49(0)21 02/7 33 90-10
E-Mail: info@aircom.net · Internet: www.aircom.net

Visit us on



THE COMPANY

THE AIRCOM RANGE INCLUDES

- ✈ Pressure regulators, flow-rate regulators, pressure switches, pressure transducers, pressure gauges, service units
- ✈ For pressures from the vacuum and the milibar range up to 1000 bar
- ✈ High control accuracy, can be set manually, mechanically or electrically
- ✈ Sizes ranging from the smallest dimensions up to robust, flange versions
- ✈ For compressed air and other neutral gases as well as liquids

SERVICE AND REPAIRS

All devices available for purchase from AirCom Pneumatic GmbH are tested and repaired in our in-house repair shops.

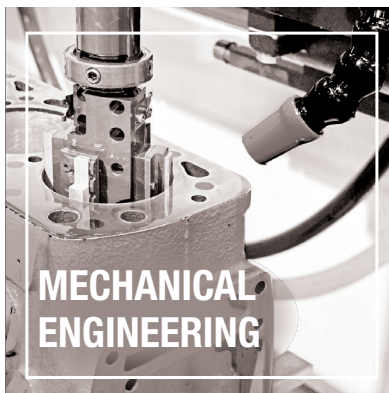
AirCom specialises in repairing, adjusting and calibrating proportional pressure regulators. Computerised measuring stations enable precision calibration of the devices. Flow-rate and leak curves for diverse applications can also be recorded on request.



TEST FACILITIES

In order to check or test mechanical and electrical devices for their specific properties we have separate facilities. One has been designed for mechanical devices, while the second is oriented towards electrical devices. So that it is possible to carry out long-term tests for both types, the measuring and testing equipment undergo annual calibration by the German accreditation body DKD/DAkkS.

**AIRCOM PRODUCTS
CAN BE FOUND IN
EVERY INDUSTRY**



**PLANT
ENGINEERING**



**MEDICAL
TECHNOLOGY**



**AVIATION & VEHICLE
TECHNOLOGY**

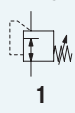


**PHARMACEUTICAL
& CHEMICAL
ENGINEERING**



TABLE OF CONTENTS

MINIATURE



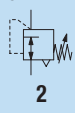
1

MINIATURE PRESSURE REGULATOR Chapter 1

In-Line, factory-set, Cartridge	233, R13	1.02
In-Line, factory-set	231, 232, 239	1.04
micro extremely small	RR	1.07
very slim	MAR	1.08
precise high accuracy	R800, R900, RT, R039	1.09
modular versatile	R6, R7, RP	1.12
precise robust	R342, R364, R374	1.14
precise, FDA also for O ₂	R309, R310, R037	1.16
flangeable plastic	R307, R308	1.18
Cartridge	RC	1.20



STANDARD



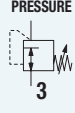
2

STANDARD PRESSURE REGULATOR Chapter 2

Maxi-Series	up to G1	R20, R21	2.02
made of plastic	up to G1	R035...R095	2.03
external feedback	G $\frac{1}{4}$	R218	2.04
Midi-Series	up to G $\frac{1}{2}$	R10, R11	2.05
Standard-Series	up to G3	R119	2.06
Series D	up to G2	RD1...RD4	2.08
joint supply	G $\frac{1}{8}$ up to G $\frac{1}{2}$	RB, R035	2.10
lockeable		RS	2.11
gauge press. regul.	up to G2	R11...R41	2.12



LOW PRESSURE



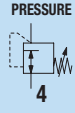
3

LOW PRESSURE REGULATOR Chapter 3

very small	fixed 50 mbar	R01	3.02
also for oil	from 100 mbar	RL13	3.03
P ₁ max. 0.4 bar	up to R2"	RGDJ	3.04
P ₁ max. 4 bar	up to R1 $\frac{1}{2}$ "	RGB4	3.05
P ₁ max. 7 bar	up to G2	R160	3.06
P ₁ max. 20 bar	up to G2	RZ	3.08
precision	from 2 mbar	R4100	3.09
for pure gases	up to G1 $\frac{1}{2}$	RR	3.10



HIGH PRESSURE



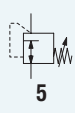
4

HIGH PRESSURE REGULATOR Chapter 4

P ₁ max. 40 bar	up to G2	R280	4.02
P ₁ max. 50 bar	up to G2/DN100	R120	4.04
P ₁ max. 60 bar	up to G1	R286	4.08
P ₁ max. 200 bar	up to G1 $\frac{1}{4}$	RH83, RH10	4.09
P ₁ max. 300 bar	flange DIN477	RH200, RH300	4.12
P ₁ max. 300 bar	up to G $\frac{1}{2}$	RH	4.14
P ₁ max. 414 bar	miniature	RH0, RH1	4.15
P ₁ max. 207 bar	$\frac{1}{2}$ " NPT	RH2	4.16
P ₁ max. 690 bar	many variations	HP300/400	4.17
P ₁ max. 1034 bar	very high pressure	HP306	4.21
P ₁ max. 410 bar	$\frac{1}{2}$ " NPT	RH3, RH4, HP306	4.19
P ₁ max. 414 bar	different. press.	RH44	4.22



PRECISION



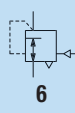
5

PRECISION PRESSURE REGULATOR Chapter 5

miniature		RI	5.02
miniature	flangeable	R90	5.02
no constant bleed	low-cost	R217, R216	5.04
accuracy 30 mbar		11-818	5.06
accuracy 5 mbar		53.10	5.07
from 10 mbar on	up to 28 bar	10, R230	5.08
from 1 mbar on		R300	5.10
no constant bleed	1400 l/min	R100	5.11
2...120 mbar/31bar	Nullmatic	R40	5.12
no constant bleed	for lifting tools	R400, R03	5.13
0...35 mbar	700 l/min	R110	5.15
up to G1 $\frac{1}{2}$	30000 l/min	R102	5.16



BOOSTER



6

VOLUME BOOSTER Chapter 6

with pressure preset		R650	6.02
with transmission ratio		R750, R208	6.03
with good exhaust		R03-J, R490	6.05
transmission ratio	high accuracy	R450	6.07
with high exhaust	G1 $\frac{1}{4}$	R116	6.08
up to 30000 l/min	G1 $\frac{1}{2}$	R200, R201	6.09
for mbar-range	up to G2/R2"	RZ-J, RGDJ, RGB4-J	6.10
very robust	up to G3	R119-J	6.11
with transmission ratio	$\frac{1}{2}$ " NPT	RH3-J	6.12
dome press. regul.	up to 99 bar	RLM, RLE	6.14
up to 50 bar	up to G2	R120-J	6.15
pressure booster	up to 100 bar	AB, AM, AP	6.16



VACUUM



7

VACUUM PRESSURE REGULATOR Chapter 7

miniature	up to 22 l/min	V800, V900	7.02
high-precision	up to 70 l/min	R250	7.03
high-precision	up to 330 l/min	V170	7.04
high-precision	up to 800 l/min	R251	7.05
vacuum adjustment	up to 1100 l/min	V04, V05	7.06



BACK PRESSURE



8

BACK PRESSURE REGULATOR Chapter 8

0.2...1.5 /50 bar	up to G2	DBC, DBM	8.02
precise	up to G $\frac{1}{2}$	10BP, DB240	8.06
low pressure	up to G $\frac{1}{2}$	DB110	8.08
precise	0...0.15/7 bar	DB300	8.09
precise	up to G $\frac{3}{4}$	DB400	8.10
low pressure	up to G2	DBC	8.11
pilot-operated	up to G $\frac{3}{4}$	DB208, DB450	8.12
miniature	G $\frac{1}{4}$	59, 130, 134	8.14



WATER REGULATOR



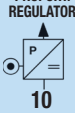
9

WATER PRESSURE REGULATOR Chapter 9

miniature	plastic	R25, R45	9.02
In-Line	extremely small	239K	9.03
female thread	G $\frac{1}{4}$ to G2	RWI	9.04
male thread	R $\frac{3}{8}$ " to R2 $\frac{1}{2}$ "	RWA	9.06
flange	DN 8-DN125	RWF	9.08
SST, flange	DN15-DN 50	RAF	9.10
SST, female thread	G $\frac{1}{2}$ to G2	RAI	9.11
for steam	G $\frac{1}{2}$ to G2	RU	9.12



PROPORT. REGULATOR



10

PROPORTIONAL PRESSURE REGULATOR Chapter 10

high-precision	on PCB	PM	10.02
high-precision	0.2%	PQ1, PQ2	10.03
high-precision	high flow	PQ3, PQ4, PQ6	10.06
robust, proven	up to 50 bar	PR „AirTronic“®	10.08
for high flow	up to 50 bar	PF	10.11
digitale Regelung	up to 50 bar	PP „AirTronic“®D	10.12
programmable		PD	10.14
failsafe	ATEX	PCEX	10.16
high-precision	up to 70 bar	PQH	10.17
high-precision	ATEX	PT6, PT7	10.18
piezo-controlled	10 ms	PRE	10.20
motorised		P180	10.22
setpoint potentiometer	0-10V /4-20mA	PPB	10.23
combinations	booster	BP1, BP2	10.24



TABLE OF CONTENTS

VOLUME FLOW REGULATOR Chapter 11

measuring, portable	VGM, VGR	11.02
precision needle valve	VR6	11.04
measurement and control,	CTA PVM, PVR	11.05
measurement, up to 7000 l/min	VPF	11.08
regulator with plug electronic	PV21 ... PV40	11.09
piezo, miniature from DN0.3 on	PV630, PV631	11.12
miniature	PV202	11.13
proportional, also for water	PV202, PV203	11.14
motorised, robust	P8	11.15
proportional from DN0.2 on	PVK	11.16
Y-type valve up to DN65	PVE	11.17
pinch valve up to DN150	Q	11.18



PRESSURE TRANSDUCER Chapter 13

for differential press. from 1 mbar	D5	13.02
miniature to 10 mbar	D7	13.03
miniature to 100 bar	D8	13.04
miniature to 35 bar	D9	13.05
0.1%, ATEX, 150 °C to 1000 bar	DA	13.06



STAINLESS STEEL DEVICES Chapter 15

miniature up to G½	R364-S, R10-S	15.02
for cleanroom, precise	RE1, R3150	15.04
pressure regulator up to G2	R3000	15.06
regulator in many variations	REA, REF	15.10
low pressure regulator, up to G2	R3100	15.12
for pharmacy and food	R70, R74	15.14
high pressure regulator	RH3000, RH44	15.18
Tri-Clamp	RTC	15.20
booster	R3000-J	15.22
back pressure regulator	D3100, D3000	15.24
filter pressure regulator, up to G2	B3000, B548-S, B11-S	15.30
lubricator	L3000	15.33
filter	F3000, FH3	15.34
pinch valve	QE	15.37
FRL service units, Filter, Lubricator	C3000, C/ F/L10-S	15.38
high-pressure filters, flanges	F, VS	15.41



FILTER PRESSURE REGULATOR Chapter 17

miniature from G½ on	B548	17.02
Midi-Series up to G½	B11, B12	17.03
made of plastic up to G1	B042 ... B095	17.04
Maxi-Series up to G1	B20, B21	17.05
made of zinc up to G2	BD	17.06
for process engineering ¼" NPT	B300	17.08



FRL SERVICE UNIT Chapter 19

made of plastic up to G1	C2, C3, A0...	19.02
Midi-Series up to G½	C10, C11	19.06
made of zinc up to G2	CD2, CD3	19.08
Maxi-Series up to G1	C20, C21	19.07
Standard-Series up to G2	C630	19.10
drain valve	SA, RK	19.11
hose guard	281	19.12



TECHNICAL INFORMATION Chapter Info

application examples for proportional valves	21.02
volume flow rate calculation	21.06
calculation for pressure booster / air amplifier	21.07
connection threads, temperatures, elastomers	21.08
conversion table	21.09

PRESSURE SWITCH Chapter 12

low-cost, very small	DS08 ... DS46	12.02
low-cost, small	DS15 ... DS18	12.03
according to ATEX	DS34, DS35	12.04
for low pressure	DSP, DSQ	12.05
made of plastic	F4200	12.06
with small hysteresis	F4300	12.07
for PCB	F4000, F4400	12.08
with pneumatic output	PP, VP	12.09
with PNP-output	DSB / DSC	12.10



MEASURING DEVICES Chapter 14

for low pressure	MPV, MPA	14.02
hand-held gauge up to 10 bar	MHA	14.03
industrial process display	MPAX	14.04
digital press. gauge from 1 mbar	MKA	14.05
gauge for panel mounting	ME, MF	14.06
gauge with male thread	MA	14.07
stainless steel pressure gauge	MS	14.08



COMPRESSED AIR FILTER Chapter 16

miniature, in-line filter from G½	F400, 137	16.02
miniature from G½	F504	16.03
made of plastic to G1	F035 ... F095	16.04
with FDA approval to G¾	FH	16.06
Maxi-Series to G1	F20	16.07
made of brass to G2	FM	16.08
Standard-Series to G2½	F602	16.10
made of zinc to G2	FD	16.12
coalescing, activated carbon to 16 bar	FG	16.14
from 40 bar to 60 bar	F445, F465	16.16
filter silencer	SFE	16.17
condensate drain	D11, D608	16.18



LUBRICATOR Chapter 18

miniature from G¼	L042 ... L095	18.02
Maxi-Series up to G1	L20	18.03
Standard-Series up to G2	L606	18.04
made of zinc up to G2	LD	18.06



MICRO- / MINIATURE-DEVICES Chapter 20

needle valve	Nippel NV30	20.02
restrictor	Ø 0.06 ... 0.64 RF	20.03
restrictor/ ... with filter	Ø 0.08 ... 1.02 R-0, F950	20.04
micro filter	5...73 µm F9..	20.05
check valve	Ø 0.1 ... 1.02 F2804	20.06




TECHNICAL INFORMATION Chapter Info

device function	21.10
test certificates	21.14
"quick finder" for pressure regulators	21.15
order number index	21.24
General Terms and Conditions	21.26

VOLUME FLOW
11



PRESSURE SWITCH
12



PRESSURE TRANSDUCER
13



GAUGES
14



SST
15




FILTER
16



FILTER REGULATOR
17



LUBRICATOR
18



FRL SERVICE UNIT
19



MICRO/MINI DEVICES
20



TABLES OF CONTENTS (ONLY EXTRACTS)

MINIATURE PRESSURE REGULATORS Chapter 1



STANDARD PRESSURE REGULATOR Chapter 2



LOW PRESSURE REGULATORS Chapter 3



HIGH PRESSURE REGULATORS Chapter 4



TABLES OF CONTENTS (ONLY EXTRACTS)

PRECISION PRESSURE REGULATOR Chapter 5



VOLUME BOOSTER Chapter 6



VACUUM PRESSURE REGULATOR Chapter 7



BACK PRESSURE REGULATORS Chapter 8



TABLES OF CONTENTS (ONLY EXTRACTS)

WATER PRESSURE REGULATOR Chapter 9



9.02
R25 / R45
miniature, FDA



9.03
239K
preset, for drinking water



9.04
RWI



9.06
RWA
DN 8 up to DN 125



9.8
RWF



9.10
RAF
up to DN50



9.11
RAI
up to G2



9.12
RU
for steam

PROPORTIONAL PRESSURE REGULATORS Chapter 10



10.02
PM
on plug-in card



10.04
PQ1
from 10 mbar, high accuracy,
second loop



PQ2



10.07
PQ3 ... PQ6
high accuracy,
big flow



10.08
PR „AirTronic“
robust,
for vacuum, up to G1



10.11
PF
for big flow



10.12
PP
„AirTronic“
digital



10.14
PD
programmable



10.16
PCEX
to ATEX



10.17
PQH
up to 70 bar



10.18
PT6/PT7
to ATEX



10.20
PRE
Piezo technology



10.22
P180
motorised



10.23
PPB
Setpoint Potentiometer



10.24
BP1/BP2
combinations

PROPORTIONAL FLOW VALVES AND MEASUREMENT DEVICES Chapter 11



11.02
VGM/VGR
portable mass flow
meter



11.04
VR6
precision needle
valve



11.06
PVM/PVR
based on CTA
principle



11.08
VVF
30...3000/7000 l/min



11.09
PV21 ... 40
DN0,3 up to DN20



11.12
PV630/PV631
Piezo principle, from
DN03



11.13
PV202/PV203
DN0,8 up to DN12



11.15
P8
motorised



11.16
PVK
miniature



11.17
PVE
DN15 up to DN65



11.18
QP/QS
pinch valve

TABLES OF CONTENTS (ONLY EXTRACTS)

PRESSURE SWITCHES Chapter 12



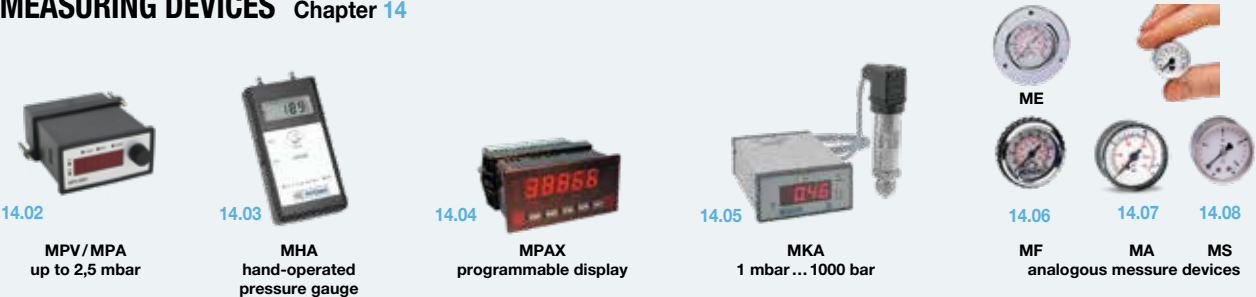
12.02 DS08/10/10/13/14/25/40/46 Low-Cost, miniature
 12.03 DS16
 12.03 DS17/18 robust
 12.04 DS34/DS35 to ATEX
 12.05 DSP/DSQ for low pressure
 12.06 F4000/F4200/F4300 small hysteresis
 12.09 PP/VP700 pneum. output
 12.10 DSB electron. output

PRESSURE TRANSDUCER Chapter 13



13.02 D5 for differential pressure
 13.03 D7 miniature
 13.04 D8 miniature
 13.05 D9 stainless steel sensor
 13.06 DA 0,1% precise
 13.06 DA up to 150 °C

MEASURING DEVICES Chapter 14



14.02 MPV/MPA up to 2,5 mbar
 14.03 MHA hand-operated pressure gauge
 14.04 MPAX programmable display
 14.05 MKA 1 mbar ... 1000 bar
 14.06 ME
 14.07 MA
 14.08 MS
 MF analogous measure devices

STAINLESS STEEL DEVICES Chapter 15



15.02 R10-S Midi-Series
 15.03 R354-S/R364-S mini pressure regulator
 15.04 RE1 for clean room environment
 15.05 R3150 precision pressure regulator
 15.06 R3000 pressure regulator, DN100
 15.10 REF/REA also FDA
 15.12 R3100 low pressure regulator
 15.14 R70 suitable for pharmacy
 15.16 R74 for low pressure
 15.18 RH3000/RHB-S high pressure regulator
 15.20 RTC Tri-Clamp
 15.21 RH44-S differential pressure regulator
 15.22 R3000-J volume booster
 15.24 D3000 back pressure regulator up to G2
 15.28 D3100 back pressure regulator 5...45/6000 mbar
 15.30 B3000 filter regulator, up to G2
 15.32 B548-S/B11-S filter regulator G¼ and G½
 15.33 L3000 lubricator up to 50 bar
 15.34 F3000 compressed air filter up to 50 bar
 15.36 FH3 compressed air filter up to 220 bar
 15.37 QE Pinch valve
 15.38 C3002/C3003 FRL, 3 Units
 15.40 C10-S/C11-S FRL, 2 units

TABLES OF CONTENTS (ONLY EXTRACTS)

COMPRESSED AIR FILTERS Chapter 16



FILTER PRESSURE REGULATOR Chapter 17



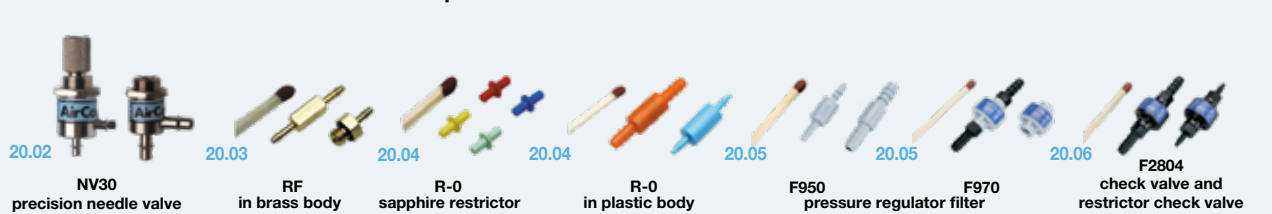
COMPRESSED AIR LUBRICATORS Chapter 18



FRL SERVICE UNITS Chapter 19



MICRO-/MINIATURE-DEVICES Chapter 20



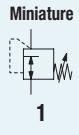
MINIATURE PRESSURE REGULATOR



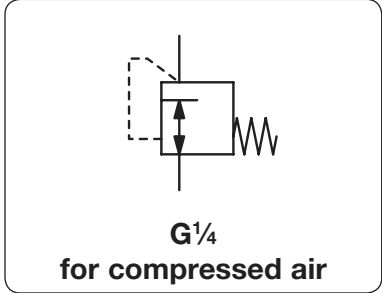
	DESCRIPTION	PRESSURE RANGE		CONNECTION	SERIES	PAGE
			bar	thread		
FACTORY-SET OUTLET PRESSURE	Cartridge regulator		2 / 3 / 4 / 6	Cartridge	233	1.02
	without exhaust	17 x 25	2 / 3 / ... / 10	G $\frac{1}{4}$ ia	R13	1.03
	for liquids	34 x 52	1 / 2 / ... / 8	G $\frac{1}{4}$	239A	1.04
	for oxygen	34 x 52	1 / 2 / ... / 8	G $\frac{1}{4}$	239M	1.04
	for compressed air	34 x 52	1 / 2 / ... / 8	G $\frac{1}{4}$	231	1.05
	relieving		2 / 3 / ... / 8	G $\frac{1}{4}$ - G $\frac{3}{4}$	232	1.06
SLIM DESIGN	extremely small	19 x 40	0.2 ... 2 / 8	M5	RR-M5	1.07
	also with FKM and EPDM	18 x 65	0.2 ... 1.4 / 7	M5 / $\frac{1}{8}$ "NPT	MAR	1.08
VERY ACCURATE	very lightweight		0.03 ... 0.24 / 6	$\frac{1}{8}$ "NPT	R800	1.09
	very lightweight		0.03 ... 0.24 / 6	10-32" and flange	R900	1.09
	slim design		0 ... 0.35 / 7	M5 and flange	RT	1.10
	plastic		0.1 ... 1 / 12	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039-F	1.11
	modular		0.01 ... 0.7 / 7	flange	R6	1.12
	interlockable		0.01 ... 0.7 / 7	M5, G $\frac{1}{8}$, G $\frac{1}{4}$, SS	R7	1.13
	inlet pressure compensated		0.2 ... 2 / 9	flange	R342	1.14
	without constant bleed		0.2 ... 2 / 9	G $\frac{1}{8}$ and G $\frac{1}{4}$	R344	1.14
	inlet pressure compensated		0.1 ... 3 / 6	G $\frac{1}{8}$	R309	1.16
	up to 25 bar supply pressure		0.1 ... 3 / 16	G $\frac{1}{8}$ and G $\frac{1}{4}$	R310	1.16
	FDA approved		0.1 ... 1 / 12	G $\frac{1}{8}$ and G $\frac{1}{4}$	R037	1.17
	very accurate		0.05 ... 2 / 8	G $\frac{1}{8}$	RI	5.02
	very accurate		0.05 ... 2 / 8	G $\frac{1}{8}$ and flange	R90	5.03
	STANDARD	increased accuracy		0.1 ... 1 / 12	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039	1.11
also for water,		brass	0.1 ... 1 / 11	G $\frac{1}{8}$ and G $\frac{1}{4}$	R364	1.15
made of aluminium			0.1 ... 1 / 11	G $\frac{1}{8}$ and G $\frac{1}{4}$	R374	1.15
even for oxygen			0.2 ... 2.5 / 8	G $\frac{1}{8}$	R307	1.18
even for oxygen			0 ... 0.25 / 8	flange	R308	1.19
CARTRIDGE	up to 260 l/min		1 ... 8	G $\frac{1}{8}$ u. G $\frac{1}{4}$	RC	1.20



1



Description	Cartridge pressure regulator suitable for assembly block.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 12 bar		
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.		
Relieving function	non-relieving		
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F		
Material	Body: brass Elastomer: NBR	Piston: brass Filter: stainless steel	



Dimensions		Flow rate	Supply pressure	Connection thread	Outlet pressure	Order number
A	A/F					
mm	mm	l/min*1	max. bar	G	bar*2	

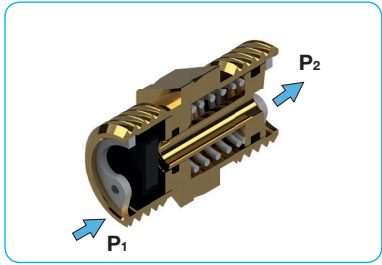
Factory-set outlet pressure					P _i : max. 12 bar, non-relieving, outlet pressure accuracy *2	233
24	14	350	12	G ¹ / ₄ a	2	233G0220
					3	233G0230
					4	233G0240
					6	233G0260



233

Special options, add the appropriate letter

NPT	connection thread	233GX2.0
------------	-------------------	----------



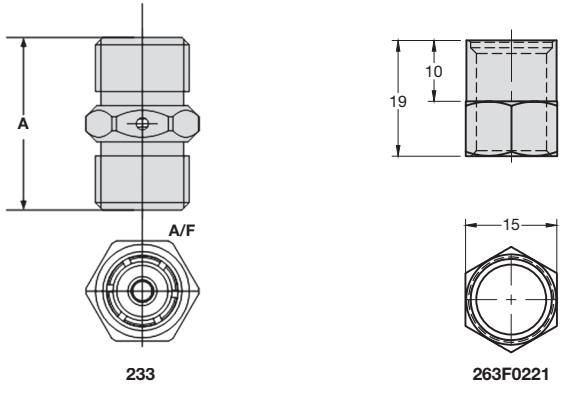
cross section

Accessories, enclosed

Adapter G¹/₄	263F0221
---	----------



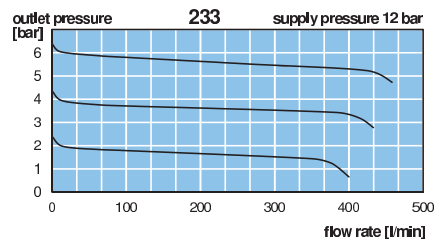
233 incl. adapter

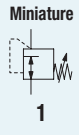


233

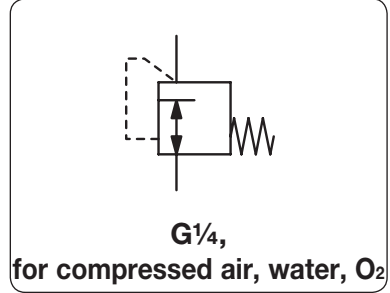
263F0221

*1 P_e = 12 bar; Δp = 0.5 bar
 *2 Tolerance: 2 bar ± 0,6 bar (air, P_e = 6 bar, 10 NI/min)
 4 bar ± 0,8 bar (air, P_e = 6 bar, 10 NI/min)
 6 bar ± 1,0 bar (air, P_e = 10 bar, 10 NI/min)





General information	In-Line pressure regulator with factory-set outlet pressure, reducing from e.g. 10 bar to 5 bar. The regulator is suited for basic pressure control only with an outlet pressure tolerance of approx. $\pm 10\%^{*2}$. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Description	239A: regulator for liquids, compressed air and non-corrosive gases 239M: medical industry and pharmaceuticals
Application	water, hydraulic and sprinkler systems, cooler, cleaning systems
Supply pressure	max. 10 bar for liquids or oxygen max. 18 bar for compressed air and non-corrosive gases
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: nickel-plated brass Inner parts: brass Elastomer: NBR/Buna-N for 239A, FKM for 239M



Dimensions			Flow rate		Supply pressure	Connection thread	Outlet pressure	Order number
ØA	B	A/F	water	air	max. bar	G	bar*2	
mm	mm	mm	l/min*1					

Regulator for compr. air / water								made of brass, P _i : max. 18 bar / 10 bar, NBR/Buna-N, outlet pressure accuracy *2	239A
34	52	17	10	400	18/10	G1/4	1	239A0210	
			10	600			2	239A0220	
			10	700			3	239A0230	
			10	700			4	239A0240	
			10	700			5	239A0250	
			10	800			6	239A0260	
			10	800			7	239A0270	
			10	800			8	239A0280	



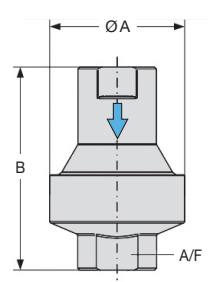
239A / 239M

Regulator for oxygen								made of brass, P _i : max. 10 bar, FKM, outlet pressure accuracy *2	239M
34	52	17	-	400	10	G1/4	1	239M0210	
			-	600			2	239M0220	
			-	700			3	239M0230	
			-	700			4	239M0240	
			-	700			5	239M0250	
			-	800			6	239M0260	
			-	800			7	239M0270	
			-	800			8	239M0280	

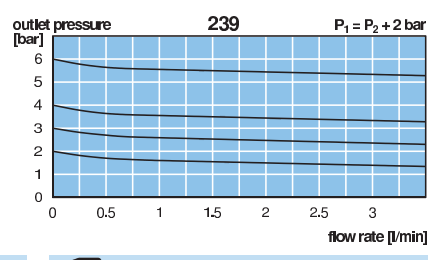
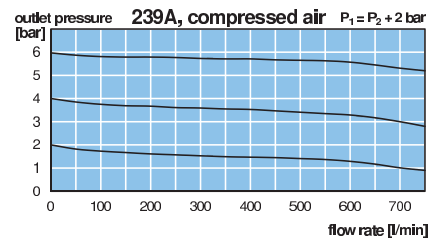
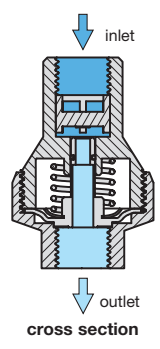
Special options, add the appropriate letter

NPT connection thread 239A1 . . .

deviant pressure range indicate on order 239 . . . 2XX



239A / 239M



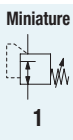
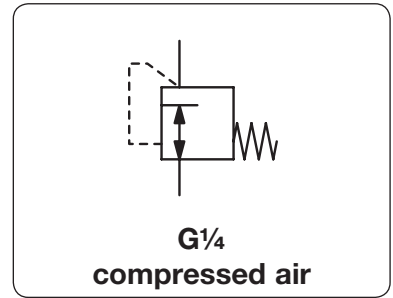
*1 P_i = 10 bar; Δp = 0.8 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 NI/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 NI/min)

PDF CAD
www.aircom.net

Order example:
239A0210

Description	In-Line pressure regulator with factory-set outlet pressure, reducing from e.g. 15 bar to 5 bar. The regulator is suited for basic pressure control only with an outlet pressure tolerance of approx. $\pm 10\%$ ² . Non-relieving function, therefore not recommended for applications such as nailers
Benefits	<ul style="list-style-type: none"> • Higher safety through lower pressure. Tools and equipment protected against pressure damages • Cost reduction through substantially reduced air consumption • Noise reducing for tools
Media	compressed air, non-corrosive gases
Supply pressure	max. 18 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Relieving function	non-relieving
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: zinc Elastomer: NBR/Buna-N



Dimensions			Flow rate	Supply pressure	Connection thread	Outlet pressure	Order number
Ø A	B	A/F	l/min*1	max. bar	G	bar*2	

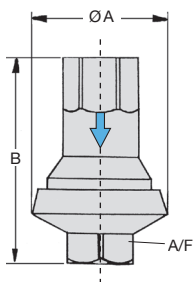
Regulator for air „SaveAir®“				P: max. 18 bar, non-relieving, accuracy *2, made of zinc		231	
34	52	17	400	18	G1/4	1	231A0210
			600			2	231A0220
			700			3	231A0230
			700			4	231A0240
			700			5	231A0250
			800			6	231A0260
			800			7	231A0270
			800			8	231A0280



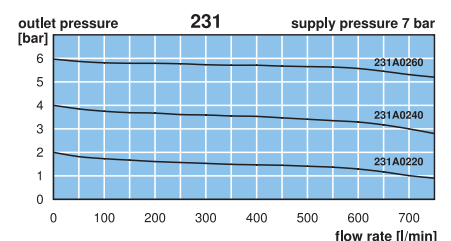
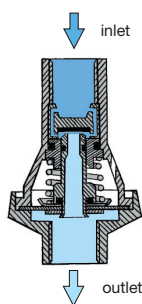
231

Special options, add the appropriate letter

NPT	connection thread	231A12..
deviant pressure range	indicate on order	231A..2XX



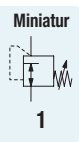
231



*1 $P_0 = 12 \text{ bar}$; $\Delta p = 0.5 \text{ bar}$

*2 Tolerance: $< 4 \text{ bar} \pm 0.3 \text{ bar}$ (air, $P_0 = 6 \text{ bar}$, 10 NI/min)
 $\geq 4 \text{ bar} \pm 10\%$ (air, $P_0 = 10 \text{ bar}$, 10 NI/min)





Description In-Line pressure regulator with factory-set outlet pressure, reducing from e.g. 15 bar to 6 bar. With an outlet pressure tolerance of only ±10% ² it is especially suitable for nailing machines.

Benefits

- Higher safety through lower pressure. Tools and equipment protected against pressure damages.
- Cost reduction through substantially reduced air consumption. Longer service life.
- Noise reduction for tools.

Media compressed air or non-corrosive gases

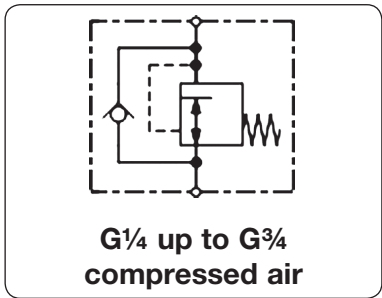
Supply pressure max. 25 bar

Adjustment Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.

Relieving function relieving at removal of supply pressure

Temperature range 0 °C to 80 °C / 32 °F to 176 °F

Material Body: aluminium
Elastomer: NBR/Buna-N



Dimensions				Flow rate	Supply pressure	Connection thread	Outlet pressure	Order number
Ø A	B	A/F 1	A/F 2					
mm	mm	mm	mm	l/min*1	max. bar	G	bar*2	

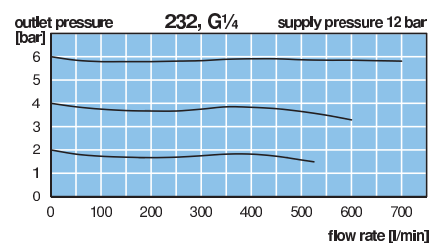
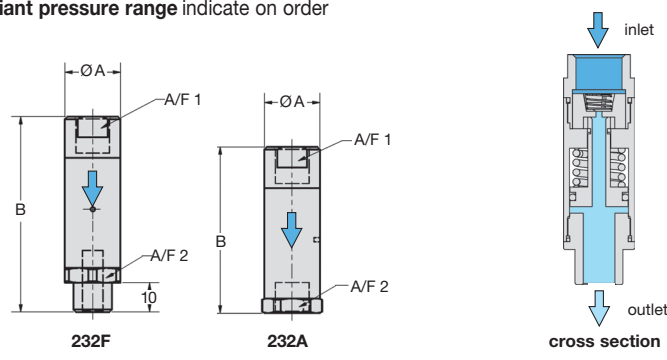
Regulator with relieving function				P _i : max. 25 bar, accuracy*2, aluminium		232		
19	69	16	19	500	25	G ¹ / ₄ ia	2	232F0220
							3	232F0230
							4	232F0240
							5	232F0250
							6	232F0260
							7	232F0270
							8	232F0280
							19	59	16	19	500	25	G^{1}/_{4}	2	232A0220
3	232A0230							
4	232A0240							
5	232A0250							
6	232A0260							
7	232A0270							
8	232A0280							
25	63	22	25	1400	25	G ³ / ₈								2	232A0320
							3	232A0330
							4	232A0340
							5	232A0350
							6	232A0360
							7	232A0370
							8	232A0380
							30	68	27	30	1400	25	G^{1}/_{2}	2	232A0420
3	232A0430							
4	232A0440							
5	232A0450							
6	232A0460							
7	232A0470							
8	232A0480							
40	102	34	40	2500	25	G ³ / ₄								2	232A0520
							4	232A0540
							6	232A0560
							8	232A0580



Special options, add the appropriate letter

NPT connection thread 232. 1 . . .

deviant pressure range indicate on order 232. . . X X



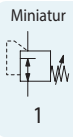
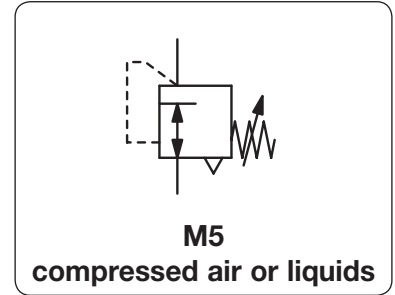
*1 P_e = 12 bar; Δp = 0.5 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 NI/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 NI/min)

MICRO PRESSURE REGULATOR

RR-M5

Description	Highly compact piston-operated regulator, suitable for panel mounting and basic pressure regulation.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 6 bar at 0.2 ... 2 bar pressure range, max. 10 bar at 1 ... 8 bar pressure range
Adjustment	by knurled-head screw with locknut
Relieving function	relieving for air, non-relieving for water
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



Dimensions			Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	A/F	l/min*1	max. bar	M5	bar	

Pressure regulator for air				supply pressure max. 6 / 10 bar, relieving	RR-M5
19	40	17	70	6	RR-M5A
17	40	17	70	10	RR-M5C



RR-M5

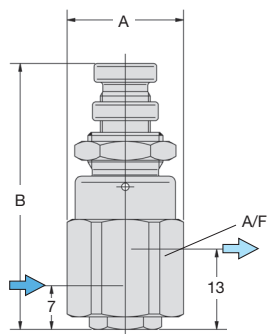
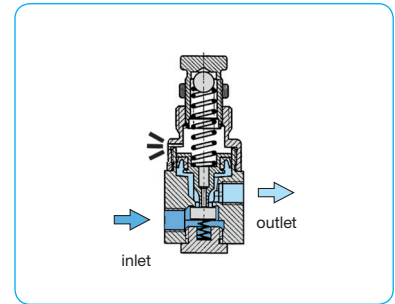
Pressure regulator for water				supply pressure max. 6 / 10 bar, non-relieving	RR-M5
19	40	17	1.2	6	RR-M5AK
17	40	17	1.2	10	RR-M5CK



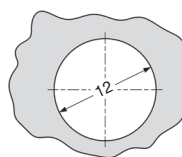
RR-M5

Special options, add the appropriate letter
for oxygen specially cleaned, with oxygen grease minimum purchase 50 pieces RR-M5 . . K15

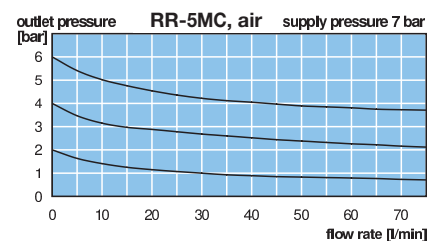
Accessories, enclosed
plastic panel nut M12x1K



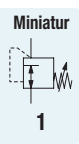
RR-M5



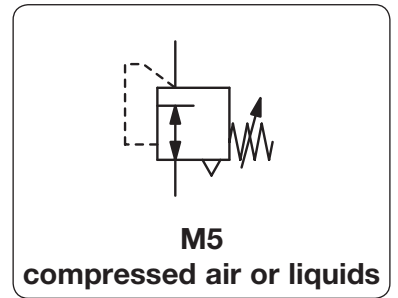
panel cut-out



*1 for compressed air: 7 bar supply pressure and 6 bar outlet pressure and 2 bar pressure drop for water: supply pressure 2 bar above outlet pressure



Description	Piston-operated compact pressure regulator with special seals for applications in the chemical and medical industry. Mounting nut included.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 21 bar
Adjustment	by knurled-head screw
Relieving function	relieving or non-relieving
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for NBR/Buna-N 0 °C to 110 °C / 32 °F to 230 °F for EPDM for appropriately conditioned compressed air down to -30°C / -22°F
Material	Body: brass Elastomer: NBR/Buna-N, optionally FKM or EPDM Inner valve: stainless steel and brass



Dimensions			Description	Flow rate	Connection thread		Pressure range	Order number
A	B	A/F			Inlet	Outlet		
mm	mm	mm		l/min*1	M5 / NPT	M5 / 10-32"	bar	

Regulator with male thread

supply pressure max. 21 bar

MAR-1P

18	71	9.5	relieving	120	1/8" NPTa	10-32"	0.2 ... 1.4	MAR-1P-20
							0.2 ... 3.5	MAR-1P-50
							0.2 ... 7.0	MAR-1P
18	71	9.5	non-relieving	120	1/8" NPTa	M5	0.2 ... 1.4	MAR-1PNR-20
							0.2 ... 3.5	MAR-1PNR-50
							0.2 ... 7.0	MAR-1PNR



MAR-1P, with male thread

Regulator with female thread

supply pressure max. 21 bar

MAR-1

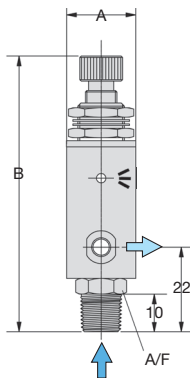
18	65	9.5	relieving	120	M5	M5	0.2 ... 1.4	MAR-1-20
							0.2 ... 3.5	MAR-1-50
							0.2 ... 7.0	MAR-1
18	65	9.5	non-relieving	120	M5	M5	0.2 ... 1.4	MAR-1NR-20
							0.2 ... 3.5	MAR-1NR-50
							0.2 ... 7.0	MAR-1NR



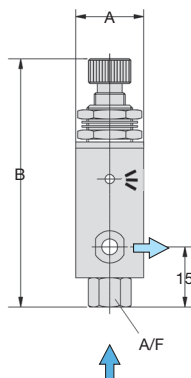
MAR-1, with female thread

Special options, add the appropriate letter

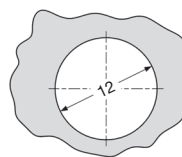
for oxygen	specialy cleaned, with oxygen grease	MAR- . NR- .. 15
FKM elastomer		MAR- V
EPDM elastomer		MAR- E
chemically nickel-plated	throughout	MAR- X13



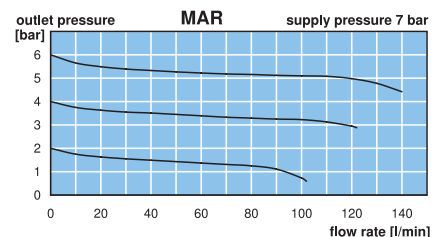
MAR-1P



MAR-1



panel cut-out



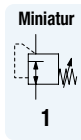
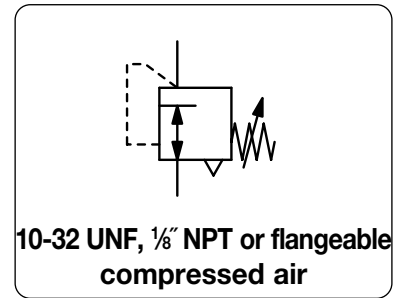
*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop



PLASTIC MINIATURE PRECISION PRESSURE REGULATOR

R800 / R900

Description	Miniature precision regulator with high supply sensitivity, small dimension, light weight. Hysteresis-free adjustment up to 20 turns. compressed air or non-corrosive gases max. 10 bar	
Media	compressed air or non-corrosive gases	
Supply pressure Accuracy	R800 / R900 / R901	R810 / R910 / R911
	at supply pressure variation of 1 bar: < 7 mbar pressure deviation	< 20 mbar pressure deviation
	at supply pressure removal/reapplication: < 7 mbar pressure deviation	< 17 mbar pressure deviation
	setting accuracy: < 2.5 mbar	< 5 mbar
Air consumption	0.35 l/min at 7 bar supply	0 l/min, flow > 20 l/min recommended
Relieving function	relieving, optionally non-relieving	
Relief capacity	15 l/min at 0.35 bar outlet above set-point	Gauge port not available
Temperature range	4 °C to 66 °C / 40 °F to 150 °F	
Material	Body: polysulfones Elastomer: NBR/Buna-N Inner valve: stainless steel and acetal	



Dimensions			Pressure adjustment	Flow rate	Pressure range	Order number for manifold with o-ring	Order number 10-32 UNF standard
A	B	C	by	l/min*1	bar		

Precision pressure regulator						supply pressure max. 10 bar, relieving, with constant bleed	R900
29	78	8	knob	65	0.03 ... 0.24	R900-3,5MWK	R900-3,5WK
					0.03 ... 0.7	R900- 10MWK	R900- 10WK
					0.03 ... 2.1	R900- 30MWK	R900- 30WK
					0.03 ... 4.2	R900- 60MWK	R900- 60WK
					0.03 ... 6.2	R900- 90MWK	R900- 90WK
29	60	8	spindle	65	0.03 ... 0.24	R900-3,5WOS	R900-3,5WOS
					0.03 ... 0.7	R900- 10WOS	R900- 10WOS
					0.03 ... 2.1	R900- 30WOS	R900- 30WOS
					0.03 ... 4.2	R900- 60WOS	R900- 60WOS
					0.03 ... 6.2	R900- 90WOS	R900- 90WOS
29	43	8	preset	65	to be indicated	R901- .. M	R901- ..



R800-..WK mounting nut incl. R900-..WK mounting nut incl.

Special options, add the appropriate letter

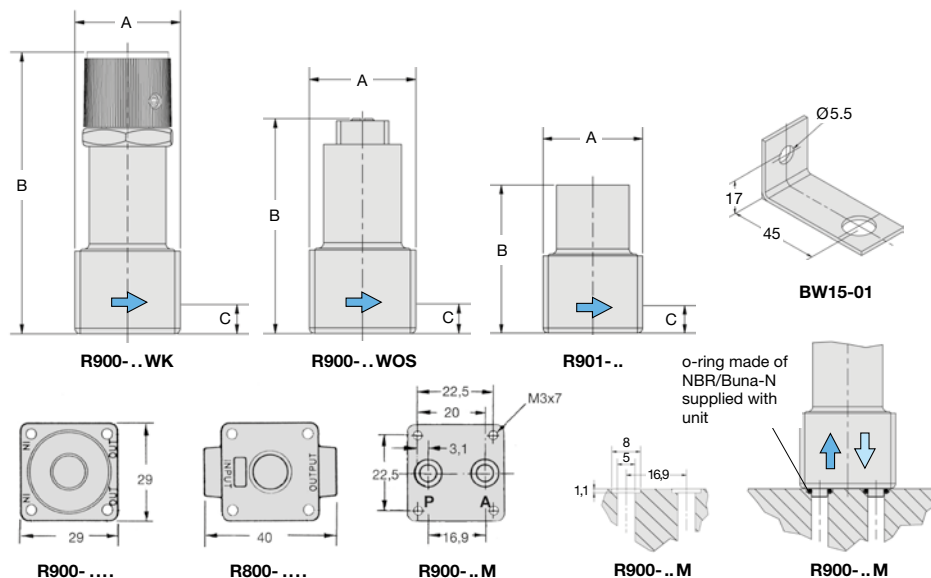
1/8" NPT	connection thread, width 40 mm	R8...W...
non-relieving	without constant bleed	R.1-.....
for oxygen	specially cleaned	R...-...15



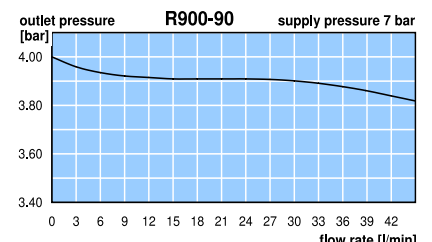
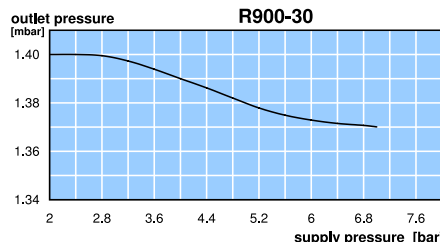
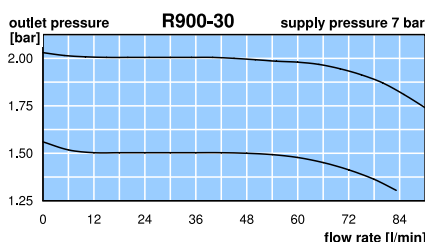
R910-..WOS mounting nut incl.

Accessories, enclosed

mounting bracket made of steel for R800 and R900 BW15-01



R901-.. R900-..MWOS mounting nut incl.



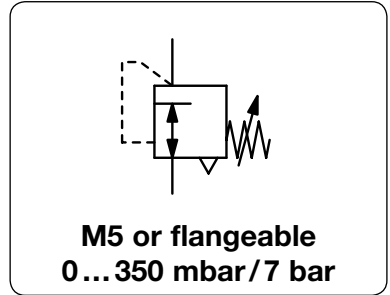
*1 at 7 bar supply pressure and max. outlet pressure

PDF CAD
www.aircom.net

Order example:
R900-3,5MWK



Description	Compact, high-precision, diaphragm-operated pressure regulator for panel-mounting.	
Media	non-corrosive gases, filtered, lubricated or unlubricated compressed air	
Supply pressure	max. 17 bar	
Air consumption	ca 1.5 l/min at 7 bar supply pressure	
Adjustment	by handwheel with locknut	
Relieving function	relieving	
Gauge port	RT-M5: gauge port M5	RT-MF: not available
Mounting position:	any	
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: anodized aluminium Elastomer: FKM Inner valve: stainless steel and brass	



Dimensions			Flow rate	Supply pressure	Connection	Pressure range	Order number
A	B	C	l/min*1	max. bar	thread	bar	

Pressure regulator M5				supply pressure max. 17 bar, with constant bleed	RT	
25	83	14.5	100	17	M5	0...0.35 RT-M5A 0... 1.1 RT-M5B 0... 2.1 RT-M5C 0... 4.2 RT-M5D 0... 7.0 RT-M5E



**RT-M5C
with mounting nut**

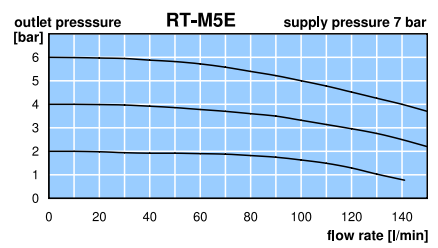
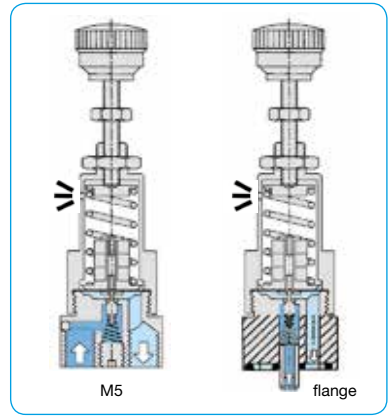
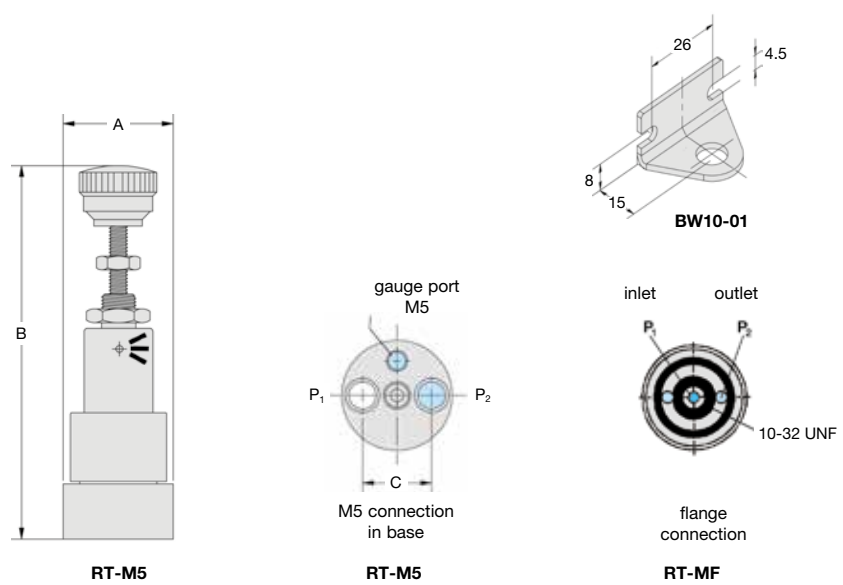
Regulator with flange				supply pressure max. 17 bar, with constant bleed	RT	
25	83	-	100	17	flange	0...0.35 RT-MFA 0... 1.1 RT-MFB 0... 2.1 RT-MFC 0... 4.2 RT-MFD 0... 7.0 RT-MFE



**RT-MFC
with flange and mounting nut**

Special options, add the appropriate letter		
side connection	M5 or o-ring	RT-M. .X14
1/16" NPT	ports with female threads	RT-M. .X61

Accessories, enclosed		
mounting bracket	made of steel, mounting nut at the device	BW10-01

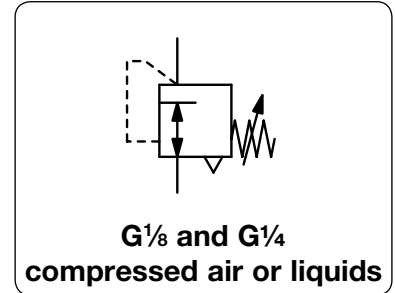


*1 for compressed air: 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PRECISION PRESSURE REGULATOR MADE OF PLASTIC

R039

Description	Diaphragm miniature pressure regulator of small and lightweight design. The regulator has increased accuracy due to a rolling diaphragm and a piston compensated to inlet pressure.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 16 bar	
Air consumption	without constant bleed	R039-F with max. 3 l/min air consumption
Adjustment	by plastic knob with snap-lock	
Relieving function	relieving for compressed air,	red adjusting knob
	non-relieving for liquids,	black adjusting knob
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied	
Mounting position	any	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for NBR/Buna-N	
Material	Body: POM with brass thread insert Elastomer: NBR/Buna-N Inner valve: brass	



Dimensions			Flow rate		Connection	Pressure	Order number	Order number
A	B	C	water	air	thread	range	for water	for compressed air
mm	mm	mm	l/min*1	l/min*1	G	bar	non-relieving	relieving

Regulator w. increased accuracy							supply pressure max. 16 bar, w. rolling diaphragm, inlet pressure-compensated		R039
41	86	11	5	350	G $\frac{1}{8}$	0.1 ... 1	R039-010K	R039-010	
						0.2 ... 2	R039-01AK	R039-01A	
						0.2 ... 4	R039-01BK	R039-01B	
						0.3 ... 8	R039-01CK	R039-01C	
						0.3 ... 12	R039-01DK	R039-01D	
41	86	11	5	380	G $\frac{1}{4}$	0.1 ... 1	R039-020K	R039-020	
						0.2 ... 2	R039-02AK	R039-02A	
						0.2 ... 4	R039-02BK	R039-02B	
						0.3 ... 8	R039-02CK	R039-02C	
						0.3 ... 12	R039-02DK	R039-02D	

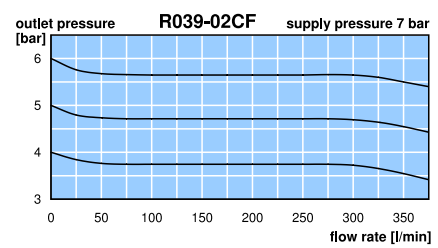
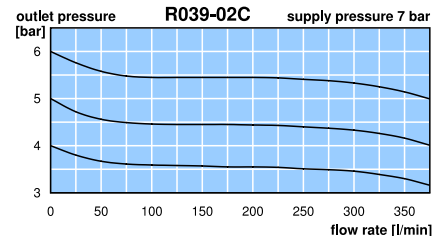
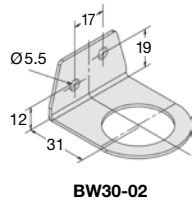
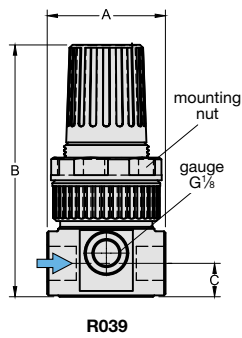


Precision pressure regulator							3 l/min air consumption, P _i : max. 16 bar, w. rolling diaphragm, inlet pressure-compensated		R039-F
41	86	11	5	350	G $\frac{1}{8}$	0.1 ... 1	R039-010F	R039-010F	
						0.2 ... 2	R039-01AF	R039-01AF	
						0.2 ... 4	R039-01BF	R039-01BF	
						0.3 ... 8	R039-01CF	R039-01CF	
						0.3 ... 12	R039-01DF	R039-01DF	
41	86	11	5	380	G $\frac{1}{4}$	0.1 ... 1	R039-020F	R039-020F	
						0.2 ... 2	R039-02AF	R039-02AF	
						0.2 ... 4	R039-02BF	R039-02BF	
						0.3 ... 8	R039-02CF	R039-02CF	
						0.3 ... 12	R039-02DF	R039-02DF	



Special options, add the appropriate letter			
adjustment lock	non-adjustable knob		R039-0 . . T
without gauge port			R039-0 . . X02
for oxygen	specialy cleaned, with oxygen grease	not for R039-0..F	R039-0 . . K15

Accessories, enclosed			
pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	MA4001- . . *2	
mounting bracket	made of steel	BW30-02	
mounting nut	made of plastic	M30x1,5K	
	made of aluminium	M30x1,5A	



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop, for water: supply pressure 2 bar above outlet pressure
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

MODULAR MINIATURE PRESSURE REGULATOR „AIRLOGIC“

R6 / RP / M5000



Description

Pressure regulator R6 Design as R7 but for bottom-sided flange assembly via fittings and o-rings made of NBR/Buna-N. Mounting through four screws (M3) with extremely small screw heads.

Pressure regulator RP This model guards against unauthorised tampering of pressure. Alternatively available with preset pressure. The pressure is to be set between 30 mbar and 2.8 bar. Its headroom is reduced to 49 mm.

Diverter block M5000 M3000 features four ports sideways and one on top. All ports can be provided with threads or blank slides, the ports sideways optionally with connector slides.

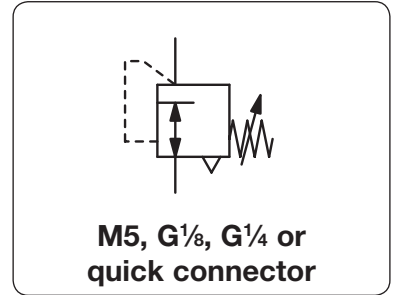
Top cover

Connector slide

Assembly After loosening the bottom screw any placements of threads, connector and blank slides are possible. Sealing results from o-rings made of NBR/Buna-N.

Temperature range 4 °C to 70 °C / 39.2 °F to 158 °F

Material Body: glass fiber-reinforced Celcon Inner valve: stainless steel and Celcon
Elastomer: NBR/Buna-N



M5, G $\frac{1}{8}$, G $\frac{1}{4}$ or quick connector

Dimensions			Flow rate l/min*1	Supply pressure max. bar	Connection thread G/ flange	Pressure range bar	Order number
A	B	C					

Precision regulator with flange					with adjusting knob, relieving, gauge port G $\frac{1}{8}$ on one side	R6	
47	92	-	140	10	flange	0.01 ... 0.7	R6-010-B1BB
						0.02 ... 2.1	R6-030-B1BB
						0.03 ... 4.1	R6-060-B1BB
						0.03 ... 7.0	R6-100-B1BB



R6 R6

Regulator with adjustment lock					adjustment with socket wrench, relieving, gauge port G $\frac{1}{8}$ on one side	RP	
47	49	14	140	10	G $\frac{1}{8}$	0.03 ... 2.8 *2	RP7-040-111B
32	49	-			flange	0.03 ... 2.8 *2	RP6-040-B1BB

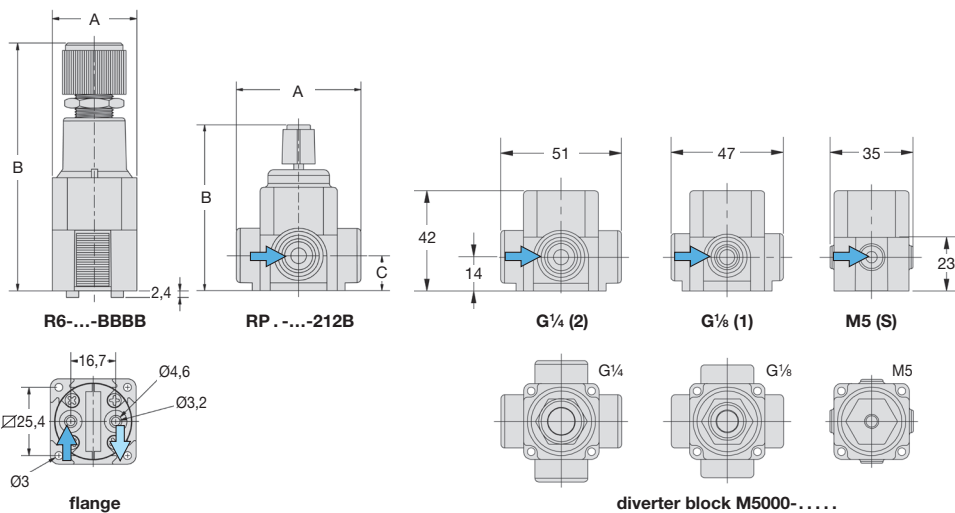


RP7 for socket wrench RP6 with flange

Diverter block G $\frac{1}{8}$				e.g. all ports G $\frac{1}{8}$	M5000		
47	42	14	without filter	-	G $\frac{1}{8}$	-	M5000-11111
			with filter, 380 μ m		connection		M5001-11111

Special options and accessories

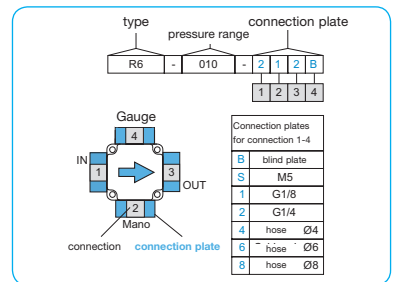
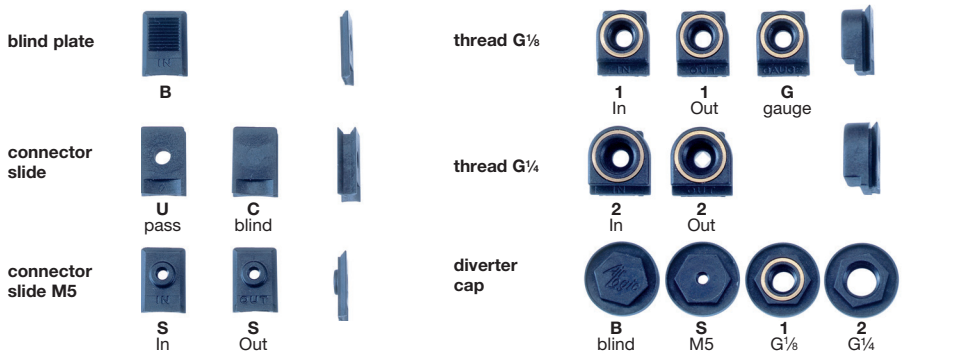
see adjoining page



M5000-SBSBS M5000-1S1SB



M5000-11111, G $\frac{1}{8}$ M5000-22222, G $\frac{1}{4}$



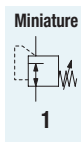
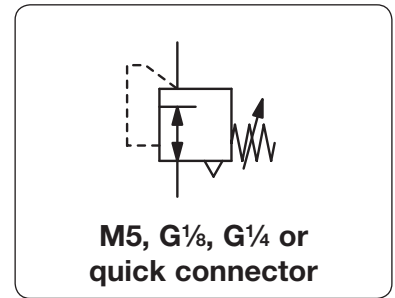
connector slides configuration

*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *2 indicate preset pressure on order

PDF CAD
www.aircom.net

Order example:
R6-010-B1BB

Description	Miniature pressure regulator with unique modular dovetail design allowing its individual use or assembly into a modular combination of pneumatic components through connector slides.	
Identification marking	The item no. includes a four-digit number starting with the input port and continuing counterclockwise. The digit corresponds with the type of connector slide, e.g. 1 for G $\frac{1}{8}$, 2 for G $\frac{1}{4}$ or B for blank.	
Pressure regulator R7	Designed for precise regulation of pressure. The regulator possesses a 20 turn adjustment range and excellent repeatability. The valve seat is protected by a filter/strainer at the input port.	
Media	5 μ m filtered compressed air and non-corrosive gases	Supply pressure max. 10 bar
Accuracy	at supply pressure variation of 1 bar: at supply pressure removal/reapplication: at variations in temperature of 25 °C / K:	< 10 mbar pressure deviation < 10 mbar pressure deviation < 10 mbar pressure deviation
Air consumption	0.3 l/min at 7 bar supply pressure	Adjustment by knob
Relieving function	relieving	Mounting position any
Gauge port	G $\frac{1}{8}$ via threaded slide	



Dimensions			Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Pressure rang bar	Order number
A	B	C					

Precision regulator				with adjusting knob, relieving, gauge port G $\frac{1}{8}$ on one side		R7	
47	92	14	140	10	G $\frac{1}{8}$	0.01...0.7 0.02...2.1 0.03...4.1 0.03...7.0	R7-010-111B R7-030-111B R7-060-111B R7-100-111B
51	92	14	140	10	G $\frac{1}{4}$	0.01...0.7 0.02...2.1 0.03...4.1 0.03...7.0	R7-010-212B R7-030-212B R7-060-212B R7-100-212B



R7-...-1B1B, G $\frac{1}{8}$



R7-...-2B2BS, G $\frac{1}{4}$

Special options, add the appropriate letter or number

with spindle	screwdriver adjustment, height 77 mm	R-...-...S
thread	M5 connection thread	R-...-S...
	G $\frac{1}{8}$	R-...-1...
	G $\frac{1}{4}$	R-...-2...
quick connector	external diameter of hose	R-...-4...
	$\varnothing 4$	R-...-6...
	$\varnothing 6$	R-...-8...
	$\varnothing 8$	R-...-B...
breech plate		R-...-U...
connection plate	with permanent pressure supply	R-...-C...
	without passage, modular combination of two devices	R-...-W...
wall mounting	at breech plate	



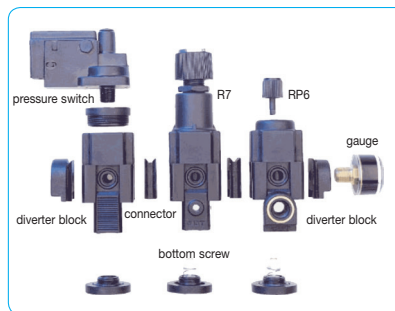
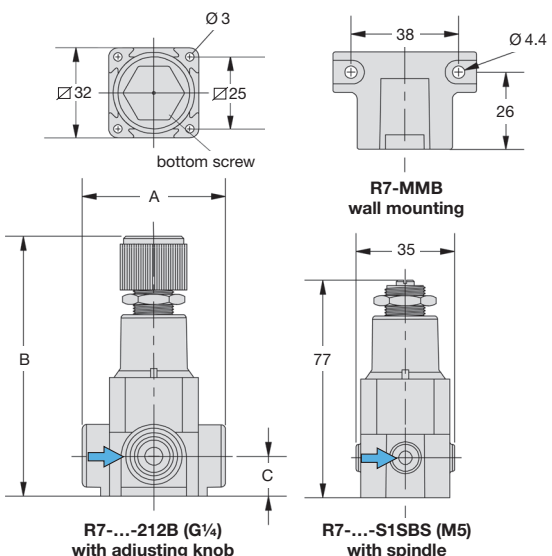
R7-...-SBSBS with spindle, M5 R7-...-4B4B w/ quick connector $\varnothing 4$

Accessories, enclosed

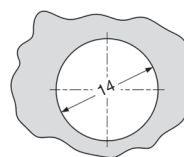
pressure gauge	$\varnothing 23$ mm, 0...*2 bar, G $\frac{1}{8}$	MA2301-...*2
-----------------------	--	--------------



example for assembly

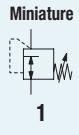


example for assembly

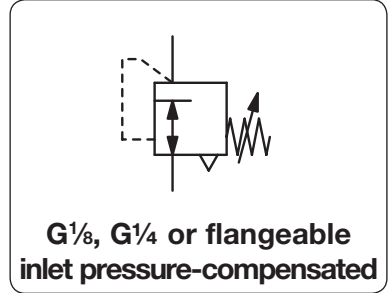


panel cut-out

*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar



Description	Compact diaphragm regulator for quick regulating operations. Due to the pressure-compensated piston fluctuations on inlet pressure have only marginal effect on the outlet pressure's stability.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied. Without gauge port at regulator with flange.
Mounting position	any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: aluminium Spring cage: glass fibre-reinforced plastic Elastomer: NBR/Buna-N Inner valve: steel, brass, plastic Valve seat: acetal



Dimensions			Flow rate l/min	Connection thread G / flange	Pressure range bar	Order number
A	B	C				

Regulator w. inlet pressure compensation						supply pressure max. 17 bar, relieving, without constant bleed	R344
40	83	14	500	G $\frac{1}{8}$	0.2...2		R344-01A
					0.2...4		R344-01B
					0.3...9		R344-01C
40	83	14	500	G $\frac{1}{4}$	0.2...2		R344-02A
					0.2...4		R344-02B
					0.3...9		R344-02C



Regulator with flange						supply pressure max. 17 bar, relieving, without constant bleed, inlet pressure compensation	R342
38	83	13	500	flange	0.2...2		R342-0MA
					0.2...4		R342-0MB
					0.3...9		R342-0MC

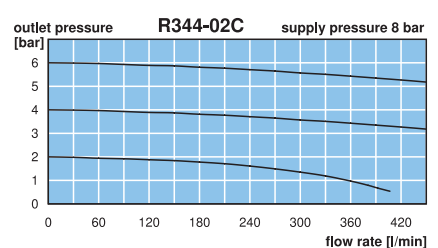
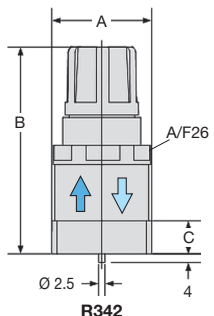
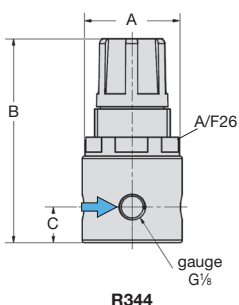
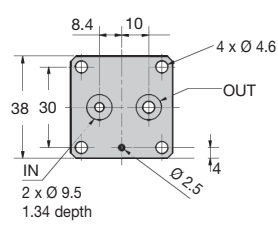
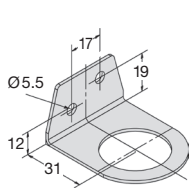


Special options, add the appropriate letter or number

NPT	connection thread	R344-0 . . N
non-relieving	without relieving function	R34.-0 . . K
for oxygen	specially cleaned, with oxygen grease	R34.-0 . . K15
FKM elastomer		R34.-0 . . X64

Accessories, enclosed

pressure gauge	Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{8}$	R344 only	MA4001- . .^{*2}
mounting bracket	made of steel	R344 only	BW30-02
mounting nut	made of plastic	R344 only	M30x1,5K
	made of aluminium	R344 only	M30x1,5A

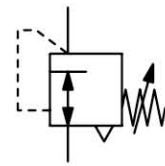


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

MINIATURE PRESSURE REGULATOR

R364 / R374

Description	Compact regulator with diaphragm.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F, for spring cage made of brass
Material	Body: brass at R364, aluminium at R374 Spring cage: glass fibre reinforced plastic, optionally brass Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass, optionally stainless steel



**G $\frac{1}{8}$ and G $\frac{1}{4}$
compressed air or liquids**

Dimensions			Flow rate		Connection	Pressure	Order
A	B	C	m ³ /h*1	l/min*1	thread	range	number
mm	mm	mm			G	bar	

Brass pressure regulator					supply pressure max. 21 bar, relieving		R364
35	76	12	27	450	G $\frac{1}{8}$	0.1 ... 1.0	R364-010
						0.2 ... 1.8	R364-01A
						0.2 ... 4.0	R364-01B
						0.3 ... 9.0	R364-01C
						0.5 ... 11	R364-01D
35	76	12	27	450	G $\frac{1}{4}$	0.1 ... 1.0	R364-020
						0.2 ... 1.8	R364-02A
						0.2 ... 4.0	R364-02B
						0.3 ... 9.0	R364-02C
						0.5 ... 11	R364-02D



R364
made of brass

Aluminium pressure regulator					supply pressure max. 21 bar, relieving		R374
35	76	12	27	450	G $\frac{1}{8}$	0.1 ... 1.0	R374-010
						0.2 ... 1.8	R374-01A
						0.2 ... 4.0	R374-01B
						0.3 ... 9.0	R374-01C
						0.5 ... 11	R374-01D
35	76	12	27	450	G $\frac{1}{4}$	0.1 ... 1.0	R374-020
						0.2 ... 1.8	R374-02A
						0.2 ... 4.0	R374-02B
						0.3 ... 9.0	R374-02C
						0.5 ... 11	R374-02D



R374
made of aluminium

Special options, add the appropriate letter

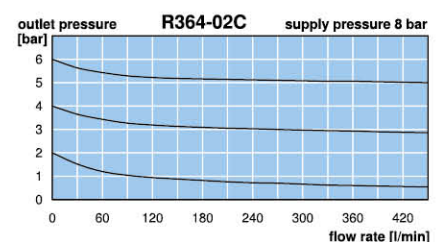
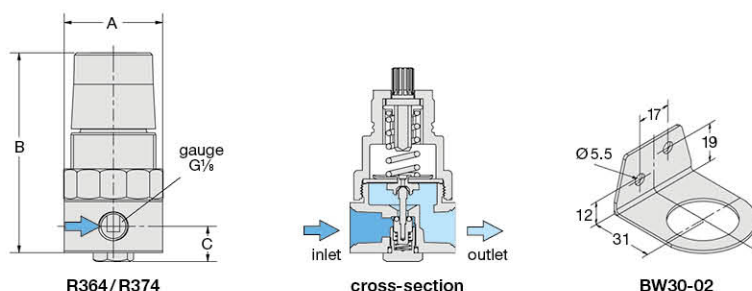
NPT	connection thread	R3.4-0...N
non-relieving	without relieving function	R3.4-0...K
adjustment lock	socket wrench adjustment, height 64 mm	R3.4-0...T
free of grease and oil	especially cleaned, suitable for oxygen	R3.4-0...L
FKM elastomer	inner parts made of brass	R3.4-0...X64
	inner parts made of stainless steel	R3.4-0...X08
EPDM elastomer	inner parts m. o. brass, PTFE-diaphragm, W270, KTW, DVGN approval	R364-01...X37
brass spring cage	including brass adjusting screw, max. 80 °C / 176 °F	R3.4-0...X82

Accessories, enclosed

pressure gauge	Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{8}$	MA4001-...^{*2}
mounting bracket	made of steel	BW30-02
mounting nut	made of plastic	M30x1,5K
	made of aluminium	M30x1,5A



R364-02CT with adjustment lock R364-02CX82 brass throughout

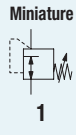


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

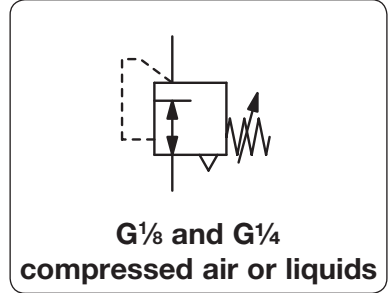
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R364-010



Description	R310: Diaphragm pressure regulator made of brass without constant bleed. R309: Precision pressure regulator with highly accurate inner valve and sensitive convoluted diaphragm. Of proven reliability and durability and designed for precise pressure regulation in the event of disturbances in flow, supply pressure or temperature. With very high capacity relief valve.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 25 bar for R310, max. 14 bar for R309 and R310-15	
Adjustment	by plastic knob with snap-lock	
Relieving function	relieving, optionally non-relieving for R310	
Gauge port	R310: G $\frac{1}{8}$ on both sides of the body, one screw plug supplied	R309: not available
Mounting position	any	
Temperature range	0 °C to 60 °C / 32 °F to 140 °F for NBR / Buna-N 0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: brass Spring cage: POM	Elastomer: NBR/Buna-N, optionally FKM or EPDM, e.g. for brake fluid Inner valve: stainless steel and brass



Dimensions			Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	C					
mm	mm	mm	l/min*1	max. bar	G	bar	

Pressure regulator							supply pressure max. 25 bar, relieving, gauge port G $\frac{1}{8}$, inlet pressure-compensated	R310
40	80	16.5	220	25	G $\frac{1}{8}$	0.1... 3	R310-01B	
						0.4... 10	R310-01D	
						0.5... 16	R310-01E	
40	80	16.5	220	25	G $\frac{1}{4}$	0.1... 3	R310-02B	
						0.4... 10	R310-02D	
						0.5... 16	R310-02E	

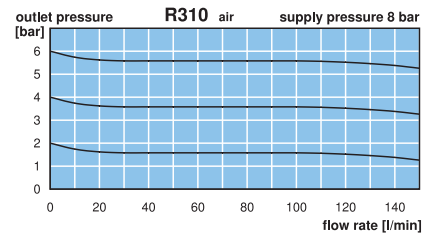
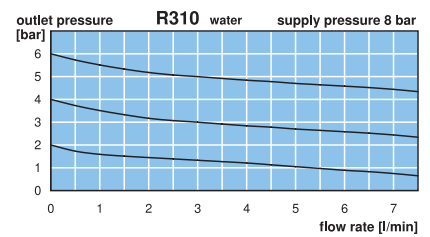
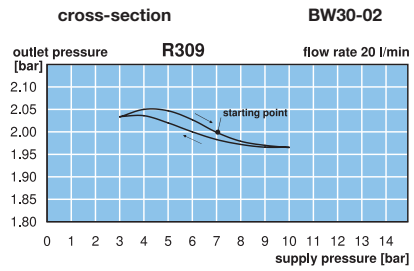
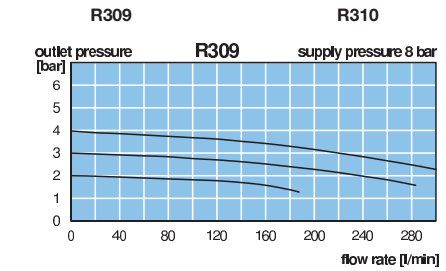
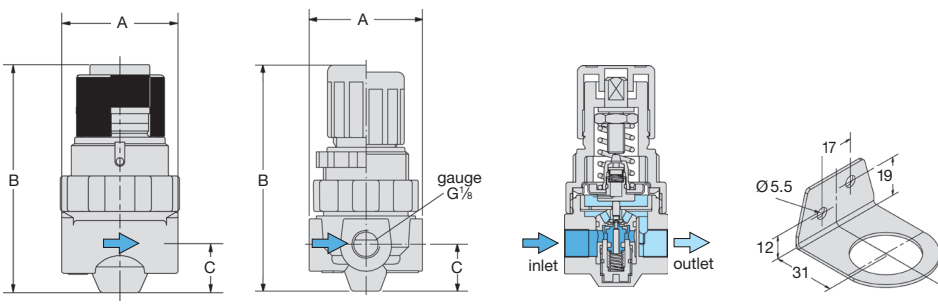


Precision press. regulator							P1: max. 14 bar, relieving, inlet pressure-compensated without constant bleed, suitable for oxygen	R309
36	77	15	220	14	G $\frac{1}{8}$	0.1... 3	R309-01B	
						0.4... 6	R309-01C	

Special options, add the appropriate letter or number		
non-relieving for oxygen	without relieving function specially cleaned, P $_1$: max. 14 bar, P $_2$: max. 10 bar	R310-0...K R310-0...K15
FKM elastomer		R310-0...V
EPDM elastomer	non-relieving, e.g. for brake fluid	R310-0...KE

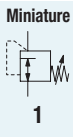
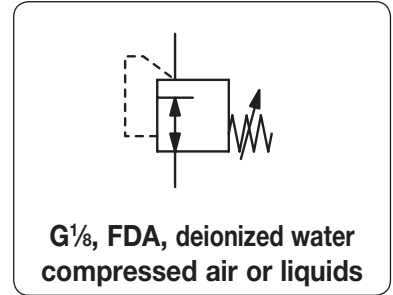


Accessories, enclosed		
pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	R310 only MA4001-...*2
mounting bracket	made of steel	BW30-02
mounting nut	made of plastic made of brass	M30x1,5K M30x1,5M



*1 for compressed air: 8 bar supply pressure, 4 bar outlet pressure and 1 bar pressure drop
*2 01 = 0...1 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

Description	Diaphragm miniature pressure regulator made of plastic and of small and lightweight design. All fluid-contact parts are approved by the FDA.
Application area	food industry and water circulation, e.g. for dialysis devices
Media	compressed air, non-corrosive gases, deionized water or other liquids
Supply pressure	max. 16 bar
Adjustment	by plastic knob with snap-lock
Relieving function	non-relieving
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: POM technopolymer with thread insert of SST 316, approved by FDA and WRAS Elastomer: EPDM with thread insert of SST 316, approved by FDA and KTW Valve and o-ring: Hytrel and EPDM, FDA-approved Grease: Klüber, UH184-201



Dimensions			Flow rate		Connection	Pressure	Order
A	B	C	water	air	thread	range	number
mm	mm	mm	l/min*1	l/min	G	bar	

Pressure regulator w. FDA approval							supply pressure max. 16 bar, non-relieving EPDM, with inlet pressure compensation	R037
41	86	11	5	350	G ¹ / ₈	0.1 ... 1	R037-010K	
						0.1 ... 2	R037-01AK	
						0.2 ... 4	R037-01BK	
						0.3 ... 8	R037-01CK	
						0.4 ... 12	R037-01DK	
41	86	11	5	380	G ¹ / ₄	0,1 ... 1	R037-020K	
						0,1 ... 2	R037-02AK	
						0,2 ... 4	R037-02BK	
						0,3 ... 8	R037-02CK	
						0,4 ... 12	R037-02DK	



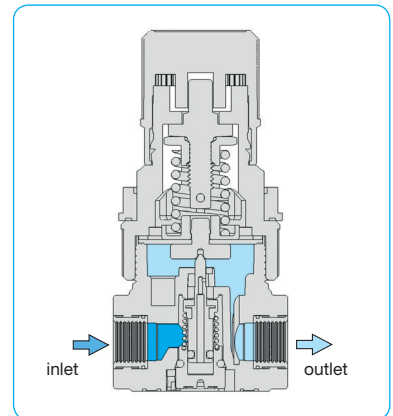
R037

Special options, add the appropriate letter or number

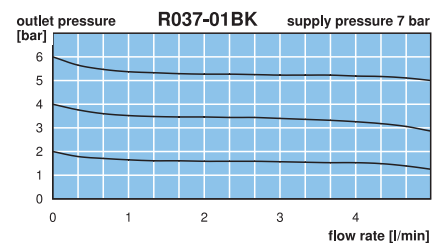
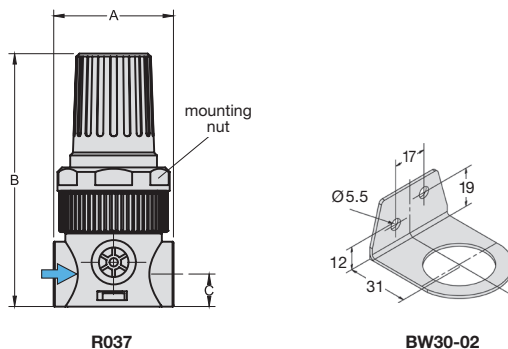
for oxygen specially cleaned, with oxygen grease R037-0...K15

Accessories, enclosed

mounting bracket	made of steel	BW30-02
mounting nut	made of plastic	M30x1,5K
	made of aluminium	M30x1,5A



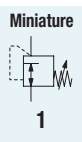
cross-section



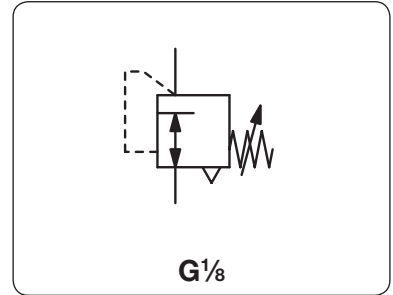
*1 supply pressure 1 bar above outlet pressure

MINIATURE PRECISION PRESSURE REGULATOR ∇ 30 MM

R307



Description	Precision pressure regulator made of plastic, diaphragm-operated, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g. The regulator is suitable for oxygen and air.
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{8}$ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: POM Elastomer: NBR/Buna-N Inner valve: brass



Dimensions			Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. bar	G	bar	

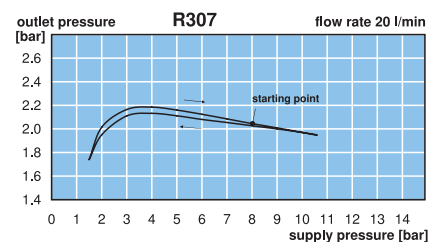
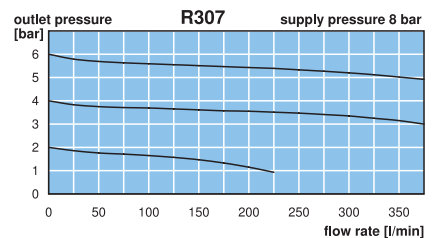
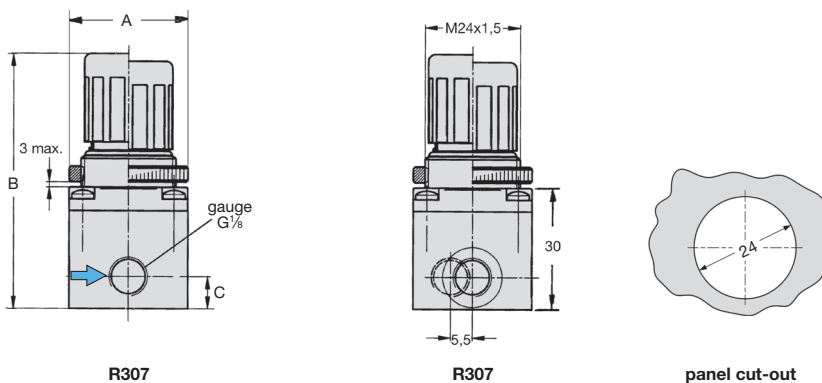
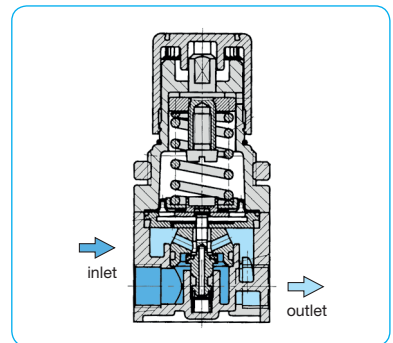
Miniature pressure regulator							supply pressure max. 10 bar, relieving, without constant bleed	R307
30	64	8	360	10	G $\frac{1}{8}$	0.2 ... 2.5	R307-01B	
						0.2 ... 3.5	R307-01C	
						0.2 ... 8.0	R307-01D	

Special options, add the appropriate letter		
non-relieving	without relieving function	R307-01 . K
for oxygen	specially cleaned, with oxygen grease	R307-01 . K15



R307

Accessories, enclosed		
pressure gauge	\varnothing 23 mm, 0...*2 bar, G $\frac{1}{8}$	MA2301-...*2
mounting nut	made of brass	M24x1,5M



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

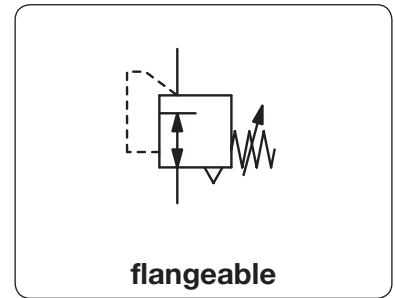
PDF CAD
www.aircom.net

Order example:
R307-01B

MINIATURE PRECISION PRESSURE REGULATOR ∇ 30 MM, WITH FLANGE

R308

Description	Precision pressure regulator, made of plastic, diaphragm-operated, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g. The regulator is suitable for oxygen and air.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 10 bar	
Adjustment	by plastic knob with snap-lock	
Relieving function	relieving, optionally non-relieving	
Gauge port	not available	
Mounting position	any	
Temperature range	0° C to 60 °C / 32 °F to 140 °F	
Material	Body:	POM
	Elastomer:	NBR/Buna-N
	Inner valve:	brass



Dimensions		Flow rate	Supply pressure	Connection	Pressure range	Order number
A	B	l/min*1	max. bar	flange	bar	
mm	mm					

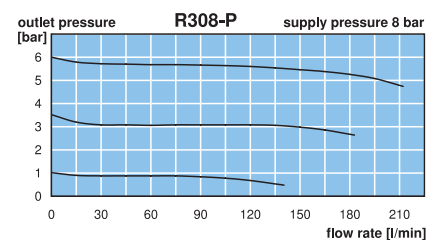
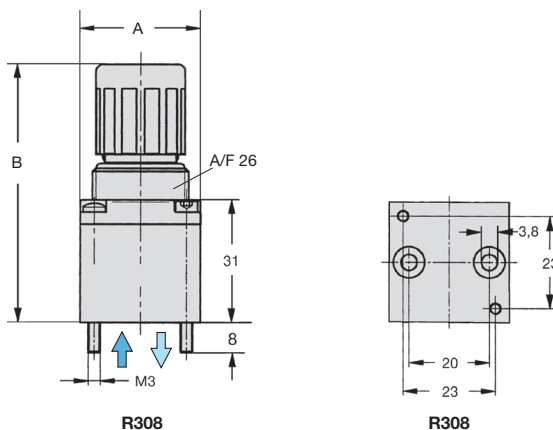
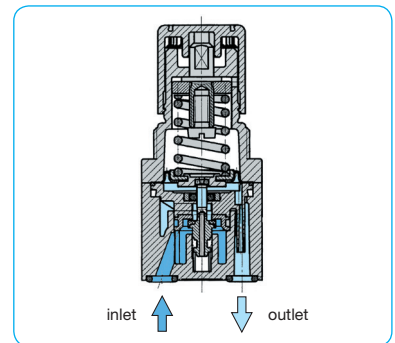
Precision regulator with flange	supply pressure max. 10 bar, relieving, without constant bleed	R308				
30	64	200	10	flange	0 ... 0.25	R308-P00
					0.2 ... 2.5	R308-P0B
					0.2 ... 3.5	R308-P0C
					0.2 ... 8.0	R308-P0D



R308, flangeable

Special options, add the appropriate letter

non-relieving	without relieving function	R308-P0. K
or oxygen	specially cleaned, with oxygen grease	R308-P0. K15



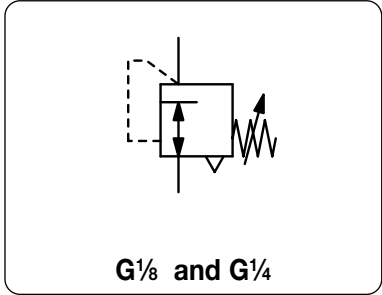
*1 for compressed air: 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

CARTRIDGE PRESSURE REGULATOR

RC



Description	Piston-operated cartridge pressure regulator suitable for assembly block.
Media	compressed air filtered to 50 µm, lubricated or unlubricated
Supply pressure	max. 10 bar
Adjustment	by knurled-head screw with locknut
Relieving function	relieving
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N

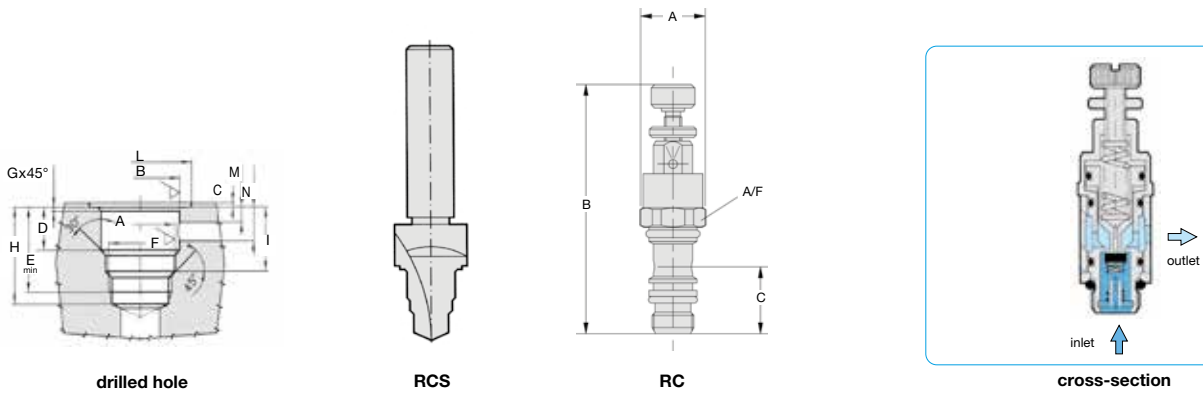


Dimensions				Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	C	A/F	l/min*1	max. bar	G	bar	
mm	mm	mm	mm					

Cartridge regulator					supply pressure max. 10 bar, relieving, without constant bleed	RC
15	57	15	14	150	10	G ¹ / ₈ 1...8 bar RC-01C
19	63	18	17	260	10	G ¹ / ₄ 1...8 bar RC-02C

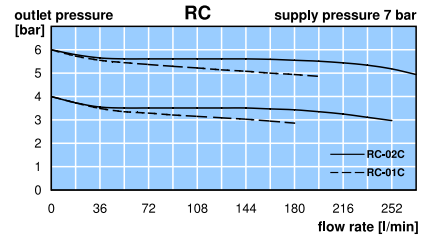


Step drill for cartridge seat				RCS
16	-	-	-	G ¹ / ₈ RCS-01
20	-	-	-	G ¹ / ₄ RCS-02



drill	F	A	B	C	D
RCS-01	1/8	9.8 - 0.1/-0	11.2 ± 0.05	0.5 ± 0.5	15.6 ± 0.07
RCS-02	1/4	13.5 + 0.1/-0	14.4 ± 0.05	0.5 ± 0.5	17.5 ± 0.07

drill	E	G	H	I	L	M	N
RCS-01	24.6	0.3	27	18.1 ± 0.2	15.4	3.5	12
RCS-02	28	0.4	31.2	20.8 ± 0.2	19.4	3.5	13.5



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
www.aircom.net

Order example:
RC-01C

STANDARD PRESSURE REGULATORS

DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
	max. bar	bar	thread		
„Maxi“-Series, robust, interlockable	21	0.2 ... 1.8 / 17	G¼ - G1	R20, R21	2.02
made of plastic, also for liquids	12,5	0 ... 4 / 12	G½ - G1	R035 ... R095	2.03
with external feedback	16	0.2 ... 7.0	G¼	R218	2.04
„Midi“-Series	21	0.2 ... 1.8 / 17	G¼ - G½	R10, R11	2.05
extremely robust, high flow rate	21	0.2 ... 1.8 / 17	G¼ - G3	R119	2.06
Series „D“, made of aluminium /die-cast zinc	30	0.2 ... 1.5 / 15	G½ - G2	RD	2.08
with joint supply	16	0.1 ... 3 / 16	G½ - G½	RB, R035	2.10
lockable pressure regulator	16	0.1 ... 3 / 16	G½ and G1	RS	2.11
270° adjustment dial pressure regulator	21	0 ... 3 / 11	G¼ - G2	R11 ... R41	2.12



2

Standard

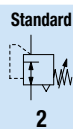
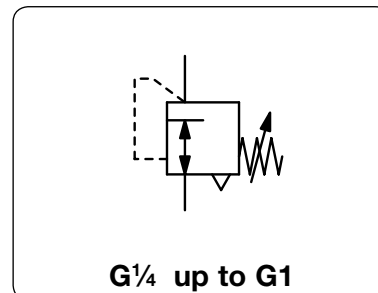


2

"MAXI" PRESSURE REGULATOR

R20/R21

Description	Piston-operated high-capacity regulator of modular design with exchangeable inserts. Can be interlocked with filter or lubricator without double nipples. Each "maxi" regulator may be taken from a fixed line in seconds simply by removing the mounting bolts.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 21 bar	
Adjustment	R20: by plastic knob with snap-lock	R21: by T-handle with locknut
Relieving function	relieving, optionally non-relieving	
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	
Mounting position	any	
Temperature range	R20: 0 °C to 50 °C / 32 °F to 122 °F	R21: 0 °C to 80 °C / 32 °F to 176 °F
Material	Body: zinc die-cast Spring cage: zinc die-cast, adjusting knob made of glass fibre-reinforced plastic Elastomer: NBR/Buna-N Inner valve: brass and plastic	



R20
accessory: gauge



R21
accessory: gauge

Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

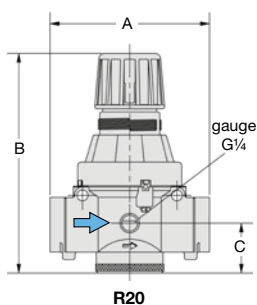
"Maxi" pressure regulator							supply pressure max. 21 bar, relieving, without pressure gauge	R20
89	162	38	3.4	240	4000	G $\frac{1}{4}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	R20-02A R20-02B R20-02C R20-02D
89	162	38	4.2	300	5000	G $\frac{3}{8}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	R20-03A R20-03B R20-03C R20-03D
89	162	38	5.2	372	6200	G $\frac{1}{2}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	R20-04A R20-04B R20-04C R20-04D
111	162	38	6.1	432	7200	G $\frac{3}{4}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	R20-06A R20-06B R20-06C R20-06D
111	162	38	6.3	450	7500	G1	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	R20-08A R20-08B R20-08C R20-08D

Special options, add the appropriate letter

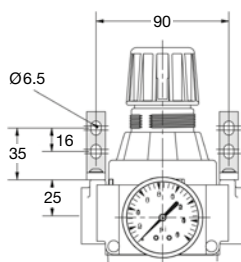
T-handle	including locknut	R21-0..
NPT	connection thread	R2.-0..N
non-relieving	without relieving function	R2.-0..K

Accessories, enclosed

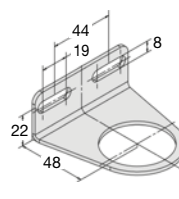
pressure gauge	Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$ up to 16 bar	MA6302-...^{*2}
mounting bracket	Ø 63 mm, 0...25 bar, G $\frac{1}{4}$ up to 25 bar	MA6302-...25
mounting nut	assembly at spring cage	BW45-02
	made of plastic	M45x1,5K
	made of aluminium	M45x1,5A
set of brackets	made of steel	MK20-0100



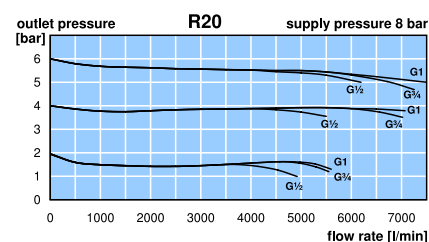
R20



MK20-0100



BW45-02



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

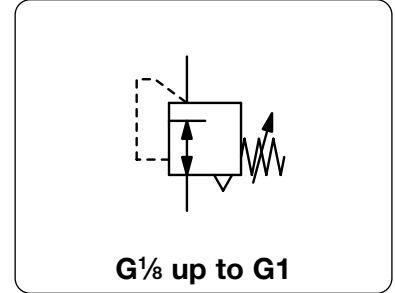


Order example:
R20-02A

PLASTIC PRESSURE REGULATOR

R035 ... R095

Description	Modular regulator easy to interlock with other regulators, filters or filter regulators of the same series, without the need for double nipples or any other fittings. A sensitive rolling diaphragm allows good pressure regulation.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 12,5 bar, max. 10 bar for R035, max. 16 bar bei R042	
Adjustment	by plastic knob with snap-lock, R035 without snap-lock	
Relieving function	relieving, optionally non-relieving	
Gauge port	G $\frac{1}{8}$ on both sides of the body (G $\frac{1}{4}$ at R095), one screw plug supplied	
Mounting position	any	
Temperature range	0 °C to 50 °C / 32 °F to 177 °F	
Material	Body: nylon, Elastomer: NBR/Buna-N Inner valve: brass Thread insert: brass	POM at R035 and R042



Standard
2

Dimensions			Kv-value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

Pressure regulator									
supply pressure max. 12,5 bar, for series R035 max. 10 bar, for series R042 max. 16 bar, relieving, without pressure gauge									
36	61	12	0.11	15	250	G $\frac{1}{8}$	0... 6	R035-01B	
for battery assembly, see also catalogue page "regulator for joint supply"								0... 6	R035-01RB
42	102	20	0.36	51	850	G $\frac{1}{4}$	0... 4	R042-02B	
								0... 8	R042-02C
								0... 12	R042-02D
52	129	38	0.59	84	1400	G $\frac{3}{8}$	0... 4	R050-03B	
								0... 8	R050-03C
								0... 12	R050-03D
52	129	38	0.63	90	1500	G $\frac{1}{2}$	0... 4	R052-04B	
								0... 8	R052-04C
								0... 12	R052-04D
63	145	42	1.0	138	2300	G $\frac{1}{2}$	0... 4	R075-04B	
								0... 8	R075-04C
								0... 12	R075-04D
137	145	42	1.0	144	2400	G $\frac{3}{4}$	0... 4	R080-06B	
								0... 8	R080-06C
								0... 12	R080-06D
115	222	48	6.3	900	15000	G1	0... 4	R095-08B	
								0... 8	R095-08C
								0... 12	R095-08D

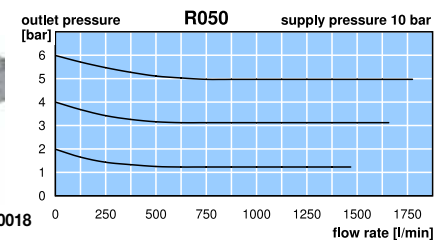
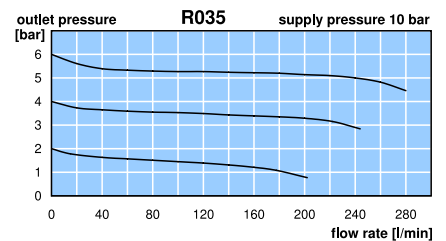
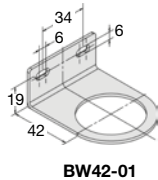
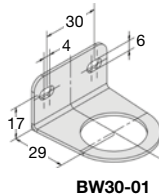
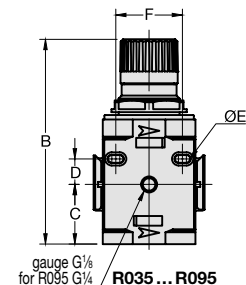


Special options, add the appropriate letter

non-relieving without relieving function, also for liquids **R0...-0...K**

Accessories, enclosed

pressure gauge	Ø 23 mm, 0... ^{*2} bar, G $\frac{1}{8}$, max. 12 bar Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{4}$ Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{2}$ Ø 63 mm, 0... ^{*2} bar, G $\frac{3}{4}$	for R035 for R042 for R050 to R080 for R095	MA2301-...^{*2} MA4001-...^{*2} MA5001-...^{*2} MA6302-...^{*2}
mounting bracket	made of steel, mounting nut at the device	for R042 for R050 to R080	BW30-01 BW42-01
set of brackets	made of steel	for R095	BW00-02
connection clips		for R035	C350100018



series	D	Ø E	F	K	L
R035	8	3.5	20	-	36
R042	10.5	4.5	31	-	42
R050/52	16	5.5	41	63	52
R075	17.5	5.5	45	75	63
R080	17.5	5.5	45	-	63
R095	65	8.5	174	115	95

*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

Accessories and mounting brackets: see chapter for FRL service units
Gauges: see chapter for measuring devices

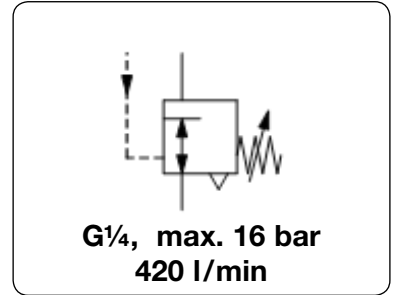
PDF CAD
www.aircom.net

Order example:
R035-01B

PRESSURE REGULATOR WITH EXTERNAL FEEDBACK

R218

Description	Diaphragm pressure regulator in small design for "feedback systems" in conjunction with volume flow boosters. Due to the external feedback, regulation is significantly improved and the flow rate increased.			
Media	compressed air and non-corrosive gases			
Supply pressure	max. 16 bar	Air consumption	approx. 3 to 6 l/min	
Adjustment	by handwheel with snap-lock, for panel mounting			
External Feedback	should be installed at the outlet of the booster, e.g. at the gauge port, or at the outlet pipe. This will measure the pressure drop at the output of the booster and the pilot pressure will be readjusted.			
Relieving function	relieving			
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Feedback connection	G $\frac{1}{4}$	
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		Mounting position	any
Material	Body: zinc die-casting	Spring cage: zinc die-casting	Elastomer: FKM	



Standard

2

Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Pressure range bar	Order number
A	B	C					

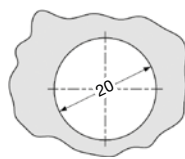
Regulator with external feedback							supply pressure max. 16 bar, relieving, with air consumption	R218
82	154	19	0,3	25	420	G $\frac{1}{4}$	0.2 ... 7.0	R218-02C



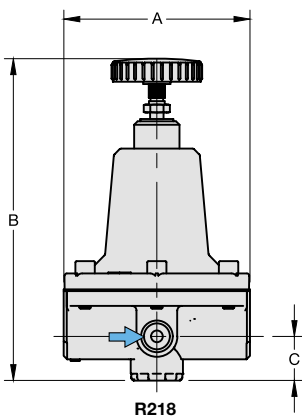
R218

Accessories, enclosed

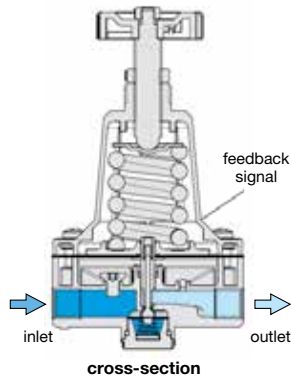
pressure gauge	Ø 63 mm, 0 ... 10 bar, G $\frac{1}{4}$	MA6302-10
mounting bracket	made of steel	BW00-36
mounting nut	made of brass	M20x1,5M



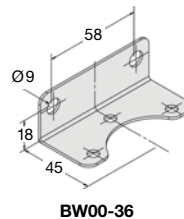
panel cut-out



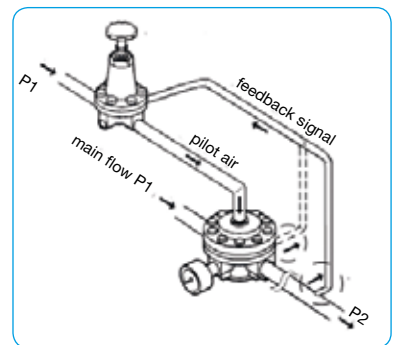
R218



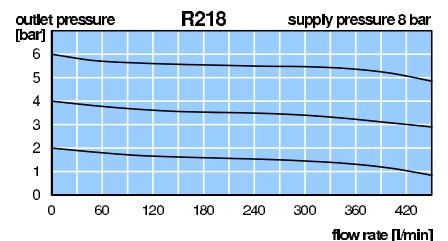
cross-section



BW00-36



Example: combination with booster



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
www.aircom.net

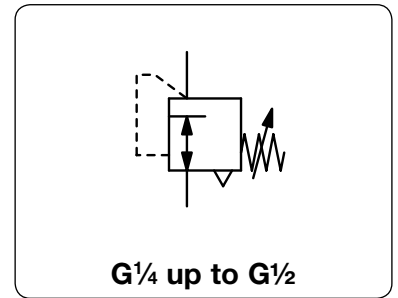


Order exampel:
R218-02C

"MIDI" PRESSURE REGULATOR

R10/R11

Description	All-purpose, high-performance, diaphragm regulator with high flow.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 21 bar		
Adjustment	R10: by plastic knob with snap-lock R11: by T-handle with locknut		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plug supplied		
Mounting position	any		
Temperature range	R10: 0 °C to 50 °C / 32 °F to 122 °F R11: 0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compr. air down to -30 °C / -22 °F		
Material	Body: zinc die-cast	zinc die-cast at R11	
	Spring cage: glass fibre-reinforced plastic at R10,	Inner valve: brass, optionally stainless steel	
	Elastomer: NBR/Buna-N, optionally FKM		



Standard



2

Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

"Midi" pressure regulator				supply pressure max. 21 bar, relieving, without pressure gauge			R10	
60	124	35	1.8	132	2200	G $\frac{1}{4}$	0.2 ... 1.8	R10-02A
							0.2 ... 4.0	R10-02B
							0.3 ... 9.0	R10-02C
							0.5 ... 17	R10-02D
60	124	35	1.9	138	2300	G $\frac{3}{8}$	0.2 ... 1.8	R10-03A
							0.2 ... 4.0	R10-03B
							0.3 ... 9.0	R10-03C
							0.5 ... 17	R10-03D
60	124	35	2.0	144	2400	G $\frac{1}{2}$	0.2 ... 1.8	R10-04A
							0.2 ... 4.0	R10-04B
							0.3 ... 9.0	R10-04C
							0.5 ... 17	R10-04D



R10
with knob, accessory: gauge



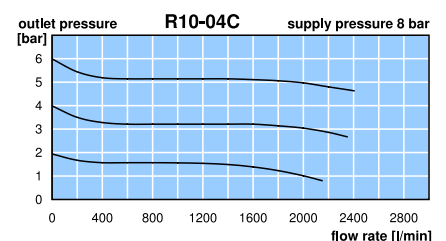
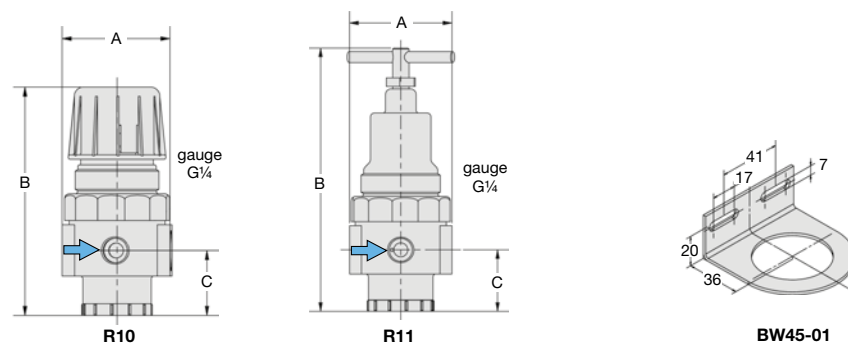
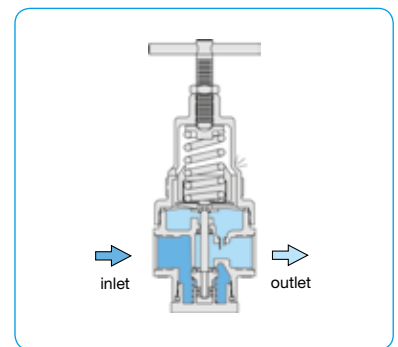
R11
with T-handle, accessory: gauge

Special options, add the appropriate letter

T-handle	including locknut	R11-0..
NPT	connection thread	R1.-0..N
non-relieving	without relieving function	R1.-0..K
FKM elastomer	inner parts made of brass	R1.-0..X64
	inner parts made of stainless steel	R1.-0..X08

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	up to 10 bar	MA5002-...*2
	Ø 50 mm, 0...25 bar, G $\frac{1}{4}$	up to 25 bar	MA5002-...25
mounting bracket	made of steel		BW45-01
mounting nut	made of plastic		M45x1,5K
	made of aluminium		M45x1,5A



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R10-02A

„STANDARD“ PRESSURE REGULATOR

R119

Description High-capacity diaphragm regulator of solid design suitable for many applications. Ideal for installations where constant line pressure at wide flow variations. From size G2 on it is a pilot-operated piston regulator with an excellent regulation characteristic curve.

Media compressed air or non-corrosive gases

Supply pressure max. 21 bar

Air consumption from size G2 on the regulator's air consumption is about 0.1 l/min.

Adjustment by T-handle with locknut
from size G2 on by plastic knob with snap-lock on the pilot regulator
up to size G½ optionally by handwheel for control panel integration

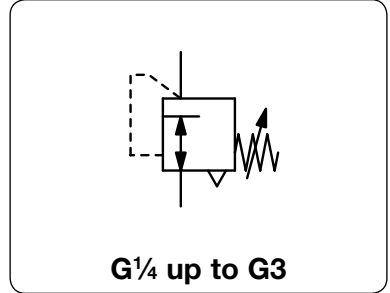
Relieving function relieving, optionally non-relieving

Gauge port G¼ on both sides of the body, screw plugs supplied

Temperature range 0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F

Material Body: zinc die-cast
Diaphragm: NBR/Buna-N

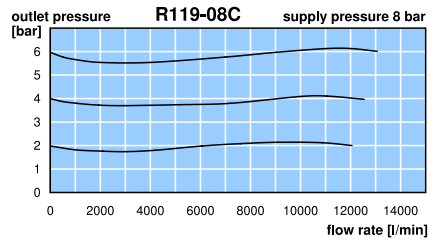
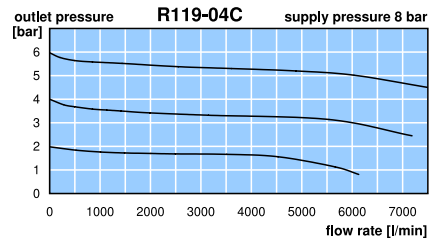
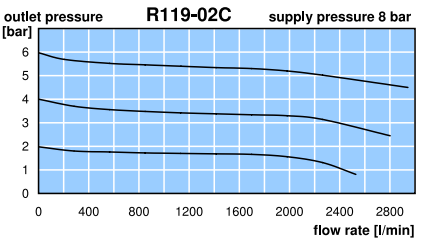
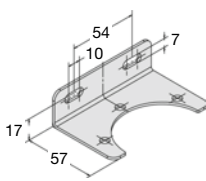
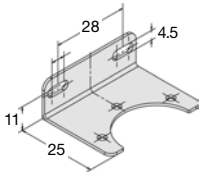
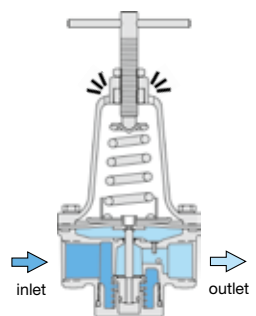
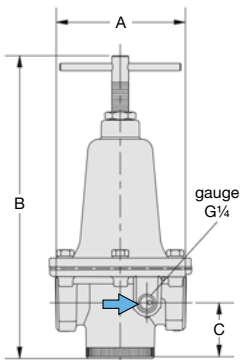
Mounting position any
Inner valve: brass
Bottom screw: reinforced nylon



Standard
2

Dimensions			K _v -value (m³/h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m³/h*1	l/min*1			

„Standard“ pressure regulator								supply pressure max. 21 bar, relieving, without pressure gauge	R119
70	157	35	1.5	150	2500	G¼	0.2 ... 1.8	R119-02A	
							0.2 ... 4.0	R119-02B	
							0.3 ... 9.0	R119-02C	
							0.5 ... 17	R119-02D	
70	157	35	1.7	168	2800	G¾	0.2 ... 1.8	R119-03A	
							0.2 ... 4.0	R119-03B	
							0.3 ... 9.0	R119-03C	
							0.5 ... 17	R119-03D	
83	172	38	3.6	360	6000	G½	0.2 ... 1.8	R119-04A	
							0.2 ... 4.0	R119-04B	
							0.3 ... 9.0	R119-04C	
							0.5 ... 17	R119-04D	
113	265	49	5.4	540	9000	G¾	0.3 ... 9.0	R119-06C	
							0.5 ... 17	R119-06D	
113	265	49	6.0	600	10000	G1	0.3 ... 9.0	R119-08C	
							0.5 ... 17	R119-08D	

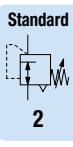
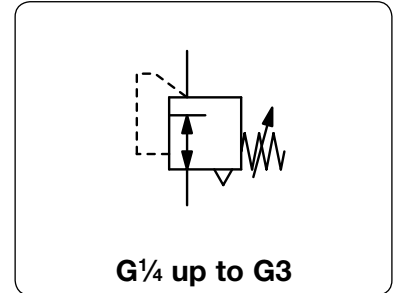


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
www.aircom.net

Order example:
R119-02A

Description	High-capacity diaphragm regulator of solid design suitable for many applications. Ideal for installations where constant line pressure at wide flow variations. From size G2 on it is a pilot-operated piston regulator with an excellent regulation characteristic curve.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 21 bar	
Air consumption	from size G2 on the regulator's air consumption is about 0.1 l/min.	
Adjustment	by T-handle with locknut from size G2 on by plastic knob with snap-lock on the pilot regulator up to size G½ optionally by handwheel for control panel integration	
Relieving function	relieving, optionally non-relieving	
Gauge port	G¼ on both sides of the body, screw plugs supplied	Mounting position any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: zinc die-cast Diaphragm: NBR/Buna-N	Inner valve: brass Bottom screw: reinforced nylon



Dimensions			K _v -value (m³/h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m³/h*1	l/min*1			

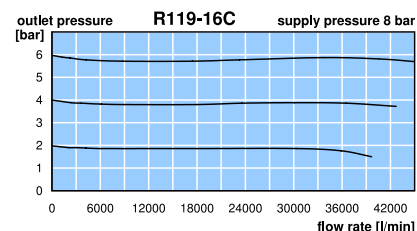
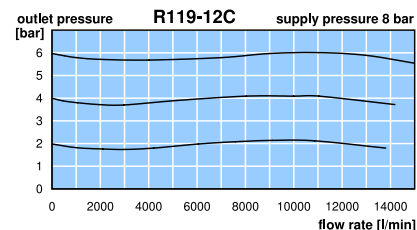
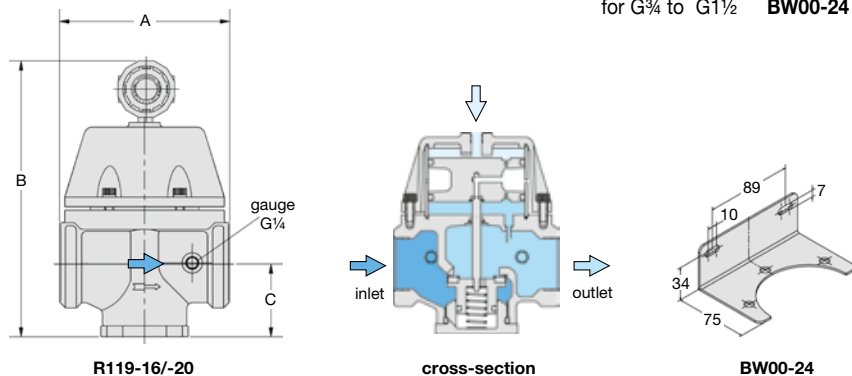
„Standard“ pressure regulator								supply pressure max. 21 bar, relieving, without pressure gauge	R119
126	275	48	6.6	660	11 000	G1¼*3	0.3... 9.0	R119-10C	
							0.5... 17	R119-10D	
126	275	48	7.2	720	12 000	G1½	0.3... 9.0	R119-12C	
							0.5... 17	R119-12D	
186	300	79	35.4	2520	42 000	G2	0.2... 1.8	R119-16A	
							0.2... 4.0	R119-16B	
							0.3... 9.0	R119-16C	
							0.5... 17	R119-16D	
186	300	79	37.1	2640	44 000	G2½	0.2... 1.8	R119-20A	
							0.2... 4.0	R119-20B	
							0.3... 9.0	R119-20C	
							0.5... 17	R119-20D	
214	360	95	56.0	6600	110 000	G3	0.2... 1.8	R119-24A	
							0.2... 4.0	R119-24B	
							0.3... 9.0	R119-24C	
							0.5... 17	R119-24D	



Special options, add the appropriate letter			
NPT	connection thread		R119-...N
non-relieving	without relieving function	for G¼ to G2½	R119-...K
		for G3	R119-24.K
FKM elastomer		for G¼ to G1½	R119-...X64
		for G3	R119-24.X64
panel mounting	with handwheel, hole diameter 16 mm	for G¼ to G½	R119-...P
flange connection	see chapter SST devices / flanges		R119-...F.
PWIS-free	for painting plants		R119-...LA

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ to G½	MA5002-...*2
	Ø 63 mm, 0...*2 bar, G¼	for G¾ to G2½	MA6302-...*2
mounting bracket	made of steel	for G¼ and G¾	BW00-22
		for G½	BW00-23
		for G¾ to G1½	BW00-24



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
 *2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar
 *3 reduced by the next larger pressure regulator

Description Good value pressure regulator of solid design. RD1 and RD3 are equipped with diaphragms, RD4 is piston-operated. Wall mounting through two drilled holes in the bodies of RD1 to RD3.

Media compressed air or non-corrosive gases

Supply pressure max. 30 bar

Adjustment RD1/RD2: by plastic knob with snap-lock
RD3: by handwheel
RD4: by T-handle

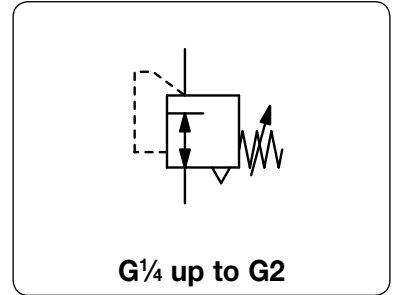
Relieving function relieving, optionally non-relieving

Gauge port G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{2}$ at RD1

Mounting position any

Temperature range -10 °C to 50 °C / 14 °F to 122 °F for RD1, RD2 and RD4
-20 °C to 60 °C / -4 °F to 140 °F for RD3

Material Body: zinc die-cast at RD1, aluminium at RD2, RD3 and RD4
Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4
Elastomer: NBR/Buna-N Inner valve: brass



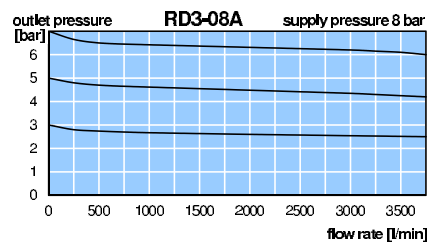
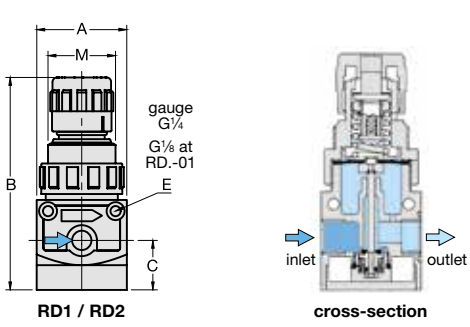
Standard
2

Dimensions			Kv-value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	P ₁ max. bar	Connection thread G	Pressure range bar	Order number
A	B	C						

Pressure regulator series „D“								supply pressure max. 20 / 30 bar, relieving, without pressure gauge	RD1...RD4
40	95	22	0.3	27	450	20	G $\frac{1}{8}$	0.2...1.5	RD1-01A
								0.3...3.0	RD1-01B
								0.5...8.0	RD1-01D
								1.5... 15	RD1-01E
40	95	22	0.3	27	450	20	G $\frac{1}{4}$	0.2...1.5	RD1-02A
								0.3...3.0	RD1-02B
								0.5...8.0	RD1-02D
								1.5... 15	RD1-02E
64	151	48	1.5	108	1800	20	G $\frac{3}{8}$	0.2...1.5	RD2-03A
								0.3...3.0	RD2-03B
								0.5...8.0	RD2-03D
								1.5... 15	RD2-03E
64	151	48	1.5	108	1800	20	G $\frac{1}{2}$	0.2...1.5	RD2-04A
								0.3...3.0	RD2-04B
								0.5...8.0	RD2-04D
								1.5... 15	RD2-04E
130	187	54	3.0	195	3250	30	G $\frac{3}{4}$	0.2...1.5	RD3-06A
								0.3...3.0	RD3-06B
								0.5...8.0	RD3-06D
								1.5... 15	RD3-06E
130	187	54	3.0	195	3250	30	G1	0.2...1.5	RD3-08A
								0.3...3.0	RD3-08B
								0.5...8.0	RD3-08D
								1.5... 15	RD3-08E
241	187	54	3.0	195	3250	30	G1 $\frac{1}{4}$	0.2...1.5	RD3-10A
								0.3...3.0	RD3-10B
								0.5...8.0	RD3-10D
								1.5... 15	RD3-10E
241	187	54	3.0	195	3250	30	G1 $\frac{1}{2}$	0.2...1.5	RD3-1AA
								0.3...3.0	RD3-1AB
								0.5...8.0	RD3-1AD
								1.5... 15	RD3-1AE



series	D	Ø E	M
RD1	30	4.5	M30x1,5
RD2	51	5.5	M50x1,5
RD3	76	6.5	-
RD4	76	8.5	-

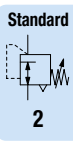
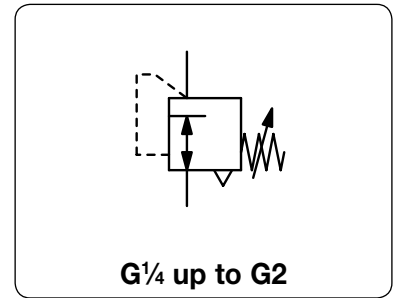


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

PRESSURE REGULATOR SERIES "D" UP TO 30 BAR

RD1...RD4

Description	Good value pressure regulator of solid design. RD1 and RD3 are equipped with diaphragms, RD4 is piston-operated. Wall mounting through two drilled holes in the bodies of RD1 to RD3.
Media	compressed air or non-corrosive gases
Supply pressure	max. 30 bar
Adjustment	RD1/RD2: by plastic knob with snap-lock RD3: by handwheel RD4: by T-handle
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ at RD1
Mounting position	any
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for RD1, RD2 and RD4 -20 °C to 60 °C / -4 °F to 140 °F for RD3
Material	Body: zinc die-cast at RD1, aluminium at RD2, RD3 and RD4 Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass



Dimensions			K _v -value	Flow rate	P ₁ max.	Connection thread	Pressure range	Order number
A	B	C						
mm	mm	mm	(m ³ /h)	m ³ /h*1	l/min*1	bar	G	bar

Pressure regulator series „D“									supply pressure max. 20 / 30 bar, relieving, without pressure gauge	RD1...RD4
215	385	130	18.6	1320	22 000	30	G $\frac{1}{2}$	0.2...1.5		RD4-12A
								0.3...3.0		RD4-12B
								0.5...8.0		RD4-12D
								1.5... 15		RD4-12E
215	385	130	18.6	1320	22 000	30	G2	0.2...1.5		RD4-16A
								0.3...3.0		RD4-16B
								0.5...8.0		RD4-16D
								1.5... 15		RD4-16E

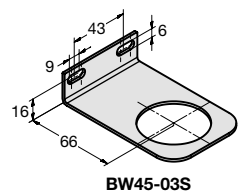
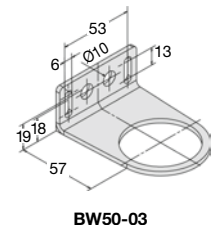
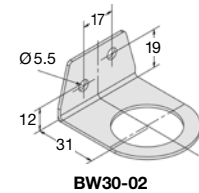


Special options, add the appropriate letter

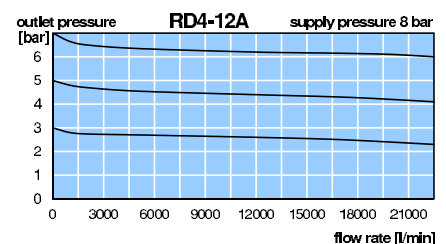
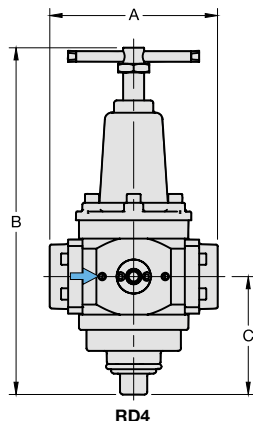
non-relieving	without relieving function	RD K
30 bar operating pressure		RD H

Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for RD1	MA4001-..*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for RD2	MA5002-..*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for RD3 and RD4	MA6302-..*2
mounting bracket	made of steel	for RD1	BW30-02
mounting nut	made of plastic	for RD1	M30x1,5K
mounting bracket	made of steel	for RD2	BW50-03
mounting nut	made of plastic	for RD2	M50x1,5K
mounting bracket	made of stainless steel	for RD3	BW45-03S
mounting nut	made of stainless steel	for RD3	BW45-03S



series	D	Ø E	M
RD1	30	4.5	M30x1,5
RD2	51	5.5	M50x1,5
RD3	76	6.5	-
RD4	76	8.5	-



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

Gauges: see chapter for measuring devices

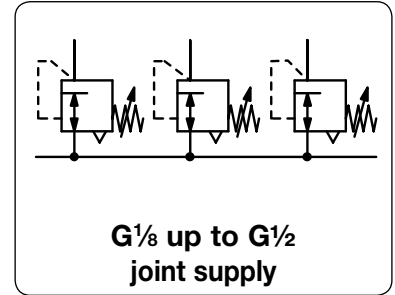
PDF CAD
www.aircom.net

Order example:
RD4-12A

PRESSURE REGULATOR FOR BATTERY WITH JOINT SUPPLY

RB / R035

Description	Diaphragm pressure regulator, with joint pressure supply. Modular assembly without need for double nipples or other fittings. Outlet at rear side, gauge port in the front.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 16 bar, max. 10 bar for R035		
Air consumption	without constant bleed		
Adjustment	by plastic knob with snap-lock, R035 without snap-lock		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{1}{8}$ at R035 and RB-02, G $\frac{1}{4}$ at all others		
Mounting position	any		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: zinc die-cast, POM at R035	Adjusting knob: plastic	Inner valve: brass
	Elastomer: NBR/Buna-N		
	Thread insert: brass at R035		



G $\frac{1}{8}$ up to G $\frac{1}{2}$
joint supply

Dimensions			K _v -	Flow	Connection	Pressure	Order
A	B	C	splitting value	rate	thread	range	number
mm	mm	mm	mm (m ³ /h)	m ³ /h*1 l/min*1	G	bar	

Pressure regulator		supply pressure max. 16 bar, relieving Series R035 max. 10 bar, without pressure gauge				RB / R035	
36	61	12	36	0.11	15	250	G $\frac{1}{8}$ 0 ... 6 R035-01RB
40	84	12	40	0.60	60	1000	G $\frac{1}{4}$ 0.1 ... 3 RB-02B 0.2 ... 6 RB-02C 0.5 ... 10 RB-02D
48	94	22	45	1.3	126	2100	G $\frac{1}{4}$ 0.1 ... 3 RB-A2B 0.2 ... 6 RB-A2C 0.5 ... 10 RB-A2D 0.5 ... 16 RB-A2E
58	114	27	55	1.9	192	3200	G $\frac{3}{8}$ 0.1 ... 3 RB-03B 0.2 ... 6 RB-03C 0.5 ... 10 RB-03D 0.5 ... 16 RB-03E
70	133	36	66	2.4	240	4000	G $\frac{1}{2}$ 0.1 ... 3 RB-04B 0.2 ... 6 RB-04C 0.5 ... 10 RB-04D 0.5 ... 16 RB-04E



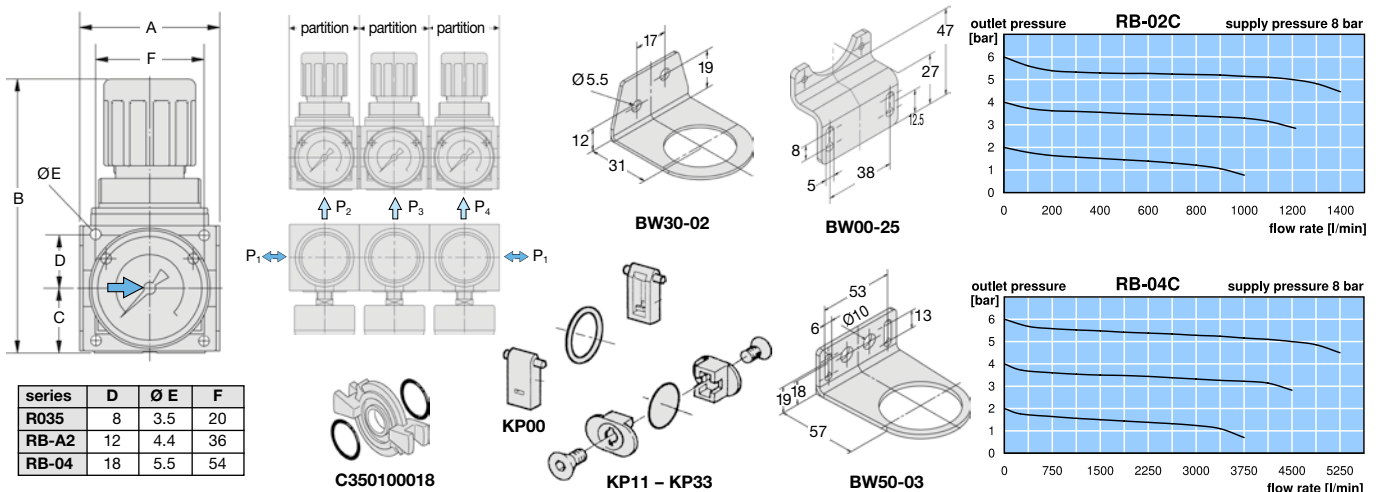
battery block R035
accessory: gauge



battery block RB
accessory: gauge

Accessories, enclosed

pressure gauge	Ø 23 mm, 0... ^{*2} bar, G $\frac{1}{8}$	for RB-02 / R035	MA2301-..*2
	Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{4}$, connection parts required	for RB-A2	MA4001-..*2
	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for RB-03 / RB-04	MA5001-..*2
connection parts	adapter for MA4001, G $\frac{1}{4}$ m to G $\frac{1}{2}$ f		VI-0201
mounting bracket	made of steel	for RB-02 / RB-A2	BW30-02
mounting nut	made of plastic	for RB-02 / RB-A2	M30x1,5K
mounting bracket	made of steel	for RB-03	BW00-25
mounting nut	made of plastic	for RB-03	M42x1,5K
mounting bracket	made of steel	for RB-04	BW50-03
mounting nut	made of plastic	for RB-04	M50x1,5K
connection clips	made of plastic	for R035	C350100018
connector kit	for RB-02 KP00	for RB-03	KP22
	for RB-A2 KP11	for RB-04	KP33



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

Gauges: see chapter for measuring devices

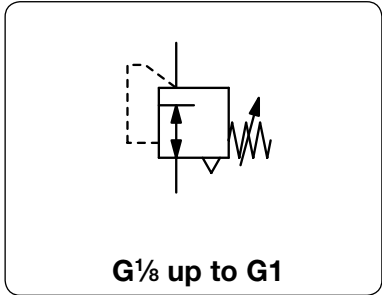
PDF CAD
www.aircom.net

Order example:
R035-01RB

LOCKABLE PRESSURE REGULATOR

RS

Description	Pressure regulator with diaphragm of solid design lockable with key, cylinder lock of brass		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 16 bar		
Air consumption	no air consumption		
Adjustment	by beaded, cylindrically handwheel		
Relieving function	relieving		
Gauge port	G $\frac{1}{8}$ on both sides of the body		
Mounting position	any		
Temperature range	-10°C to 60°C / 14°F to 140°F		
Material	Body: zinc die-cast	Diaphragm: NBR/Buna-N and brass	
	Lock cylinder: brass	Bottom screw: POM	
	Spring cage: POM and brass	O-ring: NBR/Buna-N	
	Adjusting spring: steel zinc-plated	Return spring: stainless steel	



Standard
2

Dimension			K _v -value	Flow-rate	Connection thread	Pressure range	Order Number
A	B	C					
mm	mm	mm	m ³ /h	m ³ /h*1	l/min*1	G	bar

Lockable pressure regulator							supply pressure max. 16 bar, NBR elastomer for compressed air and neutral gases	RS
40	113	22	1,2	60	1000	G $\frac{1}{8}$	0,1 ... 3 0,2 ... 6 0,5 ... 10	RS-01A RS-01B RS-01C
48	123	27	1,4	90	1500	G $\frac{1}{4}$	0,1 ... 3 0,2 ... 6 0,5 ... 10 0,5 ... 16	RS-02A RS-02B RS-02C RS-02D
69	156	35	5,2	360	6000	G $\frac{1}{2}$	0,1 ... 3 0,2 ... 6 0,5 ... 10 0,5 ... 10	RS-04A RS-04B RS-04C RS-04D
100	209	52	6,1	600	10000	G1	0,1 ... 3 0,2 ... 6 0,5 ... 10 0,5 ... 10	RS-08A RS-08B RS-08C RS-08D



Special options, add the appropriate letter

up to -40°C low temperature version RS-0...X51

FKM elastomer RS-0...V

Accessories, enclosed

pressure gauge Ø 40 mm, 0...^{*2} bar G $\frac{1}{8}$ for G $\frac{1}{8}$ MA4001-...^{*2}

 Ø 50 mm, 0...^{*2} bar G $\frac{1}{4}$ for G $\frac{1}{4}$ and G $\frac{1}{2}$ MA5002-...^{*2}

 Ø 63 mm, 0...^{*2} bar G $\frac{1}{4}$ for G1 MA6302-...^{*2}

mounting nut made of plastic for G $\frac{1}{8}$ and G $\frac{1}{4}$ M30x1,5K

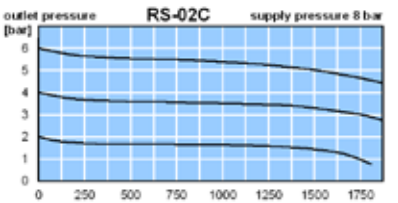
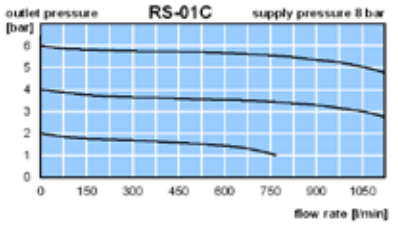
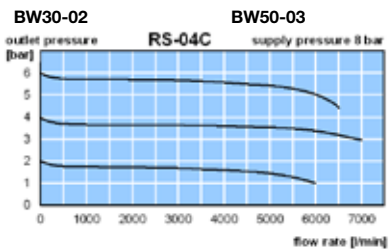
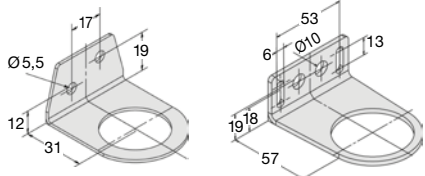
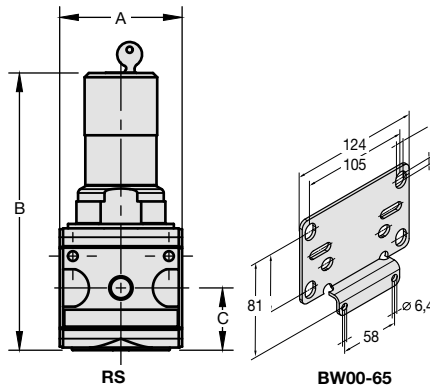
 made of aluminium for G $\frac{1}{2}$ and G $\frac{1}{4}$ M30x1,5A

 made of plastic G $\frac{1}{2}$ M50x1,5K

mounting bracket made of steel for G $\frac{1}{8}$ and G $\frac{1}{4}$ BW30-02

 for G $\frac{1}{2}$ BW50-03

 for G1 BW00-65



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RS-01A

270° ADJUSTMENT DIAL PRESSURE REGULATOR, LOCKABLE

R11...R41

Description Piston-operated regulator with balanced valve design and high-relief flow. Features include a transparent pressure-calibrated, non-rising adjusting dial which can be mounted in any position so the dial face is always visible. Pressure setting in steps is possible.

Media compressed air

Supply pressure max. 21 bar, minimum 1 bar above outlet pressure

Air consumption R21/R31/R41: max. 1.4 l/min depending on outlet pressure R11: without constant bleed

Adjustment The full secondary pressure range can be dialed in less than a 270° turn proportional to handwheel with scale in bar or psi. This is advantageous if secondary pressure must be changed frequently.

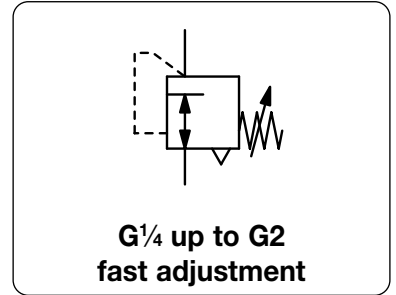
Relieving function relieving

Gauge port G $\frac{1}{4}$ on both sides of the body, not available at R11

Mounting position any

Temperature range 0 °C to 65 °C / 32 °F to 149 °F

Material Body: zinc die-cast
Piston: acetal
Valve seat: acetal, brass and NBR/Buna-N
O-ring: NBR/Buna-N



G $\frac{1}{4}$ up to G2
fast adjustment

Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

Adjustment dial regulator								supply pressure max. 21 bar, relieving, with constant bleed, adjusting dial 270° turn wheel	R11...R41
66	71	10	0.02	1.2	20	G $\frac{1}{4}$	0... 3	0... 11	R11-C2-L R11-C2-O
81	104	24	2.5	180	3000	G $\frac{1}{4}$	0... 3	0... 11	R21-C2-L R21-C2-O
81	104	24	3.8	270	4500	G $\frac{3}{8}$	0... 3	0... 11	R21-C3-L R21-C3-O
81	104	43	4.2	300	5000	G $\frac{1}{2}$	0... 3	0... 11	R21-C4-L R21-C4-O
109	132	43	6.8	480	8000	G $\frac{3}{4}$	0... 3	0... 11	R31-C6-L R31-C6-O
109	132	43	7.6	540	9000	G1	0... 3	0... 11	R31-C8-L R31-C8-O
135	173	71	18.5	1320	22000	G1 $\frac{1}{2}$	0... 3	0... 11	R41-CB-L R41-CB-O
135	173	71	20.0	1440	24000	G2	0... 3	0... 11	R41-CC-L R41-CC-O



R21



R31



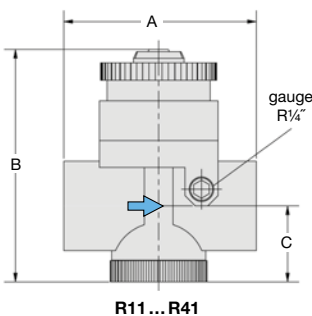
R41

Special options, add the appropriate letter

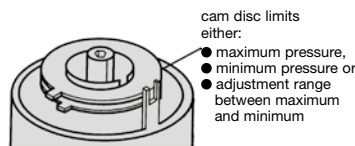
adjustment lock RRP-95-585 R. 1-C . . T

Accessories, enclosed

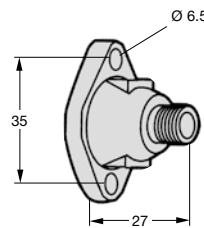
pressure gauge Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$ for R21 to R41 MA5002-..*2
mounting bracket mounting through the gauge port at the back for R21 to R41 RRP-95-590



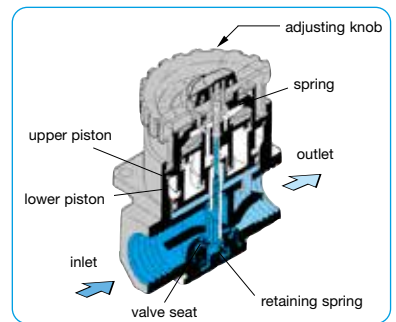
R11...R41



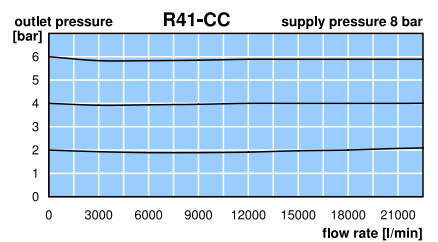
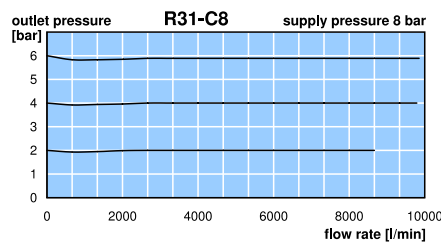
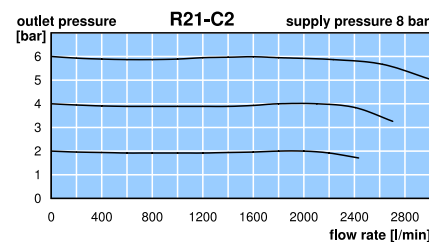
adjustment lock
RRP-95-585



mounting bracket
RRP-95-590



cross-section



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 16 = 0...16 bar

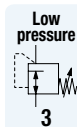
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R11-C2-L

LOW PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
		max. bar	mbar	thread		
STANDARD	also for propane and other gases	16	factory-set 50	G $\frac{1}{4}$ - G $\frac{1}{2}$	R01	3.02
	miniature, manually adjustable	16	25 ... 50 / 1400	G $\frac{1}{4}$ and G $\frac{3}{8}$	R01-5/-6	3.03
	miniature	10	20 ... 1500 / 500	G $\frac{1}{2}$ and G $\frac{3}{4}$	R01-2/-4	3.03
	for oil	10	preset 100 / 2500	G $\frac{1}{4}$ and G $\frac{3}{8}$	RL13	3.03
	for many different gases	0.4	2 ... 16 / 160	G $\frac{1}{2}$ - G2	RGDJ	3.04
	for many different gases	4	5 ... 12 / 350	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4	3.05
	for many different gases	7	5 ... 45 / 3000	G $\frac{1}{2}$ - G2	R160	3.06
	for many different gases	20	10 ... 18 / 4400	G1 - flange DN50	RZ	3.08
PRECISE	with relieving function	10	2 ... 45 / 350	G $\frac{3}{8}$ - G $\frac{3}{4}$	R4100	3.09
	for pure gases 5.0	20	5 ... 50 / 1500	G $\frac{1}{2}$	RR	3.10
	Nullmatic	35	2 ... 120 / 31000	$\frac{1}{4}$ "NPT	R40	5.12
	relatively small	10	2 ... 35 / 800	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110	5.15
MADE OF STAINLESS STEEL	for many different gases	7	5 ... 45 / 3000	G $\frac{1}{2}$ - G2	R3100	15.12
VOLUME BOOSTER	for many different gases	20	10 ... 350 / 1000	G1 - G2	RZ	6.10
	for many different gases	0.4	2 ... 55 / 100	G $\frac{1}{2}$ - G2	RGDJ-J	6.13
	for many different gases	4	5 ... 350	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4-J	6.13
BACK PRESSURE REGUL.	precise	10	2 ... 35 / 800	G $\frac{1}{4}$ - G $\frac{1}{2}$	DB110	8.08
	precise	6	5 ... 45 / 3000	G $\frac{1}{2}$ - G2	DBC	8.11

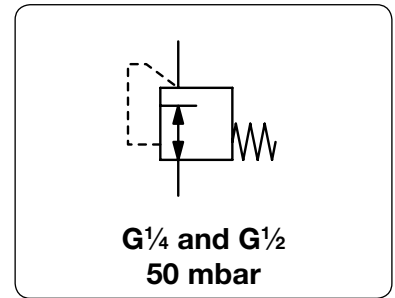


3

LOW PRESSURE REGULATOR WITH FACTORY-SET OUTLET PRESSURE OF 50 MBAR

R01

Description	Low pressure regulator with factory-set outlet pressure of 50 mbar and an integrated safety valve, (except for regulator R01-415), thus not for gas pressure regulation in closed rooms.	
Media	compressed air, propane, butane or other non-corrosive gases	
Supply pressure	max. 16 bar at R01-415, R01-310/-405/-406,	max. 2.5 bar bei R01-319/-407/-604/-641
Accuracy	at max. supply pressure and flow: at max. supply pressure without flow: at min. supply pressure and flow:	< 15 % FS pressure deviation < 25 % FS pressure deviation < 5 % FS pressure deviation
Air consumption	without constant bleed	
Relieving function	non-relieving	
Gauge port	G $\frac{1}{4}$ on one side of the body, except on R01-319/-415	
Mounting position	any	
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F	
Material	Body: zinc die-cast, chrome-plated Elastomer: NBR/Buna-N	Inner valve: brass



Dimensions			Flow rate		Supply pressure	Connection	Outlet pressure	Order number
A	B	ØT	m 3 /h	l/min	max. bar	G	mbar	

Low pressure regulator					supply pressure max. 2.5 / 16 bar, non-relieving, 50 mbar factory-set	R01		
100	44	86	1.2	20	16	G $\frac{1}{4}$	50	R01-415
138	92	118	3.0	50	2.5	G $\frac{1}{2}$	50	R01-604
138	92	118	4.8	80	2.5	G $\frac{1}{2}$	50	R01-407
138	117	118	9.6	160	2.5	G $\frac{1}{2}$	50	R01-641
160	133	145	19.8	330	2.5	G $\frac{1}{2}$	50	R01-319
138	92	118	3.0	50	16	G $\frac{1}{2}$	50	R01-405
138	92	118	4.8	80	16	G $\frac{1}{2}$	50	R01-406



R01-415



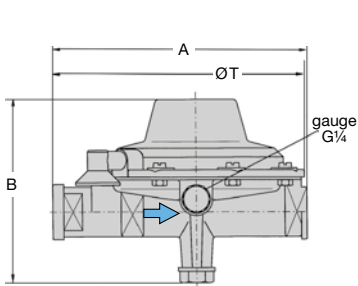
R01-319

Accessories, enclosed

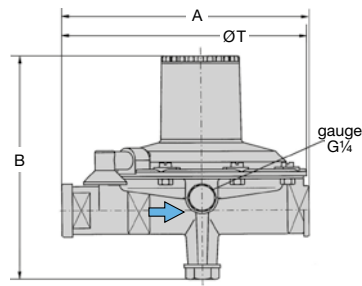
pressure gauge	Ø 63 mm, 0...60 mbar, G $\frac{1}{4}$	not for R01-319/-415	MA6302-B6
----------------	---------------------------------------	----------------------	-----------



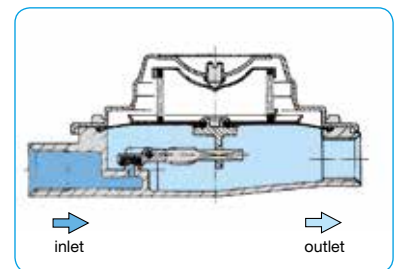
R01-406



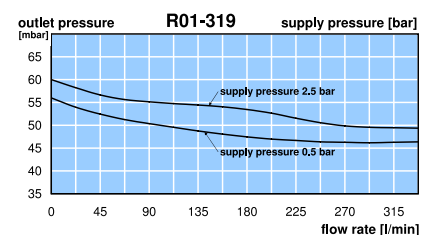
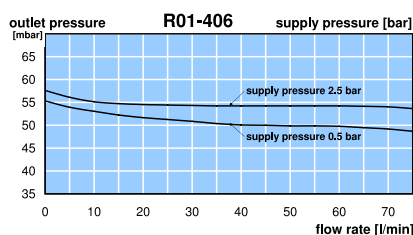
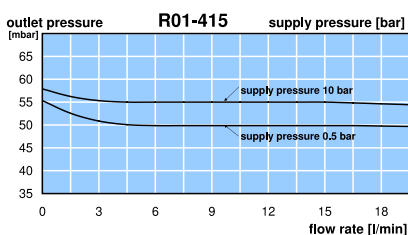
R01-405 / -406 / -604



R01-641



cross-section

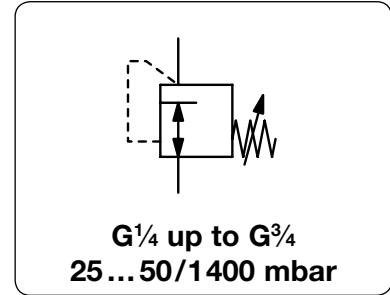


Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R01-415

Description	The low pressure regulator is manually adjustable. Version R01-2/-3/-4 has an integrated safety valve which opens at a pressure of 1.5 times of the max. outlet pressure, thus not suitable for gas pressure regulation in closed rooms.		
Media	compressed air, propane, butane or other non-corrosive gases as well as oil		
Supply pressure	max. 16 bar at R01-5/-6,	max. 10 bar at R01-2/-3/-4 and RL13-5,	max. 6 bar at RL13-0
Accuracy	at min. supply pressure and flow: < 5% FS pressure deviation at max. supply pressure and flow: < 15% FS pressure deviation at max. supply pressure without flow: < 25% FS pressure deviation without constant bleed		
Air consumption	no individual settings		
Adjustment	RL13-0: by adjusting knob a. dial enabling eleven settings for different outlet pressures R01-5/-6: by T-handle with locknut R01-2/-3/-4 and RL13-5: any		
Relieving function	non-relieving		
Gauge port	G $\frac{1}{4}$ on one side of the body, except on R01-5/-6 and RL13-0		
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F		
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N	Inner valve: brass



Dimensions			Flow rate l/min	Supply pressure empfohlen	Connection thread G	Pressure range mbar	Order number
A mm	B mm	ØT mm					

Low pressure regulator			supply pressure max. 16 bar, non-relieving, without gauge port		R01-5/-6		
100	68	68	13	2.5	G $\frac{1}{4}$	25... 50	R01-524-00
100	68	68	7	6.0	G $\frac{1}{4}$	20... 200	R01-524-05
100	68	68	26	6.0	G $\frac{1}{4}$	70... 200	R01-522-01
100	68	68	50	2.5	G $\frac{1}{4}$	30... 200	R01-524-06
100	68	68	7	2.5	G $\frac{1}{4}$	20... 1400	R01-524-08
103	50	83	40	6.0	G $\frac{3}{8}$ *1	350... 1400	R01-626
103	50	83	140	6.0	G $\frac{3}{8}$ *1	350... 1400	R01-627



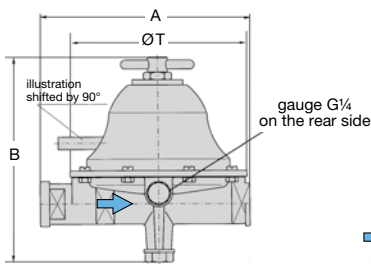
Low pressure regulator			supply pressure max. 10 bar, non-relieving		R01-2/-3/-4		
138	127	117	140	2.5	G $\frac{1}{2}$	20... 150	R01-411-01
138	127	117	140	2.5	G $\frac{1}{2}$	20... 500	R01-211
160	136	145	280	2.5	G $\frac{3}{4}$ *2	50... 500	R01-321



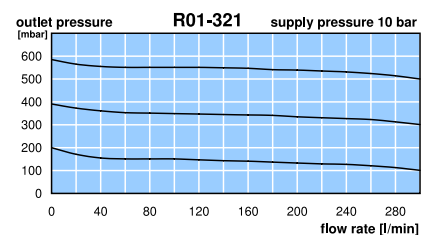
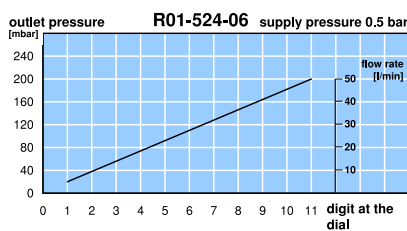
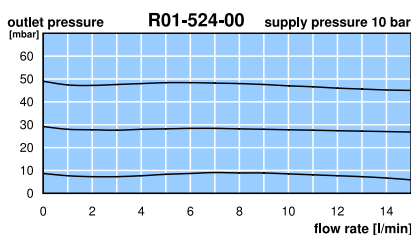
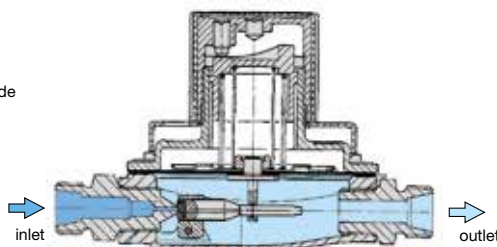
Oil pressure regulator			supply pressure max. 6/10 bar, non-relieving		RL13		
65	32	59	0.3	max. 6	G $\frac{1}{4}$	fest 100	RL13-001
65	70	68	3.0	max. 10	G $\frac{3}{8}$ *1	0... 2500	RL13-504



Accessories, enclosed							
pressure gauge	Ø 50 mm, 0... 4 bar,	G $\frac{1}{4}$, Bourdon tube	for RL13-504	MA5002-04			
	Ø 63 mm, 0... 250 mbar, G $\frac{1}{4}$, capsule type		for R01-411-01	MA6302-C3			
	Ø 63 mm, 0... 0.6 bar, G $\frac{1}{4}$, Bourdon tube		for R01-2/-3	MA6302-C6			



R01-211 / -321 / -411



*1 G $\frac{1}{4}$ eingangsseitig *2 G $\frac{1}{2}$ eingangsseitig

Gauges: see chapter for measuring devices

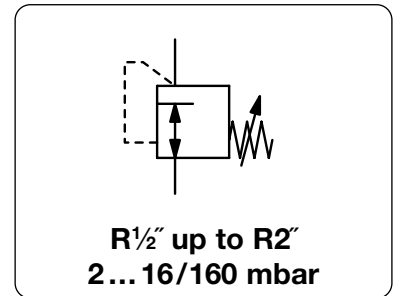
PDF CAD
www.aircom.net

Order example:
R01-524-00

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 400 MBAR

RGDJ

Description	Highly sensitive low pressure regulator with inlet pressure compensation for high precision regulation. Zero shut-off prevents outlet pressure from increasing.	
Media	compressed air or non-corrosive gases, dryly biogas H ₂ S < 200 ppm	
Supply pressure	max. 400 mbar	
Air consumption	without constant bleed	
Adjustment	manual by turning the spindle under the cover of the spring cage	
Relieving function	non-relieving	
Accuracy	at maximum volume flow: < 20% FS pressure deviation	
Gauge port	none as standard, optionally gauge port G $\frac{1}{4}$ on one side from size R $\frac{3}{4}$ on	
Mounting position	any, preferably bonnet upwards	
Temperature range	-20 °C to 70 °C / -4 °F to 158 °F	
Material	Body: aluminium Elastomer: NBR/Buna-N	Inner valve: aluminium and plastic



Dimensions			Nominal size	K _v -value	Flow rate		Connection thread	Pressure range	Order number
A	B	C	DN	(m ³ /h)	m ³ /h*1	l/min*1	R	mbar	
mm	mm	mm							

Low pressure regulator										supply pressure max. 400 mbar, non-relieving	RGDJ																																												
100	120	30	15	0.66	12	200	1/2"	2 ... 16	10 ... 20	16 ... 28	22 ... 40	40 ... 55	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	RGDJ-04A	RGDJ-04B	RGDJ-04C	RGDJ-04D	RGDJ-04E	RGDJ-06A	RGDJ-06B	RGDJ-06C	RGDJ-06D	RGDJ-06E	RGDJ-06G	RGDJ-06I	RGDJ-06L	RGDJ-08.	RGDJ-12A	RGDJ-12B	RGDJ-12C	RGDJ-12D	RGDJ-12E	RGDJ-12G	RGDJ-12I	RGDJ-12L	RGDJ-16A	RGDJ-16B	RGDJ-16C	RGDJ-16D	RGDJ-16E	RGDJ-16G	RGDJ-16I						
134	166	34	20	1.49	27	450	3/4"	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160
134	166	34	25	2.6	51	850	1"	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160								
185	194	45	40	4.9	90	1500	1 1/2"	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160								
234	219	52	50	6.6	120	2000	2"	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160	5 ... 15	12 ... 25	22 ... 35	30 ... 50	45 ... 65	60 ... 80	75 ... 100	100 ... 160								

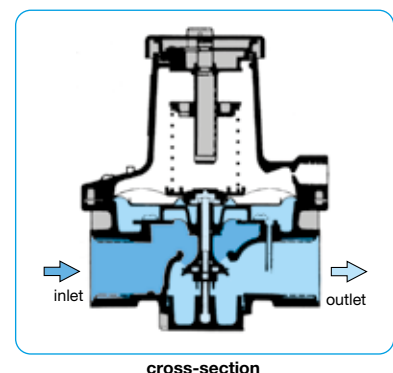
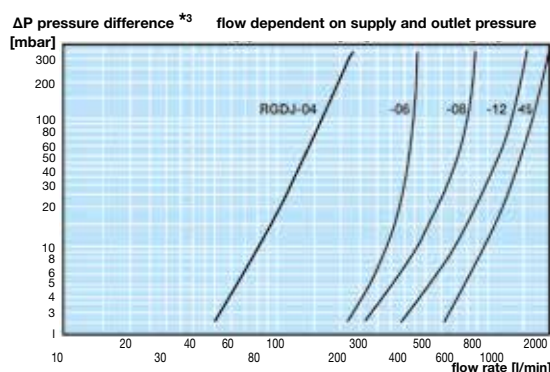
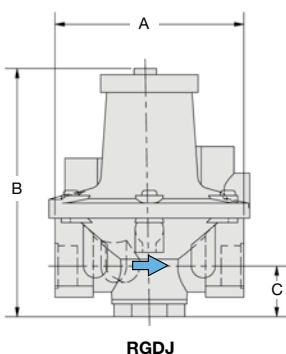


Special options, add the appropriate letter

Connection thread G $\frac{1}{4}$ for pressure gauge not for R $\frac{1}{2}$ " RGDJ - . . . M

Accessories, enclosed

pressure gauge Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$ from R $\frac{3}{4}$ " MA6302-..*2



*1 at 350 mbar supply pressure and 100 mbar outlet pressure
*2 B6 = 0...60 mbar, C2 = 0...160 mbar

*3 $\Delta p = P_1 - P_2$, difference between supply and outlet pressure

Gauges: see chapter for measuring devices

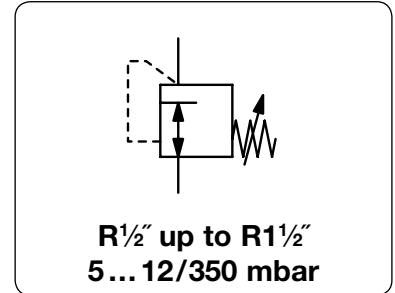
PDF CAD
www.aircom.net

Order example:
RGDJ-04A

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 4 BAR

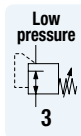
RGB4

Description	Highly sensitive low pressure regulator with inlet pressure compensation for high precision regulation. Zero shut-off prevents outlet pressure from increasing.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 4 bar		
Air consumption	without constant bleed		
Adjustment	manual by turning the spindle under the cover of the spring cage		
Relieving function	non-relieving		
Accuracy	max. 20% pressure drop at full flow		
Gauge port	none as standard, optionally gauge port G $\frac{1}{4}$ on one side at R $\frac{1}{2}$ " and R1",		standard G $\frac{1}{4}$ at R $\frac{1}{2}$ "
Mounting position	any, preferably bonnet upwards		
Temperature range	-15 °C to 60 °C / 5 °F to 140 °F		
Material	Body: aluminium	Inner valve: aluminium and plastic	
	Elastomer: NBR/Buna-N		



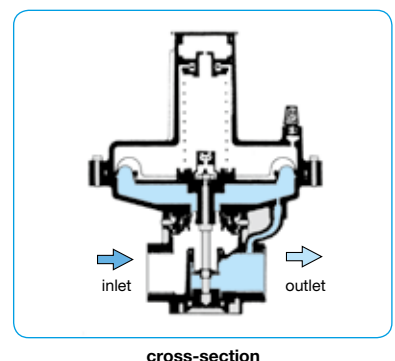
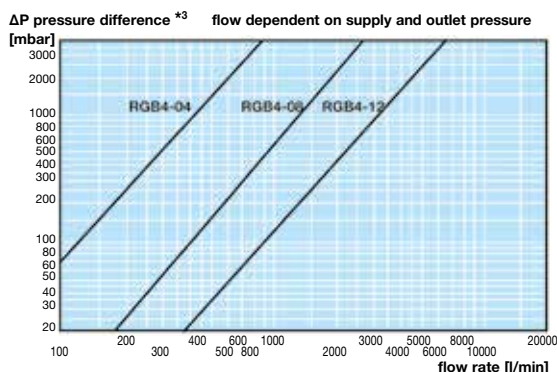
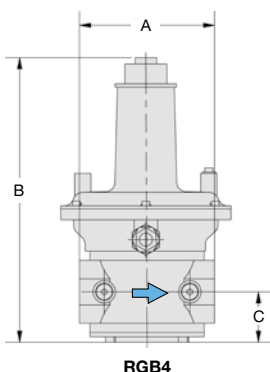
Dimensions			Nominal size	K _v -value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	DN	(m ³ /h)	m ³ /h*1	R	mbar	

Low pressure regulator								supply pressure max. 4 bar, non-relieving	RGB4
132	174	24	15	0.62	42	700	1/2"	5 ... 12	RGB4-04A
								10 ... 30	RGB4-04C
								25 ... 45	RGB4-04D
								40 ... 60	RGB4-04E
								55 ... 75	RGB4-04F
								70 ... 90	RGB4-04G
								85 ... 105	RGB4-04H
								100 ... 160	RGB4-04I
								150 ... 230	RGB4-04K
								220 ... 350	RGB4-04L
190	230	33	25	2.5	168	2800	1"	5 ... 12	RGB4-08A
								10 ... 30	RGB4-08C
								25 ... 45	RGB4-08D
								40 ... 60	RGB4-08E
								55 ... 75	RGB4-08F
								70 ... 90	RGB4-08G
								85 ... 105	RGB4-08H
								100 ... 160	RGB4-08I
								150 ... 230	RGB4-08K
								220 ... 350	RGB4-08L
190	265	55	40	5	336	5600	1 1/2"	5 ... 12	RGB4-12A
								10 ... 30	RGB4-12C
								25 ... 45	RGB4-12D
								40 ... 60	RGB4-12E
								55 ... 75	RGB4-12F
								70 ... 90	RGB4-12G
								85 ... 105	RGB4-12H
								100 ... 160	RGB4-12I
								150 ... 230	RGB4-12K
								220 ... 350	RGB4-12L



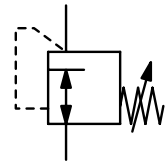
Special options, add the appropriate letter
connection thread G $\frac{1}{4}$ for pressure gauge for R $\frac{1}{2}$ " and R1" RGB4-...M

Accessories, enclosed
pressure gauge Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$ MA6302-..*2



*1 at 4 bar supply pressure and 100 mbar outlet pressure
*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar
*3 $\Delta P = P_1 - P_2$ difference between supply and outlet pressure

Description Low pressure regulator with large diaphragm for good accuracy and high sensitivity.
Media compressed air or non-corrosive gases
Supply pressure max. 7 bar, min. 1 bar
Air consumption without constant bleed
Adjustment for G $\frac{1}{2}$ and G $\frac{3}{4}$: by handwheel with locknut
 for G1: by hexagon head screw with locknut
Relieving function non-relieving
Gauge port G $\frac{1}{4}$ on both sides of the body, screw plug supplied
Mounting position any
Temperature range -20 °C to 80 °C / -4 °F to 176 °F
Material Body: aluminium coated
 O-rings: NBR/Buna-N, optionally FKM or EPDM
 Diaphragm: NBR/Buna-N with PTFE coating
 Inner valve: stainless steel / brass
 Spring cage: stainless steel



G $\frac{1}{2}$ up to G2
5 ... 45/3000 mbar

Dimensions			K _v -value	Flow rate		P ₁ max.	Connection thread	Pressure range	Order number
A	B	C		m ³ /h	l/min*1				

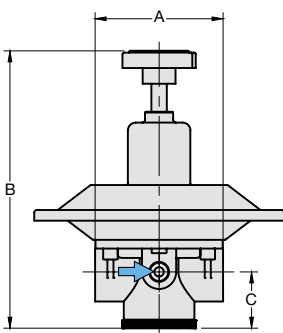
Low pressure regulator										supply pressure max. 6 / 7 bar, non-relieving, without constant bleed	R160
82	188	38	0.4	60	1000	6	G $\frac{1}{2}$ *3	5 ... 45	R160-04A		
								20 ... 200	R160-04B		
								150 ... 700	R160-04C		
154	233	69	1.8	180	3000	7	G $\frac{3}{4}$	5 ... 45	R160-06A		
								10 ... 120	R160-06B		
								10 ... 400	R160-06C		
154	292	53						15 ... 700	R160-06D		
								200 ... 1200	R160-06E		
154	233	69	1.8	180	3000	7	G1	5 ... 45	R160-08A		
								10 ... 120	R160-08B		
								10 ... 400	R160-08C		
154	292	53						15 ... 700	R160-08D		
								200 ... 1200	R160-08E		
263	233	69	1.8	180	3000	7	G1 $\frac{1}{4}$	5 ... 45	R160-10A		
								10 ... 120	R160-10B		
								10 ... 400	R160-10C		
263	292	53						15 ... 700	R160-10D		
								200 ... 1200	R160-10E		
263	233	69	1.8	180	3000	7	G1 $\frac{1}{2}$	5 ... 45	R160-1AA		
								10 ... 120	R160-1AB		
								10 ... 400	R160-1AC		
263	292	53						15 ... 700	R160-1AD		
								200 ... 1200	R160-1AE		



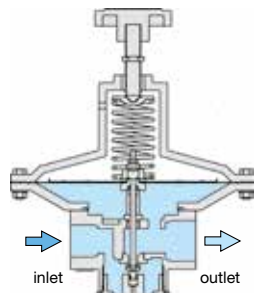
R160-04



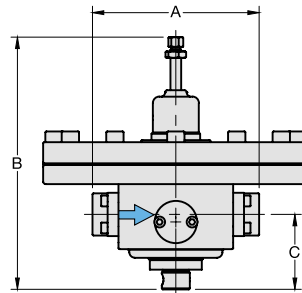
R160-06 /-08 /-10 /-1A



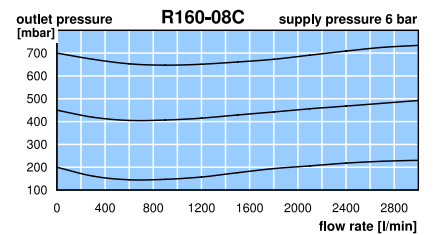
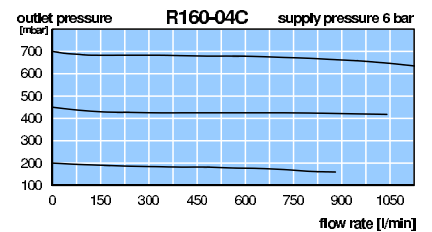
R160-04



cross-section

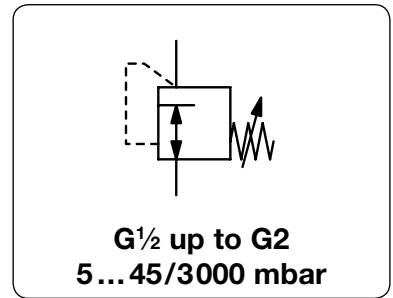


R160-06/-08/-10/-1A (A/B/C)



*1 at 6 bar supply pressure and max. outlet pressure *2 see description above *3 thread at outlet G $\frac{3}{4}$

Description Low pressure regulator with large diaphragm for good accuracy and high sensitivity.
Media compressed air or non-corrosive gases
Supply pressure max. 7 bar, min. 1 bar
Air consumption without constant bleed
Adjustment for G $\frac{1}{2}$ and G $\frac{3}{4}$: by handwheel with locknut
 from G1: by hexagon head screw with locknut
Relieving function non-relieving
Gauge port G $\frac{1}{4}$ on both sides of the body, screw plug supplied
Mounting position any
Temperature range -20 °C to 80 °C / -4 °F to 176 °F
Material Body: aluminium coated
 O-rings: NBR/Buna-N, optionally FKM or EPDM
 Diaphragm: NBR/Buna-N with PTFE coating
 Inner valve: stainless steel / brass
 Spring cage: stainless steel



Dimensions			K _v -value	Flow rate	P ₁ max.	Connection thread	Pressure range	Order number
A	B	C						

Low pressure regulator									supply pressure max. 6 / 7 bar, non-relieving, without constant bleed	R160
215	472	128	5.7	480	8000	6	G1 $\frac{1}{2}$	20 ... 50		R160-12A
								50 ... 150		R160-12B
								150 ... 300		R160-12C
								300 ... 3000		R160-12D
215	472	128	5.7	480	8000	6	G2	20 ... 50		R160-16A
								50 ... 150		R160-16B
								150 ... 300		R160-16C
								300 ... 3000		R160-16D



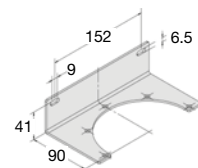
R160-12/-16

Special options, add the appropriate letter

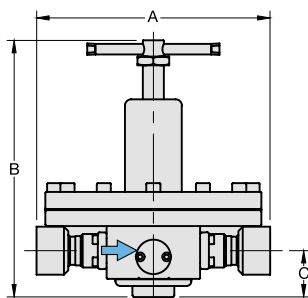
NPT	connection thread	for G1	to G2	R160-... N
SST inner parts	for ammonia NH ₃	for G $\frac{1}{2}$	and G1 $\frac{1}{2}$ (-1A)	R160-... .02
		for G1 $\frac{1}{2}$ (-12)	and G2	R160-1. .02
FKM -o-ring	PTFE diaphragm			R160-... T
EPDM-o-ring				R160-... TE
EPDM-o-ring	FDA-approval			R160-... TD
carbon dioxide CO₂				R160-... .03
argon	Ar			R160-... .05
nitrogen	N ₂			R160-... .07
helium	He			R160-... .09
hydrogen	H ₂			R160-... .11
methane	CH ₄			R160-... .13
natural gas *4				R160-... .14
oxygen	O ₂			R160-... .15
propane	C ₃ H ₈			R160-... .16
nitrous oxide	N ₂ O			R160-... .17
flange connection	see chapter for stainless steel devices			R160-... F.

Accessories, enclosed

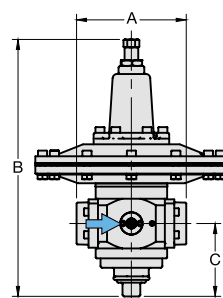
pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$, capsule type, connection parts required	MA6302-... *2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube, connection parts required	MA6302-... *2
connection parts	for pressure gauge, made of brass, not for NH ₃	for G $\frac{1}{2}$ AM-01
connection parts	for pressure gauge, made of stainless steel, for NH ₃	for G $\frac{1}{2}$ AM-03S
mounting bracket	made of stainless steel	for G $\frac{1}{2}$ BW00-26S



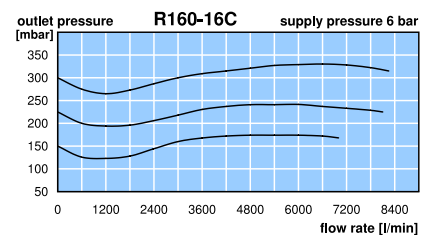
BW00-26S



R160-06/-08/-10/-1A/ (D/E)



R160-12/-16

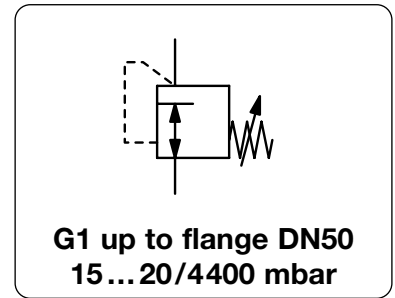


*1 at 6 bar supply pressure and max. outlet pressure
 *2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, 01 = 0...1 bar, 04 = 0...4 bar, 06 = 0...6 bar
 *4 without DVGW approval

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 20 BAR

RZ

Description	Highly sensitive diaphragm pressure regulator.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 20 bar depending on the accuracy range	AR: the smaller P ₁ the higher the accuracy, min. 1 bar
Accuracy	max. 10 bar at pressure range < 120 mbar	< e.g. 10% FS pressure deviation
Air consumption	at maximum volume flow	without constant bleed
Adjustment	manual by turning the spindle under the cover of the spring cage	
Relieving function	non-relieving, optionally relieving	
Relief capacity	Can be adjusted independently of outlet pressure. On non-relieving designs: blocked exhaust valve.	
Gauge port	not available	Mounting position any
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F	
Material	Body: SG cast iron GGG50, GGG40 at DN50 Spring cage: aluminium	Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass and stainless steel



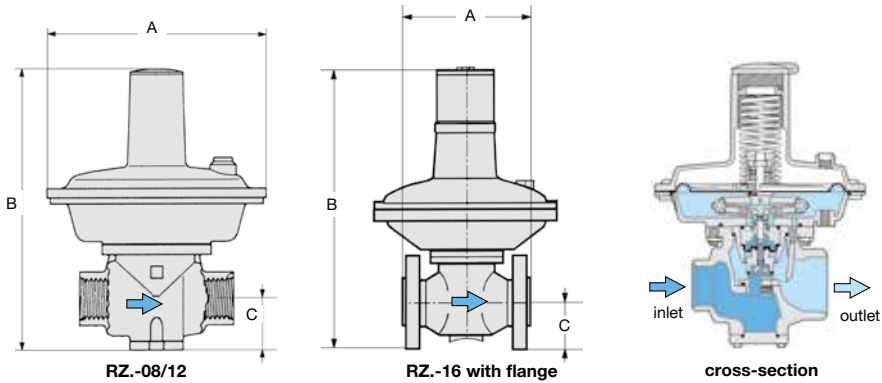
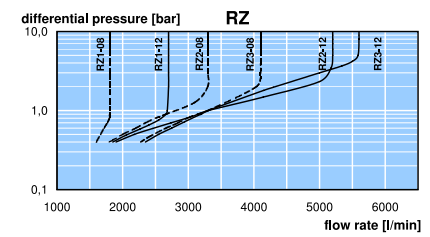
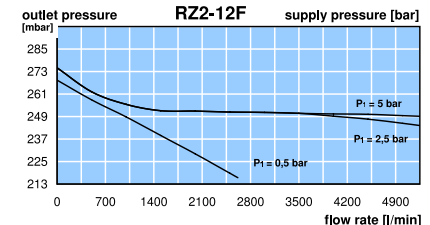
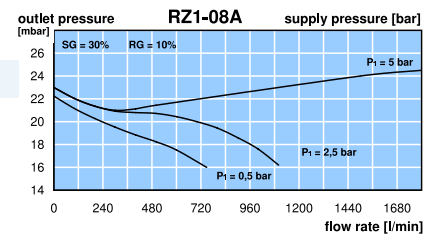
Dimensions			Accuracy	Nominal size	Flow rate	P ₁ max.	Connection thread	Pressure range	Order number
A	B	C	%	DN	l/min*1	bar*2	G	mbar	

Low press. regulator w. positioning spring									
P ₁ : max. 20 bar, non-relieving									
185	245	30	10	17	1800	10	G1	15 ... 20	RZ1-08A
								20 ... 30	RZ1-08B
								30 ... 40	RZ1-08C
								40 ... 70	RZ1-08D
								70 ... 110	RZ1-08E
								110 ... 180	RZ2-08F
								180 ... 300	RZ2-08G
								300 ... 700	RZ3-08H
185	245	30	10	17	2700	10	G1½*3	15 ... 20	RZ1-12A
								20 ... 30	RZ1-12B
								30 ... 40	RZ1-12C
								40 ... 70	RZ1-12D
								70 ... 110	RZ1-12E
								110 ... 180	RZ2-12F
								180 ... 300	RZ2-12G
								300 ... 700	RZ3-12H
254	460	80	5	22	15000	10	flange	10 ... 18	RZ1-16AF
								15 ... 30	RZ1-16BF
								25 ... 49	RZ1-16CF
								40 ... 75	RZ1-16DF
								62 ... 120	RZ1-16EF
								100 ... 170	RZ1-16FF
								145 ... 270	RZ1-16GF
								230 ... 350	RZ1-16HF
								280 ... 720	RZ2-16IF
								840 ... 1250	RZ2-16KF
			5	34	28000	20	DN50	280 ... 720	RZ2-16IF
								840 ... 1250	RZ2-16KF



Special options, add the appropriate letter

further ranges	RZ3-08 / -12	700 ... 1100	I	1100 ... 2000	J	2000 ... 3000	RZ3-... K
further ranges	RZ2-16	1050 ... 2300	L			2000 ... 4400	RZ3-16M
relieving							RZ-... R
FKM elastomer							RZ-... V
flange connection	see chapter for stainless steel devices / flanges						RZ-... F.
nitrogen	N ₂ : 07	carbon dioxide	CO ₂ : 03	argon	Ar:		RZ-... 05
helium	He: 09	hydrogen	H ₂ : 11	methane	CH ₄ :		RZ-... 13
oxygen	O ₂ : 15 (max. 16 bar)	propane	C ₃ H ₈ : 16	nitrous oxide	N ₂ O:		RZ-... 17

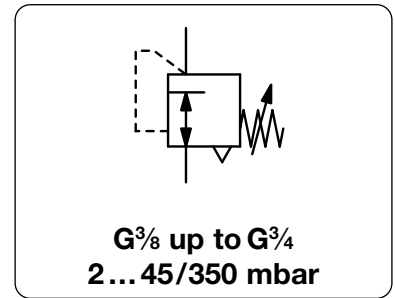


*1 at 4 bar supply pressure and max. outlet pressure *2 see description above *3 G1 thread at inlet

PRECISION LOW PRESSURE REGULATOR, WITH RELIEVING FUNCTION

R4100

Description	High precision diaphragm pressure regulator with high flow, without zero shut-off (counterpressure is required).
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Accuracy	sensitivity < 2 mbar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194°F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel, brass, aluminium and steel



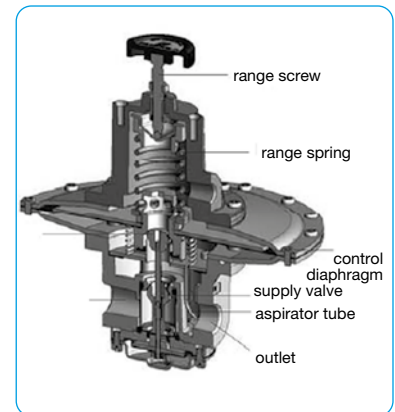
Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range mbar	Order number
A	B	C		m ³ /h*1	l/min*1			

Precision low pressure regulator								P1: max. 10 bar, relieving, without constant bleed	R4100
87	219	40	0.24	30	500	G $\frac{3}{8}$	2... 45	R4100-03A	
							2... 95	R4100-03B	
							5... 210	R4100-03C	
							5... 350	R4100-03D	
87	219	40	0.27	36	600	G $\frac{1}{2}$	2... 45	R4100-04A	
							2... 95	R4100-04B	
							5... 210	R4100-04C	
							5... 350	R4100-04D	
87	219	40	0.30	42	700	G $\frac{3}{4}$	2... 45	R4100-06A	
							2... 95	R4100-06B	
							5... 210	R4100-06C	
							5... 350	R4100-06D	



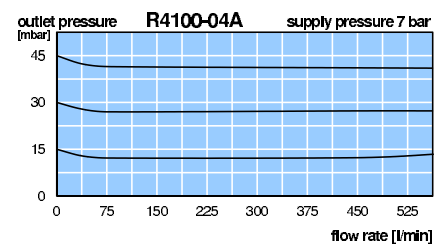
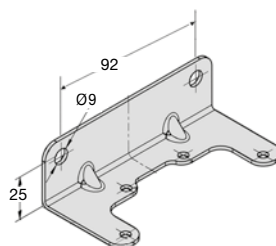
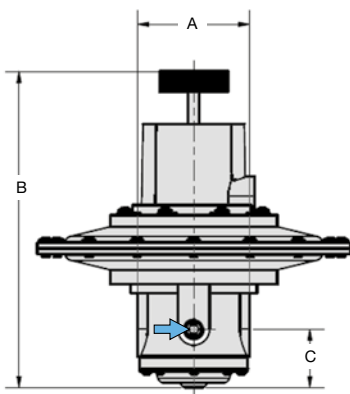
Special options, add the appropriate letter

NPT	connection thread	R4100-...N
tapped exhaust	connection thread G $\frac{1}{4}$	R4100-...X12
tamper-proof cap	made of aluminium, adjustment by screwdriver, height 295 mm	R4100-...T
FKM elastomer		R4100-...V
flange connection	see chapter for stainless steel devices / flanges	R4100-...F.



Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$	MA6302-...*2
mounting bracket	made of steel	BW00-47



*1 at 10 bar supply pressure and max. outlet pressure *2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

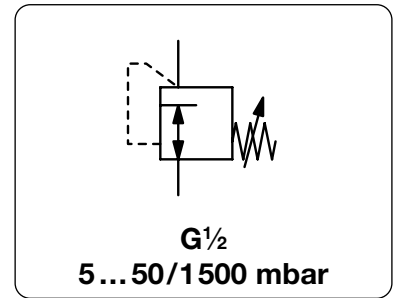


Order example:
R4100-03A

PRECISION LOW PRESSURE REGULATOR FOR PURE GASES UP TO 5.0 PURITY

RR

Description	Precision regulator in mbar range without auxiliary power. Accurate and reliable regulation with large diaphragm for high sensitivity compressed air or non-corrosive gases up to 5.0 purity (99.999% vol.)
Media	compressed air or non-corrosive gases up to 5.0 purity (99.999% vol.)
Supply pressure	max. 20 bar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	non-relieving
Gauge port	G $\frac{1}{2}$ on the bottom side of the body, screw plug supplied
Mounting position	any
Temperature range	-20 °C to 70 °C / -4 °F to 158 °F, for CO $_2$ up to 40 °C / 104 °F
Material	Body: grey-coated brass Diaphragm: EPDM with PTFE coating O-rings: NBR/Buna-N Inner valve: brass



Dimensions			Flow rate		Connection thread	Pressure range	Order number
A	B	C	m 3 /h*1	l/min*1	G	mbar/bar	

Low pressure regulator				supply pressure max. 20 bar, non-relieving, without constant bleed		RR
164	156	41	5	75	G $\frac{1}{2}$	RR-04A
			12	200		RR-04B
			30	500		RR-04C
			45	750		RR-04D
			51	850		RR-04E



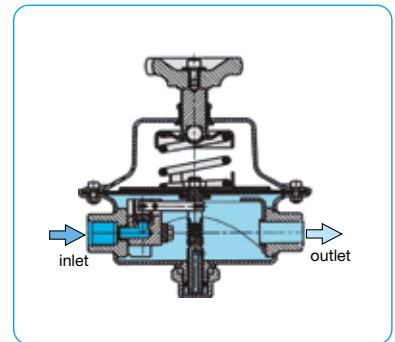
RR

Special options, add the appropriate letter

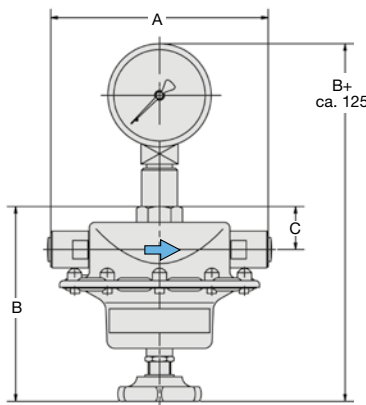
free of grease and oil	suitable for oxygen and flammable gases	RR-...L
pressure gauge	Ø 100 mm, 0... bar, handwheel at the bottom	RR-...G

Accessories, enclosed

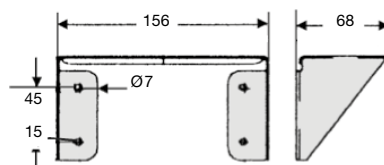
mounting bracket	made of steel	for RR-04	BW00-64
------------------	---------------	-----------	---------



cross-section

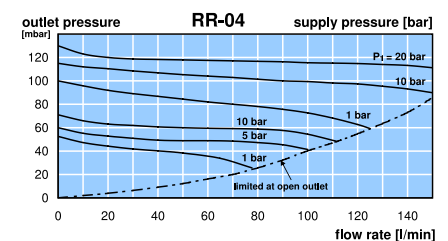
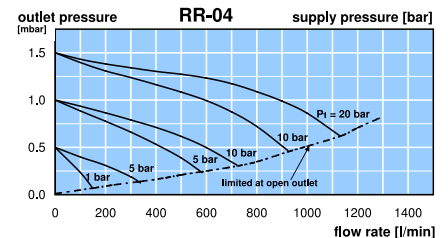


RR-04 with gauge



BW00-64

*1 at 6 bar supply pressure and open outlet

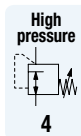


PDF CAD
www.aircom.net

Order example:
RR-04A

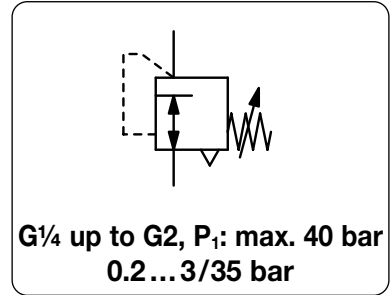
HIGH PRESSURE REGULATORS

	DESCRIPTION	Kv:	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	DEVICE	PAGE
			max. bar	bar	thread		
PRESS. REGULATOR	also for liquids and O ₂	0.3 - 25.6	40	0.2 ... 3 / 35	G $\frac{1}{4}$ - G2	R280	4.02
	for many different gases	0.2 - 70	50	0.1 ... 1.5 / 50	G $\frac{1}{4}$ - G4	R120	4.04
	also for liquids	1.3 - 3.2	60	0.5 ... 12 / 50	G $\frac{1}{4}$ - G1	R286	4.08
	low cost	0.02	207	0.1 ... 3.5 / 12	$\frac{1}{4}$ "NPT	RH83	4.09
	for many different gases	0.05 - 3.5	200	0.1 ... 1.5 / 200	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH10	4.10
	gas cylinder pressure regulator		200	0 ... 1.5 / 40	DIN 477	RH200	4.12
	gas cylinder pressure regulator		300	0 ... 1.5 / 40	DIN 477	RH300	4.13
	gas cylinder pressure regulator		100	0 ... 10 / 60	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-147	4.14
	gas cylinder pressure regulator		200	0 ... 10 / 60	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-247	4.14
	gas cylinder pressure regulator		300	0 ... 10 / 60	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-347	4.14
	miniature	0.05	241	0.2 ... 2 / 7	$\frac{1}{8}$ "NPT and $\frac{1}{4}$ "NPT	RH0	4.15
	miniature	0.05	414	0.5 ... 5 / 124	$\frac{1}{4}$ "NPT	RH1	4.15
	for pure gases 5.0	0.9	207	0.2 ... 1.7 / 14	$\frac{3}{8}$ "NPT and $\frac{1}{2}$ "NPT	RH2	4.16
	different pressure ranges	0.05	414	0.3 ... 35 / 414	$\frac{1}{4}$ "NPT	HP300	4.17
	made of brass	0.05	414	0.7 ... 104 / 172	$\frac{1}{4}$ "NPT	HP400	4.17
	different pressure ranges	0.05	300	0.1 ... 1.7 / 35	$\frac{1}{4}$ "NPT	HP500	4.18
	large nominal size	1.7	260	0.7 ... 21 / 104	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3	4.19
	large nominal size	1.7	345	3 ... 172	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-U	4.19
	made of brass	0.3	414	0 ... 14 / 28	$\frac{3}{8}$ "NPT and $\frac{1}{2}$ "NPT	RH4	4.20
	different pressure ranges	0.05	1 034	0.3 ... 35 / 690	$\frac{1}{4}$ "NPT	HP306	4.21
MADE OF SST	for many different gases	0.05 - 3.5	200	1 ... 8 / 200	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH3000	15.18
	large nominal size	1.7	310	0.7 ... 21 / 104	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-S1	4.19
	robust	0.13	380	0.3 ... 2 / 35	$\frac{1}{4}$ "NPT	RHB-S	www
	large nominal size	1.7	410	3 ... 172	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-S2	4.19
	different pressure ranges		690	0.3 ... 35 / 414	$\frac{1}{4}$ "NPT	HP300-S	4.17
	for different gases, wide variety		60	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - G2	R3000	15.06
VACUUM REGULATOR	made of brass		4	0.06...1 bar _{abs}	$\frac{1}{4}$ "NPT	RDV	www
DIFFERENTIAL PRESS.	brass or stainless steel	0.7 / 2.0	414	0 ... 1 / 24	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH44	4.22
VOLUME BOOSTER	ratio 1:2 to 1:19	1.7	260	3 ... 42 / 104	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-J	6.12
	SST 1:2 to 1:19	1.7	310	3 ... 42 / 104	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-JS1	6.12
	SST	2.9	100	0.1 ... 24 / 99	G1	RLM, RLE	6.14
	made of brass		50	1 ... 15 / 50	G $\frac{1}{4}$ - G2	R120-J	6.15



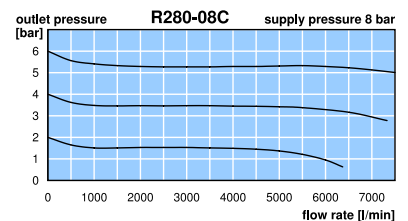
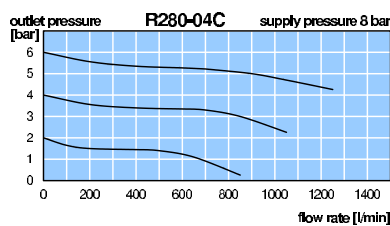
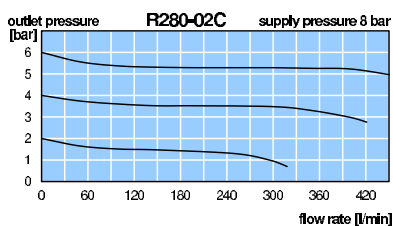
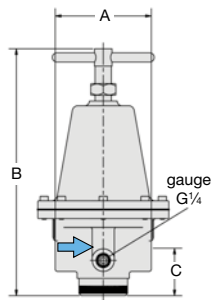
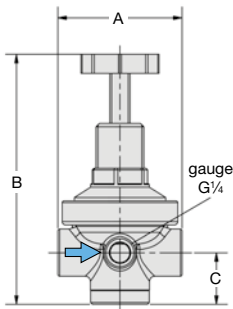
4

Description	Diaphragm pressure regulator for supply pressure up to 40 bar, of solid design, completely made of brass.
Media	compressed air, non-corrosive gases or liquids. Regulator R280-16 is not suitable for liquids.
Supply pressure	max. 40 bar, for liquids $\Delta P_{max.} = 25$ bar
Adjustment	by handwheel for G $\frac{1}{4}$ and G $\frac{1}{2}$, with locknut by T-handle for G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ by knob for G2 by hexagonal spindle for range 0.5...16/25 bar, up to size G $\frac{1}{2}$ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F
Material	Body: brass, aluminium die-cast at G2 regulator Elastomer: NBR/Buna-N Inner valve: brass



Dimensions			Pressure adjustment	K _v -value	Flow-rate	Connection thread	Pressure range	Order number
A	B	C	mit	(m ³ /h)	m ³ /h*1	l/min*1	G	bar

Brass pressure regulator								supply pressure max. 40 bar, for compressed air relieving, without pressure gauge	R280				
45	104	23	handwheel	0.3	26	430	G $\frac{1}{4}$	0.2... 3	R280-02A				
								0.2... 6	R280-02B				
								0.5... 10	R280-02C				
								0.5... 16	R280-02D				
								0.5... 25	R280-02E				
72	145	30	handwheel	0.8	75	1250	G $\frac{1}{2}$	0.2... 3	R280-04A				
								0.2... 6	R280-04B				
								0.5... 10	R280-04C				
								0.5... 16	R280-04D				
								0.5... 25	R280-04E				
						hexagonal spindle							
			95	216	41		T-handle	4.8	450	7500	G $\frac{3}{4}$ *2	0.2... 3	R280-06A
												0.2... 6	R280-06B
												0.5... 10	R280-06C
												0.5... 16	R280-06D
0.5... 25	R280-06E												
			hexagonal spindle										
95	216	41		T-handle	5.0	468	7800	G1	0.2... 3	R280-08A			
									0.2... 6	R280-08B			
									0.5... 10	R280-08C			
									0.5... 16	R280-08D			
			0.5... 25						R280-08E				
			hexagonal spindle										
128	240	50		T-handle	7.1	660	11000	G1 $\frac{1}{4}$ *2	0.2... 3	R280-10A			
									0.2... 6	R280-10B			
									0.5... 10	R280-10C			
									0.5... 16	R280-10D			
			0.5... 25						R280-10E				
			hexagonal spindle										

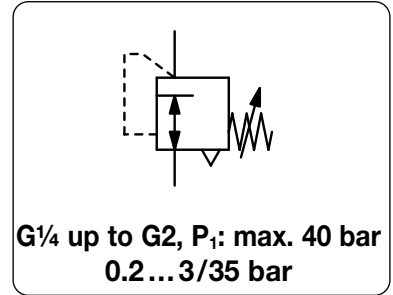


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 reduced from next bigger thread



Description	Diaphragm pressure regulator for supply pressure up to 40 bar, of solid design, completely made of brass.
Media	compressed air, non-corrosive gases or liquids. Regulator R280-16 is not suitable for liquids.
Supply pressure	max. 40 bar, for liquids $\Delta P_{max.} = 25$ bar
Adjustment	by handwheel for G $\frac{1}{4}$ and G $\frac{1}{2}$, with locknut by T-handle for G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ by knob for G2 by hexagonal spindle for range 0.5...16/25 bar, up to size G $\frac{1}{2}$ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F
Material	Body: brass, aluminium die-cast at G2 regulator Elastomer: NBR/Buna-N Inner valve: brass

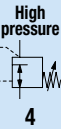


Dimensions			Pressure adjustment	K _v -value	Flow-rate	Connection thread	Pressure range	Order number
A	B	C	mit	(m ³ /h)	m ³ /h*1	l/min*1	G	bar

Brass pressure regulator								supply pressure max. 40 bar, for compressed air relieving, without pressure gauge	R280
114	240	50	T-handle	7.7	720	12000	G1 $\frac{1}{2}$	0.2... 3	R280-12A
								0.2... 6	R280-12B
								0.5... 10	R280-12C
			hexagonal spindle					0.5... 16	R280-12D
								0.5... 25	R280-12E
160	248	78	knob	25.6	2400	40000	G2	0.5... 6	R280-16B
								0.5... 10	R280-16C
								0.5... 16	R280-16D
								0.5... 25	R280-16E
								0.5... 35	R280-16F



R280-12
accessory: gauge



Special options, add the appropriate letter

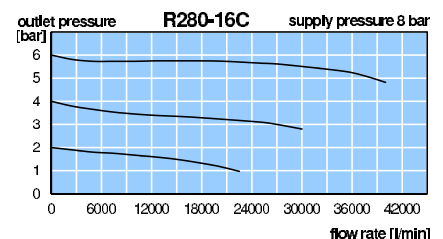
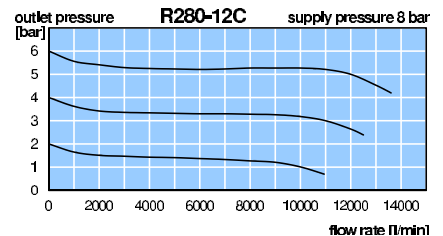
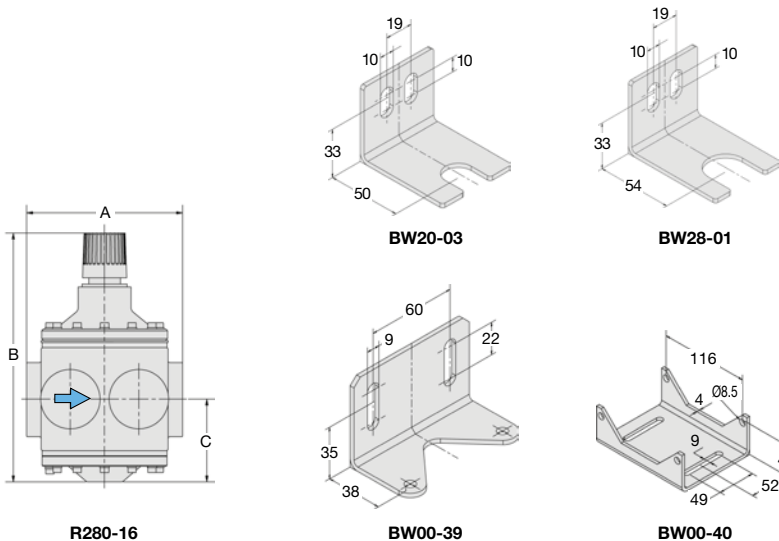
non-relieving for oxygen	without relieving function specially cleaned, with oxygen grease, max. 60 °C/140 °F up to G1 $\frac{1}{2}$	not for G2	R280-... K R280-... K15
---------------------------------	---	------------	----------------------------

Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$ Ø 50 mm, 0...25 bar, G $\frac{1}{4}$ Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$ Ø 63 mm, 0...25 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$ for G $\frac{1}{4}$ and G $\frac{1}{2}$ from G $\frac{3}{4}$ from G $\frac{3}{4}$	MA5002-...^{*2} MA5002- 25 MA6302-...^{*2} MA6302- 25
mounting bracket	made of steel	for G $\frac{1}{4}$	BW20-03
mounting nut	made of brass	for G $\frac{1}{4}$	M20x1,5M
mounting bracket	made of steel	for G $\frac{1}{2}$	BW28-01
mounting nut	made of brass	for G $\frac{1}{2}$	M28x1,5M
mounting bracket	made of steel	for G $\frac{3}{4}$ to G1 $\frac{1}{2}$	BW00-39
mounting bracket	made of steel	for G2	BW00-40



R280-16
accessory: gauge



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

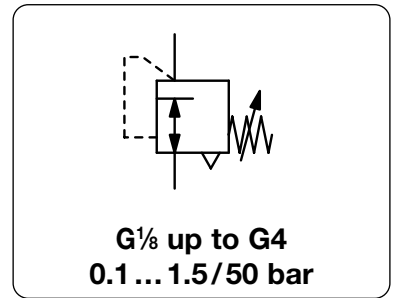
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R280-12A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0..A to -0..E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids
Adjustment	Supply pressure see chart, max. 50 bar, for liquids $\Delta p_{max} = 25$ bar R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindle (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G $\frac{3}{8}$ on both sides of the body, all others G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Temperature range	Mounting position any 0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating

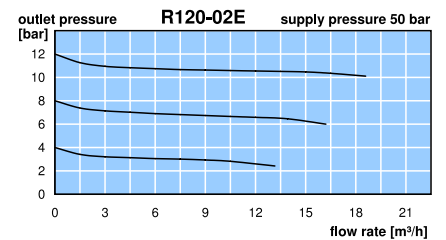
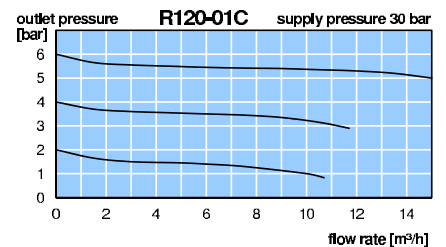
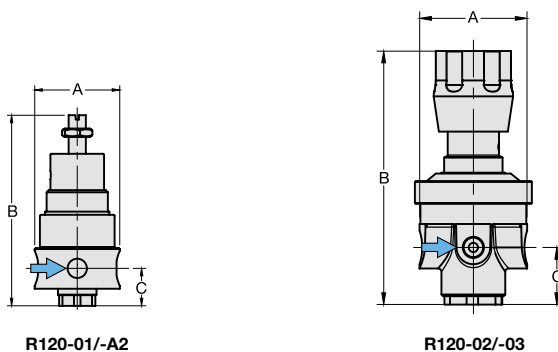


Dimensions			Regul. system	K _v -	Flow	Connection	P ₁	Pressure	Order
A	B	C	D: diaphragm	value	rate	thread	max.	range	number
mm	mm	mm	P: piston	(m ³ /h)	m ³ /h*1	G	bar	bar	

Brass pressure regulator			for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge						R120				
40	88	18	D	0.20	8	130	G $\frac{3}{8}$	30	0.1 ... 1.5	R120-01A			
			D						10	160	30	0.2 ... 3.0	R120-01B
			D						15	250	30	0.5 ... 8.0	R120-01C
			D						20	330	30	1 ... 15	R120-01E
40	88	18	D	0.20	8	130	G $\frac{1}{4}$	30	0.1 ... 1.5	R120-A2A			
			D						10	160	30	0.2 ... 3.0	R120-A2B
			D						15	250	30	0.5 ... 8.0	R120-A2C
			D						20	330	30	1 ... 15	R120-A2E
69	140	36	D	0.35	16	260	G $\frac{1}{4}$	30	0.1 ... 1.5	R120-02A			
			D						20	320	30	0.2 ... 3.0	R120-02B
			D						30	500	30	0.5 ... 8.0	R120-02C
			D						40	660	50	1 ... 15	R120-02E
			P						50	840	50	2 ... 30	R120-02F
			P						60	1000	50	3 ... 50	R120-02G
69	140	36	D	0.35	16	260	G $\frac{3}{8}$	30	0.1 ... 1.5	R120-03A			
			D						20	320	30	0.2 ... 3.0	R120-03B
			D						30	500	30	0.5 ... 8.0	R120-03C
			D						40	660	50	1 ... 15	R120-03E
			P						50	840	50	2 ... 30	R120-03F
			P						60	1000	50	3 ... 50	R120-03G



Special options and Accessories, see separate page



*1 at max. supply pressure and max. outlet pressure

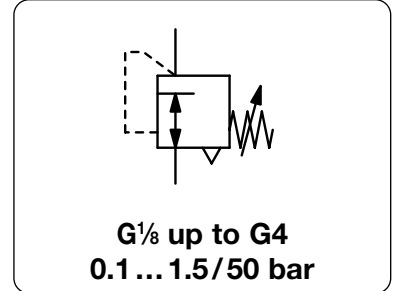
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R120-01A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0..A to -0..E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids
Adjustment	R120-01/-A2: with adjusting screw, R120-04 to -B6: with T-handle, R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G $\frac{1}{8}$ on both sides of the body, one screw plug supplied
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



Dimensions			Regul. system	K _v -	Flow	Connection	P ₁	Pressure	Order
A	B	C	D: diaphragm	value	rate	thread	max.	range	number
mm	mm	mm	P: piston	(m ³ /h)	m ³ /h*1	G	bar	bar	

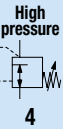
Brass pressure regulator										for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge	R120
78	163	37	D	1.0	27	450	G $\frac{1}{2}$	30	0.1 ... 1.5	R120-04A	
			D		30	600		30	0.2 ... 3.0	R120-04B	
			D		40	830		30	0.5 ... 8.0	R120-04C	
			D		60	1250		50	1 ... 15	R120-04E	
78	159	37	P		100	2080		50	2 ... 30	R120-04F	
			P		120	2500		50	3 ... 50	R120-04G	
118	291	66	D	5.5	75	1250	G $\frac{3}{4}$	30	0.1 ... 1.5	R120-06A	
			D		98	1600		30	0.2 ... 3.0	R120-06B	
			D		170	2800		30	0.5 ... 8.0	R120-06C	
			D		280	4600		50	1 ... 15	R120-06E	
118	316	66	P		400	6600		50	2 ... 30	R120-06F	
			P		500	8300		50	3 ... 50	R120-06G	
118	291	66	D	5.5	75	1250	G1	30	0.1 ... 1.5	R120-08A	
			D		98	1600		30	0.2 ... 3.0	R120-08B	
			D		170	2800		30	0.5 ... 8.0	R120-08C	
			D		280	4600		50	1 ... 15	R120-08E	
118	316	66	P		400	6600		50	2 ... 30	R120-08F	
			P		500	8300		50	3 ... 50	R120-08G	



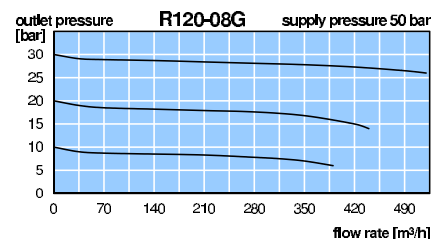
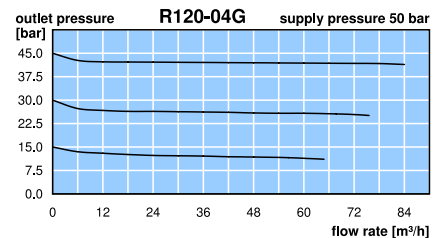
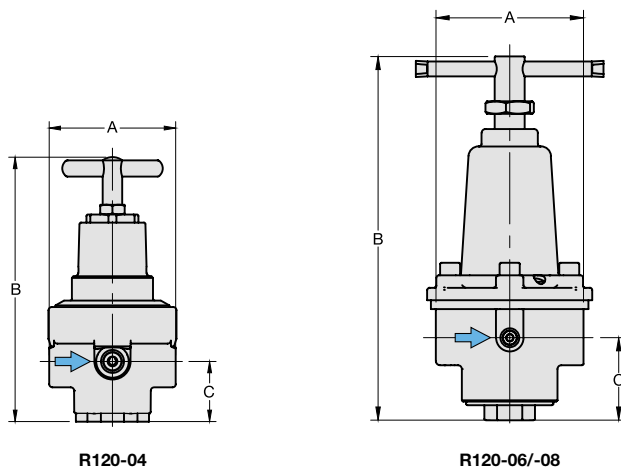
R120-04



R120-08



Special options and Accessories, see separate page



*1 at max. supply pressure and max. outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R120-04A

Description Pressure regulator of solid design. Made of brass or bronze. Series R120-0..A to -0..E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.

Media compressed air, non-corrosive gases or liquids

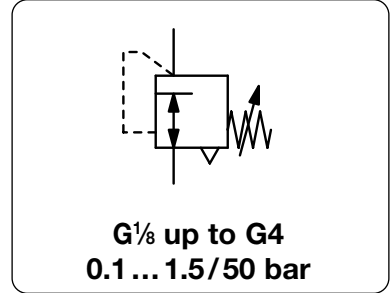
Adjustment **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max} = 25$ bar
 R120-01/-A2: with adjusting screw, at R120-02 with black knob
 R120-04 to -B6: with T-handle, R120-16: with hexagonal spindle (spanner size 24 mm)
 R120-16/-24/-32: by pilot pressure regulator

Relieving function R120-16/-24/-32: non-relieving

Gauge port R120-01/-A2: G $\frac{1}{8}$ on both sides of the body, all others G $\frac{1}{4}$ on both sides of the body, one screw plug supplied

Temperature range **Mounting position** any
 0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F

Material
 Body: brass
 O-ring: FKM, optionally EPDM
 Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32
 Inner valve: brass
 Diaphragm: NBR/Buna-N with PTFE coating



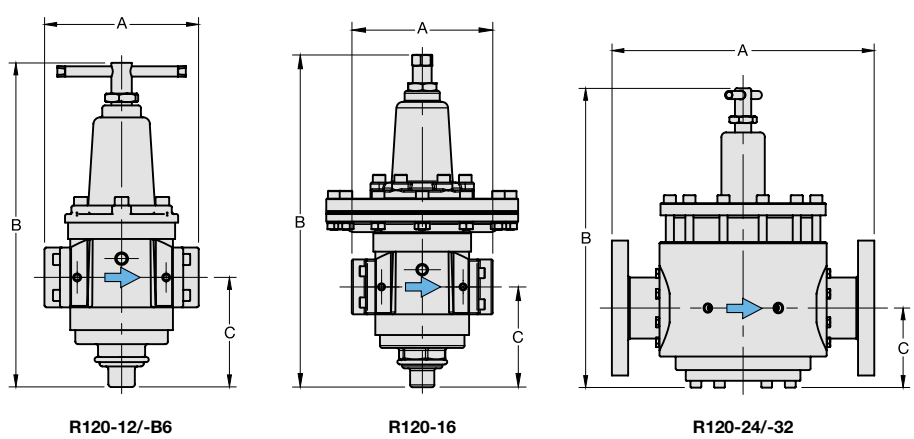
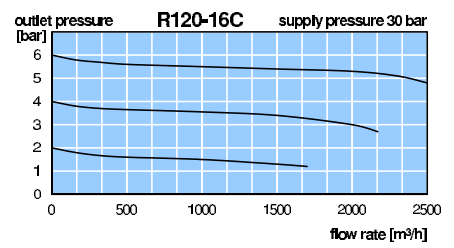
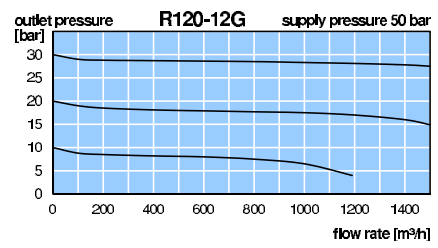
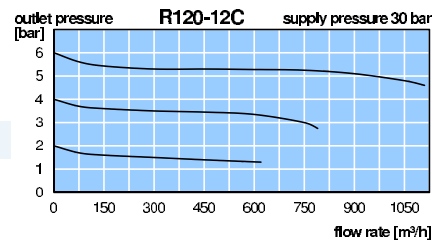
Dimensions			Regul. system	K _v -	Flow	Connection	P ₁	Pressure	Order
A	B	C	D: diaphragm	value	rate	thread	max.	range	number
mm	mm	mm	P: piston	(m ³ /h)	m ³ /h*1	G	bar	bar	

Brass pressure regulator										for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge	R120
180	387	128	P	12.6	400	6600	G1½	30	0.1 ... 1.5	R120-12A	
			P		670	11000		30	0.2 ... 3.0	R120-12B	
			P		1000	16600		30	0.5 ... 8.0	R120-12C	
			P		1500	25000		50	1 ... 15	R120-12E	
180	402	128	P		1600	27000		50	2 ... 30	R120-12F	
			P		2000	33000		50	3 ... 50	R120-12G	
180	387	128	P	12.6	400	6600	G2	30	0.1 ... 1.5	R120-B6A	
			P		670	11000		30	0.2 ... 3.0	R120-B6B	
			P		1000	16600		30	0.5 ... 8.0	R120-B6C	
			P		1500	25000		50	1 ... 15	R120-B6E	
180	402	128	P		1600	27000		50	2 ... 30	R120-B6F	
			P		2000	33000		50	3 ... 50	R120-B6G	
180	425	128	D	26	1800	30000	G2	30	0.1 ... 1.5	R120-16AK	
			D		2500	40000		30	0.3 ... 6.0	R120-16CK	
180	379	128	D		3500	50000		30	1 ... 15	R120-16DK	
389	463	118	D	70	2400	40000	flange	30	0.1 ... 1.5	R120-24AKF	
			D		5000	83000	DN80	30	0.3 ... 6.0	R120-24CKF	
			D		6000	99000		30	1 ... 15	R120-24DKF	
389	463	118	D	70	2400	40000	flange	30	0.1 ... 1.5	R120-32AKF	
			D		5000	83000	DN100	30	0.3 ... 6.0	R120-32CKF	
			D		6000	99000		30	1 ... 15	R120-32DKF	



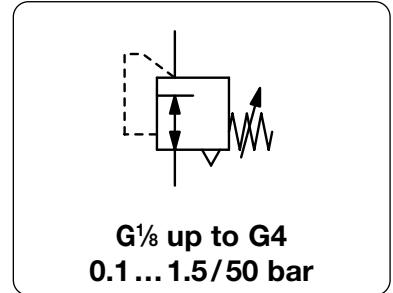
High pressure
4

Special options and Accessories, see separate page



*1 at max. supply pressure and max. outlet pressure

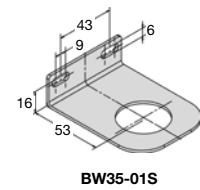
Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0..A to -0..E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids Supply pressure see chart, max. 50 bar, for liquids $\Delta p_{max} = 25$ bar
Adjustment	R120-01/-A2: with adjusting screw, Supply pressure at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindle (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G $\frac{1}{8}$ on both sides of the body, one screw plug supplied, all others G $\frac{1}{4}$ on both sides of the body, Mounting position any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



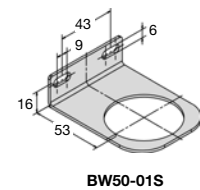
Dimensions			Regul. system	K _v -	Flow	Connection	P ₁	Pressure	Order
A	B	C	D: diaphragm	value	rate	thread	max.	range	number
mm	mm	mm	P: piston	(m ³ /h)	m ³ /h*1	l/min*1	G	bar	bar

Special options, add the appropriate letter

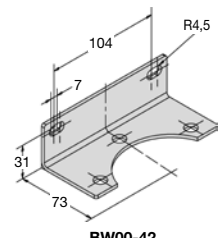
NPT	connection thread			R120-...N
non-relieving	without relieving function		up to R120-B6	R120-...K
down to -40 °C	low temperature version		up to R120-04	R120-...X51
up to 130 °C	high temperature version		up to R120-04	R120-...X54
EPDM o-ring	PTFE diaphragm			R120-...E
T-handle	instead of plastic knob		for R120-02	R120-02..T
PWIS-free	for painting plants			R120-...LA
carbon dioxide	CO ₂			R120-...K03
argon	Ar			R120-...K05
nitrogen	N ₂			R120-...K07
helium	He			R120-...K09
hydrogen	H ₂			R120-...K11
methane	CH ₄			R120-...K13
natural gas *3				R120-...K14
oxygen	O ₂			R120-...K15
propane	C ₃ H ₈			R120-...K16
nitrous oxide	N ₂ O			R120-...K17
water	H ₂ O			R120-...KW
flange connection	standard for R120-32, otherwise see chapter SST devices /flanges			R120-...F.



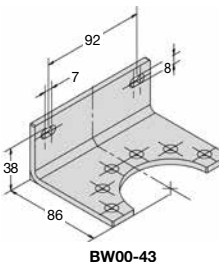
BW35-01S



BW50-01S



BW00-42



BW00-43



Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	MA4001-...*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ (02) up to G $\frac{1}{2}$	MA5002-...*2
	Ø 50 mm, 0...60 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ up to G $\frac{1}{2}$	MA5002-60
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ up to G4	MA6302-...*2
	Ø 63 mm, 0...60 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ up to G4	MA6302-60
gauge up to 130 °C	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$, stainless steel		MS6302-...*2
mounting bracket	made of stainless steel	for G $\frac{1}{4}$ and G $\frac{3}{8}$	BW35-01S
mounting nut	made of stainless steel	for G $\frac{1}{4}$ and G $\frac{3}{8}$	M35x1,5S
mounting bracket	made of stainless steel	for G $\frac{1}{2}$	BW50-01S
mounting nut	made of stainless steel	for G $\frac{1}{2}$	M50x1,5S
mounting bracket	made of steel	for G $\frac{3}{4}$ and G1	BW00-42
		for G1 $\frac{1}{2}$ and G2 (B6)	BW00-43

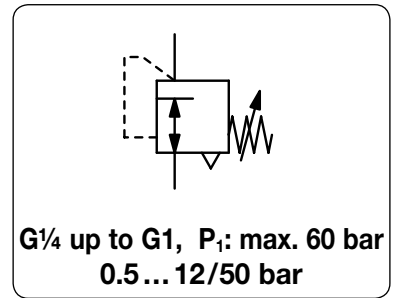
*1 at max. supply pressure and max. outlet pressure

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 without DVGW approval



Description	Piston-operated pressure regulator of solid design, completely made of brass. For inlet pressure up to 60 bar.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 60 bar, for liquids $\Delta p_{max.} = 25$ bar		
Adjustment	by handwheel, T-handle or hexagonal spindle, with locknut		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Mounting position	any	Inlet filter	stainless steel, 500 μ m
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F		
Material	Body: brass Elastomer: NBR/Buna-N	Intermediate ring: brass at G $\frac{1}{4}$, anodized aluminium at G1 Inner valve: brass	



Dimensions			Pressure adjustment	K _v -value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	mit	(m ³ /h)	m ³ /h*1	G	bar	
mm	mm	mm			l/min*1			

Brass pressure regulator								supply pressure max. 60 bar, for compressed air relieving, without pressure gauge	R286
72	164	31	handwheel	1.3	120	2000	G $\frac{1}{4}$	0.5 ... 12	R286-02C
			hexagonal spindle					1.0 ... 20	R286-02E
								2.0 ... 35	R286-02F
								3.0 ... 50	R286-02G
72	164	31	handwheel	1.6	150	2500	G $\frac{3}{8}$	0.5 ... 12	R286-03C
			hexagonal spindle					1.0 ... 20	R286-03E
								2.0 ... 35	R286-03F
								3.0 ... 50	R286-03G
72	156	35	handwheel	2.3	216	3500	G $\frac{1}{2}$	0.5 ... 12	R286-04C
			hexagonal spindle					1.0 ... 20	R286-04E
								2.0 ... 35	R286-04F
								3.0 ... 50	R286-04G
118	257	51	handwheel	3.2	300	5000	G1	0.5 ... 12	R286-08C
			hexagonal spindle					1.0 ... 20	R286-08E
								2.0 ... 35	R286-08F
								3.0 ... 50	R286-08G



R286-02



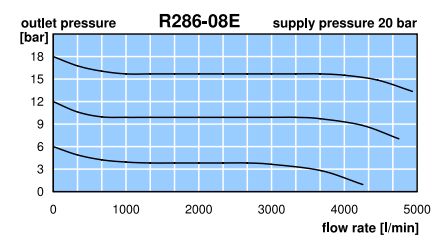
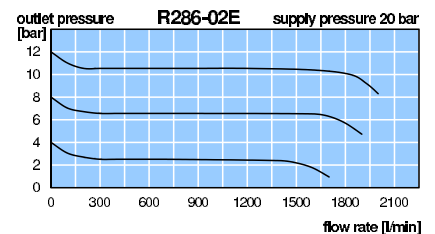
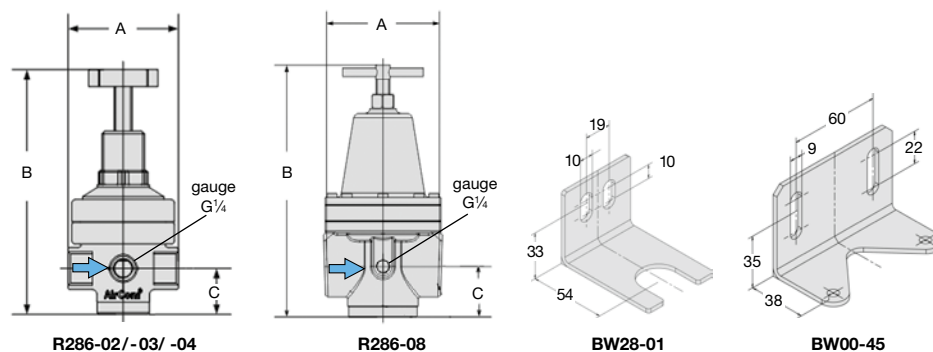
R286-08

Special options, add the appropriate letter

non-relieving without relieving function, for liquids R286-0 . . K

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...10 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ to G $\frac{1}{2}$	MA5002- 10
	0...25 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ to G $\frac{1}{2}$	MA5002- 25
	0...60 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ to G $\frac{1}{2}$	MA5002- 60
Ø 63 mm,	0...16 bar, G $\frac{1}{4}$	for G1	MA6302- 16
	0...25 bar, G $\frac{1}{4}$	for G1	MA6302- 25
	0...60 bar, G $\frac{1}{4}$	for G1	MA6302- 60
mounting bracket	made of steel, mounting nut required	for G $\frac{1}{4}$ to G $\frac{1}{2}$	BW28-01
mounting nut	made of brass	for G $\frac{1}{4}$ to G $\frac{1}{2}$	M28x1,5M
mounting bracket	made of steel, assembly at spring cage	for G1	BW00-45



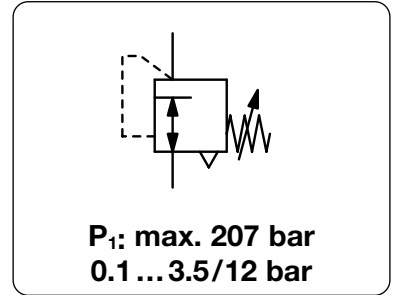
*1 at 20 bar supply pressure, 10 bar outlet pressure and 4 bar pressure drop

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R286-02C

Description	Diaphragm-operated high pressure regulator made of brass .		
Media	compressed air, nitrogen, helium, krypton, carbon dioxide, neon, xenon		
Supply pressure	max. 207 bar		
Adjustment	by slotted screw with locknut		
Relieving function	standard, optionally non-relieving		
Connection thread	¼" NPT, two high pressure inlet ports and two regulated pressure outlet ports.		
Mounting position	any		
Temperature range	-34 °C to 60 °C / -29.2 °F to 140 °F		
Material	Body: brass	Diaphragm: NBR/Buna-N and acetal	Seals: NBR/Buna-N
	Spring cage: zinc die-cast	Valve seat: teflon, brass and stainless steel	



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread NPT	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

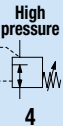
High pressure regulator 207 bar				for compressed air, relieving made of brass, NBR/Buna-N		RH83		
48	110	10	0.02	19.2	320	¼" NPT	0.1 ... 3.5	RH83-02A
							0.3 ... 8.5	RH83-02B
							0.7 ... 12	RH83-02C

Special options, add the appropriate letter

non-relieving	without relieving function	RH83-02. K
carbon dioxide	CO ₂	RH83-02. K03
argon	Ar	RH83-02. K05
nitrogen	N ₂	RH83-02. K07
helium	He	RH83-02. K09
inert gas	krypton, neon, xenon	RH83-02. K31

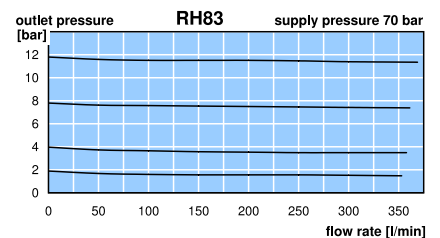
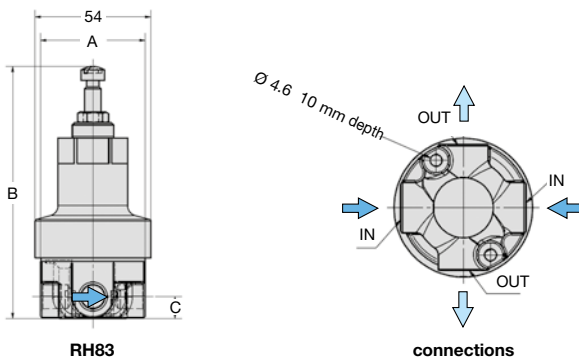


RH83



Accessories, enclosed

pressure gauge	Ø 50 mm, ¼" NPT	MA5002- ..*N
----------------	-----------------	--------------



*1 bei P₁ = 70 bar, P₂ = 4 bar und Δp = 0.35 bar

*2 04 = 0...4 bar, 11 = 0...11 bar, 16 = 0...16 bar

HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE UP TO 200 BAR

RH10

Description For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston.
A sintered bronze filter at the inlet port protects against contamination.

Media compressed air or non-corrosive gases

Supply pressure max. 220 bar

Adjustment RH10-02: by black plastic knob all others: by T-handle with locknut

Gauge port All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.

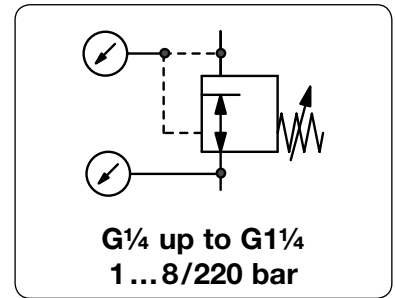
Safety relief valve prevents from overpressure, see chart

Compensation All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.

Temperature range -20 °C to 60 °C / -4 °F to 140 °F

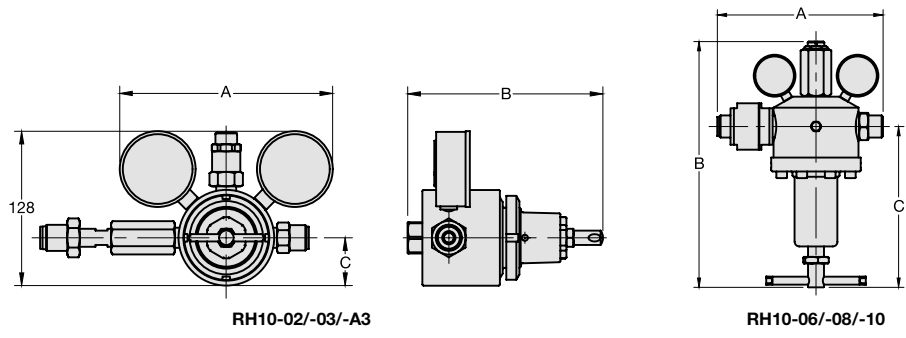
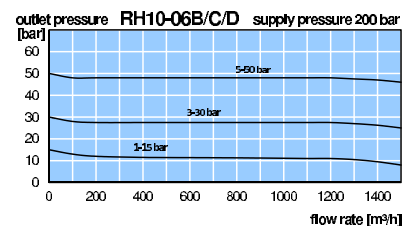
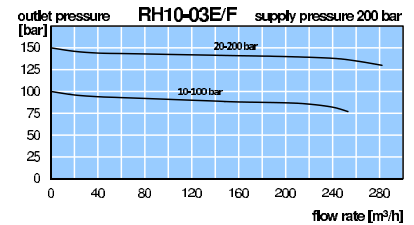
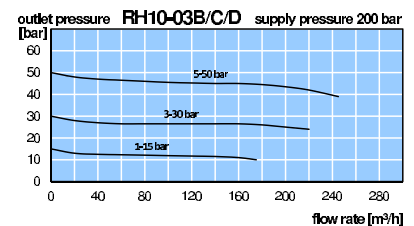
Material Body: brass, nickel-plated at RH10-02
Piston: brass at RH10-02
Valve seat: nylon
Diaphragm: stainless steel at RH10-02, NBR/Buna-N at all others

Mounting position any
Inlet filter: sintered bronze
O-rings: EPDM or FKM, dependent on media



Dimensions			Safety	K _v -	Flow	Connection	Pressure	Order
A	B	C	relief valve	value	rate	thread	range	number
mm	mm	mm	S: with valve	(m ³ /h)	m ³ /h*1 l/min*1	inlet / outlet	bar	

High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied	RH10	
175	150	32	S	0.05	80	1300	DIN 477 / G _{1/4}	1 ... 8	RH10-02A
			S					1 ... 15	RH10-02B
			S					3 ... 30	RH10-02C
			S					5 ... 50	RH10-02D
			S					10 ... 100	RH10-02E
			-					20 ... 200	RH10-02F
181	162	34	S	0.15	228	3800	DIN 477 / G _{1/2} a	0.1 ... 1.5	RH10-030
			S					1 ... 15	RH10-03B
181	164	34	S				DIN 477 / G _{3/8} i	3 ... 30	RH10-03C
			S					5 ... 50	RH10-03D
181	182	34	-					10 ... 100	RH10-03E
			-					20 ... 200	RH10-03F
181	231	102	S	0.25	422	7000	G _{3/4} i / G _{1/2} a	0.1 ... 1.5	RH10-A30
			S					1 ... 15	RH10-A3B
181	233	102	S				G _{3/4} i / G _{3/8} i	3 ... 30	RH10-A3C
			S					5 ... 50	RH10-A3D
181	184	35	-					10 ... 100	RH10-A3E
			-					20 ... 200	RH10-A3F
166	346	113	S	1.5	2000	33000	G _{3/4} a / G _{3/4} a	1 ... 8	RH10-06A
			S					1 ... 15	RH10-06B
			S					3 ... 30	RH10-06C
			S					5 ... 50	RH10-06D
			S					10 ... 100	RH10-06E
250	370	242	S	2.5	3000	48000	G ₁ a / G ₁ a	1 ... 8	RH10-08A
			S					1 ... 15	RH10-08B
250	406	278	S					3 ... 30	RH10-08C
			S					5 ... 50	RH10-08D
250	387	276	-					20 ... 200	RH10-08F

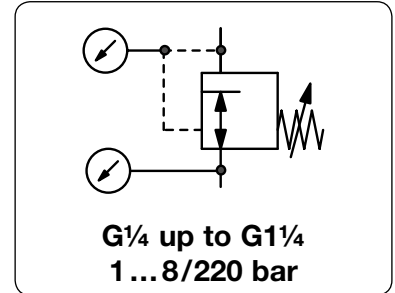


*1 at 200 bar supply pressure and 15 bar outlet pressure *2 max. 80 bar outlet pressure

HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE UP TO 200 BAR

RH10

Description	For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 220 bar	
Adjustment	RH10-02: by black plastic knob	all others: by T-handle with locknut
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.	
Safety relief valve	prevents from overpressure, see chart	
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.	
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F	
Material	Body: brass, nickel-plated at RH10-02 Piston: brass at RH10-02 Valve seat: nylon Diaphragm: stainless steel at RH10-02, NBR/Buna-N at all others	Mounting position any Inlet filter: sintered bronze O-rings: EPDM or FKM, dependent on media

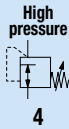


Dimensions			Safety relief valve	K _v -value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	S: with valve	(m³/h)	m³/h*1	inlet / outlet	bar	

High pressure regulator 220 bar								non-relieving, for compressed air, pressure gauges supplied	RH10
246	385	269	S	3.5	5 000	80 000	G1 a / G1¼	1 ... 8	RH10-10A
			S					1 ... 15	RH10-10B
			S					3 ... 30	RH10-10C
246	426	310	S					5 ... 50	RH10-10D



RH10-08B

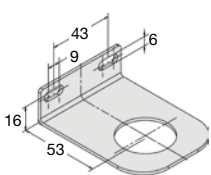
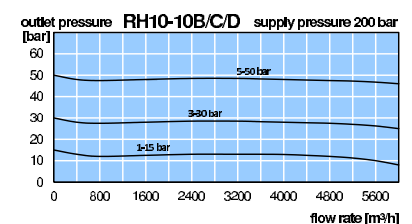
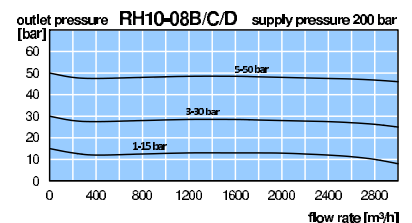


Special options, add the appropriate letter

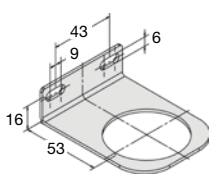
relieving diaphragm	with relieving function, for compressed air	RH10-...R
relieving piston	with relieving function, for compressed air	RH10-...R
FKM elastomer		RH10-...V
PTFE elastomer		RH10-...T
SST diaphragm	from RH10-03	RH10-...S
for panel mounting	for RH10-02 to -A3	RH10-...P
carbon dioxide *2	CO ₂	RH10-...03
argon	Ar	RH10-...05
nitrogen	N ₂	RH10-...07
helium	He	RH10-...09
hydrogen	H ₂	RH10-...11
methane	CH ₄	RH10-...13
oxygen	O ₂	RH10-...15
propane	C ₃ H ₈	RH10-...16
nitrous oxide	N ₂ O	RH10-...17
without flange connection		RH10-...X40

Accessories, enclosed

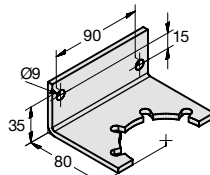
mounting bracket	made of stainless steel	for RH10-02	BW35-01S
mounting nut		for RH10-02	M35x1,5S
mounting bracket		for RH10-03 and -A3	BW50-01S
mounting nut		for RH10-03 and -A3	M50x1,5S
mounting bracket		for RH10-06	BW00-31S
		for RH10-08	BW00-35S



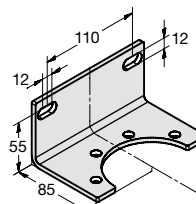
BW35-01S



BW50-01S



BW00-31S



BW00-35S

*1 at 200 bar supply pressure and 15 bar outlet pressure

*2 max. 80 bar outlet pressure

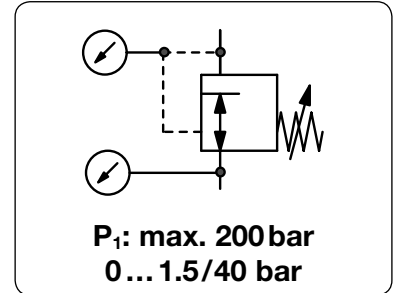
Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net



Order example:
RH10-10A

Description	High pressure regulator for gas cylinders for reducing pressure of compressed air or liquid gases from a high level to the required pressure.	
Supply pressure	max. 200 bar	
Media	compressed air, oxygen or different gases	
Connections	according to DIN 477	
Adjustment	by T-handle	
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.	
Leakage rate	10 ⁻⁸ mbar l/s	
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.	
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F	
Material	Body: brass	O-rings: NBR/Buna-N and EPDM
	Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0	Spring cage: brass



Dimensions			Version	Flow rate		Supply pressure	Pressure range	Order number
A	B	C	1-step	m ³ /h*2	l/min*2	max. bar	bar	
mm	mm	mm	2-step					

Cylinder pressure regulator 200 bar for compressed air, connections DIN 477, RH201/RH202 with inlet / outlet gauges

210	190	100	1-step	48	800	200	0 ... 10	RH201-00C
210	210	120		75	1250		0 ... 20	RH201-00D
				120	2000		0 ... 40	RH201-00E
240	190	100	2-step	8	133	200	0 ... 15	RH202-00A
				48	800		0 ... 10	RH202-00C



RH201, 1-step

Regulator for propane and acetylene connections DIN 477, RH201 with inlet / outlet gauges

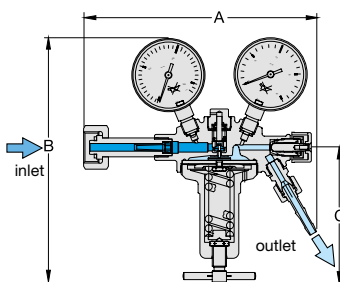
210	190	100	1-step	propane	C ₃ H ₈	max. 8	0 ... 4.0	RH201-00B16
210	190	100	1-step	azetylene	C ₂ H ₂	max. 26	0 ... 1.5	RH201-00A19

Special options, change the appropriate letter

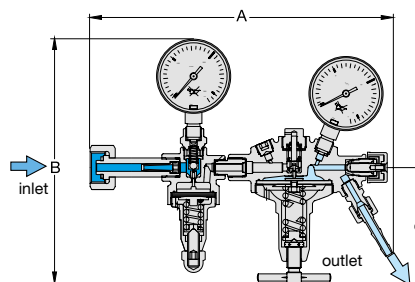
carbon dioxide	CO ₂	RH20 .-... 03
inert gas		RH20 .-... 04
argon	Ar	RH20 .-... 05
fuel gas		RH20 .-... 06
nitrogen	N ₂	RH20 .-... 07
forming gas		up to 40 bar RH20 .-... 08
helium	He	up to 40 bar RH20 .-... 09
hydrogen	H ₂	RH20 .-... 11
testing gas		up to 40 bar RH20 .-... 12
oxygen	O ₂	up to 40 bar RH20 .-... 15
chrome-plated body	inside and outside	1-step RH201 -C...
chrome-plated body	inside and outside	2-step RH202 -C...
metal diaphragm	5.0 purity	1-step RH201 - .M...
		2-step RH202 - .M...



RH202, 2-step



cross-section, 1-step



cross-section, 2-step

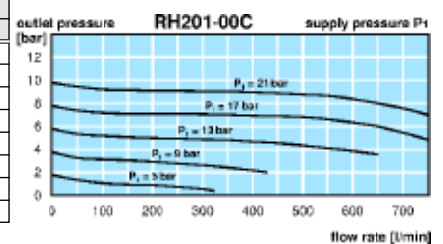


RH201-C..., chrome-plated

connection thread up to 200 bar		
gas type	inlet *1	outlet
compressed air	G ³ / ₄ a	G ¹ / ₄
oxygen	G ³ / ₄ i	G ¹ / ₄
inert gas	W21, 8x ³ / ₄	G ¹ / ₄
CO ₂ / argon	W21, 8x ³ / ₄	G ¹ / ₄
helium	W21, 8x ³ / ₄	G ¹ / ₄
fuel gas	W21, 8x ³ / ₄ LH	G ³ / ₄ LH
hydrogen	W21, 8x ³ / ₄ LH	G ³ / ₄ LH
forming gas	W21, 8x ³ / ₄ LH	G ³ / ₄ LH

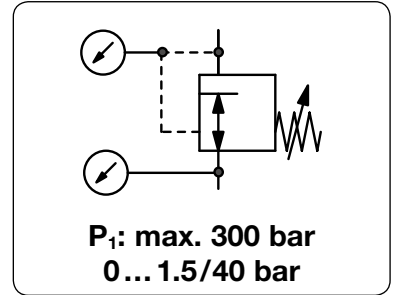
connection thread up to 200 bar		
gas type	inlet *1	outlet
nitrogen	W24,32x ³ / ₄	G ¹ / ₄
testing gas	M19x1,5 LH	G ³ / ₄ LH
nitrous oxide	G ³ / ₄	G ¹ / ₄
azetylene	clamp (cylinder)	G ³ / ₄ a LH

flow rate - correction factor	
gas type	factor
compr. air	1.00
oxygen	O ₂ 0.95
carbon dioxide	CO ₂ 0.81
hydrogen	H ₂ 3.80
argon	Ar 0.85
helium	He 2.70
propane	C ₃ H ₈ 0.80
nitrous oxide	N ₂ O 0.80



*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

Description	High pressure regulator for gas cylinders for reducing pressure of compressed air or liquid gases from a high level to the required pressure.	
Supply pressure	max. 300 bar	
Media	compressed air, oxygen or different gases	
Connections	according to DIN 477	
Adjustment	by T-handle	
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.	
Leakage rate	10 ⁻⁶ mbar l/s	
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.	
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F	
Material	Body: brass	O-rings: NBR/Buna-N and EPDM
	Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0	Spring cage: brass

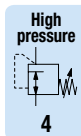


Dimensions			Version	Flow rate		Supply pressure	Pressure range	Order number
A	B	C	1-step	m ³ /h*2	l/min*2	max. bar	bar	
mm	mm	mm	2-step					

Cylinder pressure regulator 300 bar									for compressed air, connections DIN 477, with inlet / outlet gauges	RH300
210	190	100	1-step	48	800	300	0 ... 10	RH301-00C		
210	210	120		75	1250		0 ... 20	RH301-00D		
				120	2000		0 ... 40	RH301-00E		
240	190	100	2-step	8	133	300	0 ... 1,5	RH302-00A		
				48	800		0 ... 10	RH302-00C		



RH301, 1-step

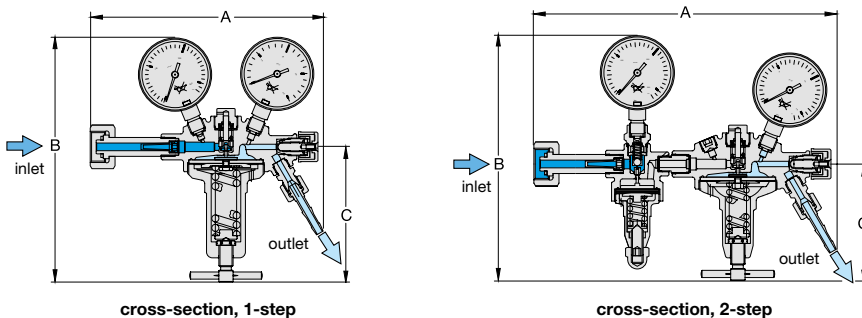


Special options, change the appropriate letter

compressed air	connection gauge G ⁵ / ₈	RH35 -... .
carbon dioxide	CO ₂	RH30 -... .03
inert gas		RH30 -... .04
argon	Ar	RH30 -... .05
fuel gas		RH30 -... .06
nitrogen	N ₂	RH30 -... .07
forming gas		up to 40 bar RH30 -... .08
helium	He	up to 40 bar RH30 -... .09
hydrogen	H ₂	RH30 -... .11
testing gas		up to 40 bar RH30 -... .12
oxygen	O ₂	up to 20 bar RH30 -... .15
chrome-plated body	inside and outside	1-step RH301 -C....
chrome-plated body	inside and outside	2-step RH302 -C....
metal diaphragm	5.0 purity	1-step RH301 - .M...
		2-step RH302 - .M...



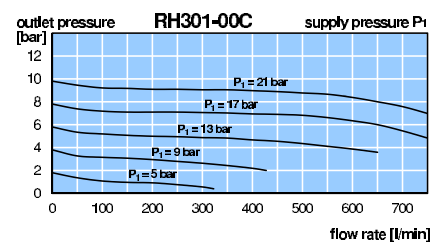
RH302, 2-step



RH301-C..., chrome-plated

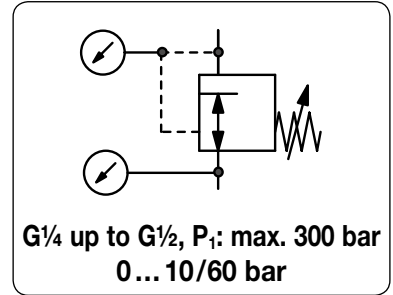
connection thread up to 300 bar		
gas type	inlet *1	outlet
fuel gas	W30x2 LH	G ³ / ₄ LH
all others	W30x2	G ¹ / ₄

flow rate - correction factor	
gas type	factor
compressed air	1.00
oxygen O ₂	0.95
carbon dioxide CO ₂	0.81
hydrogen H ₂	3.80
argon Ar	0.85
helium He	2.70
propane C ₃ H ₈	0.80
nitrous oxide N ₂ O	0.80



*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

Description	Main pressure regulator according to ISO 7291 up to 300 bar with G½ connection thread. A filter at the inlet port protects against contamination.
Media	compressed air, oxygen or different gases on request
Supply pressure	see chart, max. 300 bar
Connections	G¼ to G½, optionally according to DIN 477
Adjustment	by T-handle for RH-..7.510 / 520 / 525 by hexagonal spindle (spanner size 20 mm) for RH-..7.545 / 565
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10 ⁻⁶ mbar l/s
Compensation	without supply pressure variation compensation
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N Spring cage: brass Diaphragm: 65NBR4550, stainless steel for oxygen > 20 bar



Dimensions			Flow rate		Supply pressure	Connection thread	Pressure range	Order number
A	B	C	m³/h*1	l/min*1	max. bar	G	bar	

Main pressure regulator					for compressed air, supply and outlet pressure gauge supplied		RH	
150	205	115	50	830	100	G½	0 ... 10	RH-147.510
			75	1250			0 ... 20	RH-147.520
200	310	215	170	2830	200	G½	0 ... 20	RH-147.525
			290	4830			15 ... 40	RH-147.545
			450	7500			15 ... 60	RH-147.565
150	205	115	50	830	300	G½	0 ... 10	RH-247.510
			75	1250			0 ... 20	RH-247.520
200	310	215	170	2830	300	G½	0 ... 20	RH-247.525
			290	4830			15 ... 40	RH-247.545
			450	7500			15 ... 60	RH-247.565
150	205	115	50	830	300	G½	0 ... 10	RH-347.510
			75	1250			0 ... 20	RH-347.520
200	310	215	170	2830	300	G½	0 ... 20	RH-347.525
			290	4830			15 ... 40	RH-347.545
			450	7500			15 ... 60	RH-347.565



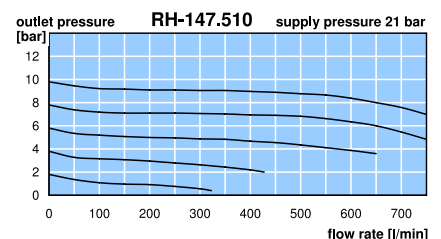
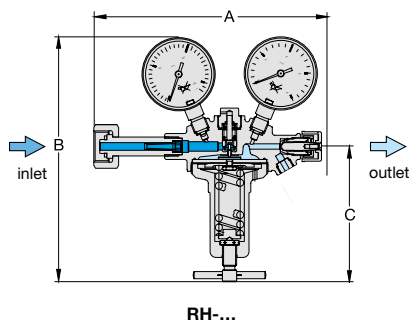
RH-47.510 / 520



RH-47.525 / 545 / 565

Special options, add the appropriate letter

G¼	connection thread, max. 100 bar	RH-.27...
G¾	connection thread	RH-.37...
carbon dioxide	CO ₂	RH-.47...03
inert gas		RH-.47...04
argon	Ar	RH-.47...05
fuel gas		up to 40 bar
nitrogen	N ₂	RH-.47...06
forming gas		up to 40 bar
helium	He	RH-.47...07
hydrogen	H ₂	RH-.47...08
testing gas		up to 40 bar
natural gas *2		RH-.47...09
oxygen	O ₂	RH-.47...10
chrome plated body	inside and outside	RH-.47...11
metal diaphragm	5.0 purity	RH-.47...12
		RH-.41...M

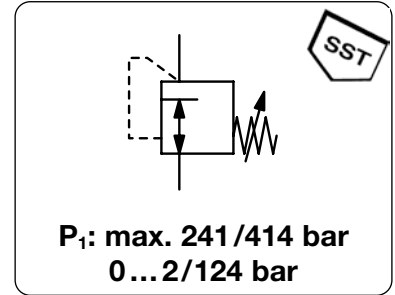


*1 at supply pressure of 2 x outlet pressure + 1 bar

*2 without DVGW-approval



Description	Diaphragm-operated high pressure regulator of small and light design.	
Adjustment	by black plastic knob	
Relieving function	non-relieving	Weight aluminium 200 g, brass 430 g
Gauge port	1/4" NPT for inlet and outlet pressure	Mounting position any
Media	RH0 corrosive or non-corrosive gases up to purity 5.0 max. 241 bar	RH1 compressed air, non-corrosive gases or liquids max. 414 bar
Supply pressure	< 1 x 10 ⁻⁶ mbar l/s He	< 1 x 10 ⁻⁴ mbar l/s He
Leakage rate	-40 °C to 60 °C / -40 °F to 140 °F	-25 °C to 75 °C / -13 °F to 167 °F
Temperature range	brass, optionally stainless steel or aluminium	nickel-plated aluminium
Body	diaphragm made of stainless steel	piston with EPDM o-ring, as option NBR/Buna-N or FKM
Regulating system	PFA or CTFE as option	CTFE or Vespel as option
Valve seat	brass, optionally stainless steel	stainless steel and aluminium
Inner valve		



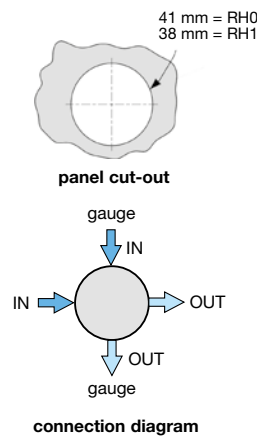
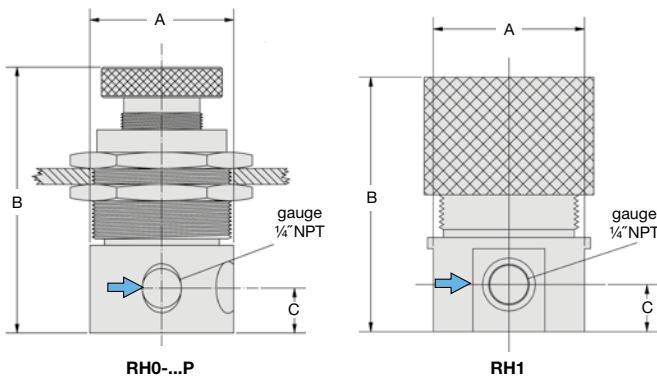
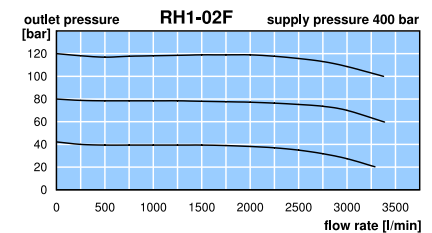
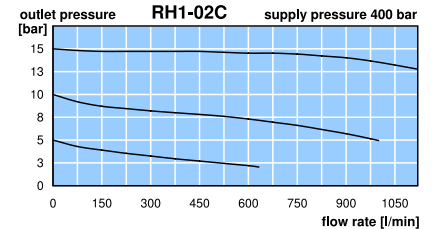
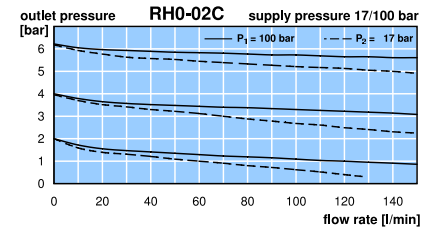
Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h	l/min	Connection thread NPT	Pressure range bar	Order number
A	B	C						

High pressure regulator 241 bar				for gases, non-relieving brass, stainless steel diaphragm		RH0		
41	82	14	0.05	9 ^{*1}	150 ^{*1}	1/4" NPT	0.2 ... 2	RH0-02A
							0.4 ... 4	RH0-02B
							0.6 ... 7	RH0-02C

High pressure regulator 414 bar				for gases and liquids, non-relieving aluminium, piston with EPDM		RH1		
41	76	13	0.05	84 ^{*2}	1400 ^{*2}	1/4" NPT	0.5 ... 5	RH1-02A
							0.5 ... 10	RH1-02B
							1.5 ... 15	RH1-02C
41	76	13	0.05	192 ^{*3}	3200 ^{*3}	1/4" NPT	4.0 ... 48	RH1-02D
							8.0 ... 83	RH1-02E
							10 ... 124	RH1-02F

Special options, add the appropriate letter

1/8" NPT	connection thread	für RH0	RH0-01.
aluminium body		für RH0	RH0-02. A
stainless steel body		für RH0	RH0-02. S
CTFE seat		für RH0	RH0-02. X52
CTFE seat	for stainless steel body	für RH0	RH0-02. SX52
Vespel seat		für RH1	RH1-02. X45
NBR o-ring		für RH1	RH1-02. N
FKM o-ring		für RH1	RH1-02. V
free of grease and oil	suitable for oxygen,	für RH0	RH0-02. L
for oxygen	especially cleaned,	für RH1	RH1-02. 15
brass pressure gauge	inlet side	outlet side	RH. -02. GM
SST pressure gauge	inlet side	outlet side	RH. -02. G
for panel mounting		für RH0	RH0-02. P

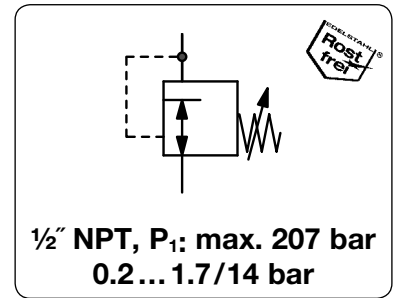


*1 at 100 bar supply pressure and 6 bar outlet pressure
*2 at 400 bar supply pressure and 15 bar outlet pressure
*3 at 400 bar supply pressure and 120 bar outlet pressure

HIGH PRESSURE REGULATOR FOR PURE GASES UP TO 207 BAR

RH2

Description	Diaphragm-operated high pressure regulator of small design and with high flow.		
Media	compressed air, non-corrosive gases or pure gases up to 5.0		
Supply pressure	max. 207 bar		
Test pressure	150% of maximum supply pressure		
Leakage rate	< 2 x 10 ⁻⁶ mbar l/s He		
Adjustment	by black plastic knob		
Relieving function	non-relieving		
Gauge port	1/4" NPT for inlet and outlet pressure, shifted by 60°		
Mounting position	any		
Temperature range	-40 °C to 75 °C / -40 °F to 167 °F		
Material	Body: brass or stainless steel 316	Spring cage: nickel-plated brass	
	Diaphragm: stainless steel 316	Seals: PTFE	
	Valve seat: CTFE	Inner valve: stainless steel 316	



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread NPT	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

Brass pressure regulator, 1/2" NPT							supply pressure max. 207 bar, non-relieving	RH2
66	150	26	0.9	330	5500	1/2" NPT	0.2... 1.7	RH2-04A
							0.2... 3.5	RH2-04B
							0.5... 7.0	RH2-04C
							1.0... 10	RH2-04D
							1.0... 14	RH2-04E



RH2

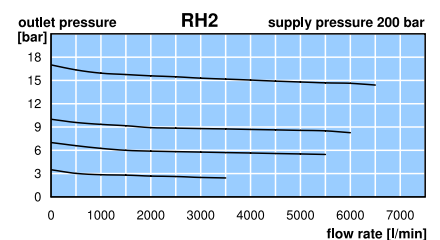
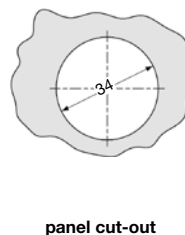
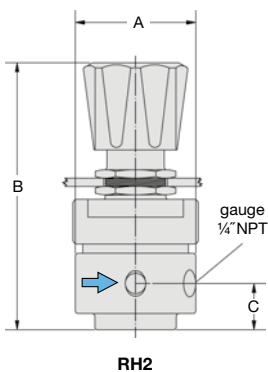
SST pressure regulator, 1/2" NPT							supply pressure max. 207 bar, non-relieving	RH2
66	150	26	0.9	330	5500	1/2" NPT	0.2... 1.7	RH2-04AS
							0.2... 3.5	RH2-04BS
							0.5... 7.0	RH2-04CS
							1.0... 10	RH2-04DS
							1.0... 14	RH2-04ES

Special options, add the appropriate letter

3/8" NPT	connection thread		RH2-03.
brass pressure gauge	for brass body,	outlet side	RH2-0...GM
SST pressure gauge	for stainless steel body,	outlet side	RH2-0...G

Accessories, enclosed

mounting nut	for panel mounting, made of stainless steel	8686-1
--------------	---	--------

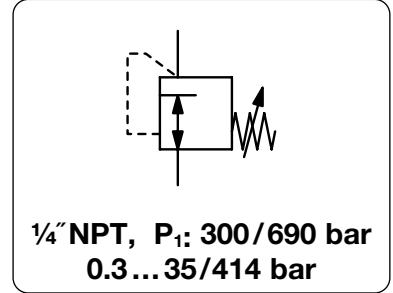


*1 at 200 bar supply pressure and 14 bar outlet pressure

HIGH PRESSURE REGULATOR UP TO 690 BAR

HP300 / HP400

Description	Piston-operated high pressure regulator HP300 / HP400 are marked by high flow and great reliability.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 690 bar at HP300, max. 414 bar at HP400	
Accuracy	at supply pressure variation of 7 bar: < 5 mbar pressure deviation at HP300, < 250 mbar pressure deviation at HP400	
Adjustment	by black plastic knob	
Relieving function	non-relieving, optionally relieving	
Mounting position	any	
Temperature range	- 5 °C to 75 °C / 23 °F to 167 °F for HP300 -25 °C to 75 °C / -13 °F to 167 °F for HP400	
Material	Body:	brass, optionally stainless steel (spring cage brass), stainless steel completely on request
	Seals:	NBR at HP300 (relieving), FKM at HP300 (non-relieving) / HP400
	Spring cage:	brass at HP300, nickel-plated at HP400
	Valve seat:	Vespel at HP300 / HP400 (relieving), Teflon PFA at HP400 (non-relieving)
	Inner valve:	stainless steel
	Leakage rate	< 10 ⁻⁴ mbar l/s He
	Gauge port	1/4" NPT for inlet / outlet pressure, shifted by 70°



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread NPT	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

High pressure regulator 414 bar							non-relieving, brass	HP300	
55	175	19	0.05	90	1500	1/4" NPT	0.3 ... 35	HP300-035	
							0.6 ... 55	HP300-055	
							0.7 ... 104	HP300-105	
							1.0 ... 172	HP300-175	
							1.7 ... 276	HP300-280	
							3.4 ... 414	HP300-415	

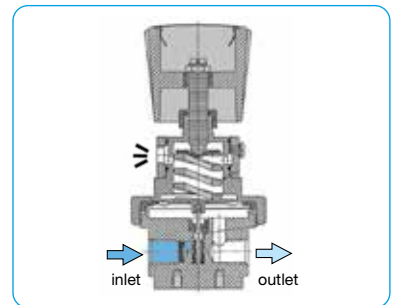


High pressure regulator 414 bar							non-relieving, brass	HP400	
50	137	13	0.05	90	1500	1/4" NPT	0.7 ... 104	HP400-104	
							1.0 ... 172	HP400-170	



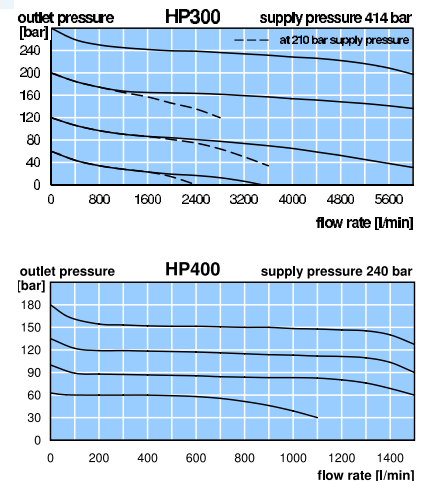
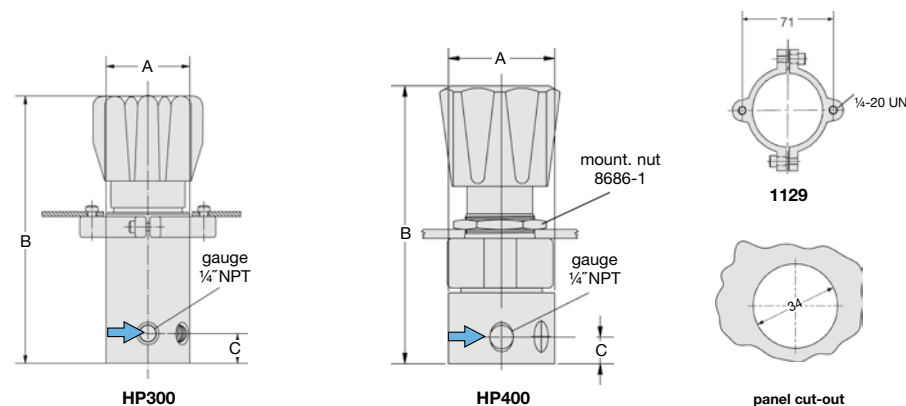
Special options, add the appropriate letter

relieving								HP300-...R HP400-...R
body made of SST				(690 bar)				HP300-...S HP400-...S
for oxygen	specialy cleaned,	P ₁ < 200 bar		(414 bar)				HP.00-...15
for liquids	w/o filter at inlet, valve seat of Nylatron				for HP300			HP300-...W HP400-...W
	w/o filter at inlet, valve seat of Vespel				for HP400			HP.00-...HM HP.00-...GM
brass pressure gauge	for brass body, inlet side							HP.00-...H HP.00-...G
	for brass body, outlet side							
SST pressure gauge	for stainless steel body, inlet side							
	for stainless steel body, outlet side							



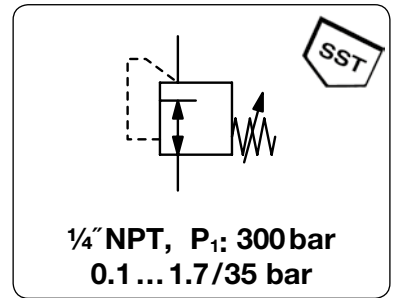
Accessories, enclosed

set of mounting brackets	aluminium	for HP300	1129
mounting nut	for panel mounting, made of stainless steel	for HP400	8686-1



*1 at 240 bar supply pressure and 30 bar outlet pressure

Description	Piston-operated high pressure regulator HP500R and diaphragm-operated HP500 are marked by high flow and great reliability.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 300 bar	
Accuracy	at supply pressure variation of 7 bar: < 120 mbar pressure deviation	
Adjustment	by black plastic knob	Leakage rate < 2x 10 ⁻⁸ mbar l/s He
Relieving function	non-relieving, optionally relieving	Gauge port 1/4" NPT for inlet / outlet pressure, shifted by 70°
Mounting position	any	
Temperature range	-40 °C to 75 °C / -40 °F to 167 °F	
Material	Body: brass, optionally stainless steel (spring cage brass), stainless steel completely on request	
	Seals: FKM	
	Spring cage: nickel-plated	Valve seat: Teflon PFA
	Inner valve: stainless steel	Diaphragm: stainless steel



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread NPT	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

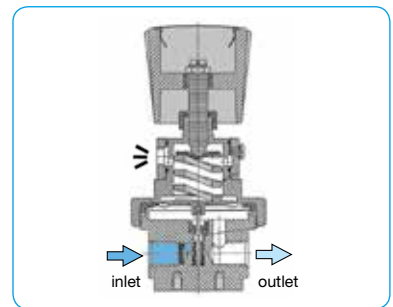
High pressure regulator 300 bar			non-relieving, brass	HP500				
50	137	19	0.05	90	1500	1/4" NPT	0.1 ... 1.7	HP500-002
							0.1 ... 3.5	HP500-004
							0.1 ... 7.0	HP500-007
							0.2 ... 17	HP500-017
							0.3 ... 35	HP500-035



HP500

Special options, add the appropriate letter

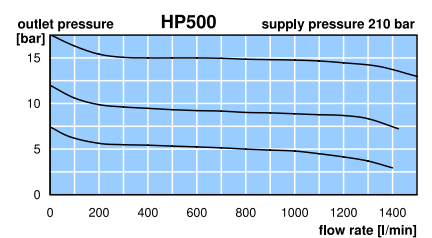
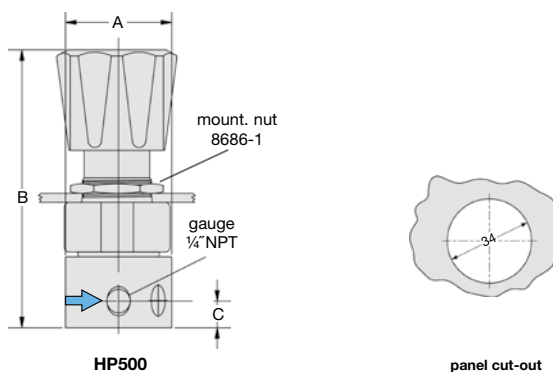
relieving		HP500-...R
body made of SST		HP500-...S
free of grease and oil	suitable for oxygen, P ₁ < 200 bar	HP500-...L
for liquids	w/o filter at inlet, valve seat of Vespel	HP500-...W
brass pressure gauge	for brass body, inlet side	HP500-...HM
	for brass body, outlet side	HP500-...GM
SST pressure gauge	for stainless steel body, inlet side	HP500-...H
	for stainless steel body, outlet side	HP500-...G



cross-section

Accessories, enclosed

mounting nut	for panel mounting, made of stainless steel	8686-1
---------------------	---	--------

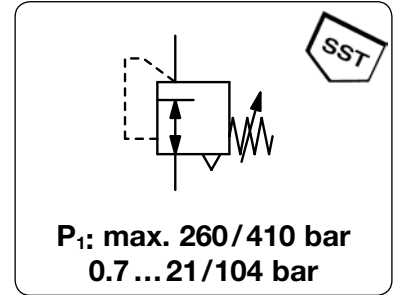


*1 at 240 bar supply pressure and 30 bar outlet pressure

HIGH FLOW / HIGH PRESSURE REGULATOR UP TO 410 BAR

RH3

Description	High pressure regulator with high flow and high reliability. Large piston sensor for high sensitivity and balanced stem design for constant downstream pressure.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 260 bar, optionally up to 345 bar or 410 bar		
Leakage rate	< 1 x 10 ⁻⁴ mbar l/s He		
Adjustment	by black plastic knob		
Relieving function	relieving, optionally non-relieving		
Gauge port	none, optionally 1/4" NPT for inlet and outlet		
Mounting position	any		
Temperature range	-25 °C to 100 °C / -13 °F to 212 °F		
Material	Body:	brass,	optionally stainless steel
	O-rings:	NBR/Buna-N and FKM	
	Main valve seat:	CTFE,	PTFE at RH3-04B
	Relieving valve:	CTFE,	PTFE at RH3-04B/-04C
	Inner valve:	PTFE and brass,	optionally stainless steel



Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread NPT	Pressure range bar	Order number
A	B	C					

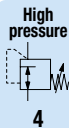
High pressure regulator 260 bar, 1/2" NPT							relieving, brass	RH3
76	203	45	1.7	420	7000	1/2" NPT	0.7 ... 21	RH3-04B
							1.0 ... 42	RH3-04C
							1.4 ... 70	RH3-04D
							3.4 ... 104	RH3-04E

Special options, add the appropriate letter

3/4" NPT	connection thread		RH3-06
non-relieving	without relieving function		RH3-0.K
stainless steel, 310 bar	body: stainless steel 316		RH3-0.S1
stainless steel, 410 bar	body: stainless steel 316,	add. pre. range 3.4 ... 172 bar (F)	RH3-0.S2
brass, 345 bar	body: brass,	add. pre. range 3.4 ... 172 bar (F)	RH3-0.U
gauge port	1/4" NPT for inlet and outlet		RH3-0.M
brass pressure gauge	inlet side	HM	outlet side RH3-0.MGM
SST pressure gauge	inlet side	H	outlet side RH3-0.MG

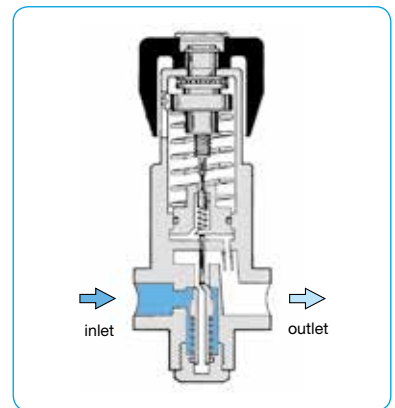


RH3

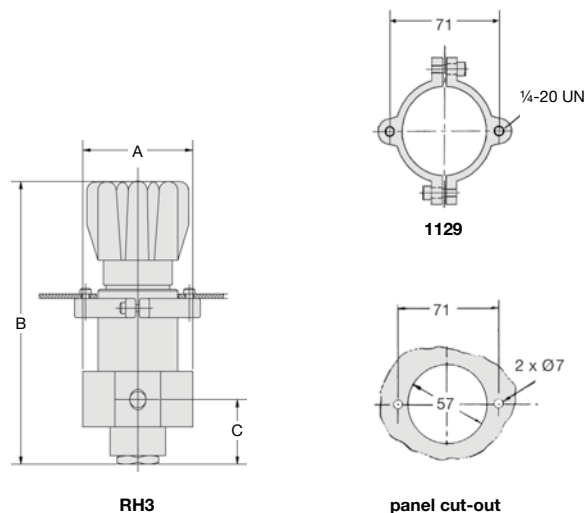


Accessories, enclosed

set of mounting brackets	for panel mounting	1129
--------------------------	--------------------	------



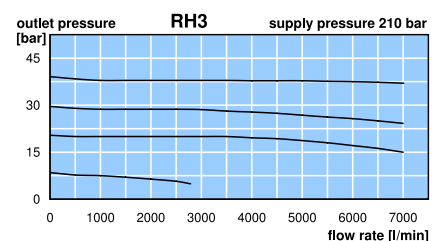
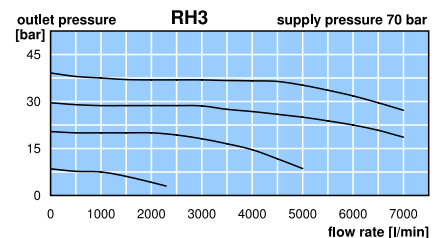
cross-section



RH3

panel cut-out

gauge port, option "M"

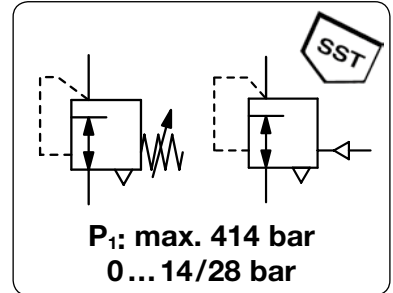


*1 at 210 bar supply pressure and 40 bar outlet pressure

HIGH PRESSURE REGULATOR UP TO 414 BAR

RH4

Description	High pressure regulator with balanced valve design ensuring stable downstream pressure. Excellent for low pressure.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 414 bar		
Exhaust	for compressed air or gases: 1/4" NPT tapped exhaust for inlet and outlet		
Leakage	bubble-tight		
Adjustment	by black plastic knob, optionally pneumatical control through diaphragm or piston		
Relieving function	for compressed air or gases: relieving for liquids: non-relieving		
Gauge port	non, optionally 1/4" NPT for inlet and outlet		
Mounting position	any		
Temperature range	-26 °C to 74 °C / -15 °F to 165 °F		
Weight	2.2 kg		
Material	Body: brass, optionally 316 stainless steel	O-rings: NBR/Buna-N, on request FKM, Kalrez, E.P.	
	Main valve seat: Vespel SP21	Relieving valve: Vespel SP21	
	Inner valve: Monel, stainless steel	Filter: bronze, 40 µm, only for liquids	



Dimensions			K _v -value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	(m ³ /h)	m ³ /h*1	NPT	bar	
mm	mm	mm		l/min*1			

High pressure regulator 414 bar							brass body, Vespel SP21, NBR/Buna-N relieving, without gauge port	RH4
76	159	19	0.3	510	8500	3/8" NPT	0 ... 14	RH4-03A
							0 ... 28	RH4-03B
						1/2" NPT	0 ... 14	RH4-04A
							0 ... 28	RH4-04B



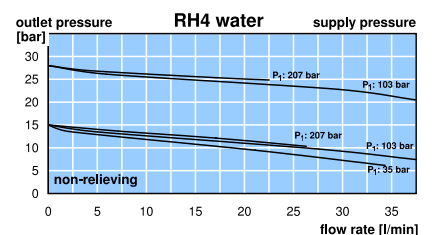
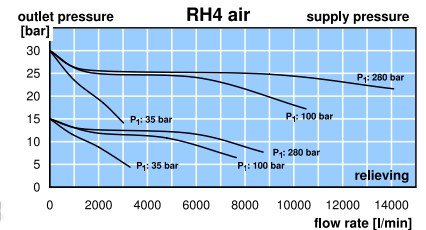
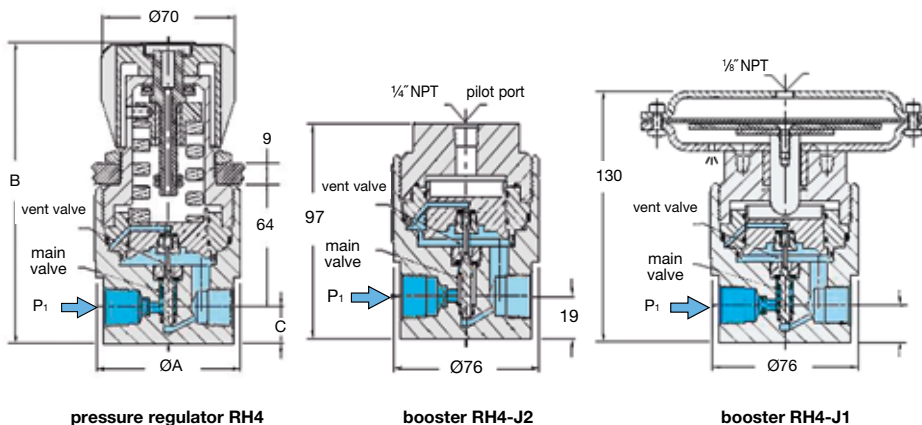
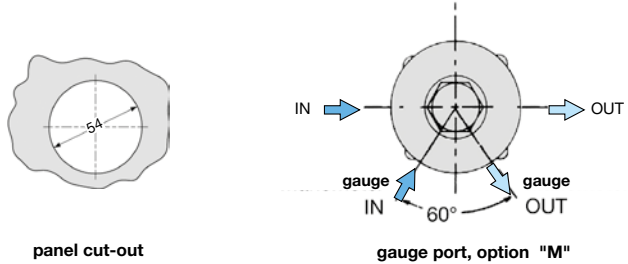
RH4

Special options, add the appropriate letter

booster version	1/2" NPT, 0...41 bar, brass, diaphragm control, P _{St.} = 5.8 bar	RH4-04J1
	piston control	RH4-04J2
non-relieving	without relieving function	RH4-0 . .K
stainless steel body		RH4-0 . .S
gauge port	1/4" NPT for inlet and outlet	RH4-0 . .M
brass pressure gauge	inlet side HM	outlet side RH4-0 . .MGM
SST pressure gauge	inlet side H	outlet side RH4-0 . .MG

Accessories, enclosed

mounting nut for panel mounting **62634**

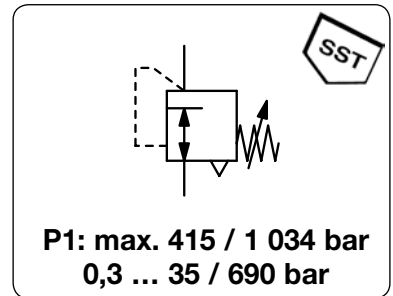


*1 at 280 bar supply pressure and 14 bar outlet pressure

PDF CAD
www.aircom.net

Order example:
RH4-03A

Description	High pressure regulator, piston operated, made of stainless steel, with high sensitivity, excellent accuracy and reliability.		
Media	compressed air and non-corrosive gases or liquids (non-relieving version)		
Supply Pressure	max. 690 bar optionally 415 bar or 1034 bar		
Accuracy	at supply pressure variation of 7 bar: < 100 mbar		
Adjustment	by black plastic adjustment dial		
Relieving Function	standard relieving, optional non-relieving		
Gauge Ports	no ports, optional 1/4" NPT for inlet and outlet pressure, shifted by 60°		
Temperature Range	-40° to 75°C / -40°F to 167°F		
Material	Body: stainless steel 316	Mounting position: any	
	Seal: NBR optional FKM	Spring Cage: stainless steel 300	
	Valve Seat: Vespel	Filter: 40 µm, stainless steel 300, brass by option U	
	Inner Valve: stainless steel 300	Relieving Valve: CTFE	



Dimensions			K _v -value	Flow rate	Connection thread	Pressure range	Order Number
A	B	ØC					
mm	mm	mm	(m³/h)	m³/h*1	l/min*1	NPT	bar

High Pressure Regulator 690 bar							relieving, compressed air, stainless steel, NBR	HP306
55	175	19	0,05	210	3600	1/4" NPT	0,3 ... 35	HP306-035
				230	3900	1/4" NPT	0,3 ... 55	HP306-055
				280	4800	1/4" NPT	0,7 ... 105	HP306-105
				320	5400	1/4" NPT	1,0 ... 175	HP306-175
				390	6500	1/4" NPT	1,7 ... 280	HP306-280
				420	7000	1/4" NPT	3,4 ... 415	HP306-415
				450	7500	1/4" NPT	14 ... 690	HP306-690



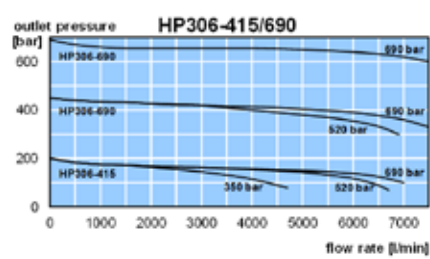
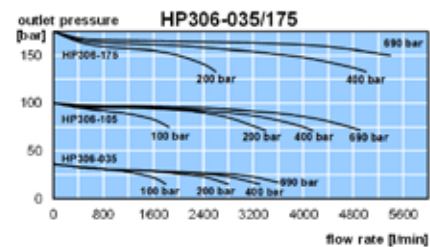
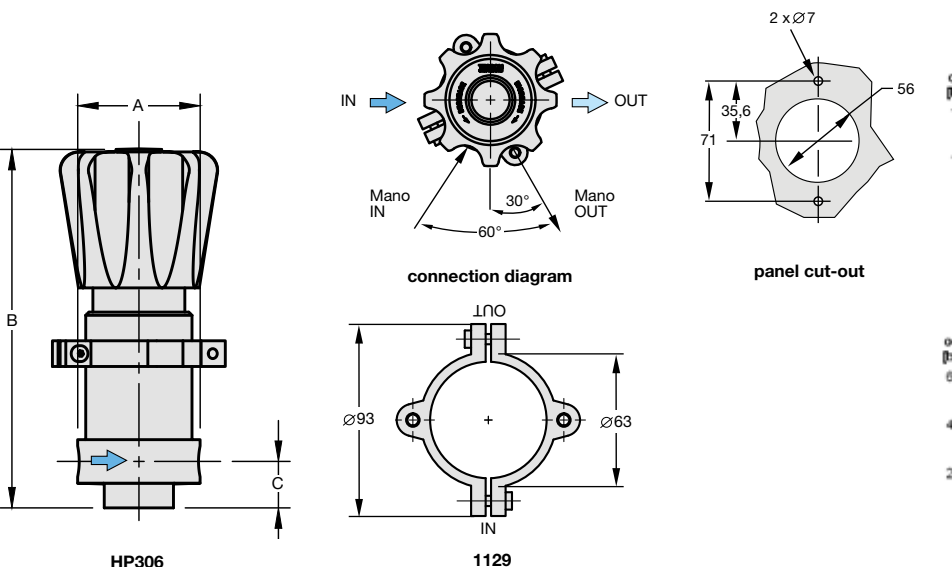
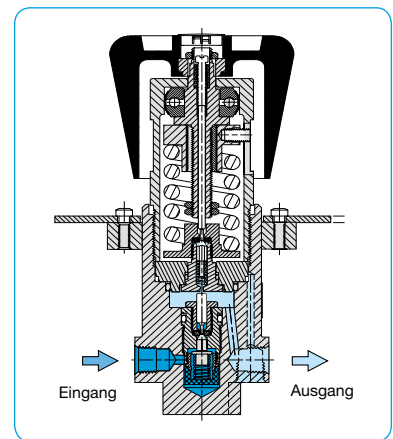
HP306, accessory: mounting bracket

Special options, add the appropriate letter

3/8" NPT	connection thread		HP306-...03
1/2" NPT	connection thread	not possible by option S with FKM elastomer	HP306-...04
non-relieving			HP306-...VK
FKM elastomer			HP306-...V
for oxygen	special cleaned, P1 < 200 bar		HP306-...15
inlet pressure 415 bar	brass up to pressure range 3,4 ... 415		HP306-...U
inlet pressure 1034 bar	stainless steel		HP306-...S
tapped exhaust	with FKM elastomer, 1/4" NPT		HP306-...VX12
gauge port	1/4" NPT for inlet and outlet		HP306-...M
gauge brass	inlet side MHM	outlet side	HP306-...MGM
gauge stainless steel	inlet side MH	outlet side	HP306-...MG

Accessories, enclosed

monting bracket	made of aluminium	1129
-----------------	-------------------	------



*1 at 690 bar inlet pressure, see diaphragm

Gauges: see chapter for measuring devices

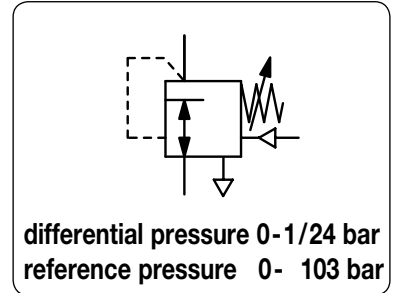
PDF CAD
www.aircom.net

Order example:
HP306-035

DIFFERENTIAL PRESSURE REGULATOR P1: MAX. 414 BAR, P2: 0-103 BAR

RH44

Description	The dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.		
Media	compressed air or gases according to the selected material		
Supply pressure	max. 414 bar	Outlet pressure	max. 103 bar
Exhaust	tapped exhaust 1/4" NPT	Control port	1/8" NPT
Adjustment	hexagonal screw for spring tension	Leakage	bubble-tight
Gauge port	not available	Mounting position	any
Temperature range	-26 °C to 74 °C / -14 °F to 165 °F		
Material	Body: brass, optionally stainless steel 302		
	Valve seat and gasket: CTFE, Vespel		
	O-Rings: FKM		

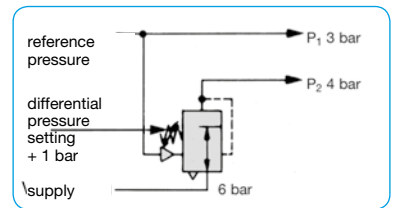


Dimensions			K _v -value (m³/h)	Flow rate l/min*1	Connection thread NPT	Differential pressure range bar	Order number
A mm	B mm	C mm					

Differential pressure regulator								P ₁ max: 414 bar, P _A max: 103 bar, brass relieving, P _s : 0 ... 103 bar, FKM / CTFE	RH44
76	212	46	0.7	10000	1/2" NPT	0... 1 bar		RH44-04A	
						0... 7 bar		RH44-04B	
						0... 14 bar		RH44-04C	
						0... 24 bar		RH44-04D	
76	212	46	2.0	21000	3/4" NPT	0... 1 bar		RH44-06A	
						0... 7 bar		RH44-06B	
						0... 14 bar		RH44-06C	
						0... 24 bar		RH44-06D	



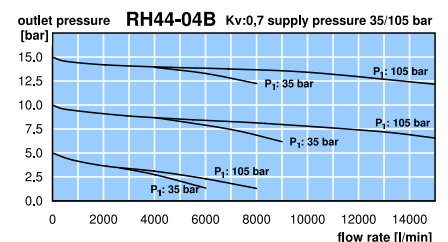
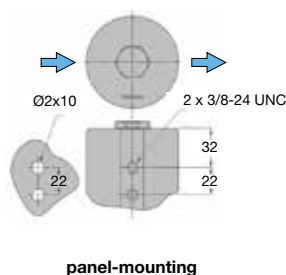
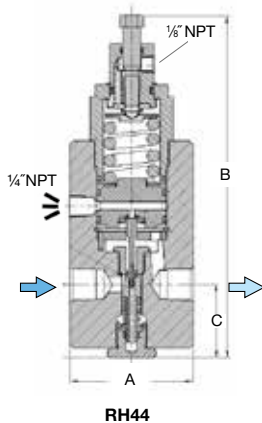
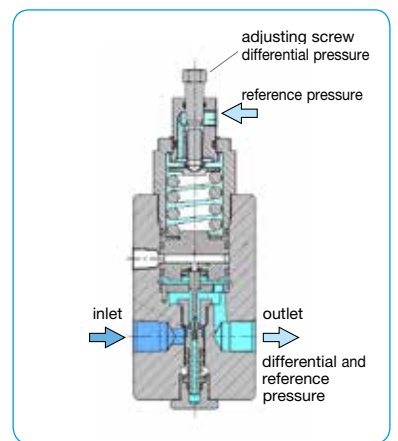
RH44



Example: differential pressure constant 1 bar

Special options, add the appropriate letter

stainless steel body RH44-0..S



*1 bei P₁ = 105 bar, P₂ = 15 bar and Δp = 1 bar

Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example:
RH44-04A

PRECISION PRESSURE REGULATOR

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
WITH CONSTANT BLEED	miniature	0.05 ... 2 / 8	G $\frac{1}{8}$	RI	5.02
	miniature	0.05 ... 2 / 8	G $\frac{1}{8}$ and flange	R90	5.03
	proven	0.02 ... 0.5 / 10	G $\frac{1}{4}$	11-818	5.06
	proven	0.14 ... 1.7 / 8	G $\frac{1}{4}$ and $\frac{1}{4}$ "NPT	53.10	5.07
	very precise	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10	5.08
	many variations	0.01 ... 0.14 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230	5.09
	small design	0.001 ... 0.14 / 7	G $\frac{1}{4}$ and G $\frac{3}{8}$	R300	5.10
	Nullmatic	0.002 ... 0.12 / 31	$\frac{1}{4}$ "NPT	R40	5.12
	high exhaust	0.01 ... 3 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03	5.14
	low pressure	0.002 ... 0.35 / 0.8	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110	5.15
	high volume flow	0.001 ... 0.7 / 10	G1 and G1 $\frac{1}{2}$	R102	5.16
	miniature	0.01 ... 0.35 / 7	M5 and flange	RT	1.10
	miniature	0.005 ... 0.05 / 1.5	G $\frac{1}{2}$	RR	3.10
	clean room environment, SST	0.05 ... 2 / 4	G $\frac{1}{8}$, M5	RE1	15.04
	stainless steel	0.02 ... 1.5 / 10	G $\frac{1}{4}$ and G $\frac{1}{2}$	R3150	15.05
	WITHOUT CONSTANT BLEED	robust	0.01 ... 0.5 / 16	G $\frac{1}{4}$	R217	5.04
robust, low cost		0.01 ... 0.6 / 3.5	G $\frac{1}{4}$ and G $\frac{3}{8}$	R216	5.05
non-relieving		0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10-N	5.08
non-relieving		0.01 ... 0.14 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230-K	5.09
small design		0.001 ... 0.14 / 7	G $\frac{1}{4}$ and G $\frac{3}{8}$	R300-K	5.10
high volume flow		0.03 ... 0.7 / 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R100	5.11
high-precision		0.03 ... 0.7 / 17	G $\frac{3}{8}$ - G $\frac{1}{4}$	R400	5.13
non-relieving		0.002 ... 0.35 / 0.8	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110-K	5.15
non-relieving		0.001 ... 0.7 / 10	G1 and G1 $\frac{1}{2}$	R102-K	5.16
differential pressure regulator		0.01 ... 1 / 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R650	6.02
miniature		0.2 ... 2 / 9	flange	R342	1.14
miniature		0.2 ... 2 / 9	G $\frac{1}{8}$ and G $\frac{1}{4}$	R344	1.14
miniature		0.1 ... 3 / 6	G $\frac{1}{8}$	R309	1.16
miniature		0.2 ... 2.5 / 8	G $\frac{1}{8}$	R307	1.18
miniature		0.2 ... 0.25 / 8	flange	R308	1.19



Precision



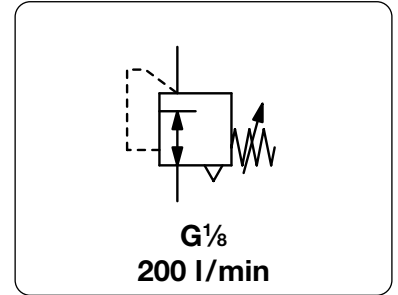
5

5

MINIATURE PRECISION PRESSURE REGULATOR ∇ 35 MM

RI

Description	Diaphragm precision pressure regulator of very small design and low air consumption
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Accuracy	response sensitivity: $\pm 0.2\%$ FS reproducibility: $\pm 0.5\%$ FS
Air consumption	max. 5 l/min at 10 bar supply pressure. Consumption depends on supply pressure.
Adjustment	by handwheel with locknut
Relieving function	relieving
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



Dimensions			Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. bar	G	bar	
mm	mm	mm					

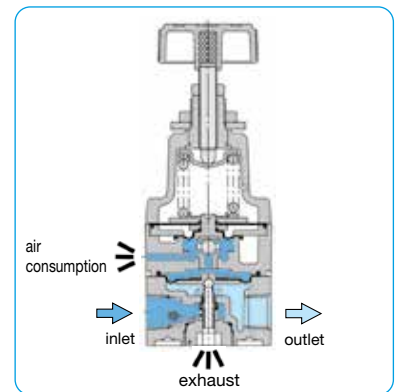
Precision pressure regulator	supply pressure max. 10 bar, relieving, with constant bleed, with mounting nut	RI
35 90 10 200 10 G $\frac{1}{8}$ 0.05...2		RI-01A
		RI-01B
		RI-01C



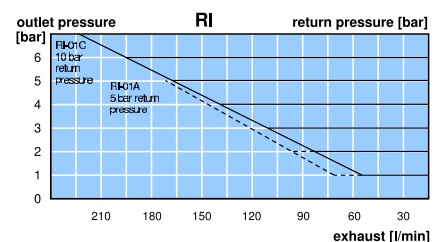
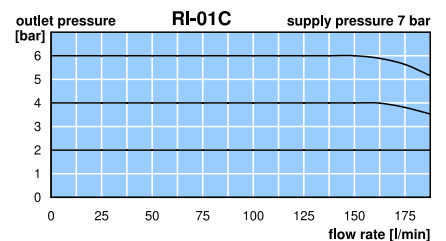
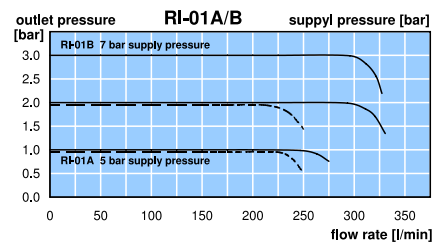
RI-01, with mounting nut
accessory: gauge

Accessories, enclosed

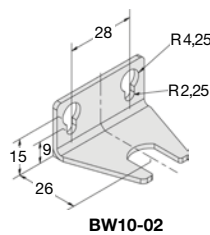
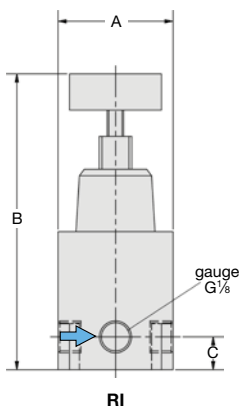
pressure gauge	\varnothing 23 mm, 0...*2 bar, G $\frac{1}{8}$	MA2301-...*2
mounting bracket	made of steel, mounting nut at the device	BW10-02



cross-section



Precision



*1 for compressed air: 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
RI-01A

Description Diaphragm precision pressure regulator of very small design and low air consumption compressed air or non-corrosive gases

Media max. 10 bar

Supply pressure response sensitivity: $\pm 0.2\%$ FS

Accuracy repeatability: $\pm 0.3\%$ FS

Air consumption supply sensitivity: 35 mbar for a 7 bar supply pressure change

Adjustment max. 3 l/min at 10 bar supply pressure. Consumption depends on supply pressure.

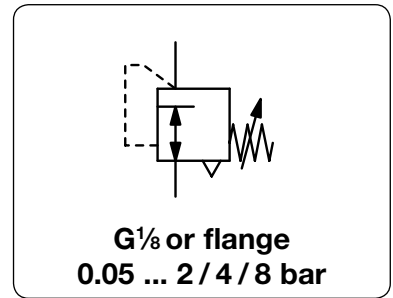
Relieving function by handwheel with locknut

Gauge port relieving

Mounting position G $\frac{1}{8}$ on both sides of the body, screw plug supplied

Temperature range any

Material 10 °C to 70 °C / 50 °F to 158 °F
 Body: zinc die-cast
 Elastomer: NBR/Buna-N
 Inner valve: stainless steel and brass



Dimensions			Flow rate	Supply pressure	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. bar	G / flange	bar	

Precision pressure regulator							supply pressure max. 10 bar, relieving, with constant bleed	R90
35	94	10	200	10	G $\frac{1}{8}$	0.05...2		R90-01A
						0.08...4		R90-01B
						0.10...8		R90-01C



R90

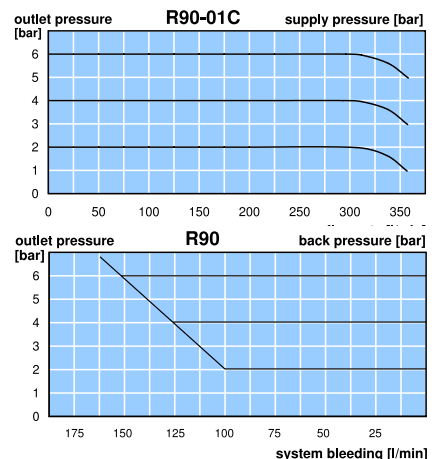
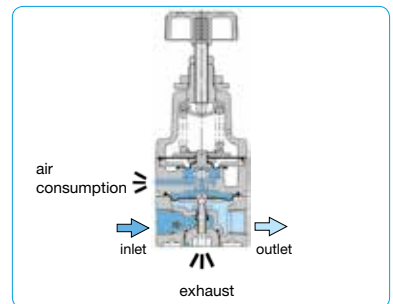
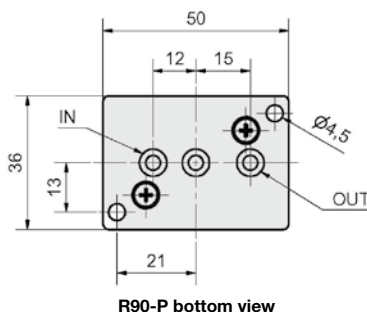
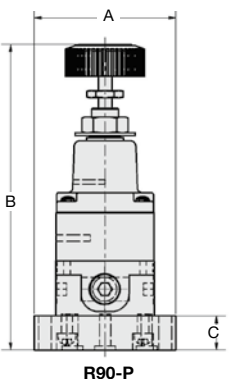
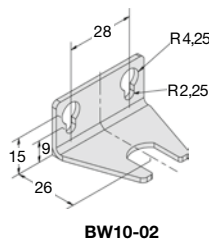
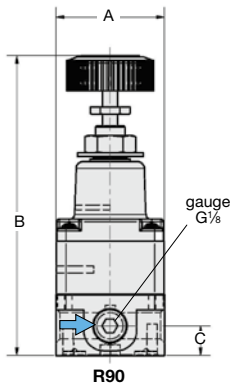
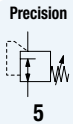
Precision pressure regulator with flange							supply pressure max. 10 bar, relieving, with constant bleed	R90-P
35	106	12	200	10	Flansch	0.05...2		R90-P1A
						0.08...4		R90-P1B
						0.10...8		R90-P1C



R90-P

Accessories, enclosed

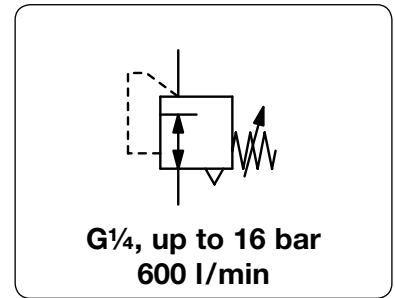
- pressure gauge \varnothing 23 mm, 0...*2 bar, G $\frac{1}{8}$ **MA2301-...*2**
- mounting bracket made of steel, mounting nut at the device **BW10-02**



*1 for compressed air : 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
 *2 04 = 0...4 bar, 10 = 0...10 bar

PRECISION REGULATOR WITHOUT CONSTANT BLEED, UP TO 16 BAR OUTLET PRESSURE R217

Description	Diaphragm pressure regulator with good regulation accuracy at varying volume flow.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 16 bar		
Accuracy	response sensitivity: < 350 mbar		
Air consumption	without constant bleed		
Adjustment	by handwheel with locknut, suitable for panel mounting		
Relieving function	relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C to 80 °C / 32 °F to 176 °F		
Material	Body: zinc die-cast	O-ring: NBR/Buna-N	
	Spring cage: zinc die-cast	Bottom screw: POM	
	Diaphragm: FKM		



Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Pressure range bar	Order number
A	B	C					

Precision pressure regulator							supply pressure max. 16 bar, relieving, without constant bleed	R217
82	148	20	0,3	36	600	G $\frac{1}{4}$	0,01 ... 0,5	R217-020
							0,01 ... 1	R217-02A
							0,20 ... 3	R217-02B
							0,40 ... 6	R217-02C
							0,50 ... 10	R217-02D
							0,70 ... 16	R217-02E

Special options, add the appropriate letter

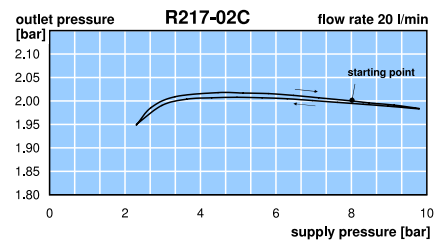
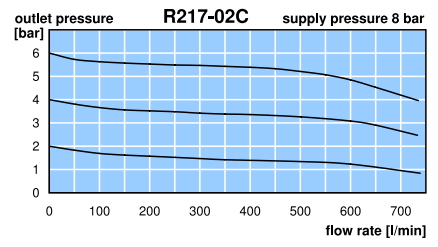
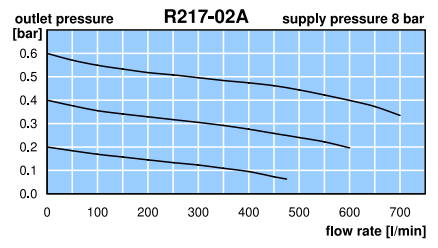
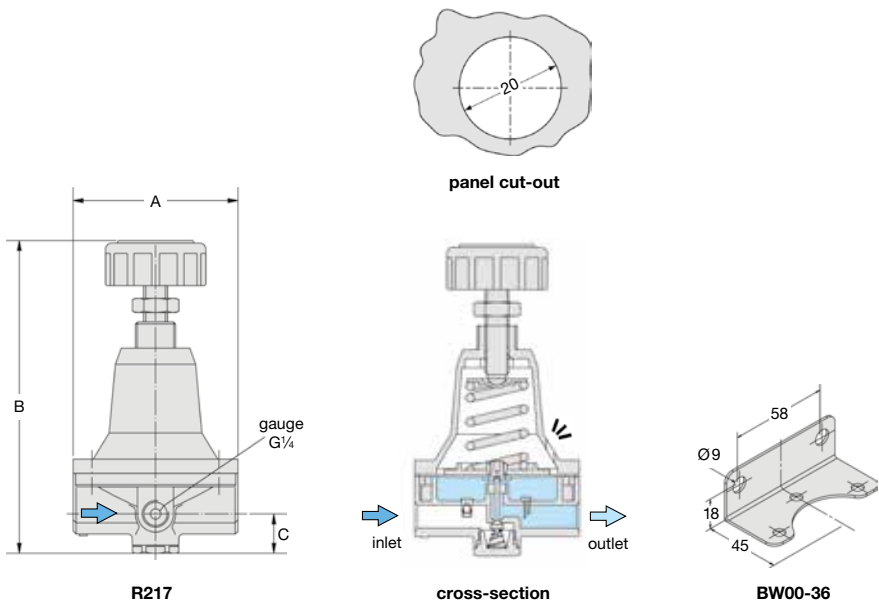
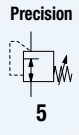
free of grease and oil specially cleaned R217-0..L



Accessories, enclosed

pressure gauge Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$ MA6302-...*2

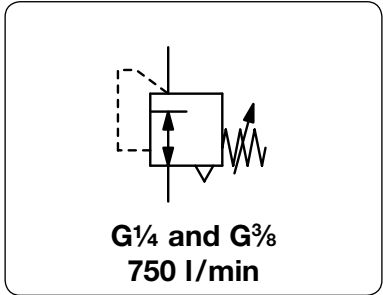
mounting bracket made of steel BW00-36



*1 at 8 bar supply pressure, 6 bar outlet pressure und 1 bar pressure drop
*2 01 = 0...1 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

PRECISION REGULATOR WITHOUT CONSTANT BLEED, UP TO 3.5 BAR OUTLET PRESSURE R216

Description	Diaphragm pressure regulator with good regulation accuracy at varying volume flow, especially at low pressure.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 21 bar		
Accuracy	response sensitivity: < 100 mbar		
Air consumption	without constant bleed		
Adjustment	by T-handle with locknut, mounting bracket not possible by handwheel, suitable for panel mounting		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{3}{8}$ on the bottom side of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for handwheel version 0 °C to 80 °C / 32 °F to 176 °F for T-handle version		
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N	Bottom screw: brass



Dimensions			Adjustment	Kv-value	Flow rate		Connection thread	Pressure range	Order number
A	B	C	by	(m ³ /h)	m ³ /h*1	l/min*1	G	bar	

Precision pressure regulator									
supply pressure max. 21 bar, relieving, without constant bleed									
108	162	32	T-handle	0.39	42	700	G $\frac{1}{4}$	0.01 ... 0.6	R216-02E
								0.01 ... 1.6	R216-02F
								0.01 ... 3.5	R216-02H
				0.42	45	750	G $\frac{3}{8}$	0.01 ... 0.6	R216-03E
								0.01 ... 1.6	R216-03F
								0.01 ... 3.5	R216-03H
108	162	32	handwheel	0.39	42	700	G $\frac{1}{4}$	0.01 ... 0.6	R216-02EP
			for panel mounting					0.01 ... 1.6	R216-02FP
								0.01 ... 3.5	R216-02HP
				0.42	45	750	G $\frac{3}{8}$	0.01 ... 0.6	R216-03EP
								0.01 ... 1.6	R216-03FP
								0.01 ... 3.5	R216-03HP



R216-02F

Special options, add the appropriate letter

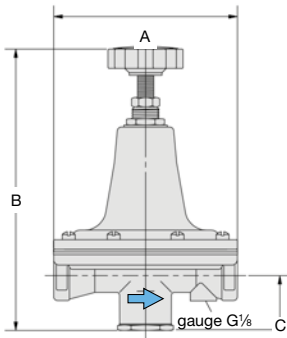
non-relieving	without relieving function	R216-0...K
NPT	connection thread	R216-0...N
free of oil and grease	specially cleaned	R216-0...L

Accessories, enclosed

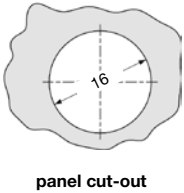
pressure gauge	Ø 63 mm, 0... ² bar, G $\frac{1}{4}$, connection parts required	MA6302-...²
connection parts	for pressure gauge	AM-02
mounting bracket	made of steel, mounting nut at the device for R216-0...P	BW20-02



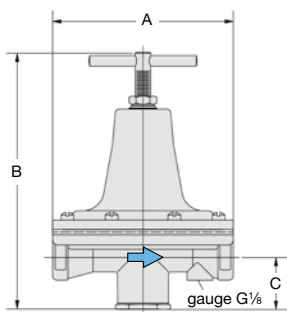
R216-03FP for panel mounting



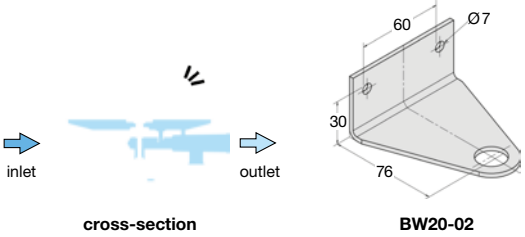
R216-...P



panel cut-out

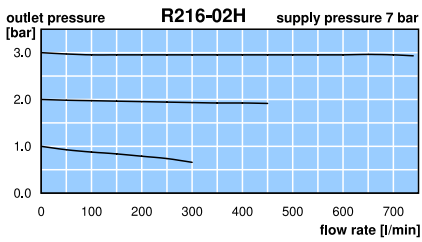
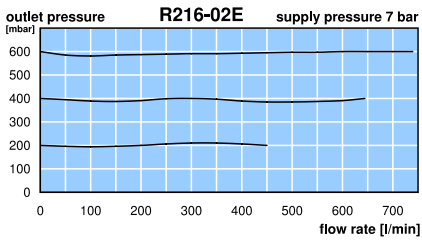


R216



cross-section

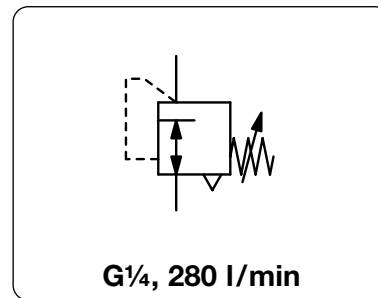
BW20-02



*1 at 7 bar supply pressure and 3 bar outlet pressure

*2 01 = 0...1 bar, 02 = 0...2,5 bar, 04 = 0...4 bar

Description	Precision pressure regulator designed for precise pressure control in the event of changes in flow and supply pressure. Due to constant bleed slight blow-off sounds existing.	
Media	dry, oil-free and 25 µm filtered compressed air	
Supply pressure	max. 8 bar for 0.02...0.5 bar, max. 10 bar for 0.07...4 bar, max. 14 bar for 0.4...10 bar	
Accuracy	at varying supply pressures: < 20 mbar pressure deviation at varying volume flows: < 30 mbar pressure deviation at 5 °C / K temperature variation: < 3 mbar pressure deviation	
Air consumption	max. 2 l/min, subject to outlet pressure	
Adjustment	by handwheel for panel mounting, optionally by spindle	
Relieving function	relieving, 3 mm exhaust diameter	
Gauge port	G¼ on both sides of the body, optionally without gauge port	Mounting position any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: zinc die-cast Elastomer: NBR/Buna-N	Inner valve: brass, plastic



Dimensions			Description	P ₁ max.	Flow rate	Connection thread	Pressure range	Order number
A	B	C						
mm	mm	mm		bar	l/min*1	G	bar	

Precision pressure regulator								
P1: max. 8 / 10 / 14 bar, relieving, with constant bleed, accuracy < 30 mbar, K _v = 0.16 m³/h								
55	137	13	handwheel	8	280	G¼	0.02 ... 0.5	11-818-999
			w/o gauge port	10			0.07 ... 4.0	11-818-100
				14			0.40 ... 10	11-818-110
55	137	13	handwheel	8	280	G¼	0.02 ... 0.5	11-818-987
			with gauge port	10			0.07 ... 4.0	11-818-993
				14			0.40 ... 10	11-818-991
55	137	13	spindle	8	280	G¼	0.02 ... 0.5	11-818-998
			w/o gauge port	10			0.07 ... 4.0	11-818-101
				14			0.40 ... 10	11-818-112

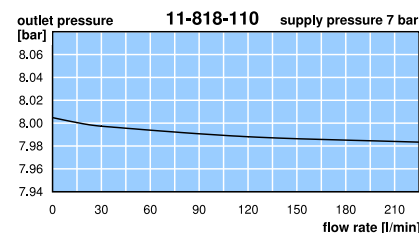
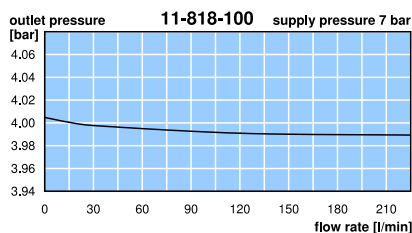
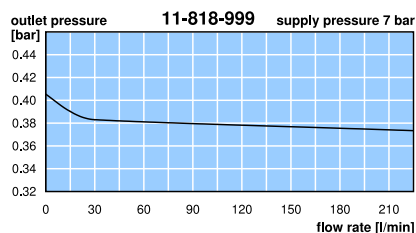
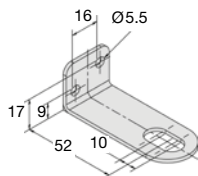
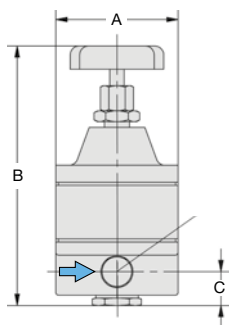
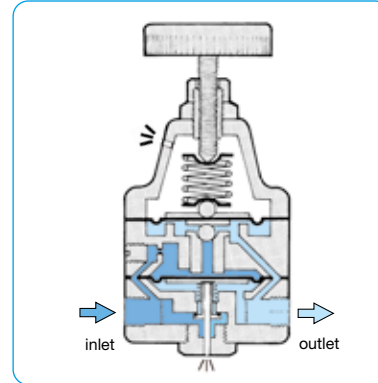


Special options, add the appropriate letter

tamper-proof cap made of brass, adjustment by screwdriver, total height 108 mm **11-818-...T**

Accessories, enclosed

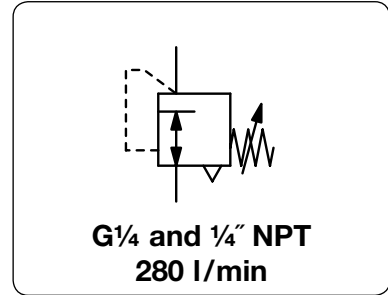
pressure gauge Ø 50 mm, 0...*2 bar, G¼ **MA5002-...*2**
mounting bracket made of steel, mounting nut at the device **BW12-01**
tamper-proof cap for metal sheet thickness from 2.5 up to 6 mm **3081-01**



*1 at 7 bar supply pressure and 1.4 bar outlet pressure

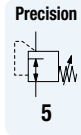
*2 01 = 0...1 bar, 04 = 0...4 bar, 10 = 0...10 bar

Description	Regulator of proven reliability and durability designed for precise pressure regulation in the event of changes in flow, supply pressure and temperature. Slight exhaust sounds are normal.	
Note	To avoid leaks the mounting nut must be screwed tight.	
Media	dry, oil-free and 25 µm filtered compressed air	
Supply pressure	max. 10 bar	
Accuracy	at varying supply pressures: < 1 mbar pressure deviation at varying volume flows: < 5 mbar pressure deviation	
Air consumption	max. 2 l/min, subject to outlet pressure	
Adjustment	by handwheel with locknut, for panel mounting	Mounting position any
Relieving function	relieving, the exhaust valve's diameter is six times greater than the regulating valve's diameter	
Gauge port	G¼ or ¼" NPT on both sides of the body, identical with the connection thread	
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: zinc die-cast Elastomer: NBR/Buna-N	Measuring capsule: beryllium copper



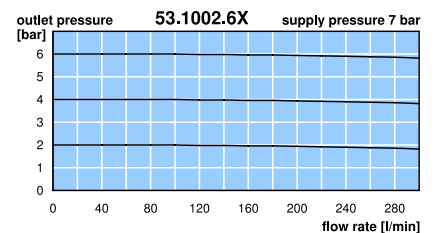
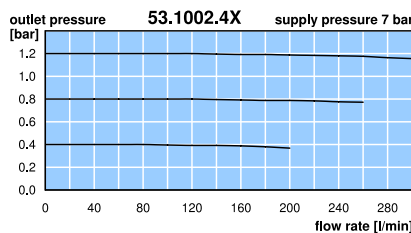
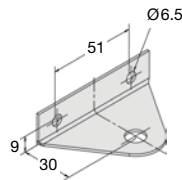
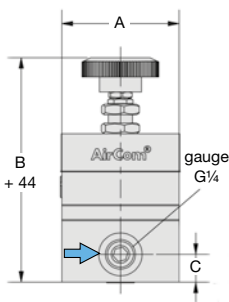
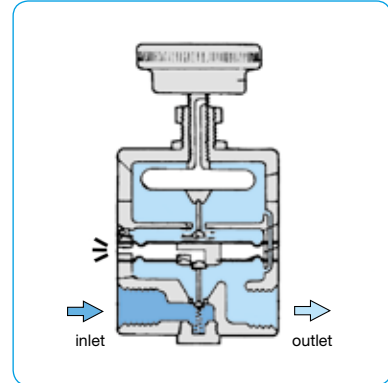
Dimensions			Description	Kv-value	Flow rate	Connection thread	Pressure range	Order number
A	B	C						
mm	mm	mm		(m³/h)	m³/h*1	l/min*1	G/NPT	bar

Precision pressure regulator			supply pressure max. 10 bar, relieving, with constant bleed, accuracy 5 mbar				Manostat		
54	70	14	standard	0.16	17	280	G¼	0.14 ... 1.7	53.1002.4X
								0.14 ... 4.0	53.1002.5X
								0.14 ... 8.0	53.1002.6X
54	70	14	standard	0.16	17	280	¼" NPT	0.14 ... 1.7	53.1002.00
								0.14 ... 4.0	53.1003.00
								0.14 ... 8.0	53.1004.00



Special options, add the appropriate letter
tamper-proof cap aluminium, adjustment by screwdriver, total height 109 mm 53.1. T

Accessories, enclosed
pressure gauge Ø 50 mm, 0 ... *2 bar, G¼ **MA5002-...*2**
connecting parts gauge for NPT ports, adapter ¼" NPT - G¼ female **VP-0202N**
mounting bracket made of steel, mounting nut at the device **BW11-01**



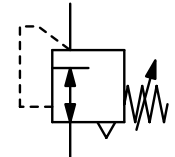
*1 at 7 bar supply pressure and 1.4 bar outlet pressure
 *2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
53.1002.4X

Description	The diaphragm pressure regulator provides precision regulation in high flow applications. A balanced inner valve, sensitive rolling diaphragm and carefully positioned aspirator tube ensure constant outlet pressure even with changing supply pressure and flow fluctuations.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 35 bar	
Accuracy	response sensitivity: < 2 mbar	
Air consumption	max. 6 l/min, subject to outlet pressure	
Adjustment	by handwheel with locknut	
Relieving function	relieving, optionally non-relieving	
Relief capacity	150 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G $\frac{1}{4}$ on both sides of the body, optionally $\frac{1}{4}$ " NPT	
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast	Inner valve: stainless steel and brass
	Elastomer: NBR/Buna-N, optionally FKM	



**G $\frac{1}{4}$ up to G $\frac{1}{2}$, 1000 l/min
10 ... 140 mbar / 28 bar**

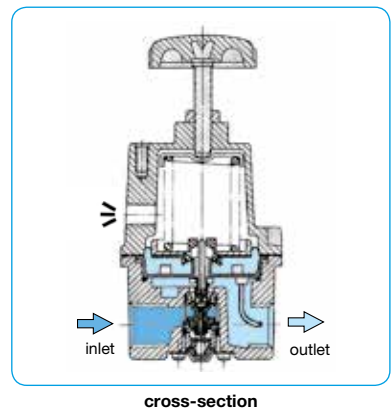
Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Pressure range bar	Order number *
A	B	C					

Precision pressure regulator							supply pressure max. 35 bar, relieving, with constant bleed	Model 10
67	169	26	0.64	60	1000	G $\frac{1}{4}$	0.01 ... 0.14	10212H
							0.01 ... 0.7	10222H
							0.01 ... 1.4	10202H
							0.01 ... 2.1	10232H
							0.07 ... 4.1	10242H
							0.14 ... 10	10262H
							0.20 ... 14	10272H
67	178	26	0.64	60	1000	G $\frac{1}{4}$	0.30 ... 21	10282H
							0.30 ... 28	10292H



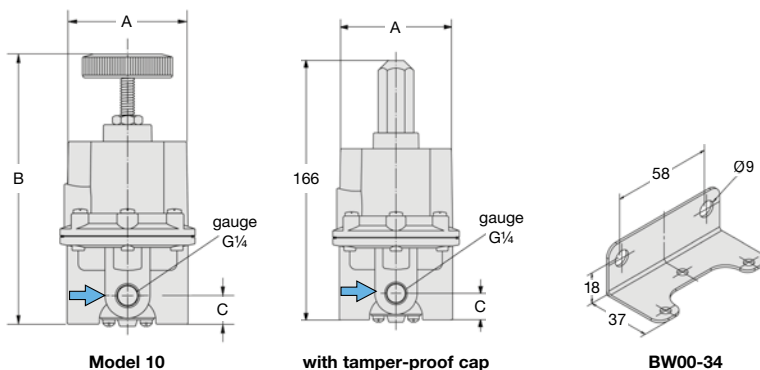
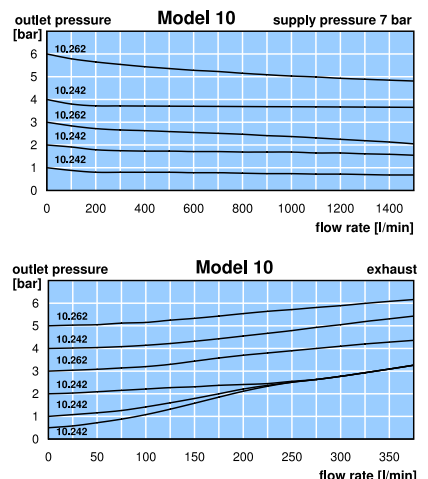
Special options, add the appropriate letter

G$\frac{3}{8}$	connection thread	102.3H
G$\frac{1}{2}$	connection thread, recommended for mbar-range	102.4H
NPT	connection thread	102.2
non-relieving	and without constant bleed	102.2.N
reduced bleeding	approx. 2 l/min	102.2.B
for small flow rate	high constant bleed for more sensitivity	102.2.L
tapped exhaust	G $\frac{1}{4}$ connection thread	102.2.E
FKM elastomer		102.2.J
tamper-proof cap	aluminium, adjustment by screwdriver, total height 166 mm	102.2.T
for oxygen	specially cleaned	102.2.SC
non-ferrous metal-free	FKM elastomer	102.2.X63



Accessories, enclosed

pressure gauge	Ø 63 mm, 0 ... 160 mbar, G $\frac{1}{4}$, capsule type	MA6302-C2
pressure gauge	Ø 50 mm, 0 ... *2 bar, G $\frac{1}{4}$, Bourdon tube	MA5002-...*2
gauge connectors	for NPT ports, adapter $\frac{1}{4}$ " NPT - G $\frac{1}{4}$ female	VP-0202N
mounting bracket	made of steel	BW00-34



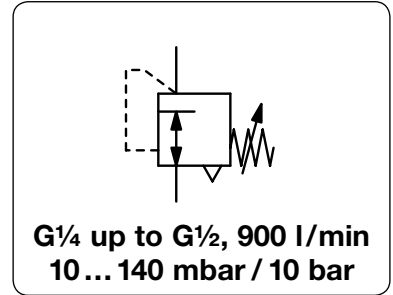
*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 01 = 0 ... 1 bar, 02 = 0 ... 2.5 bar, 06 = 0 ... 6 bar, 10 = 0 ... 10 bar, 16 = 0 ... 16 bar, 25 = 0 ... 25 bar, 60 = 0 ... 60 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
10212H

Description	The diaphragm pressure regulator provides precision regulation in high flow applications. A balanced inner valve, sensitive rolling diaphragm and carefully positioned aspirator tube ensure constant outlet pressure even with changing supply pressure and flow fluctuations.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 17 bar	
Accuracy	response sensitivity: < 4 mbar	
Air consumption	max. 6 l/min, subject to outlet pressure	
Adjustment	by handwheel with locknut	
Relieving function	relieving, optionally non-relieving	
Relief capacity	110 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G $\frac{1}{4}$ on both sides of the body, optionally $\frac{1}{4}$ " NPT	
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N	Mounting position any Inner valve: stainless steel and brass



Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Pressure range bar	Order number
A	B	C					

Precision pressure regulator							supply pressure max. 17 bar, relieving, with constant bleed	R230
67	154	16	0.5	54	900	G $\frac{1}{4}$	0.01 ... 0.14	R230-020
							0.01 ... 1.0	R230-02A
							0.01 ... 2.0	R230-02B
							0.07 ... 4.0	R230-02C
							0.14 ... 10	R230-02D

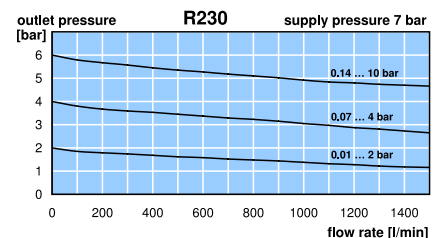
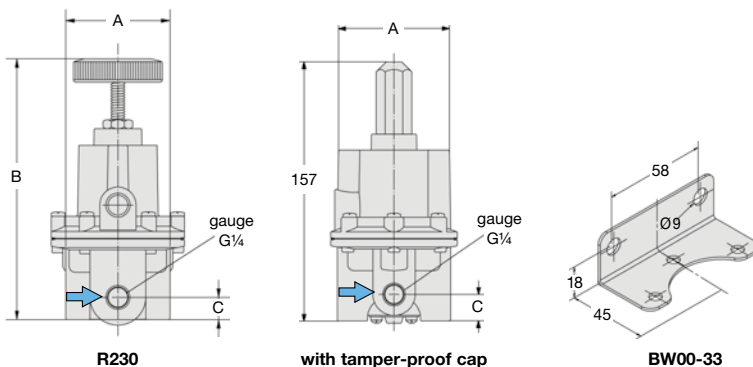
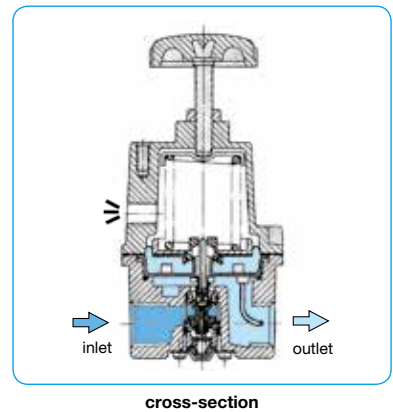


Special options, add the appropriate letter

G $\frac{3}{8}$	connection thread	R230-03 .
G $\frac{1}{2}$	connection thread, recommended for mbar range	R230-04 .
NPT	connection thread	R230-0 . .N
non-relieving	and without constant bleed	R230-0 . .K
reduced bleeding		R230-0 . .X19
tapped exhaust	connection thread G $\frac{1}{4}$	R230-0 . .X12
tamper-proof cap	aluminium, adjustment by screwdriver, total height 157 mm	R230-0 . .T
check valve	quick exhaust at supply pressure removal	R230-0 . .X80

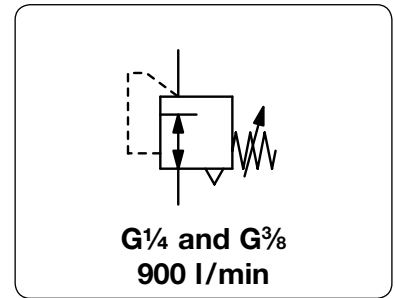
Accessories, enclosed

pressure gauge	Ø 63 mm, 0...160 mbar, G $\frac{1}{4}$, capsule type	MA6302-C2
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube	MA5002-...*2
gauge connectors	NPT connection thread, adapter $\frac{1}{4}$ " NPT to G $\frac{1}{4}$ female	VP-0202N
mounting bracket	made of steel	BW00-33



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 06 = 0...6 bar, 10 = 0...10 bar

Description	Diaphragm pressure regulator of small and lightweight design with high flow capacity. It provides sensitive adjustment accurate to 2 mbar.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 18 bar	
Accuracy	setting accuracy:	< 2 mbar
	response sensitivity:	< 2 mbar
Air consumption	max. 3 l/min, subject to outlet pressure	
Adjustment	by handwheel with locknut	
Relieving function	relieving	
Relief capacity	55 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied	
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body:	aluminium die-cast
	Inner valve:	stainless steel, brass and steel
	Elastomer:	NBR/Buna-N, optionally FKM

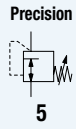


Dimensions			K _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Pressure range bar	Order number
A	B	C					

Precision pressure regulator							supply pressure max. 18 bar, relieving with constant bleed	R300
57	133	25	0.5	54	900	G $\frac{1}{4}$	0.001 ... 0.14	R300-020
							0.01 ... 0.7	R300-021
							0.03 ... 2.0	R300-02A
							0.07 ... 4.0	R300-02B
							0.14 ... 7.0	R300-02C
57	133	25	0.5	54	900	G $\frac{3}{8}$	0.001 ... 0.14	R300-030
							0.01 ... 0.7	R300-031
							0.03 ... 2.0	R300-03A
							0.07 ... 4.0	R300-03B
							0.14 ... 7.0	R300-03C



R300

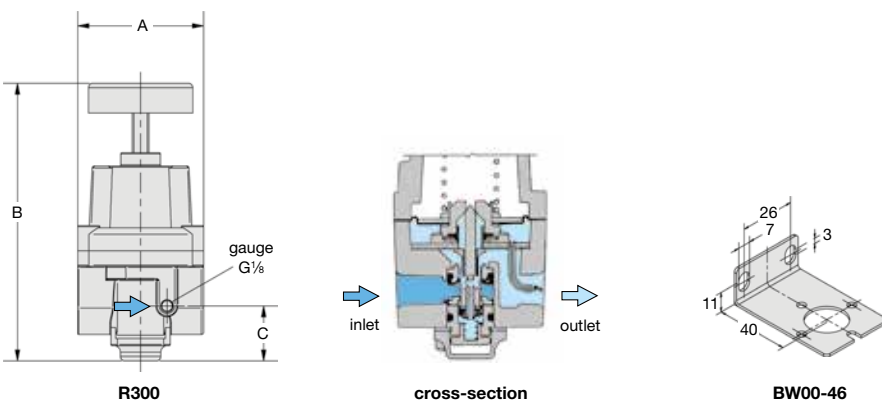
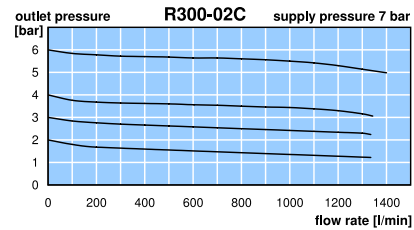
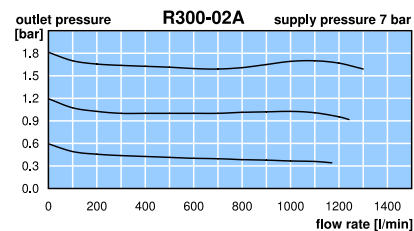
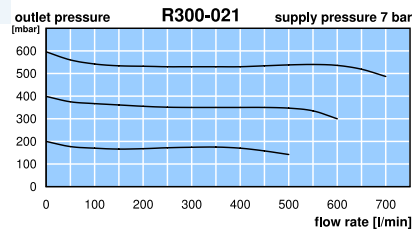
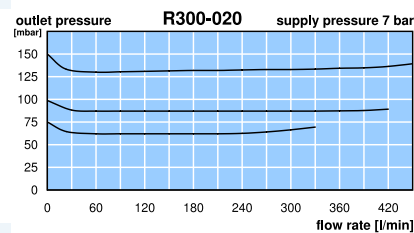


Special options, add the appropriate letter

without constant bleed	non-relieving, for small flow rate	R300-0...K
NPT	connection thread	R300-0...N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 141 mm	R300-0...T
FKM elastomer		R300-0...V
for oxygen	specialy cleaned, with oxygen grease	R300-0...K15

Accessories, enclosed

pressure gauge	Ø 63 mm, 0 ... 160 mbar, G $\frac{1}{4}$ -connection parts required	MA6302-C2
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{8}$	MA5001-...*2
gauge connection parts	for MA6302-C2	AM-04
mounting bracket	made of steel	BW00-46

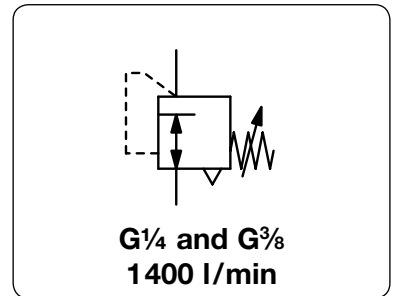


*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, C2 = 160 mbar

PRECISION PRESSURE REGULATOR WITHOUT CONSTANT BLEED

R100

Description	Regulator provides precision regulation in high flow and high relief applications. A sensitive rolling diaphragm and balanced inner valve assure constant outlet pressure even with changing supply pressure and flow fluctuations.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 18 bar		
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation response sensitivity: < 2 mbar		
Air consumption	without constant bleed		
Adjustment	by handwheel with locknut		
Relieving function	relieving		
Relief capacity	200 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied		
Temperature range	0 °C to 80 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: zinc die-cast	Inner valve: aluminium, brass and neoprene	Mounting position any Elastomer: NBR/Buna-N



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

Precision pressure regulator						supply pressure max. 18 bar, relieving, without constant bleed	R100
54	129	25	0.73	78	1300	G $\frac{1}{4}$	0.03 ... 0.7 0.03 ... 2.0 0.07 ... 4.0 0.14 ... 10 R100-021 R100-02A R100-02B R100-02C
54	129	25	0.78	84	1400	G $\frac{3}{8}$	0.03 ... 0.7 0.03 ... 2.0 0.07 ... 4.0 0.14 ... 10 R100-031 R100-03A R100-03B R100-03C



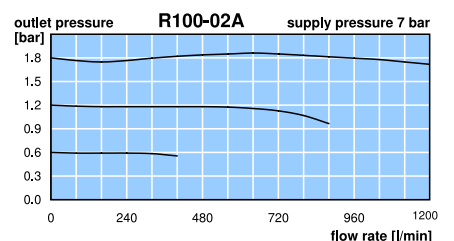
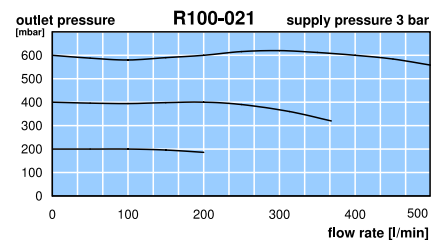
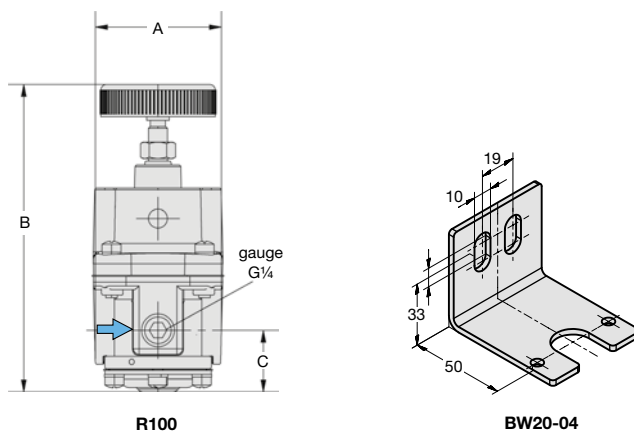
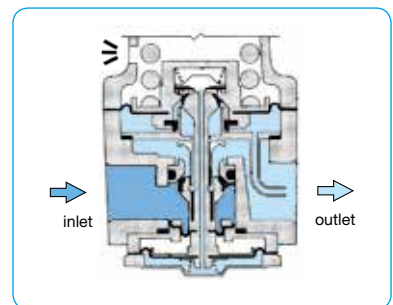
R100

Special options, add the appropriate letter

NPT	connection thread	R100-0. . N
tamper-proof cap	of aluminium, adjustment by screwdriver, total height 139 mm	R100-0. . T

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002- . . *2
mounting bracket	made of steel	BW20-04



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R100-021

Description Highly sensitive, two-step precision pressure regulator working in the flapper-nozzle principle. Solid construction for low-maintenance operation with compressed air or non-corrosive gases.

Booster version In option A version the regulator can also be controlled by pilot pressure up to 7 bar in addition to range spring control. Thereby the regulator becomes a volume booster with double loop, parallel zero point shift

Supply pressure minimum: 0.3 bar above outlet pressure maximum: see chart

Air consumption Constant bleed only when flow is circulating. The greater the difference between supply and outlet pressure the greater is the air consumption, e.g. 9 bar inlet and 7 bar outlet resulting in 3 l/min air consumption.

Exhaust 50 l/min at 1.7 bar outlet pressure and 20 mbar overpressure to outlet pressure

Pressure stability 10 mbar pressure drop when changing flow rate from "0" to "max".

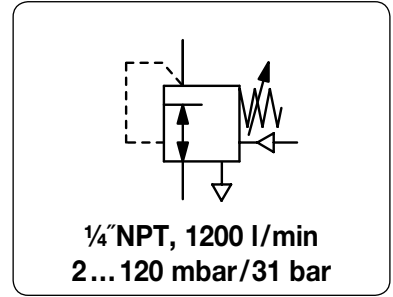
Setting accuracy < 0.03 % outlet pressure. Ten adjusting knob turns for the setting of the whole adjustment range.

Gauge port 1/4" NPT on both sides, screw plugs supplied **Mounting position:** any

Temperature range Operating pressure : -4 °C to 80 °C / 25 °F to 176 °F Storage temperature: -20 °C to 100 °C / -4 °F to 212 °F

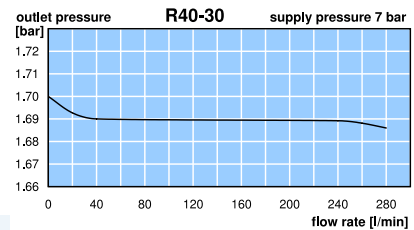
Temperature sensitivity 1 % pressure deviation at temperature change of 30 K, 0.1 % deviation for isotherm spring (please inquire)

Material fluid-contact: brass, stainless steel, neoprene, aluminium and zinc



Dimensions	Flow rate	Supply pressure	Connection	Pressure range	Order number
Höhe	Ø	recommended	thread		
mm	mm	bar*2	NPT	mbar / bar	

Precision regulator "Nullmatic"						K _v = 0.16 K _v = 0.66 for version „H“	R40
189	86	300	0.7	1.7	1/4" NPT	2...120 mbar	R40-2
189	86	300	3.5	7	1/4" NPT	10...500 mbar	R40-7
189	86	300	5	10	1/4" NPT	0.03... 1 bar	R40-15
189	86	300	8	10	1/4" NPT	0.07... 2 bar	R40-30
189	86	300	8	10	1/4" NPT	0.07...3.5 bar	R40-50
189	86	1200	8	10	1/4" NPT	0.07...3.5 bar	R40-50H
189	86	300	10	35	1/4" NPT	0.1... 7 bar	R40-100
189	86	1200	10	35	1/4" NPT	0.1... 7 bar	R40-100H
192	86	300	17	35	1/4" NPT	0.2... 14 bar	R40-200
192	86	300	24	35	1/4" NPT	0.5... 21 bar	R40-300
192	86	300	35	35	1/4" NPT	1... 31 bar	R40-450

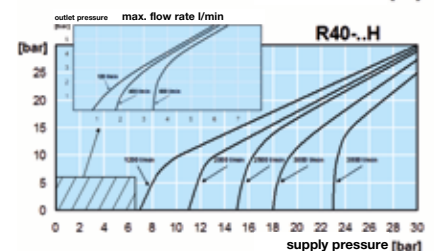
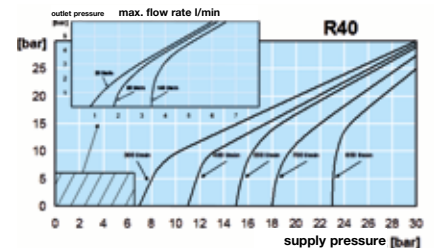
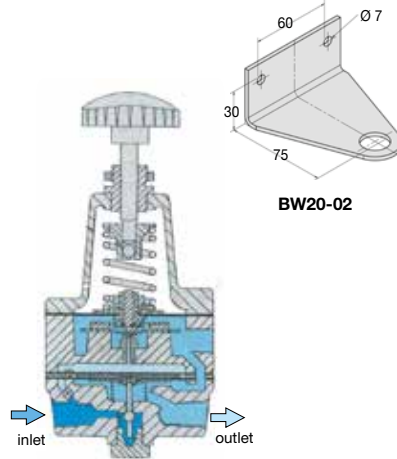
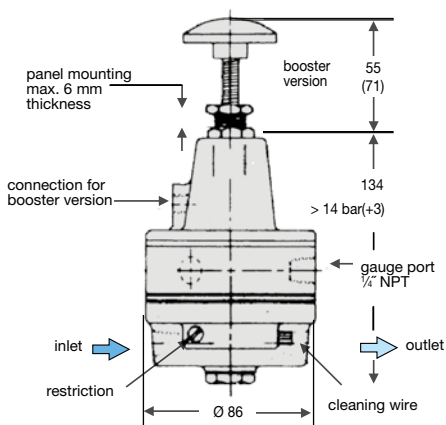
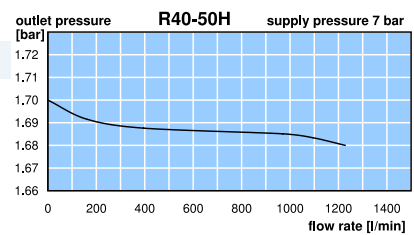


Special options, add the appropriate letter

volume booster version: up to max. 7 bar pilot pressure R40A-...

Accessories, enclosed

- pressure gauge Ø 50 mm, 0...*2 bar, G1/4 MA5002-...*3
- pressure gauge Ø 63 mm, 0... 160 mbar, G1/4-connection parts required for R40-2 MA6302-C2
- gauge connectors for NPT ports, adapter 1/4" NPT to G1/4 female VP-0202N
- mounting bracket BW20-02



*1 at 7 bar supply pressure, 1.7 bar outlet pressure and 20 mbar pressure drop
*2 lowest outlet pressure will only be reached when applying the recommended inlet pressure
*3 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

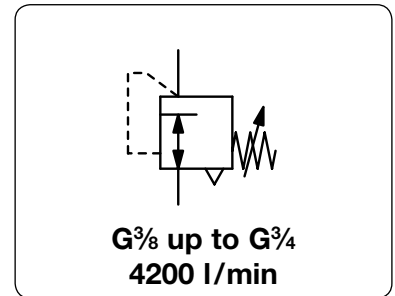
PDF CAD
www.aircom.net

Order example:
R40-2

PRECISION PRESSURE REGULATOR WITHOUT CONSTANT BLEED

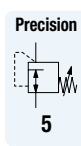
R400

Description	The diaphragm regulator provides high-precision regulation in high flow and high relief applications. A sensitive rolling diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 18 bar	
Accuracy	response sensitivity: < 2 mbar	
Air consumption	without constant bleed	
Adjustment	by handwheel with locknut	
Relieving function	relieving	
Relief capacity	1000 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast	Elastomer: NBR/Buna-N, optionally FKM
	Inner valve: stainless steel, brass, aluminium and steel	

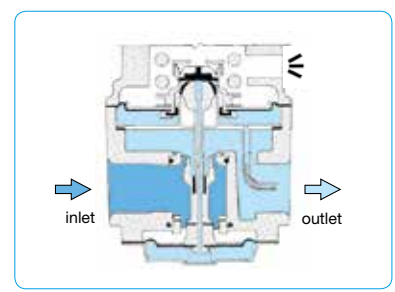


Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

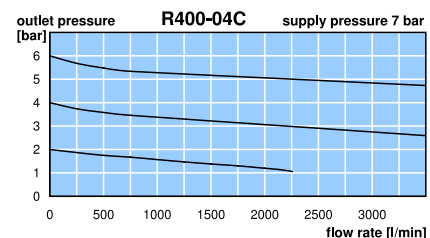
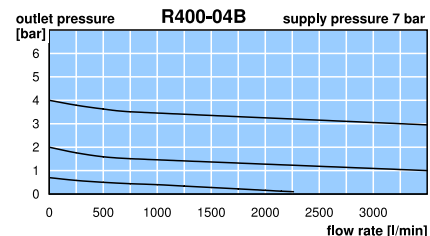
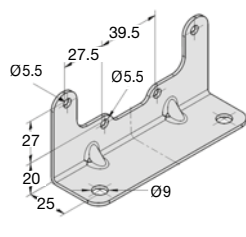
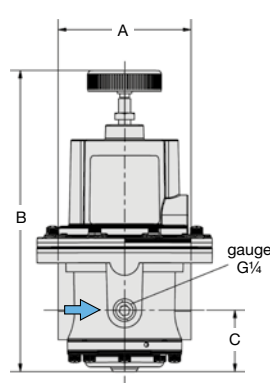
Precision pressure regulator							supply pressure max. 18 bar, relieving, without constant bleed	R400
89	206	39	2.12	228	3800	G $\frac{3}{8}$	0.03 ... 0.7	R400-031
							0.03 ... 2.0	R400-03A
							0.07 ... 4.0	R400-03B
							0.15 ... 10	R400-03C
							0.35 ... 17	R400-03D
89	206	39	2.23	240	4000	G $\frac{1}{2}$	0.03 ... 0.7	R400-041
							0.03 ... 2.0	R400-04A
							0.07 ... 4.0	R400-04B
							0.15 ... 10	R400-04C
							0.35 ... 17	R400-04D
89	206	39	2.34	252	4200	G $\frac{3}{4}$	0.03 ... 0.7	R400-061
							0.03 ... 2.0	R400-06A
							0.07 ... 4.0	R400-06B
							0.15 ... 10	R400-06C
							0.35 ... 17	R400-06D



Special options, add the appropriate letter		
tapped exhaust	connection thread G $\frac{1}{4}$	R400-0 . . X12
NPT	connection thread	R400-0 . . N
tamper-proof cap	of aluminium, adjustment by screwdriver, total height 295 mm	R400-0 . . T
FKM elastomer	up to 10 bar	R400-0 . . V



Accessories, enclosed		
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-...*2
mounting bracket	made of steel	BW00-47

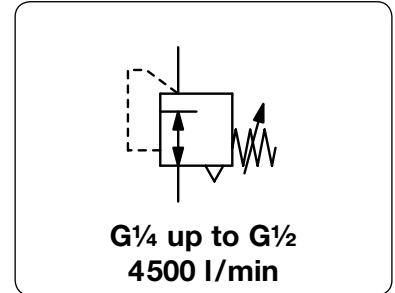


Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R400-031

Description	Regulator provides precision regulation in high flow and high relief applications. A sensitive rolling diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations. The regulator is silicone-free and suitable for panel mounting.	
Media	oil-free and 5 µm filtered compressed air or non-corrosive gases	
Supply pressure	max. 16 bar	
Accuracy	at supply pressure change from 2 bar to 7 bar: < 6 mbar pressure deviation at volume flow change from 0 l/min to 20 l/min: < 20 mbar pressure deviation response sensitivity: < 4 mbar	
Air consumption	< 1.5 l/min at P _i = 5 bar, < 2 l/min at P _i = 7 bar, < 4 l/min at P _i = 10 bar, < 1% of volume flow	
Adjustment	by handwheel with locknut, suitable for panel mounting	
Relieving function	relieving	
Relief capacity	700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G¼ on both sides of the body, one screw plug supplied	
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -35 °C / -31 °F	
Material	Body: zinc die-cast Elastomer: NBR/Buna-N	



Dimensions			K _v -value (m³/h)	Flow rate		Connection thread G	Pressure range bar	Order number
A	B	C		m³/h*1	l/min*1			

Precision pressure regulator								supply pressure max. 16 bar, relieving, with constant bleed	R03
82	200	41	2.1	198	3300	G¼*3	0.01 ... 3	R03-02A	
							0.02 ... 5	R03-02B	
							0.04 ... 7	R03-02C	
							0.05 ... 10	R03-02D	
82	200	41	2.4	228	3800	G¾*3	0.01 ... 3	R03-03A	
							0.02 ... 5	R03-03B	
							0.04 ... 7	R03-03C	
							0.05 ... 10	R03-03D	
82	200	41	2.9	270	4500	G½	0.01 ... 3	R03-04A	
							0.02 ... 5	R03-04B	
							0.04 ... 7	R03-04C	
							0.05 ... 10	R03-04D	



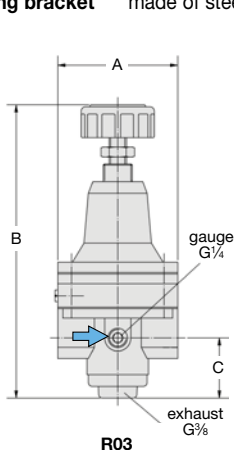
R03

Special options, add the appropriate letter

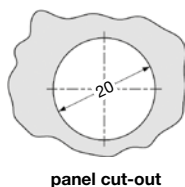
tamper-proof cap total height 204 mm R03-0..T

Accessories, enclosed

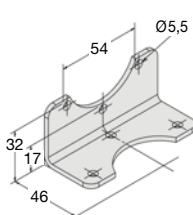
pressure gauge Ø 50 mm, 0...*2 bar, G¼ **MA5002-...*2**
mounting bracket made of steel **BW00-36**



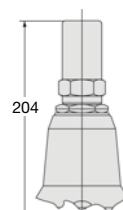
R03



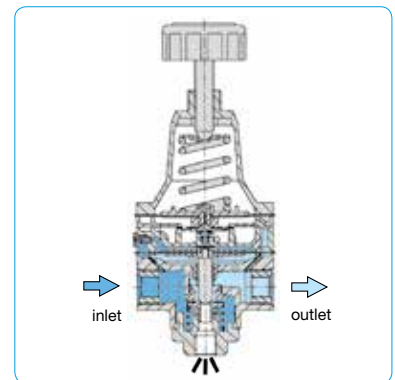
panel cut-out



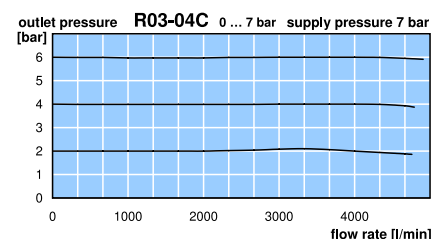
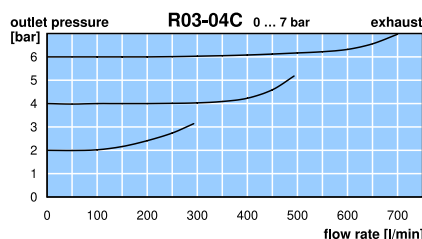
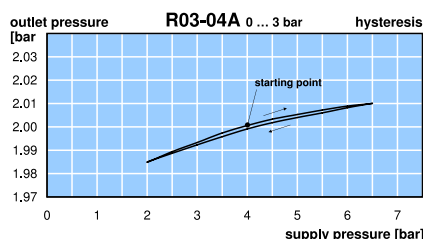
BW00-36



tamper-proof cap



cross-section



*1 at 7 bar supply pressure and 6 bar outlet pressure
 *2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar

*3 standard unit G½ is reduced to smaller threads by fittings

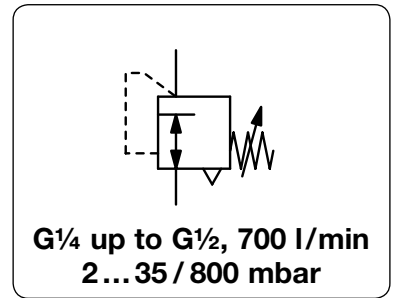
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



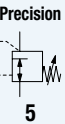
Order example:
R03-02A

Description	Diaphragm regulator with small dimensions. Suitable for low pressure applications, with high relief capacity. A sensitive rolling diaphragm ensure constant outlet pressure even with changing supply pressure and flow fluctuations.	
Media	compressed air or non-corrosive gases	
Recommendation	connection thread G $\frac{1}{2}$ for pressure range 0...35 / 140 / 280 mbar	
Supply pressure	max. 10 bar	
Accuracy	response sensitivity: < 0,2 mbar	Air consumption max. 2 l/min depending on outlet pressure
Adjustment	by handwheel with locknut	
Relieving function	relieving, optionally non-relieving	Relief capacity 14 l/min at 7 mbar above setpoint 70 mbar
Gauge port	G $\frac{1}{4}$ on both sides of the body, optionally $\frac{1}{4}$ NPT	
Mounting position	any	
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast Inner valve: stainless steel and galvanised steel Elastomer: NBR/Buna-N, optionally FKM	



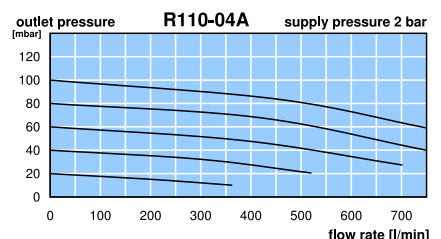
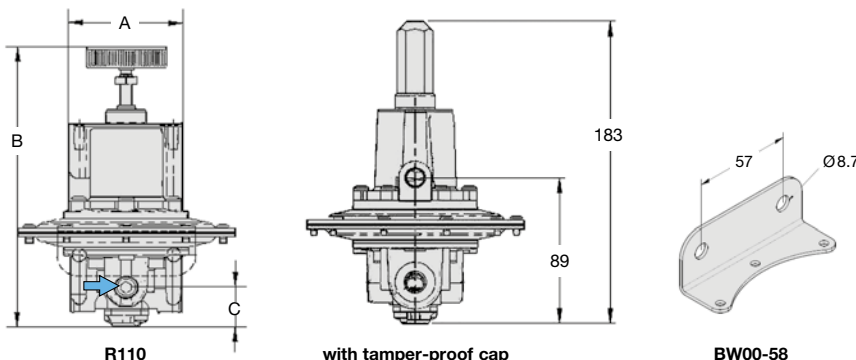
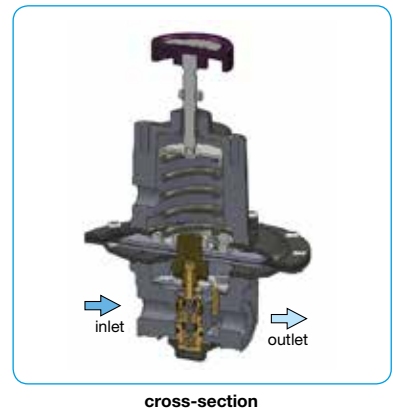
Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range mbar	Order number
A	B	C		m ³ /h*1	l/min*1			

Precision regulator for low pressure								supply pressure max. 10 bar, relieving, with constant bleed	R110
67	180	25	0,4	42	700	G $\frac{1}{4}$	2... 35	R110-020	
							2... 140	R110-02A	
							2... 280	R110-02B	
							2... 400	R110-02C	
							2... 800	R110-02D	
67	180	25	0,4	42	700	G $\frac{1}{2}$	2... 35	R110-040	
							2... 140	R110-04A	
							2... 280	R110-04B	
							2... 400	R110-04C	
							2... 800	R110-04D	



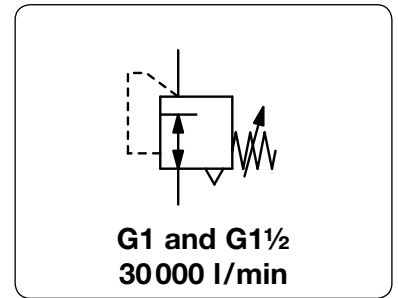
Special options, add the appropriate letter		
G $\frac{3}{8}$	connection thread	R110-03 .
NPT	connection thread	R110-0 . .N
non-relieving	without constant bleed	R110-0 . .K
reduced bleeding	ca. 1 l/min	R110-0 . .X19
tapped exhaust	connection thread G $\frac{1}{4}$	R110-0 . .X12
FKM elastomer		R110-0 . .V
tamper-proof cap	aluminium, adjustment by screwdriver, total height 183 mm	R110-0 . .T

Accessories, enclosed		
pressure gauge	Ø 63 mm, 0... *2 mbar, G $\frac{1}{4}$, capsule type	MA6302-... *2
	Ø 63 mm, 0...600mbar, G $\frac{1}{4}$, Bourdon tube	MA6302-C6
	Ø 63 mm, 0... 1 bar, G $\frac{1}{4}$, Bourdon tube	MA6302-01
gauge connectors	NPT connection thread, adapter $\frac{1}{4}$ " NPT to G $\frac{1}{4}$ female	VP-0202N
mounting bracket	made of steel	BW00-58



*1 at 7 bar supply pressure, 800 mbar outlet pressure and 40 mbar pressure drop
*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar

Description	Provides precision regulation in high flow and high relief applications. A sensitive rolling diaphragm and balanced inner valve assure constant outlet pressure even with supply pressure and flow fluctuations.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 18 bar, optionally max. 35 bar	
Accuracy	response sensitivity: < 2 mbar	
Air consumption	0.5% of volume flow, max. 15 l/min	
Adjustment	by T-handle with locknut	
Relieving function	relieving, optionally non-relieving	
Relief capacity	1200 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G¼ for outlet pressure	Mounting position any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM at 35 bar version Inner valve: stainless steel, brass, aluminium and steel	



Dimensions			K _v -value (m³/h)	Flow rate m³/h*1 l/min*1	Connection thread G	Pressure range bar	Order number
A	B	C					

Precision pressure regulator							supply pressure max. 18 bar, relieving, with constant bleed	R102
141	287	56	11.4	1680	28000	G1	0.001 ... 0.7	R102-081
							0.03 ... 2.0	R102-08A
							0.07 ... 4.0	R102-08B
							0.14 ... 7.0	R102-08C
							0.14 ... 10	R102-08D
141	287	56	12.2	1800	30000	G1½	0.001 ... 0.7	R102-121
							0.03 ... 2.0	R102-12A
							0.07 ... 4.0	R102-12B
							0.14 ... 7.0	R102-12C
							0.14 ... 10	R102-12D

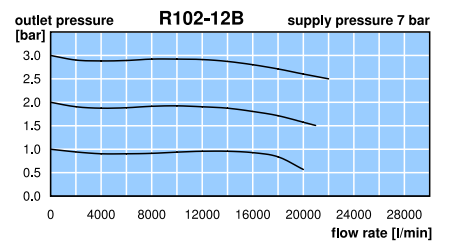
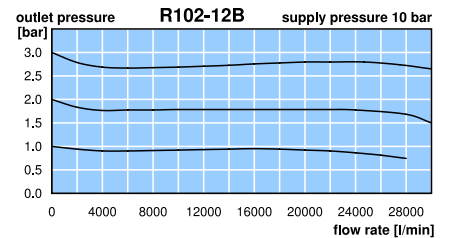
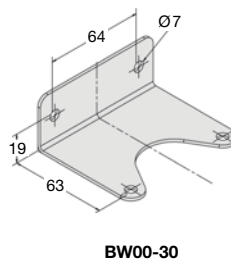
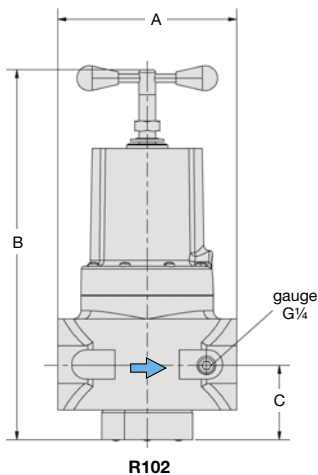
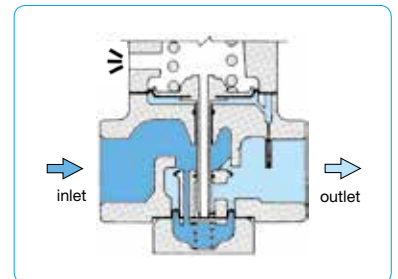


Special options, add the appropriate letter

NPT	connection thread	R102-... N
non-relieving	and without constant bleed	R102-... K
supply pressure 35 bar	free of non-ferrous metal, FKM elastomer	R102-... X62
tamper-proof cap	aluminium, adjustment by screwdriver, total height 295 mm	R102-... T

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 bar, G¼	MA6302-...*2
mounting bracket	made of steel	BW00-30



*1 at 10 bar supply pressure and 2.8 bar outlet pressure
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

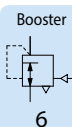
Order example:
R102-081

VOLUME BOOSTER

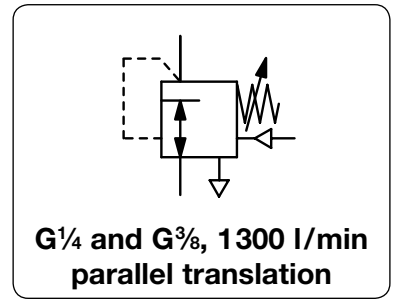
	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	DEVICE	PAGE
		max. bar	bar	thread		
PRECISE	differential pressure also	17	0 ... 1 / 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R650	6.02
	ratio 1:1 up to 1:6	17	0 ... 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R750	6.03
	different ratio	17	0 ... 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R208	6.04
	differential pressure also	16	0 ... 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03-J	6.05
	high exhaust capacity	17	0 ... 10	G $\frac{3}{4}$ and G1	R490	6.06
	different ratio, high-precision	17	0 ... 10	G $\frac{1}{2}$ and G $\frac{3}{4}$	R450	6.07
	high exhaust capacity	28	0.2 ... 18	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	R116	6.08
	high volume flow	17	0 ... 10	G1 and G1 $\frac{1}{2}$	R200	6.09
high exhaust capacity	17	0 ... 10	1 $\frac{1}{2}$ NPT	R201	6.09	
STANDARD	high volume flow	21	0.2 ... 18	G $\frac{1}{4}$ - G3	R119-J	6.11
WITH RATIO	1:1 up to 1:6	17	max. 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R750	6.03
	1:1 up to 1:6 and 2:1 up to 5:1	17	max. 10	G $\frac{1}{4}$ and G $\frac{3}{8}$	R208	6.04
	1:1 up to 1:3 and 2:1 up to 3:1	17	max. 10	G $\frac{1}{2}$ and G $\frac{3}{4}$	R450	6.07
LOW PRESSURE	also for gases	20	10 ... 350/1000 mbar	G1 - G2	RZ-J	6.10
	also for gases	0,4	2 ... 55/ 160 mbar	G $\frac{1}{2}$ - G2	RGDJ-J	6.13
	also for gases	4	5 ... 350 mbar	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4-J	6.13
HIGH PRESSURE	ratio 1:2 up to 1:19	260	3 ... 42 / 104	$\frac{1}{2}$ NPT and $\frac{3}{4}$ NPT	RH3-J	6.12
	made of brass	100	0.1 ... 24 / 99	G1	RLM	6.14
	made of brass	50	1 ... 15 / 50	G $\frac{1}{4}$ - G2	R120-J	6.15
MINIATURE	also for liquids	10	0 ... 6	G $\frac{1}{8}$	R035-J	www
	also for liquids	21	0.1 ... 11	G $\frac{1}{8}$ and G $\frac{1}{4}$	R364-J	www
STAINLESS STEEL	ratio 1:2 up to 1:19	310	3 ... 42 / 104	$\frac{1}{2}$ NPT and $\frac{3}{4}$ NPT	RH3-J	6.12
	made of stainless steel	100	0.1 ... 24 / 99	G1	RLE	6.14
	made of stainless steel	50	1 ... 15 / 50	G $\frac{1}{4}$ - G2	R3000-J	15.22
PRESSURE BOOSTER	1:2 up to 1:10	12	4 ... 100	G $\frac{1}{4}$ - G $\frac{3}{4}$	AM	6.16
	1:2 up to 1:5, with storage	12	4 ... 40	G $\frac{3}{8}$ and G $\frac{1}{2}$	AP	6.17
	1:2, small design	10	3 ... 16	G $\frac{1}{8}$ - G $\frac{1}{2}$	AB	6.18



6



Description	Signal-operated regulator designed to provide outlet pressure which is the sum of the input signal pressure plus a preset bias. As an option, the relay can start with bias range -0.3 bar / -4 psi. The relay can also be used as a differential pressure regulator.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 17 bar	
Pilot pressure	max. 10 bar, pilot port G $\frac{1}{4}$	
Accuracy	response sensitivity: < 1 mbar	
Air consumption	without constant bleed	
Relief capacity	110 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint	Relieving function relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Mounting position any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F	
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: brass	



Dimensions			Flow rate	Connection thread	Supply recommended	Positive bias	Pressure range	Order number
A	B	C	m 3 /h*1	l/min*1	G	bar	bar	

Positive bias relay									supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1	R650
68	170	16	72	1200	G $\frac{1}{4}$	5	0 ... 1	0 ... 10	R650-02C	
						5	0 ... 2		R650-02D	
						8	0 ... 4		R650-02E	
						15	0 ... 10		R650-02F	
68	170	16	78	1300	G $\frac{3}{8}$	5	0 ... 1	0 ... 10	R650-03C	
						5	0 ... 2		R650-03D	
						8	0 ... 4		R650-03E	
						15	0 ... 10		R650-03F	

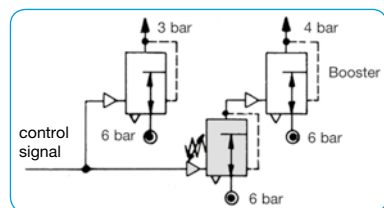


Special options, add the appropriate letter

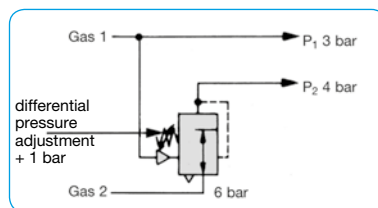
negative bias	factory-set to -0.3 bar	R650-0..Y
NPT	connection thread	R650-0..N
tamper-proof cap	above spindle, total height 174 mm	R650-0..T

Accessories, enclosed

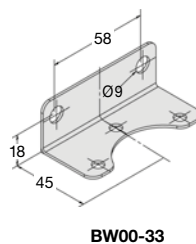
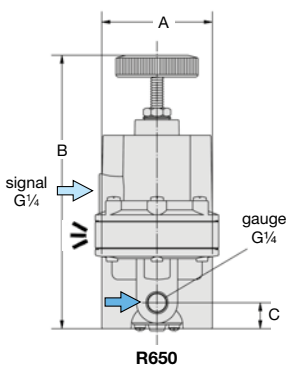
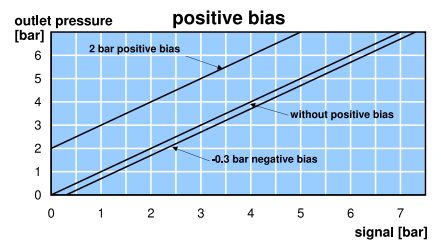
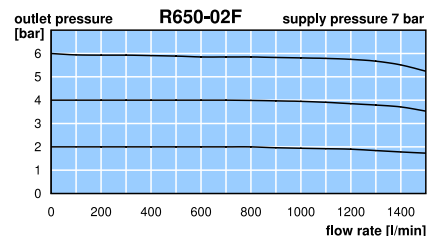
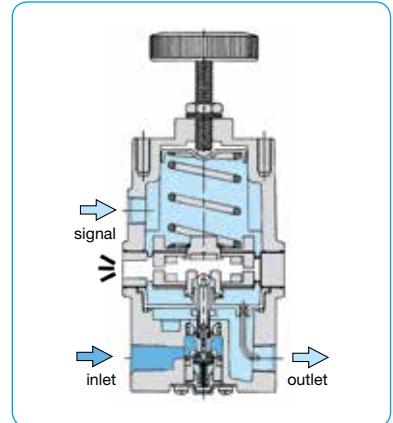
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-33



Example 1: constant differential pressure of 1 bar at high flow



Example 2: constant differential pressure of 1 bar

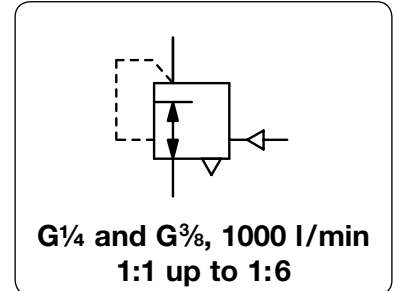


*1 at 7 bar supply pressure and 6 bar outlet pressure
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

PRECISION VOLUME BOOSTER WITH TRANSMISSION RATIO

R750

Description	The volume booster with transmission ratio amplifies the outlet pressure at a 1:1 up to 1:6 ratio by a pneumatic pilot pressure, which has no constant bleed. That signal pressure has the same function as a spring in a common regulator: generating counter pressure on the diaphragm. This force is compensated by the outlet pressure on the diaphragm's bottom side. The ratio of pilot pressure to outlet pressure depends on the size of the operating diaphragms.		
Media	compressed air or non-corrosive gases		
Pilot pressure	max. 10 bar at 1:1 ratio,	5 bar at 1:2,	3.3 bar at 1:3,
Accuracy	at supply variation of 3.5 bar: < 7 mbar 1:1, < 10 mbar at 1:2, < 21 mbar at 1:3, < 41 mbar at 1:6		
Air consumption	max. 3 l/min, subject to outlet pressure		
Relieving function	relieving		
Relief capacity	170 l/min at 1.5 bar outlet and 0.7 bar overpressure above setpoint		
Gauge port	on both sides of the body, thread equal to regulator thread		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N	Inner valve: brass and stainless steel
	Supply pressure	max. 17 bar	
	Mounting position	any	



Dimensions			K _v -value	Flow rate	Connection thread	Signal pressure	Transmission ratio	Order number
A	B	C						

Booster			with transmission ratio, relieving, with constant bleed,		supply pressure max. 17 bar, pressure range 0...10 bar		R750		
68	102	16	0.5	60	1000	G $\frac{1}{4}$	10	1:1	R750-02I
							5.0	1:2	R750-02K
							3.3	1:3	R750-02C
							1.7	1:6	R750-02M
68	102	16	0.5	60	1000	G $\frac{3}{8}$	10	1:1	R750-03I
							5.0	1:2	R750-03K
							3.3	1:3	R750-03C
							1.7	1:6	R750-03M



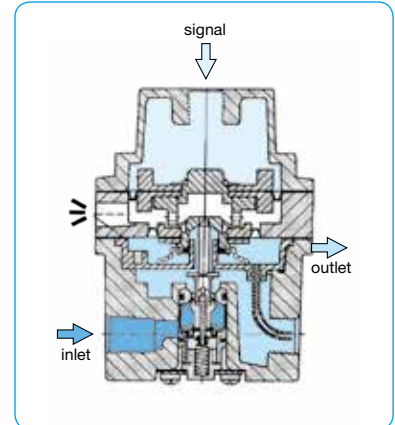
R750

Special options, add the appropriate letter

negative bias	factory-set to -0,3 bar	R750-0. .Y
NPT	connection thread	R750-0. .N
tapped exhaust	connection thread G $\frac{1}{4}$	R750-0. .X12

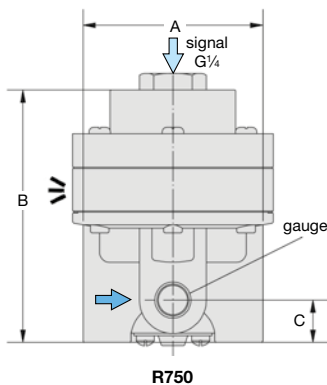
Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	MA5002-... ^{*2}
mounting bracket	made of steel	BW00-33

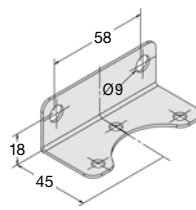


cross-section

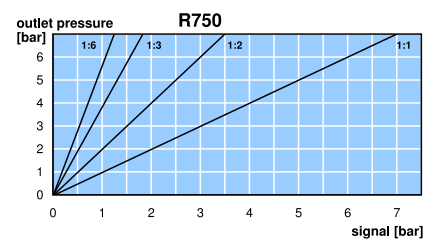
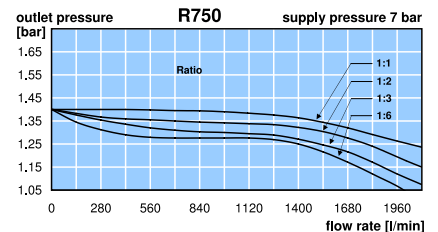
Booster
6



R750



BW00-33



^{*1} at 7 bar supply pressure and 1.4 bar outlet pressure
^{*2} 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R750-02I

PRECISION VOLUME BOOSTER WITH TRANSMISSION RATIO

R208

Description The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed and shows the same function as a spring in a common regulator: generating counter pressure on the diaphragm.

Media compressed air or non-corrosive gases

Supply pressure max. 17 bar

Pilot pressure max. 10 bar at 1:1 ratio, 5 bar at 1:2, 3.3 bar at 1:3, 2.5 bar at 1:4, 1.7 bar at 1:6 **Pilot port** G $\frac{1}{4}$

Accuracy at supply pressure variation of 7 bar: < 7 mbar pressure deviation
 transmission error: 1% from 1:1 to 1:3 ratio, 2% at greater or inverse transmission
 response sensitivity: 1 mbar at 1:1, 2 mbar at 1:2, 3 mbar at 1:3 and at inverse transmission

Air consumption max. 3 l/min, subject to outlet pressure

Relief capacity 310 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint

Gauge port G $\frac{1}{4}$ on both sides of the body, screw plugs supplied

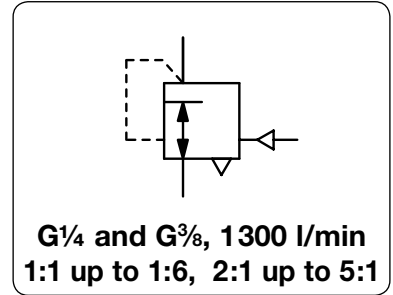
Temperature range 0 °C to 80 °C / 32 °F to 176 °F, NBR, for appropriately conditioned compr. air down to -40 °C / -40 °F
 0 °C to 90 °C / 32 °F to 194 °F, FKM, for appropriately conditioned compr. air down to -40 °C / -40 °F

Material Body: aluminium die-cast
 Inner valve: brass and zinc-plated steel

Relieving function relieving

Mounting position any

Elastomer: NBR/Buna-N, optionally FKM



Dimensions			K _v -value	Flow rate	Connection thread	Pilot pressure	Transmission ratio	Order number
A	B	C	(m ³ /h)	m ³ /h*1	G	max. bar	signal : outlet	
mm	mm	mm		l/min*1				

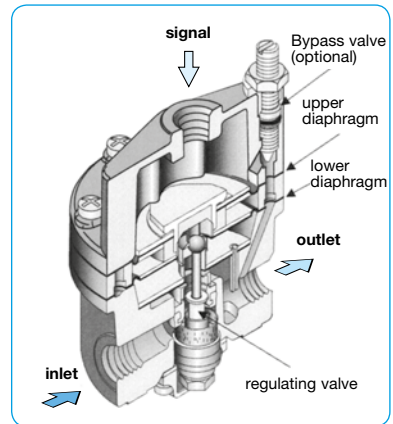
Booster			with transmission ratio, relieving, with constant bleed, pressure range 0...10 bar				supply pressure max. 17 bar, pressure range 0...10 bar		R208
76	98	24	0.7	78	1300	G $\frac{1}{4}$	10	1 : 1	R208-02I
							5.0	1 : 2	R208-02K
							3.3	1 : 3	R208-02L
76	110	24	0.7	78	1300	G $\frac{1}{4}$	2.5	1 : 4	R208-02M
							2.0	1 : 5	R208-02N
							1.7	1 : 6	R208-02O
76	98	24	0.7	78	1300	G $\frac{1}{4}$	10	2 : 1	R208-02R
								3 : 1	R208-02S
76	110	24	0.7	78	1300	G $\frac{1}{4}$	10	4 : 1	R208-02T
								5 : 1	R208-02U



R208

Special options, add the appropriate letter

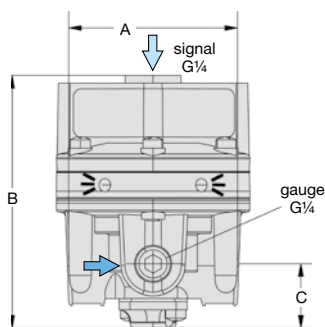
G $\frac{3}{8}$	connection thread	R208-03 .
NPT	connection thread	R208-02 .N
non-relieving*3	without relieving function	R208-02 .K
tapped exhaust*3	connection thread G $\frac{1}{4}$	R208-02 .X12
bypass with restrictor	between control chamber and outlet, 1:1 only	R208-02 .X16
negative bias*3	preset to -0,24 bar, adjustable by 30 mbar	R208-02 .Y
silicone elastomer	supply pressure max. 5 bar, 1:1 only	R208-02 .A
FKM elastomer		R208-02 .V



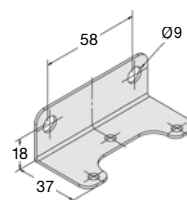
cross section

Accessories, enclosed

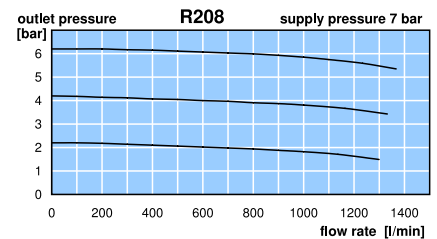
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-34



R208



BW00-34



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
 *2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 only for 1:1, 1:2, 1:3, 2:1 and 3:1

Gauges: see chapter for measuring devices

PDF CAD
 www.aircom.net

Order example:
 R208-02I

Description Pilot-operated volume booster with positive bias designed to supply outlet pressure equal to signal pressure plus an adjustable preset spring constant. With very high forward and reverse flow characteristics and excellent sensitivity. If requested the system pressure can also manually be adjusted up to 6 bar adding to the pilot pressure.

Media oil-free and 5 µm filtered compressed air or non-corrosive gases

Supply pressure max. 16 bar

Pilot pressure max. 10 bar, accordingly lower in the case of manual pre-pressure setting

Accuracy at supply pressure change from 2 bar to 7 bar: < 6 mbar pressure deviation
at flow rate change from 0 l/min to 20 l/min: < 20 mbar pressure deviation
response sensitivity: < 2 mbar

Air consumption 1.5 l/min at P₁= 5 bar, 2 l/min at P₁= 7 bar, 4 l/min at P₁= 10 bar, < 1% of volume flow relieving

Relieving function 700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint

Relief capacity G_{1/4} on both sides of the body, one screw plug supplied

Gauge port any

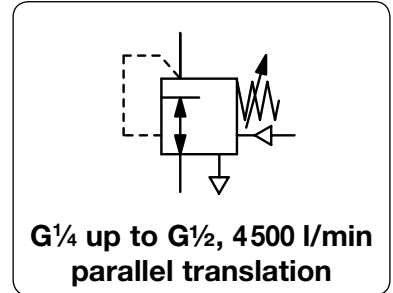
Temperature range 0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F

Material Body: zinc die-cast

Pilot port G_{1/8}

Mounting position any

Elastomer: NBR/Buna-N



Dimensions			K _v -value	Flow rate	Connection thread	Positive bias	Pressure range	Order number
A	B	C						

Volume booster			supply pressure max. 16 bar, with constant bleed, tapped exhaust, transmission ratio 1:1					R03-J	
82	106	41	2.0	198	3300	G _{1/4} *3	without	0.05 ... 10	R03-02J
			2.3	228	3800	G _{3/8} *3			R03-03J
			2.7	270	4500	G _{1/2}			R03-04J



R03-...J

Positive bias booster			supply pressure max. 16 bar, with constant bleed, tapped exhaust, transmission ratio 1:1					R03-J .	
82	142	41	2.0	198	3300	G _{1/4} *3	0 ... 1 bar	0.05 ... 10	R03-02J1
			2.3	228	3800	G _{3/8} *3			R03-03J1
			2.7	270	4500	G _{1/2}			R03-04J1
82	180	41	2.0	198	3300	G _{1/4} *3	0 ... 6 bar	0.05 ... 10	R03-02J6
			2.3	228	3800	G _{3/8} *3			R03-03J6
			2.7	270	4500	G _{1/2}			R03-04J6



R03-...J1

Accessories, enclosed

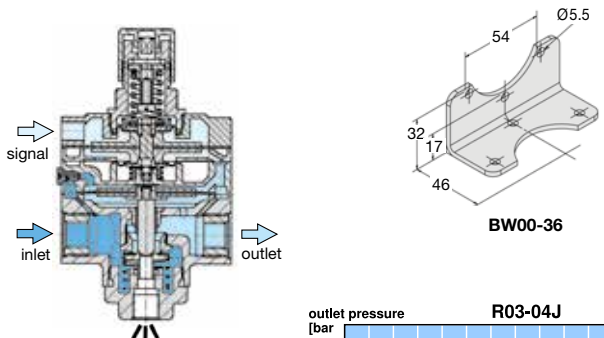
pressure gauge Ø 50 mm, 0...*2 bar, G_{1/4}

mounting nut made of plastic

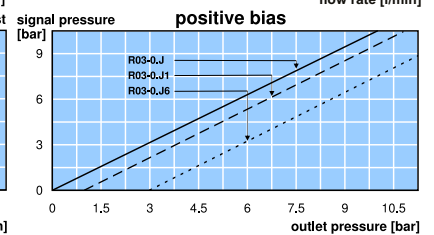
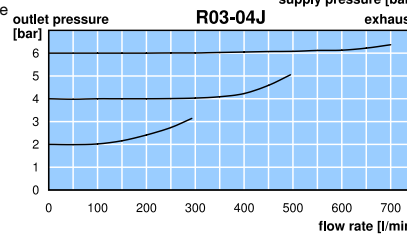
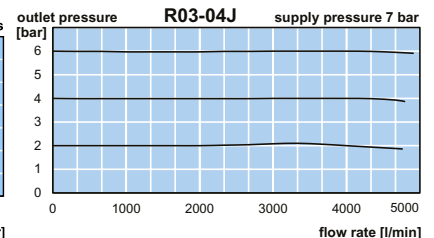
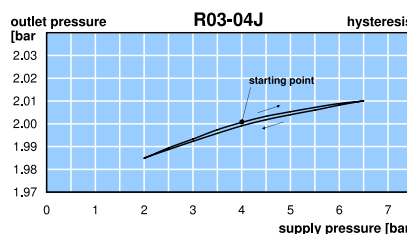
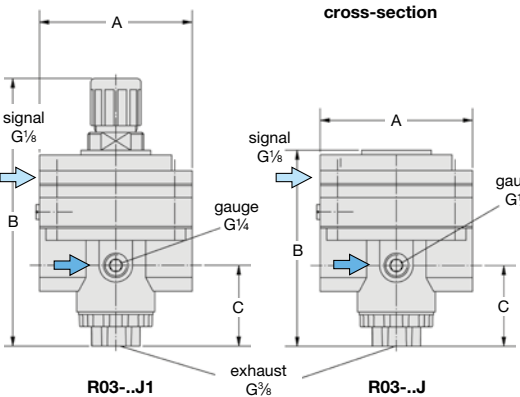
mounting bracket made of steel

for R03-...J1

MA5002-...*2
M30x1,5K
BW00-36



R03-...J6

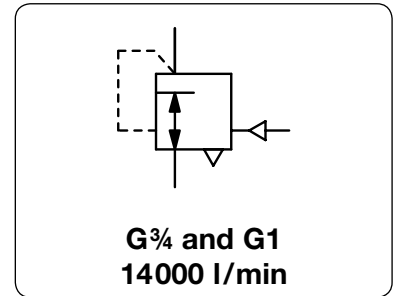


*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar
*3 standard unit G_{1/2} reduced to smaller threads by fittings

PRECISION VOLUME BOOSTER WITH HIGH EXHAUST

R490

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The booster is a rugged precision instrument with key features providing reliable, efficient and stable operation. Very low deadband between the operation of the supply valve and exhaust valve providing excellent pressure control. High capacity exhaust valve provides efficient dynamic reverse flow characteristics. Pressure balanced supply valve prevents changes in control characteristics when supply pressure changes. Damped diaphragm control chamber provides stable operation and protects valves from damaging oscillation under high flow conditions.		
Media	compressed air or non-corrosive gases	Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar; pilot port G $\frac{1}{4}$		
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation response sensitivity: 2.5 mbar	Relieving function	relieving
Air consumption	max. 3 l/min subject to outlet pressure	Mounting position	any
Relief capacity	2800 l/min at 0.35 bar overpressure above setpoint of 1.5 bar		
Gauge port	$\frac{1}{4}$ " NPT on both sides of the body, screw plugs supplied		
Temperature range	-40 °C to 93 °C / -40 °F to 199 °F		
Material	Body: aluminium die-cast Inner valve: zinc-plated steel, optionally stainless steel	Diaphragm:	NBR/Buna-N on Polyester, optionally FKM



Dimensions			K _v -value	Flow rate	Connection thread	Supply pressure	Pressure range	Order number
A	B	C						
mm	mm	mm	(m ³ /h)	m ³ /h*1	l/min*1	G	max. bar	signal : outlet

Booster			transmission ratio 1:1, supply pressure max. 17 bar, relieving, with constant bleed					R490	
143	188	44	9	850	14100	G $\frac{3}{4}$	17	0 ...10	R490-06
143	188	44	9	850	14100	G1	17	0 ...10	R490-08



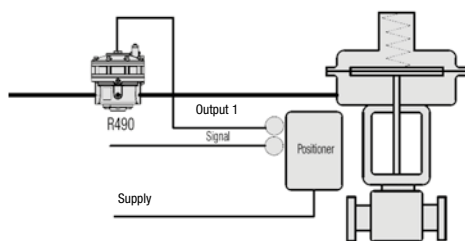
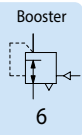
R490

Special options, add the appropriate letter

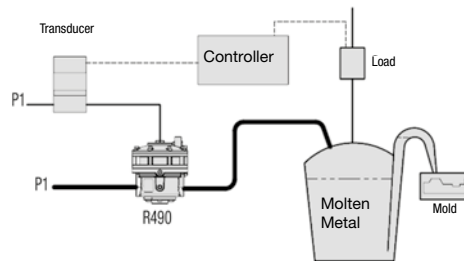
NPT	connection thread	R490-0 . N
external feedback	with connection thread G $\frac{1}{4}$	R490-0 . X27
FKM elastomer		R490-0 . V
inner parts SST	all	R490-0 . S

Accessories, enclosed

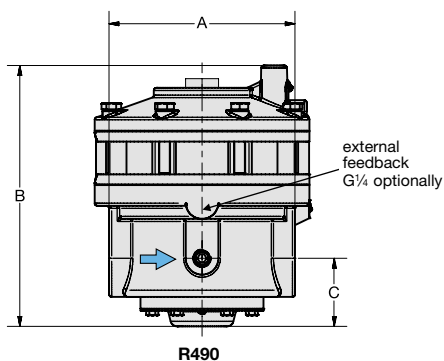
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
----------------	--------------------------------------	-------------



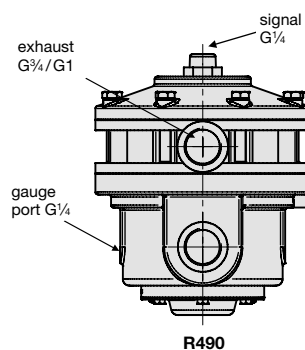
Volume booster with single acting positioner and diaphragm actuator



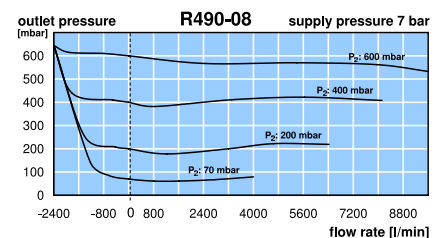
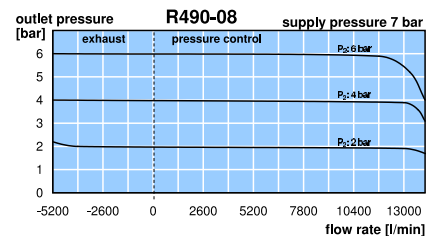
Volume booster: casting implements



R490



R490



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar

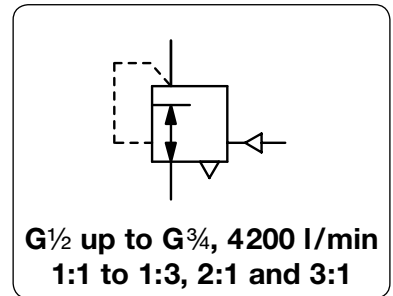
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R490-06

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed and shows the same function as a spring in a common regulator: generating counter pressure on the diaphragm. This force is compensated by the outlet pressure on the diaphragm's bottom side. The ratio of pilot pressure to outlet pressure depends on the size of the operating diaphragms.		
Media	compressed air or non-corrosive gases	Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar at 1:1, 2:1 and 3:1 ratio, 5 bar at 1:2,	pilot port:	G $\frac{1}{4}$
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation response sensitivity: 2.5 mbar	Relieving function	relieving
Internal air consumption	max. 3 l/min, depending on outlet pressure	Mounting position	any
Relief capacity	1100 l/min at 0.35 bar overpressure above setpoint		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied		
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die-cast Inner valve: brass and aluminium	Elastomer:	NBR/Buna-N, optionally FKM



Dimensions			K _v -value	Flow rate	Connection thread	Pilot pressure	Transmission ratio	Order number
A	B	C	(m ³ /h)	m ³ /h*1	G	max. bar	signal : outlet	

Booster			with transmission ratio, supply pressure max. 17 bar relieving, with constant bleed, pressure range 0...10 bar				R450		
87	129	40	2.16	240	4000	G $\frac{1}{2}$	10	1 : 1	R450-04I
							5.0	1 : 2	R450-04K
							3.3	1 : 3	R450-04L
							10	2 : 1	R450-04M
							10	3 : 1	R450-04N
87	129	40	2.16	252	4200	G $\frac{3}{4}$	10	1 : 1	R450-06I
							5.0	1 : 2	R450-06K
							3.3	1 : 3	R450-06L
							10	2 : 1	R450-06M
							10	3 : 1	R450-06N



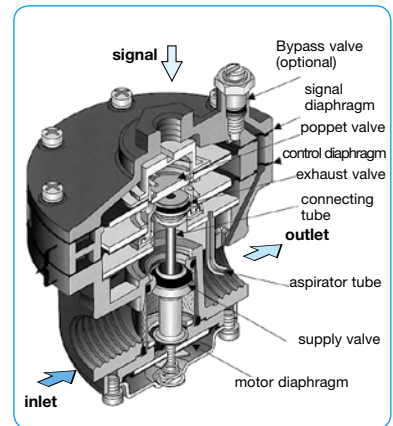
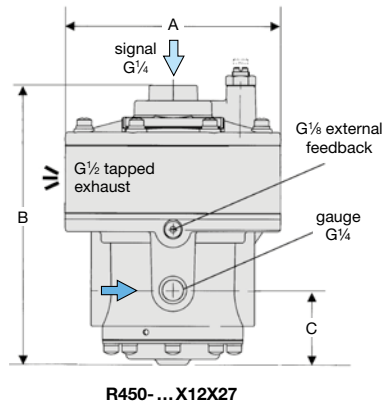
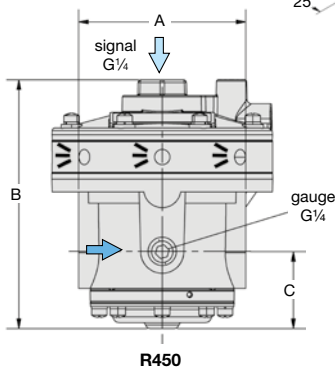
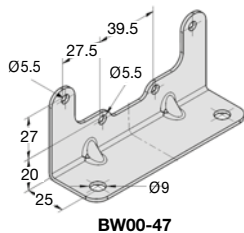
R450

Special options, add the appropriate letter

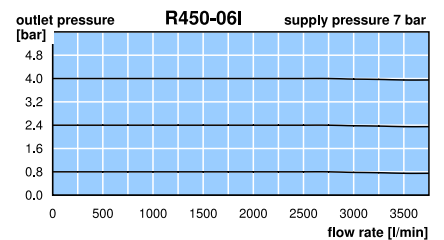
NPT	connection thread	R450-0..N
tapped exhaust	G $\frac{1}{2}$ connection thread, total height 148 mm	R450-0..X12
bypass with restrictor	from control chamber to outlet	1:1 only R450-0..X16
external feedback	with connection thread G $\frac{1}{8}$	R450-0..X27
FKM elastomer		R450-0..V

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
mounting bracket	made of steel	BW00-47



cross section



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

Gauges: see chapter for measuring devices

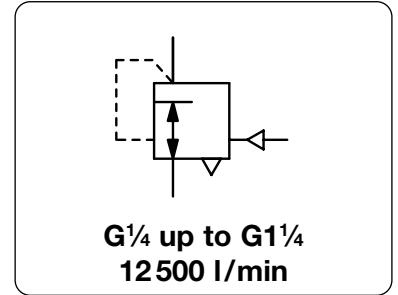
PDF CAD
www.aircom.net

Order example:
R450-04I

PRECISION VOLUME BOOSTER WITH HIGH RELIEF CAPACITY

R116

Description	Pilot-operated regulator adapted for control by small remote pilot regulator or by proportional pressure valve. Ideal for continuous high-capacity requirements where reduced pressure must be held constant over wide variations in flow. The booster is equipped with a diaphragm. Transmission ratio 1:1 (pilot pressure to outlet pressure).		
Media	compressed air or non-corrosive gases	Mounting position	any
Supply pressure	max. 28 bar	Pilot pressure	max. 18 bar
Outlet pressure	0.2... 18 bar	Air consumption	without constant bleed
Relieving function	6500 l/min at 6 bar, see diagram		
Ports	inlet / outlet: see chart gauge P ₂ : G ¹ / ₄	exhaust: G ¹ / ₂ (up to overall size G ¹ / ₂), G ³ / ₄ (from size G ³ / ₄ on)	gauge P ₁ : G ¹ / ₂ (from size G ³ / ₄ on)
Temperature range	-18 °C to 70 °C / 0 °F to 158 °F		
Material	Body: zinc die-cast Elastomer: NBR/Buna-N	Inner valve: brass Bottom screw: reinforced nylon	



Dimensions			Nominal size	K _v -value	Flow rate		Connection thread	Order number
A	B	C	DN	(m ² /h)	m ³ /h*1	l/min*1	G	
mm	mm	mm						

Booster with high relief capacity									
								P ₁ : max. 28 bar, P ₂ : 0.2... 18 bar, ratio 1:1 relieving	R116
80	129	39	15	4.3	270	4500	G ¹ / ₄	R116-02	
				4.4	290	4800	G ³ / ₈	R116-03	
				4.5	300	5000	G ¹ / ₂	R116-04	
93	149	48	25	9.5	690	11500	G ³ / ₄	R116-06	
				10.0	720	12000	G1	R116-08	
				10.4	750	12500	G ¹ / ₄	R116-10	



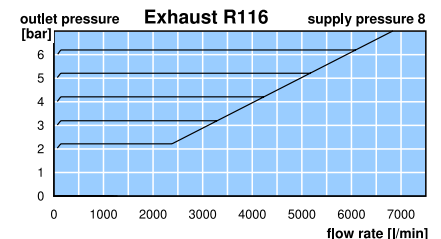
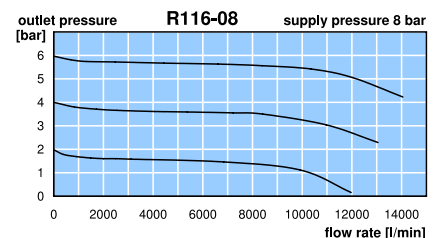
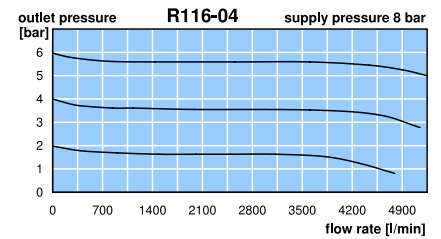
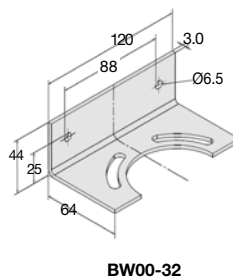
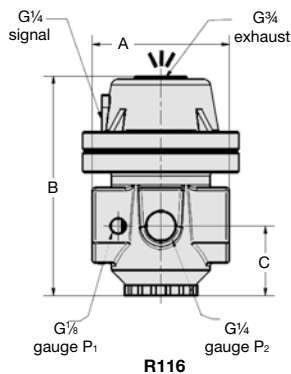
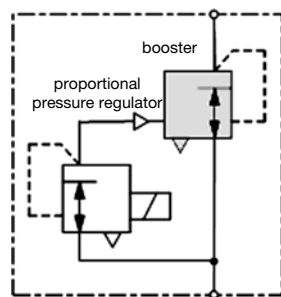
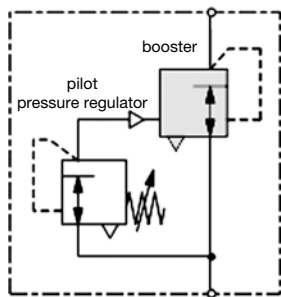
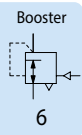
Special options, add the appropriate letter

NPT	connection thread	R116-..N
flange connection	see chapter SST devices / flanges	R116-..F



Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G ¹ / ₄	for G ¹ / ₄ to G ¹ / ₂	MA5002-*2
	Ø 63 mm, 0...*2 bar, G ¹ / ₄	for G ³ / ₄ to G ¹ / ₄	MA6302-*2
mounting bracket	made of aluminium		BW00-32



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R116-02

PRECISION VOLUME BOOSTER WITH HIGH VOLUME FLOW

R200 / R201

Description The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed. The bias spring at booster R200 generates a positive shift of the pressure range between pilot pressure and outlet pressure. Booster R201 with great relief capacity is a combination of two R200 boosters. When the output pressure increases above the signal pressure, the diaphragm assembly moves upward to close the supply valve and open the exhaust valve. Excess output pressure exhausts through the exhaust port until it reaches the setpoint.

Media compressed air or non-corrosive gases

Pilot pressure max. 10 bar, pilot port G $\frac{1}{4}$ at R200; $\frac{1}{4}$ " NPT at R201

Accuracy at supply pressure variation of 7 bar: < 20 mbar pressure deviation

Air consumption without constant bleed

Relief capacity 1800 l/min at 0.3 bar overpressure above setpoint at R200, 9000 l/min at R201

Gauge port G $\frac{1}{4}$ on both sides of the body at R200; $\frac{1}{4}$ " NPT at R201

Temperature range 0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F

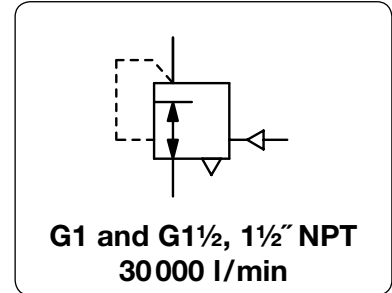
Material Body: aluminium die-cast Elastomer: NBR/Buna-N-/Dacron, optionally FKM Inner valve: stainless steel, cadmium-plated steel and brass

Supply pressure max. 17 bar

Response sensitivity 30 mbar

Relieving function relieving, optionally non-relieving

Mounting position any



Dimensions			K _v -value	Flow rate	Connection thread	Supply pressure	Pressure range	Order number
A	B	C	(m ³ /h)	m ³ /h*1	G	max. bar	bar	

Booster w. high volume flow									
supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1									
141	198	57	11.4	1680	28000	G1	17	0...10	R200-08I
141	198	57	12.2	1800	30000	G1½	17	0...10	R200-12I

Booster w. high exhaust capacity									
supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1									
250	240	57	12.2	1800	30000	1½" NPT	17	0...10	R201-12I



Special options, add the appropriate letter

NPT connection thread for R200 R200-..IN

non-relieving without relieving function for R200 R200-..IK

tapped exhaust connection thread G $\frac{3}{8}$ for R200 R200-..IX12

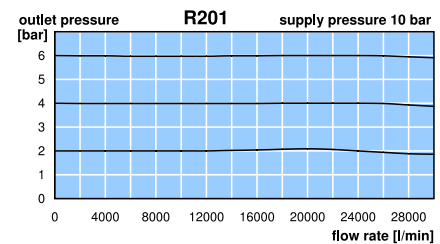
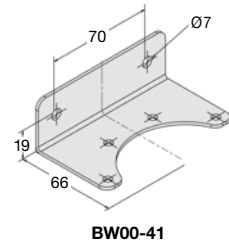
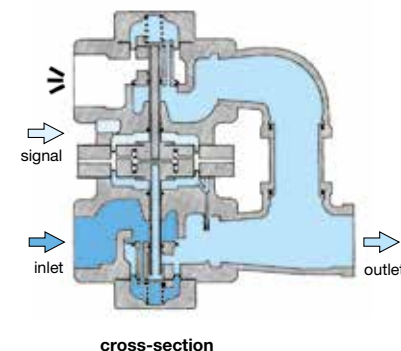
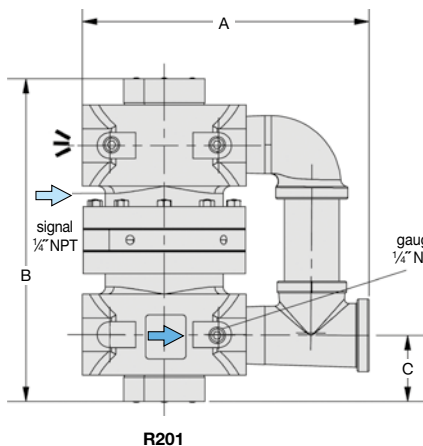
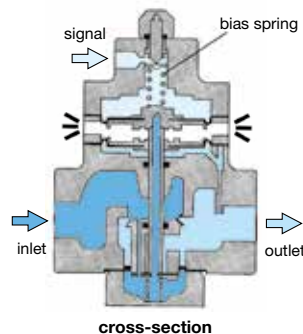
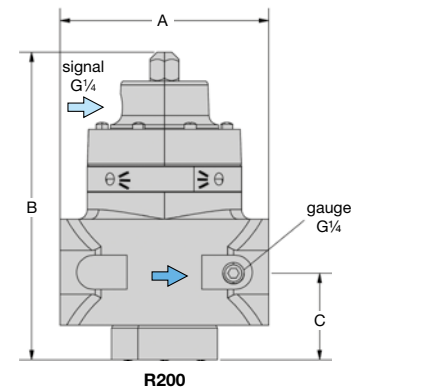
FKM elastomer for R200 R200-..IV

Accessories, enclosed

pressure gauge Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$ MA6302-..*2

adapter ¼" NPT male / G $\frac{1}{4}$ female for R201 VP-0202N

mounting bracket made of steel for R200 BW00-41



*1 at 10 bar supply pressure and 2.8 bar outlet pressure
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

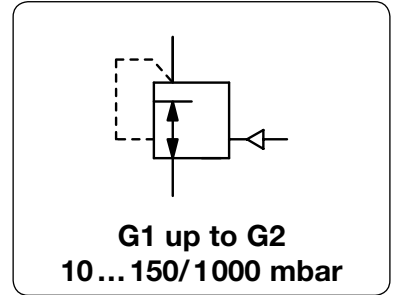
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R200-08I

LOW PRESSURE VOLUME BOOSTER UP TO 1 BAR, SUPPLY PRESSURE MAX. 20 BAR RZ-J

Description	Highly sensitive diaphragm low pressure volume booster with excellent regulating characteristics.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 20 bar depending on the accuracy: the smaller P ₁ the higher the accuracy max. 10 bar at pressure range < 150 mbar		
Pilot pressure	max. 1000 mbar		
Air consumption	without constant bleed		
Relieving function	non-relieving, optionally relieving		
Accuracy	at max. flow rate < e.g. 10% pressure deviation of full scale		
Adjustment	manual by turning the spindle under the cover of the spring cage		
Gauge port	not available		
Mounting position	any		
Temperature range	-20 °C bis 60 °C / -4 °F to 140 °F		
Material	Body: SG cast iron GGG50, GGG40 at G2	Elastomer: NBR/Buna-N, optionally FKM	Inner valve: brass and stainless steel
	Spring cage: aluminium		



Dimensions			Accuracy %	Nominal size DN	Flow rate l/min*1	P ₁ max. bar*2	Connection thread G	Pressure range mbar	Order number
A	B	C							

Low pressure volume booster						supply max. 20 bar, non-relieving, 1:1 transmission ratio	RZ-J			
100	245	30	10	17	1800	10	G1	15 ... 110	RZ1-08J	
			5		3300			180 ... 1000	RZ3-08J	
185	245	30	10	17	2700	10	G1½*3	15 ... 110	RZ1-12J	
			5		5000			180 ... 1000	RZ3-12J	
254	460	80	10	34	15000	10	G2	10 ... 350	RZ1-16JF	
			5		28000			350 ... 1000	RZ2-16JF	



RZ1-08J

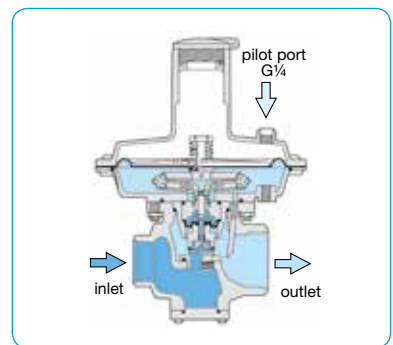
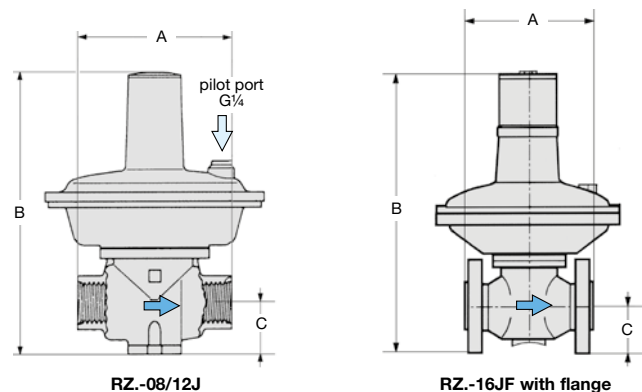
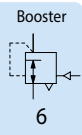
Special options, add the appropriate letter

relieving	with relieving function	RZ . . . R
FKM elastomer		RZ . . . V
flange connection	see chapter for SST devices / flanges (not for RZ.-16J)	RZ . . . F.
carbon dioxide	CO ₂	RZ . . . 03
argon	Ar	RZ . . . 05
nitrogen	N ₂	RZ . . . 07
helium	He	RZ . . . 09
hydrogen	H ₂	RZ . . . 11
methane	CH ₄	RZ . . . 13
oxygen	O ₂	RZ . . . 15
propane	C ₃ H ₆	RZ . . . 16
nitrous oxide	N ₂ O	RZ . . . 17

up to 16 bar

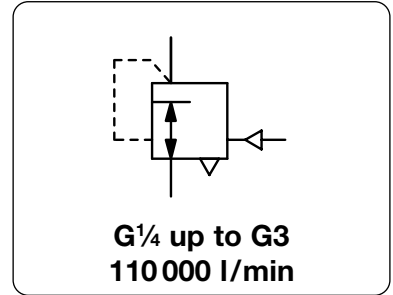


RZ1-16JF



*1 at 4 bar supply pressure and max. outlet pressure *2 see description above *3 G1 thread at inlet

Description	Pilot-operated regulator adapted for control by small remote pilot regulator or by proportional pressure valve. Ideal for continuous high-capacity requirements where reduced pressure must be held constant over wide variations in flow. Booster with diaphragm up to regulator size G1½, with piston from regulator size G2 on. The booster is silicone-free.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 21 bar	
Pilot pressure	max. 18 bar	
Pilot port	G¼ at regulator size G¼ and G¾, pilot port G¼ from regulator size G½ on	
Air consumption	approx. 1 l/min of pilot signal	
Relieving function	relieving as standard, optionally non-relieving	
Gauge port	G¼ on both sides of the body	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	up to 80 °C / 176 °F at G3
Material	Body: zinc die-cast, aluminium at G3 Diaphragm: NBR/Buna-N, optionally FKM	Mounting position any Inner valve: brass Bottom screw: reinforced nylon



Dimensions			Nominal size	K _v -value	Flow rate		Connection thread	Order number
A	B	C	DN	(m³/h)	m³/h*1	l/min*1	G	
mm	mm	mm						

Booster			supply pressure max. 21 bar, outlet pressure 0.2 ... 18 bar with constant bleed,	transmission ratio 1:1,	relieving	R119-J		
70	86	35	5	2.1	102	1700	G¼	R119-02J
70	86	35	10	2.8	150	2500	G¾	R119-03J
83	98	37	15	5.0	340	5600	G½	R119-04J
113	123	49	20	7.6	540	9000	G¾	R119-06J
113	123	49	25	8.4	600	10000	G1	R119-08J
125	132	48	32	9.2	660	11000	G1¼ ³	R119-10J
125	132	48	40	10.0	720	12000	G1½	R119-12J
186	225	79	50	35.4	2520	42000	G2	R119-16J
186	225	79	65	37.1	2640	44000	G2½	R119-20J
214	282	95	80	56.0	6600	110000	G3	R119-24J

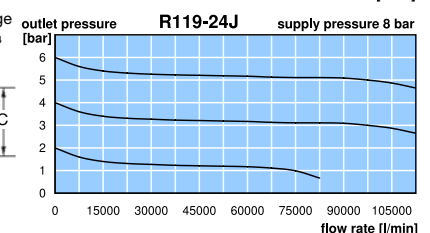
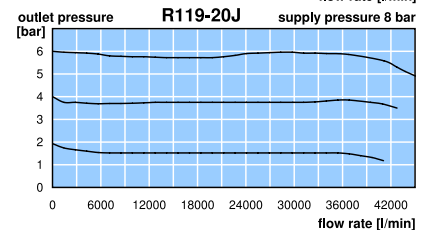
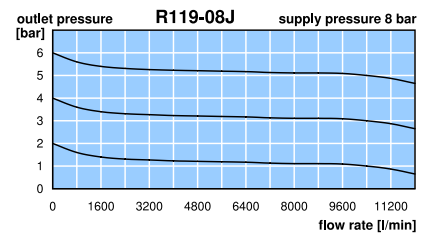
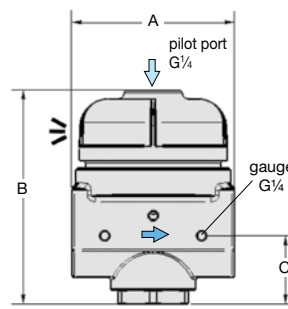
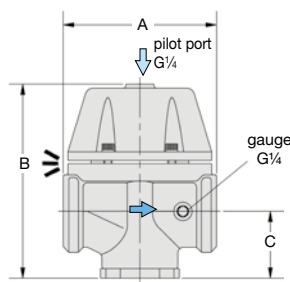
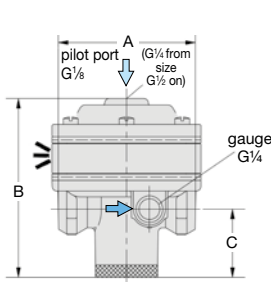
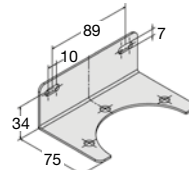
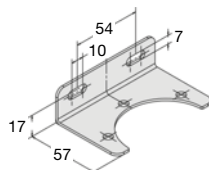
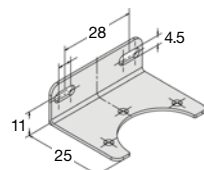


Special options, add the appropriate letter

NPT	connection thread	R119-...JN
non-relieving	without relieving function	R119-...JK
FKM elastomer		R119-...JX64
	for G¼ to G1½	R119-24JX64
	for G3	R119-...JX71
without constant bleed	insided the pilot chamber	R119-...JF
flange connection	see chapter for SST devices / flanges	R119-24JX27
external feedback	for faster and increased accuracy	R119-24JX06
pre-pressure regulation	340 mbar, advisable if P ₁ is close to P ₂	

Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*2} bar, G¼	for G¼ to G½	MA5002-^{*2}
	Ø 63 mm, 0... ^{*2} bar, G¾	for G¾ to G3	MA6302-^{*2}
mounting bracket	made of steel	for G¼ and G¾	BW00-22
		for G½	BW00-23
		for G¾ to G1½	BW00-24

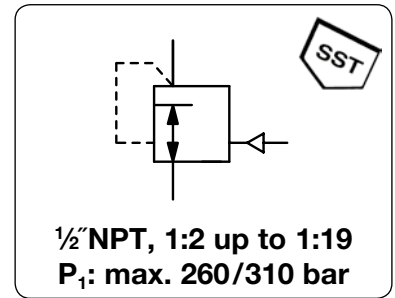


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

HIGH PRESSURE VOLUME BOOSTER WITH TRANSMISSION RATIO, UP TO 310 BAR

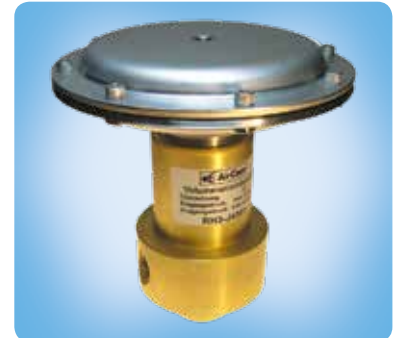
RH3-J

Description	Highly reliable high pressure volume booster with diaphragm and high flow. In addition, the booster features high sensitivity and excellent regulating characteristics.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 260 bar, optionally 345 bar or 310 bar		
Test pressure	150% of maximum supply pressure according to regulations ANSI / ASME B31.3		
Pilot pressure	see chart, pilot port G $\frac{1}{8}$ "		
Leakage rate	< 1x 10 ⁻⁴ mbar l/s He		
Air consumption	without constant bleed		
Relieving function	non-relieving		
Gauge port	not available, optionally 1/4" NPT at inlet and outlet		
Mounting position	any		
Temperature range	-25 °C to 100 °C / -13 °F to 212 °F		
Material	Body: brass, optionally stainless steel	Elastomer: FKM	Inner valve: PTFE, brass or optionally stainless steel



Dimensions			K _v -value	Flow rate	Pilot pressure	Pressure range	Transmission ratio	Order number
A	B	C	(m ³ /h)	m ³ /h*1	l/min*1	max. bar	signal : outlet	

High pressure booster			supply pressure max. 260 bar, non-relieving, 1/2" NPT without constant bleed, without gauge port				RH3-J		
76	170	45	1.7	420	7000	21	3... 42	1 : 2	RH3-J402
						17	5... 70	1 : 4	RH3-J404
						5	3... 42	1 : 8	RH3-J408
						5	5... 70	1 : 13	RH3-J413
						5	10...104	1 : 19	RH3-J419



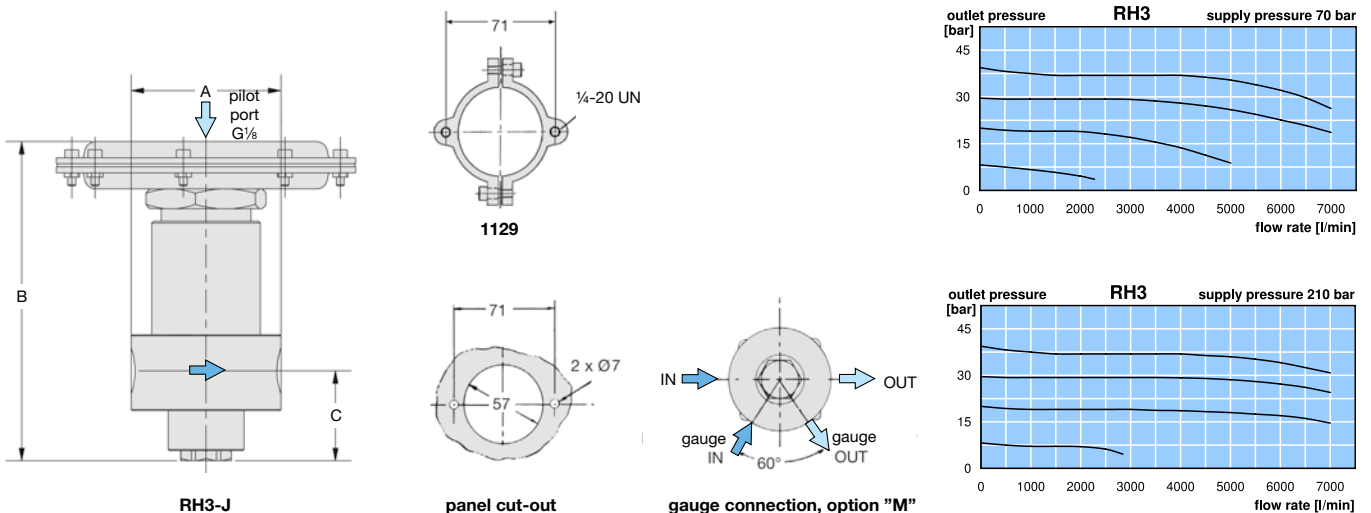
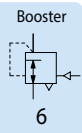
RH3-J

Special options, add the appropriate letter

1/4" NPT	connection thread		RH3-J6..
SST, 310 bar	body made of stainless steel 316		RH3-J...S1
for liquids	no filter at inlet port		RH3-J...W
gauge port	1/4" NPT for inlet and outlet		RH3-J...M
brass gauge	for brass body, on the input side	MHM	output side RH3-J...MGM
SST gauge	for SST body, on the input side	MH	output side RH3-J...MG

Accessories, enclosed

set of brackets	for panel mounting	1129
-----------------	--------------------	------



*1 at 210 bar supply pressure and 40 bar outlet pressure

Gauges: see chapter for measuring devices

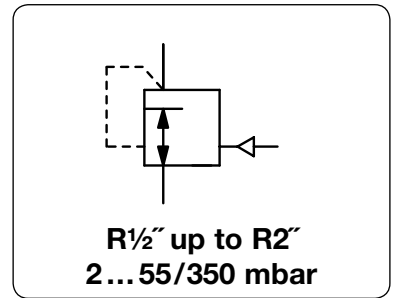
PDF CAD
www.aircom.net

Order example:
RH3-J402

LOW PRESSURE VOLUME BOOSTER UP TO 350 MBAR

RGDJ-J/RGB4-J

Description	Highly sensitive low pressure volume booster with diaphragm and a 1:1 transmission ratio. Zero shut-off prevents the outlet pressure from increasing when there is no flow circulating.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 400 mbar at RGDJ-J,	max. 4 bar at RGB4-J	
Pilot pressure	max. 100 mbar at RGDJ-J,	max. 350 mbar at RGB4-J,	pilot port G $\frac{1}{4}$ "
Air consumption	without constant bleed		
Relieving function	non-relieving		
Accuracy	at maximum volume flow: < 20% pressure deviation of full scale		
Gauge port	not available, optionally G $\frac{1}{4}$ " on one side of the body from regulator size G $\frac{3}{8}$ " on any		
Mounting position	any		
Temperature range	RGDJ-J: -20 °C to 70 °C / -4 °F to 158 °F	RGB4J: -15 °C to 60 °C / -4 °F to 140 °F	
Material	Body: aluminium	Elastomer: NBR/Buna-N	
	Inner valve: aluminium and plastic		



Dimensions			Nominal size	Kv-value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	DN	(m 3 /h)	m 3 /h*1	R	mbar	
mm	mm	mm			l/min*1			

Low pressure booster <i>P₁ max. 400 mbar</i>								non-relieving, without constant bleed, transmission ratio 1:1	RGDJ-J
100	120	30	15	0.66	12	200	1/2"	2... 55	RGDJ-04J
134	166	34	20	1.49	27	450	3/4"	5... 160	RGDJ-06J
134	166	34	25	2.6	51	850	1"	5... 160	RGDJ-08J
185	194	45	40	4.9	90	1500	1 1/2"	5... 160	RGDJ-12J
234	219	52	50	6.6	120	2000	2"	5... 100	RGDJ-16J



RGDJ-04J

Low pressure booster <i>P₁ max. 4 bar</i>								non-relieving, without constant bleed, transmission ratio 1:1	RGB4-J
132	174	24	15	0.62	42	700	1/2"	5... 350	RGB4-04J
190	230	33	25	2.5	168	2800	1"	5... 350	RGB4-08J
190	265	55	40	5	336	5600	1 1/2"	5... 350	RGB4-12J



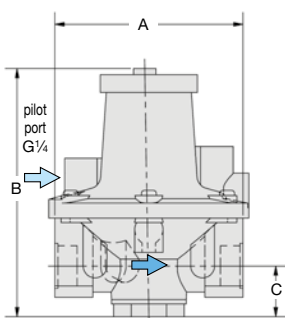
RGB4-12JM
accessory: gauge

Special options, add the appropriate letter

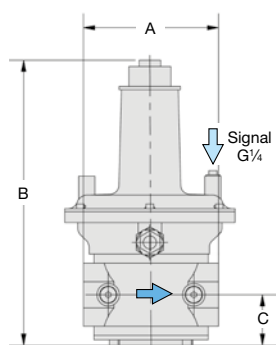
connection thread G $\frac{1}{4}$ " for pressure gauge not for RGDJ-04J RG...M

Accessories, enclosed

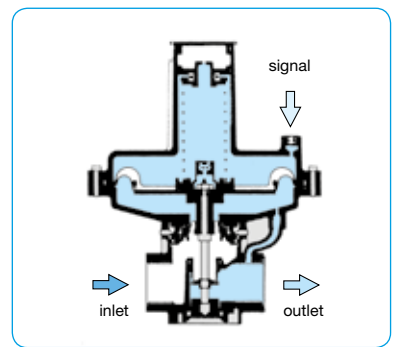
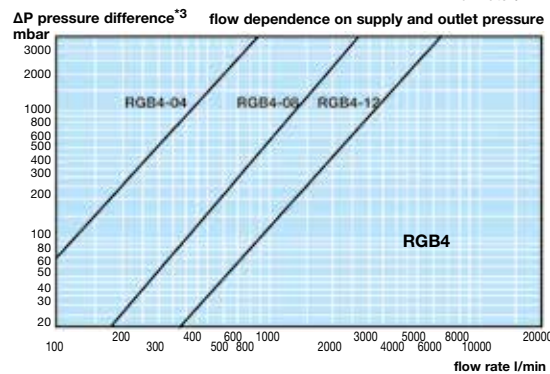
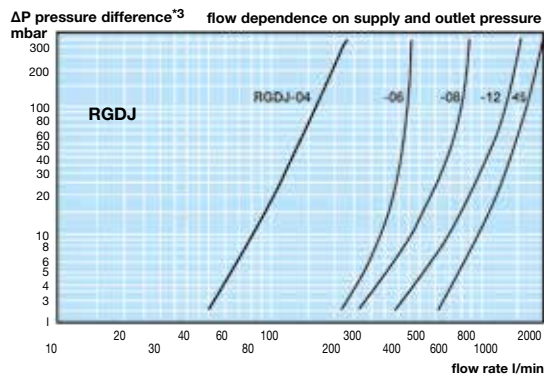
pressure gauge Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$ " for R $\frac{3}{8}$ " up to R2" MA6302-..*2



RGDJ-J



RGB4-J



cross section RGB4-J

*1 bei 350 mbar Eingangsdruck und 100 mbar Ausgangsdruck

*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C4 = 0...400 mbar

*3 $\Delta P = P_1 - P_2$ Druckdifferenz von Eingangsdruck und Ausgangsdruck

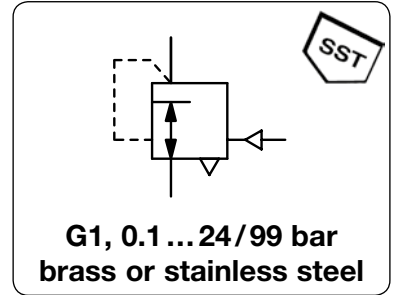
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
RGDJ-04J

Description	The pilot pressure regulator / booster regulates the outlet pressure through a signal pressure at ratio of 1:1. Functioning as a pressure regulator the pilot pressure may either be internally inducted from the inlet pressure or externally. The dome chamber is closed by a needle valve. Functioning as a volume booster the dome is controlled by a proportional pressure regulator or a pilot pressure regulator.	
Media	compressed air, non-corrosive gases or liquids	
Supply pressure	max. 25 bar for RL-0.J1,	max. 100 bar for RL-0.J2, max. 40 bar for oxygen, max. 1.5 bar for acetylene
Pilot pressure	max. 24 bar for RL-0.J1, max. 99 bar for RL-0.J2, pilot port G $\frac{1}{4}$	
Accuracy	at supply pressure variation of 10 bar: at temperature variation of 3 °C / K:	0.1 bar pressure deviation 1% pressure deviation at internal pilot pressure
Air consumption	without constant bleed	Relieving function non-relieving
Gauge port	not available	Mounting position any, dome preferably mounted up
Temperature range	-20 °C to 100 °C / -4 °F to 212 °F for FKM,	-40 °C to 130 °C / -40 °F to 266 °F for EPDM
Material	Body: brass or stainless steel 1.4571 Inner valve: brass or stainless steel 1.4571	Elastomer: FKM, optionally EPDM



Dimensions			K _v -value	Flow rate	Connection thread	Supply pressure max. bar*2	Pressure range bar	Order number
A	B	C						

Brass pressure regulator								supply pressure max. 25 / 100 bar, non-relieving, without constant bleed, transmission ratio 1:1, FKM		RLM
127	170	54	2.9	340	5600	G1	25	0.1 ... 24		RLM-08J1
				2500	60000	G1	100	0.5 ... 99		RLM-08J2



RLM, made of brass

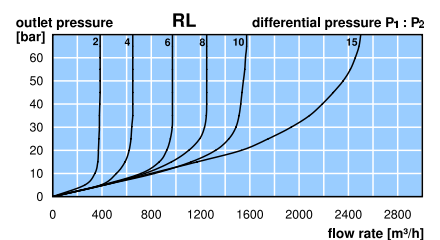
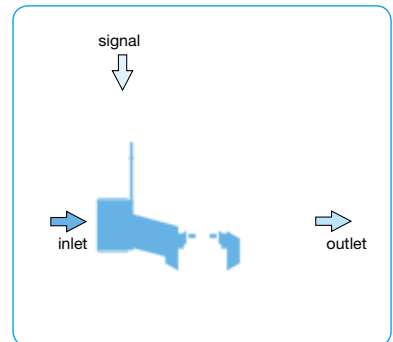
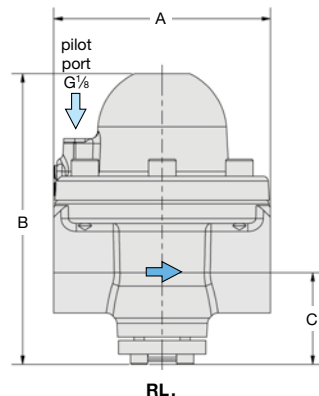
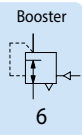
SST pressure regulator								supply pressure max. 25 / 100 bar, non-relieving, without constant bleed, transmission ratio 1:1, FKM		RLE
127	170	54	2.9	340	5600	G1	25	0.1 ... 24		RLE-08J1
				2500	60000	G1	100	0.5 ... 99		RLE-08J2



RLE, made of stainless steel

Special options, add the appropriate letter

EPDM elastomer		RL . -0 . J . E
carbon dioxide	CO ₂	RL . -0 . J . 03
argon	Ar	RL . -0 . J . 05
nitrogen	N ₂	RL . -0 . J . 07
helium	He	RL . -0 . J . 09
hydrogen	H ₂	RL . -0 . J . 11
oxygen	O ₂	RL . -0 . J . 15
propane	C ₃ H ₈	RL . -0 . J . 16
nitrous oxide	N ₂ O	RL . -0 . J . 17



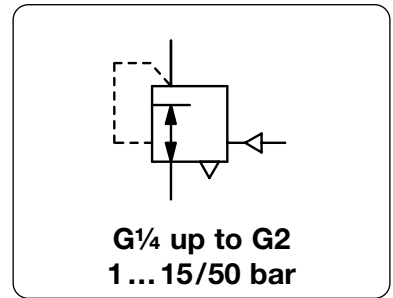
*1 RL-J1: at 25 bar supply pressure and 5 bar outlet pressure
RL-J2: at 85 bar supply pressure and 70 bar outlet pressure

*2 supply pressure max. 40 bar for oxygen
supply pressure max. 1.5 bar for acetylene

BRASS VOLUME BOOSTER, UP TO 50 BAR

R120-J

Description	Solid volume booster made of brass or bronze throughout with a 1:1 transmission ratio. R120-02J2 to R120-08J2 are diaphragm-operated, R120-12J, R120-16J and R120-...J5 are piston-operated.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 50 bar, for liquids $\Delta p_{max} = 25$ bar		
Pilot pressure	max. 15 bar for R120-...J2, max. 50 bar for R120-...J5, pilot port G $\frac{1}{4}$		
Air consumption	without constant bleed		
Relieving function	non-relieving, optionally relieving		
Relief size	DN2		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, optionally low temperature version down to -40 °C / -40 °F		
Material	Body: brass up to G $\frac{1}{2}$, bronze from G $\frac{3}{4}$ on	O-rings: FKM, optionally EPDM	Inner valve: brass
	Diaphragm: NBR/Buna-N with PTFE coating		



Dimensions	Regul. system	K _v	Flow rate	Connection	Pilot pressure	Pressure range	Order number
A B C	D: diaphragm P: piston	value (m ³ /h)	m ³ /h*1 l/min*1	thread G	max. bar	bar	number

Booster made of brass							supply pressure max. 50 bar, non-relieving, without constant bleed, transmission ratio 1:1		R120-J	
64	79	38	D	0.35	25	420	G $\frac{1}{4}$	15	1...15	R120-02J2
64	92	38	P					50	1...50	R120-02J5
80	86	38	D	1	72	1200	G $\frac{1}{2}$	15	1...15	R120-04J2
80	107	38	P					50	1...50	R120-04J5
116	136	65	D	3.5	252	4200	G $\frac{3}{4}$	15	1...15	R120-06J2
116	150	65	P					50	1...50	R120-06J5
116	136	65	D	4.2	300	5000	G1	15	1...15	R120-08J2
116	150	65	P					50	1...50	R120-08J5
195	140	84	P	11.8	840	14000	G1 $\frac{1}{2}$	50	1...50	R120-12J5
195	190	84	P	12.6	900	15000	G2	50	1...50	R120-16J5



R120-02J2, accessory: gauge



R120-04J5



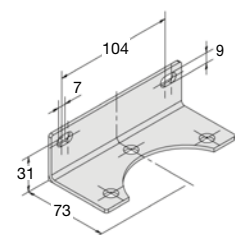
R120-06J2

Special options, add the appropriate letter

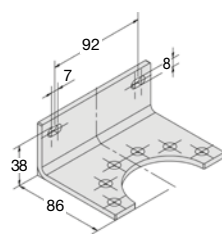
diaphragm relieving	for R120-02J2 up to R120-08J2		R120-...J.R
piston relieving	for R120-12J, R120-16J and R120-...J5		R120-...J.R
down to -40 °C	low temperature version		R120-...J.X51
up to 130 °C	high temperature version		R120-...J.X54
EPDM elastomer	not for G2		R120-...J.E
tapped exhaust			R120-...J.RX12
nitrogen N ₂ : 07	carbon dioxide CO ₂ : 03	argon Ar: 05	R120-...J.05
helium He: 09	hydrogen H ₂ : 11	methane CH ₄ : 13	R120-...J.13
natural gas 14	oxygen O ₂ : 15	propane C ₃ H ₈ : 16	R120-...J.16
	nitrous oxide N ₂ O: 17	water H ₂ O: 17	R120-...J.W

Accessories, enclosed

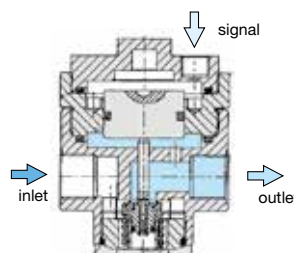
pressure gauge	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$	MA5002-.. ^{*2}
pressure gauge	Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ up to G2	MA6302-.. ^{*2}
mounting bracket	made of steel	for G $\frac{3}{4}$ and G1	BW00-42
		for G1 $\frac{1}{2}$ and G2	BW00-43



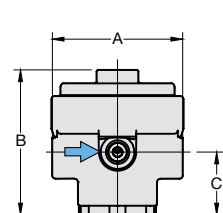
BW00-42



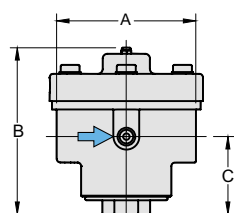
BW00-43



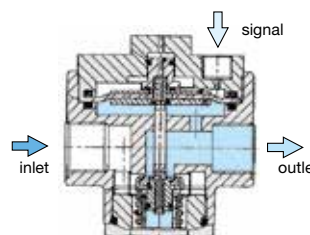
cross-section: with piston



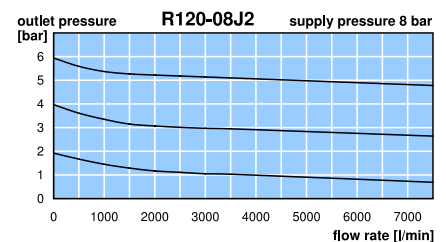
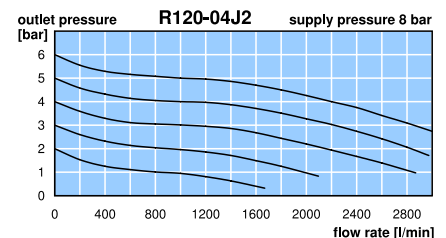
R120-02/-04J.



R120-06/-08/-12/-16J.



cross-section: with diaphragm



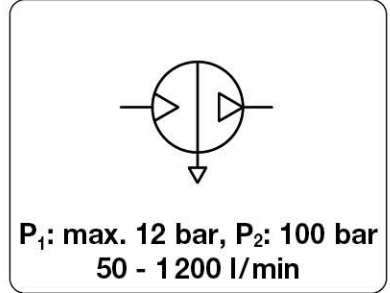
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

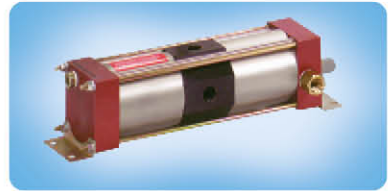
Order example:
R120-02J2

Description	The air amplifier compresses air or nitrogen from a standard pressure of 10 bar max. to the desired outlet pressure of 60 bar max. This is realised by cylinders with different ratios – simple, safe and economical. No electrical installation is required and there is no energy consumption once the final pressure has been reached. Service life 3 million cycles, full load operation 12 min max. per hour.		
Media	lubricated, unlubricated and 50 µm filtered compressed air or nitrogen		
Mounting position	any		
Power device	Cylinder with integrated reversing valve, check valve and silencer. The pressure will be increased selective to the consumer. No energy consumption once final pressure is attained.		
Drive pressure P_A	system air to drive the air amplifier, 2...10 bar		
Supply pressure P₁	max. 12 bar, for instance nitrogen or compressed air		
Outlet pressure P₂	amplified outlet or operating pressure of 20 bar to 100 bar maximum		
Continuous operation	20% of the diagram values should maximally be realised at permanent running		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		
Material	Body: aluminium	Sound level	max. 79 dB (A)
		Seals:	NBR/Buna-N



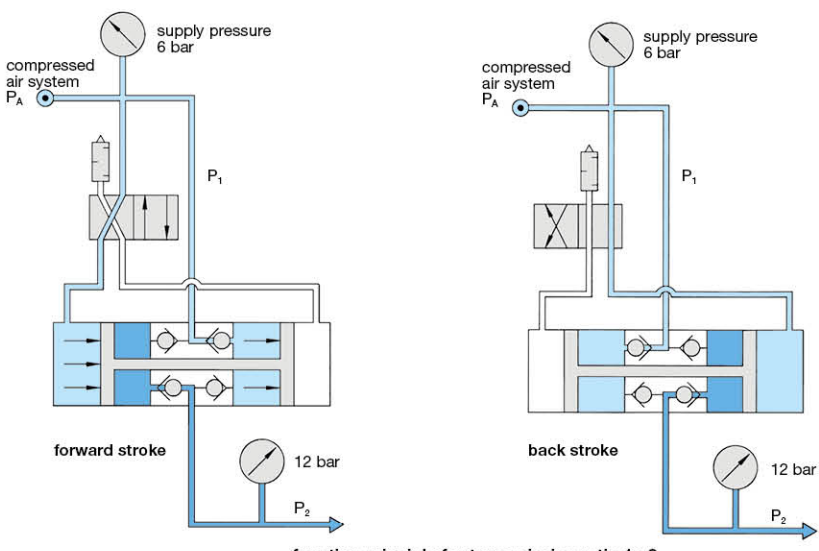
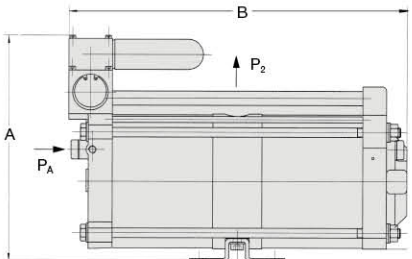
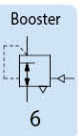
Dimensions			Weight kg	Connection thread G	Transmission ratio P _A : P ₂	Flow rate l/min	P ₂ max. bar	Order number
A mm	B mm	C mm						

Pressure booster / Air amplifier								supply pressure P ₁ max. 12 bar, for compressed air	AM
								drive pressure P _A 2...10 bar	
86	343	84	3.3	G ³ / ₈	1 : 2	580 ^{*1}	20	AM20-0580	
187	324	135	8.5	G ¹ / ₂	1 : 2	960 ^{*1}	20	AM20-0960	
285	427	180	21	G ³ / ₄	1 : 2	1200 ^{*1}	20	AM20-1200	
180	392	135	8.5	G ¹ / ₂	1 : 3	230 ^{*2}	32	AM32-0230	
80	220	80	2.2	G ³ / ₈	1 : 4	50 ^{*3}	40	AM40-0050	
251	471	176	16	G ³ / ₈	1 : 5	360 ^{*4}	60	AM60-0360	
180	421	135	20	G ¹ / ₄	1 : 10	280 ^{*5}	100	AM100-0250	



Special options, add the appropriate letter

- unlubricated operation seals FEC seals for dry compressed air or nitrogen AM...T
- Ex-Atex e.g. Ex II 3G/3D IIB x, more specifications possible AM...EX
- pressure booster for gas up to max. 1500 bar outlet pressure AM...G
- pressure booster for liquids AM...L



*1 at 6 bar supply and 8 bar outlet pressure under full load
 *2 at 8 bar supply and 20 bar outlet pressure under full load
 *3 at 6 bar supply and 16 bar outlet pressure under full load
 *4 at 8 bar supply and 30 bar outlet pressure under full load
 *5 at 8 bar supply and 40 bar outlet pressure under full load

Calculation examples can be found in the appendix

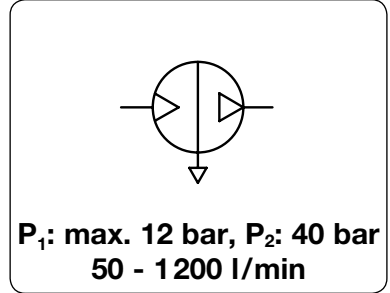
PDF CAD
www.aircom.net

Order example:
AM20-0580

AIR AMPLIFIER STATION WITH TANK

AP

Description	The air amplifier compresses air or nitrogen from a standard pressure of 10 bar max. to the desired outlet pressure of 40 bar max. This is realised by cylinders with different ratios - simple, safe and economical. No electrical installation is required and there is no energy consumption once the final pressure has been reached. Service life 3 million cycles, full load operation 12 min max. per hour.		
Media	lubricated, unlubricated and 50 µm filtered compressed air		
Amplifier station	The pressure booster has an additional tank, pressure regulator, filter, gauge, relief valve and switch-on valve. Pressure pulsation rates are low, air consumption peaks are compensated and the operating pressure can be adjusted.		
Drive pressure P_A	system air to drive the air amplifier, 2...10 bar		
Supply pressure P₁	max. 12 bar, for instance nitrogen or the system air		
Outlet pressure P₂	amplified outlet or operating pressure of 20 bar to 40 bar maximum		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		Sound level max. 79 dB (A)
Material	Body: aluminium	Seals: NBR/Buna-N	Tank: coated steel, SST at AP40-0050



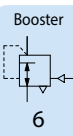
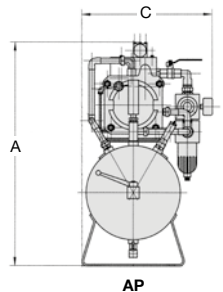
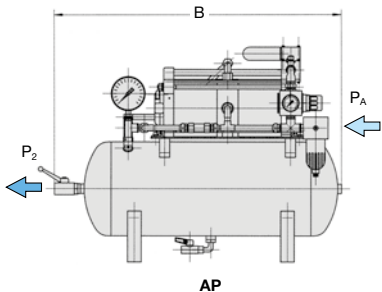
Dimensions			Weight	Tank	Connection	Transmission	Flow	P ₂	Order
A	B	C	kg	volume	thread	ratio	rate	max.	number
mm	mm	mm		l	drive P ₁ / P ₂	P _A : P ₂	l/min ¹	bar ⁵	

Air amplifier station				supply pressure P ₁ max. 12 bar, for compressed air drive pressure P _A 2...10 bar			AP			
220	400	360	13	3	G ³ / ₈	G ³ / ₈	1 : 2	580 ^{*1}	20	AP20-0580
235	400	360	16	3	G ¹ / ₂	G ¹ / ₂	1 : 2	960 ^{*1}	20	AP20-0960
656	844	381	49	40	G ³ / ₈	G ¹ / ₂	1 : 2	1200 ^{*1}	20	AP20-1200
655	844	381	58	40	G ¹ / ₂	G ¹ / ₂	1 : 3	230 ^{*2}	20	AP20-0230
365	400	133	5.3	0.8	G ³ / ₈	G ³ / ₈	1 : 4	50 ^{*3}	40	AP40-0050
655	844	381	45	40	G ¹ / ₂	G ³ / ₈	1 : 5	360 ^{*4}	40	AP40-0360

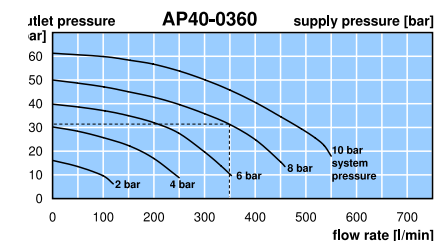
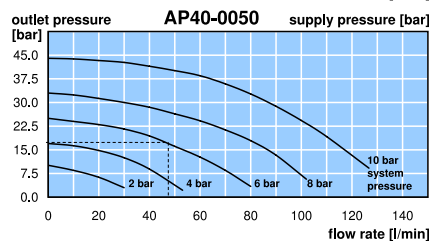
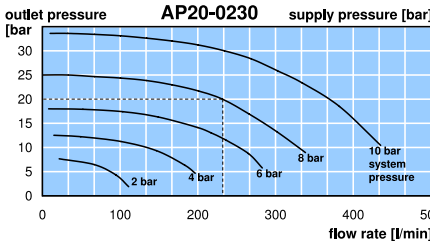
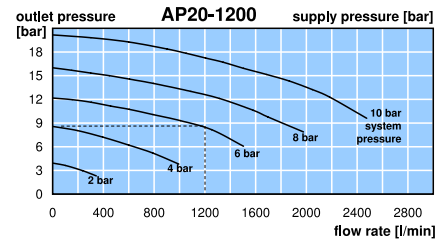
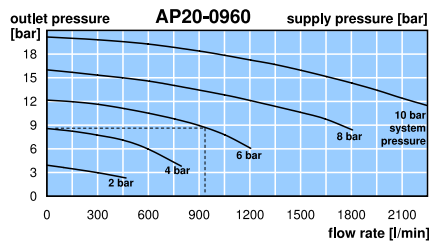
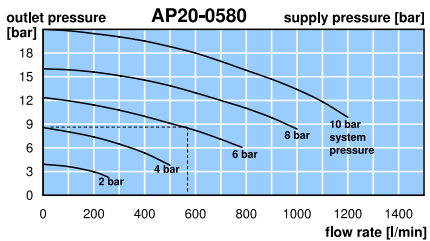


Special options, add the appropriate letter

- unlubricated operation seals FEC seals for dry compressed air or nitrogen AP...T
- Atex e.g. Ex II 3G/3D IIB x, further specifications possible AP...EX
- pressure booster for gasbis P₂ max. 1500 bar AP...6



Performance diagrams for full load operations, max. 12 min/h. 20% of the values at permanent running

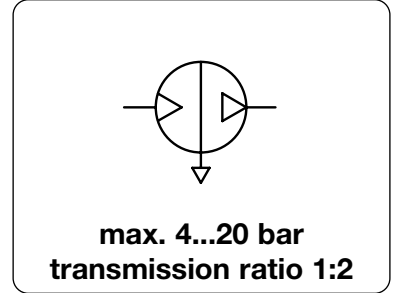


*1 at 6 bar supply and 8 bar outlet pressure under full load
 *2 at 8 bar supply and 20 bar outlet pressure under full load
 *3 at 6 bar supply and 16 bar outlet pressure under full load
 *4 at 8 bar supply and 30 bar outlet pressure under full load
 *5 outlet pressure P₂ limited by the pressure stage of the accumulator, higher pressure ranges on request

Calculation examples can be found in the appendix www.aircom.net PDF CAD

Order example: AP20-0580

Description	The pressure booster doubles the system pressure of e.g. 5 bar to an outlet pressure of 10 bar. The pumping force of two cylindrical chambers compresses the air down to the set outlet pressure within the third chamber while the fourth chamber is vented. Upon reaching the outlet pressure it is turned off, when falling below it is turned on automatically. Pressure boosters are used for occasional demand of compressed air.	
Media	lubricated and 50 µm filtered compressed air	Mounting position any
Drive	double piston intensifier, ratio 1:2	Reversing, check and switching valves provide for automatic control. Life time approx. 20 million switching cycles.
Inlet pressure P₁	2...8 bar	Outlet pressure P₂ 4...16 bar
Air tanks	are recommended. They compensate pressure fluctuations and allow short-term high volume flows. See circuit below.	
Tank filling time	is a measure of booster performance. To reduce the filling time of the tank, it has to be prefilled with input pressure P ₁ . See circuit below.	
Temperature range	-5 °C to 50 °C / 23 °F to 122 °F	
Material	Cylinder: anodized aluminium	seals: NBR/Buna-N



Dimensions			Weight kg	Connection thread G	Transmission ratio P _A : P ₂	Flow rate l/min*1	Fill time 10l-tank s	Pressure range bar	Order number
A mm	B mm	C mm							

Pressure booster									
P ₁ max. 8 bar, for compressed air									
AB									
100	192	70	1.5	G½	1 : 2	130	30	4...16	AB040
117	284	90	3.0	G¾	1 : 2	260	15	4...16	AB063
176	468	155	12	G½	1 : 2	440	6	4...16	AB100



AB040

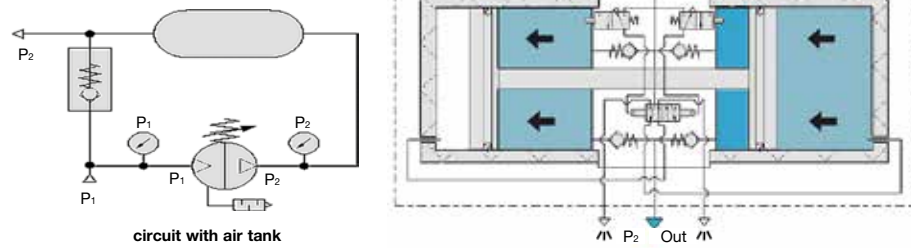
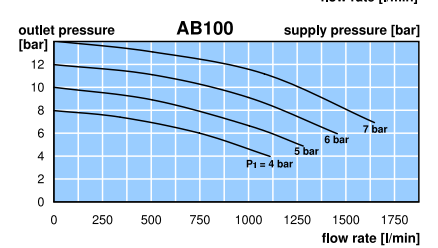
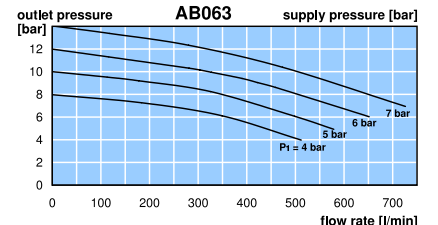
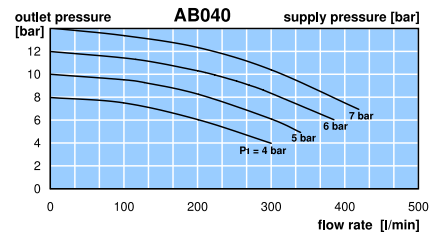
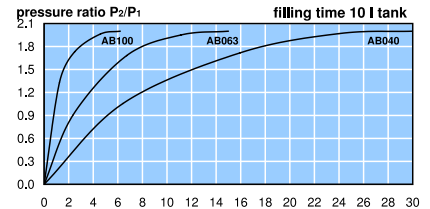
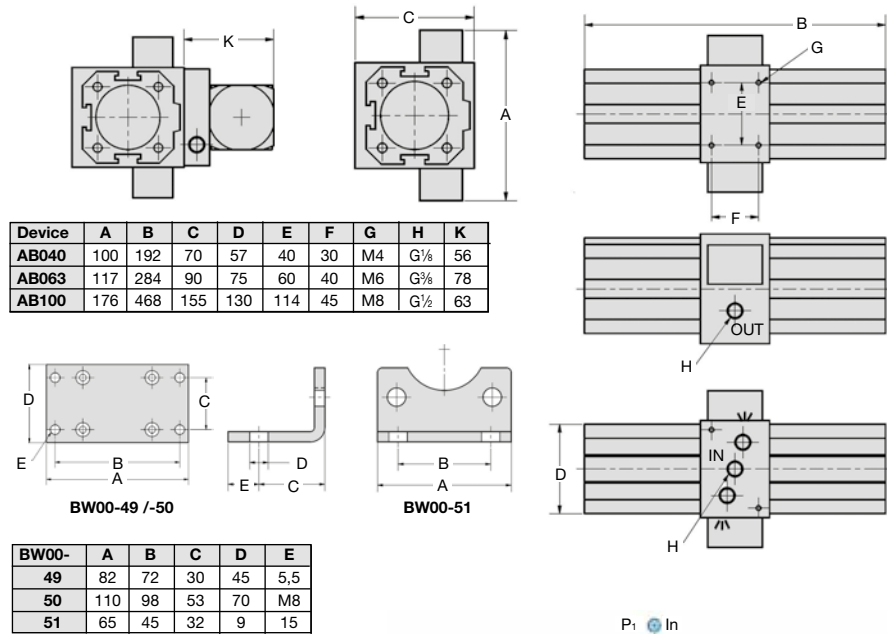
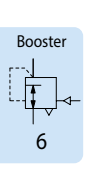
Pressure booster with regulator and gauge									
P ₁ max. 8 bar, for compressed air									
AB-D									
100	192	126	1.5	G½	1 : 2	130	30	4...16	AB040D
117	284	168	3.0	G¾	1 : 2	260	15	4...16	AB063D
176	468	218	12	G½	1 : 2	440	6	4...16	AB100D



AB040D

Accessories, enclosed

Mounting plate	made of steel, central attachment below	for AB040	BW00-49
		for AB063	BW00-50
Mounting bracket	made of steel, mounting at the side, 1 piece	for AB100	BW00-51



*1 at P₂ = 8 bar and 1 bar pressure drop

VACUUM PRESSURE REGULATOR

DESCRIPTION	PRESSURE RANGE	CONNECTION thread	SERIES	PAGE
max. 22 l/min miniature	-850 ... 0 mbar	1/8"NPT	V800	7.02
max. 22 l/min miniature	-850 ... 0 mbar	10-32" and flange	V900	7.02
max. 70 l/min precise	-1 ... +0,4 / 10 bar	G1/4	R250	7.03
max. 330 l/min precise	-990 ... 0 mbar	G1/4 - G1/2	V170	7.04
max. 800 l/min precise	-1 ... +0.7 / 10 bar	G1/2 and G3/4	R251	7.05
vacuum adjustment valve	-1 ... -0.3 / 0 bar	G1/8 - G1	V04/V05	7.06

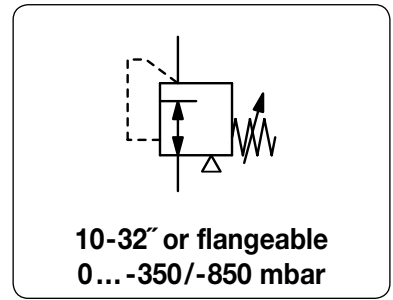


7

MINIATURE VACUUM PRESSURE REGULATOR, MADE OF PLASTIC

V800 / V900

Description	Miniature precision vacuum regulator with diaphragm and high outlet pressure constancy, small dimensions, low weight. 20-turn hysteresis-free adjustment range allows sensitive pressure setting.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. -1000 mbar		
Accuracy	at supply pressure variation of 170 mbar:	< 4 mbar pressure deviation	
	at supply pressure removal/reapplication:	< 7 mbar pressure deviation	
	setting accuracy:	< 2.5 mbar	
Air consumption	0.3 l/min at -1000 mbar supply pressure		
Adjustment	by plastic knob, adjusting screw or preset		
Gauge port	not available		
Mounting position	any		
Temperature range	4 °C to 66 °C / 39 °F to 151 °F		
Material	Body:	polysulfone	Elastomer: NBR/Buna-N
	Inner valve:	stainless steel and acetal	



Dimensions			Pressure adjustment by	Flow rate l/min	Vacuum range mbar	Order number
A	B	C				

Vacuum regulator 10-32"				supply pressure max. -1000 mbar, with constant bleed	V900-W
29	78	8	adjusting knob	22	V900-10WK V900-30WK
29	60	8	adjusting screw	22	V900-10WOS V900-30WOS
29	43	8	preset	22	V901-..

Vacuum regulator with flange				supply pressure max. -1000 mbar, with constant bleed	V900-M
29	78	8	adjusting knob	22	V900-10MWK V900-30MWK
29	60	8	adjusting screw	22	V900-10MWOS V900-30MWOS
29	43	8	preset	22	V901-.. M



V800-.. WK

V900-.. WK



V900-.. WOS



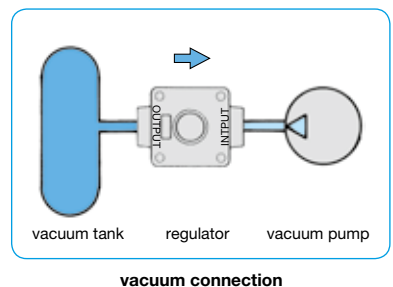
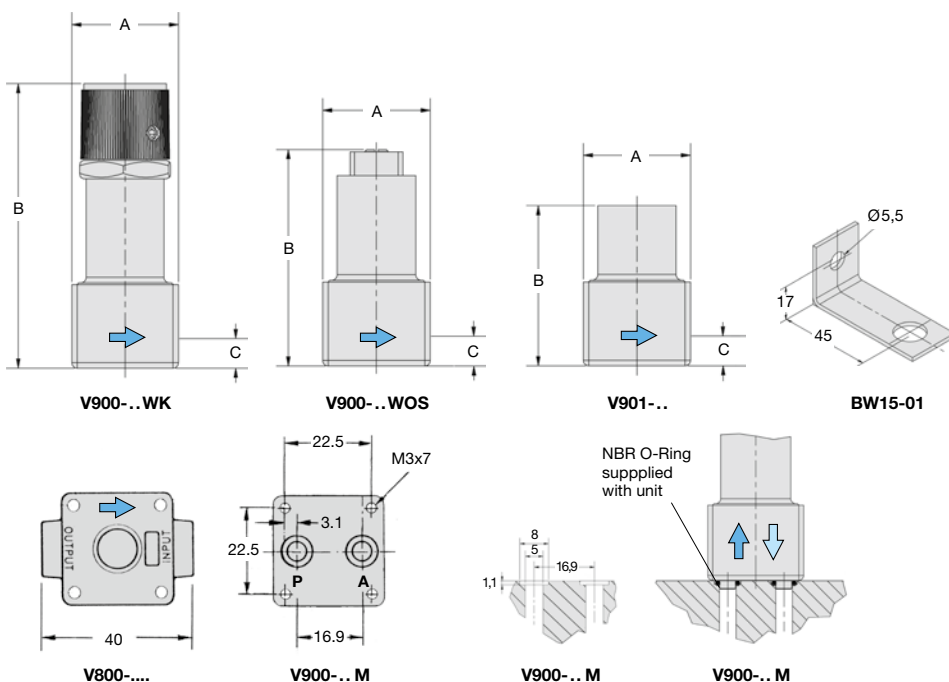
V901-..

Special options, add the appropriate letter or number

1/8" NPT connection thread, width 40 mm V8... ..

Accessories, enclosed

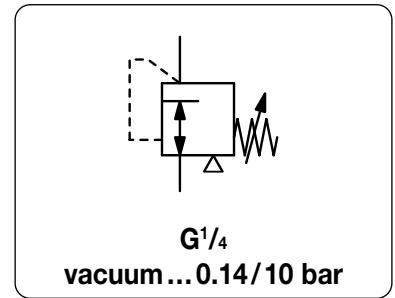
mounting bracket made of steel BW15-01



PRECISION VACUUM PRESSURE REGULATOR 70 L/MIN

R250

Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 17 bar		
Accuracy	response sensitivity: < 2 mbar		
Adjustment	by handwheel with locknut		
Air consumption	max. 2.8 l/min in positive pressure range		
Flow rate	70 l/min*1 in vacuum range,	900 l/min*2 in positive pressure range	
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F		
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N	Inner valve: stainless steel and brass	



Dimensions				K _v value	Flow rate	Connection thread	Vacuum range	Order number
A	B	C	D	m ³ /h	m ³ /h*1 l/min*1	G	bar	

Vacuum pressure regulator								supply pressure max. 17 bar, with constant bleed	R250
68	184	20	65	0,78	4	70	G $\frac{1}{4}$	-1 ... +0.14	R250-020
								-1 ... +0.7	R250-02A
								-1 ... +2.0	R250-02B
								-1 ... +7.0	R250-02C
								-1 ... + 10	R250-02D



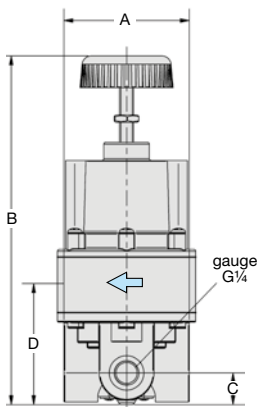
R250

Special options, add the appropriate letter

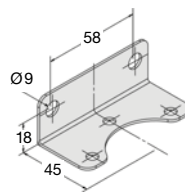
NPT	connection thread	R250-0..N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 189 mm	R250-0..T

Accessories, enclosed

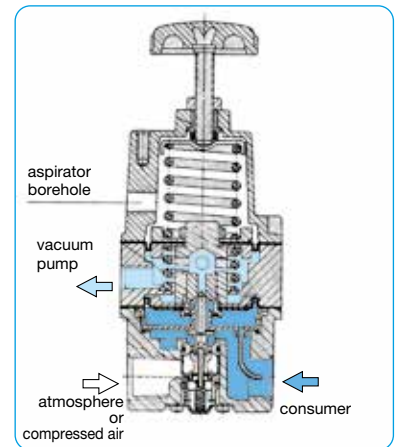
pressure gauge	Ø 63 mm, -1 ... 0 bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-33



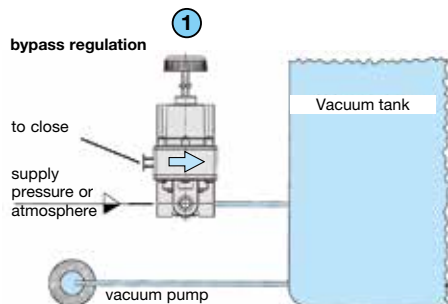
R250



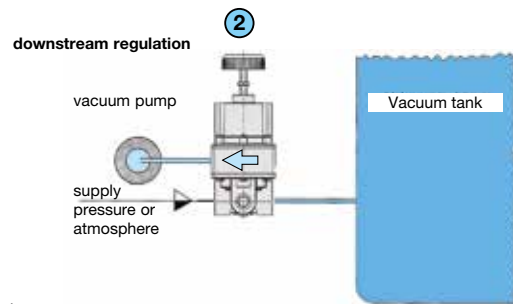
BW00-33



cross-section connection for downstream regulation



1 Bypass regulation
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.



2 Downstream regulation
The regulator is located between the pump and the tank. The vacuum pump is energy-saving and it is easy to fill the tank to its optimal level with pressure or vacuum.

Note
A strainer is provided on the atmospheric or pressure side, but an additional filter is recommended.

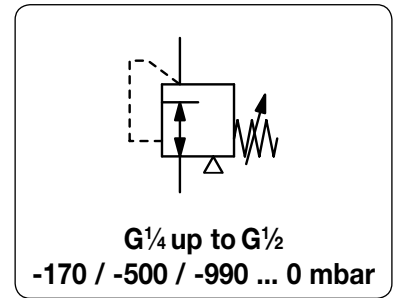
*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R250-020

Description	High precision diaphragm vacuum regulator with high flow capacity. A balanced vacuum valve minimizes the effects of variation.
Media	compressed air or non-corrosive gases
Accuracy	response sensitivity: < 2 mbar
Adjustment	by handwheel with locknut
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F for appropriately conditioned compressed air down to -40 °C / -40°F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and steel



Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread G	Pressure range mbar	Order number
A	B	C		m ³ /h*	l/min*			

Precision vacuum regulator								supply pressure max. -1000 mbar, without constant bleed	V170
67	152	25	1.1	20	330	G $\frac{1}{4}$	-170 ... 0	V170-02A	
							-500 ... 0	V170-02B	
							-990 ... 0	V170-02C	
67	152	25	1.1	20	330	G $\frac{3}{8}$	-170 ... 0	V170-03A	
							-500 ... 0	V170-03B	
							-990 ... 0	V170-03C	
67	152	25	1.1	20	330	G $\frac{1}{2}$	-170 ... 0	V170-04A	
							-500 ... 0	V170-04B	
							-990 ... 0	V170-04C	



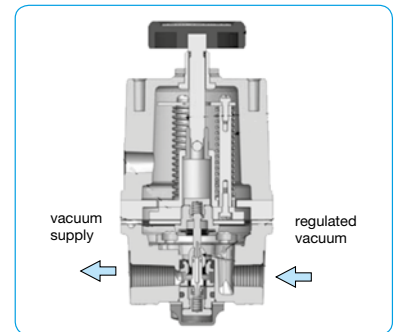
V170

Special options, add the appropriate letter

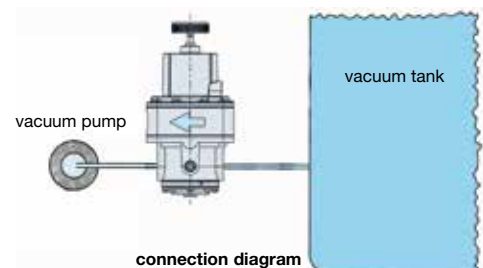
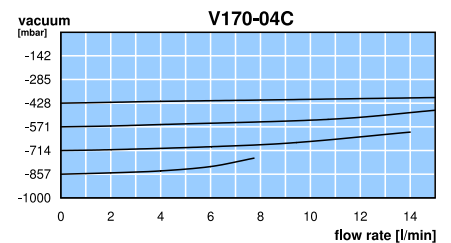
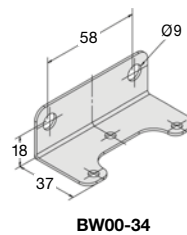
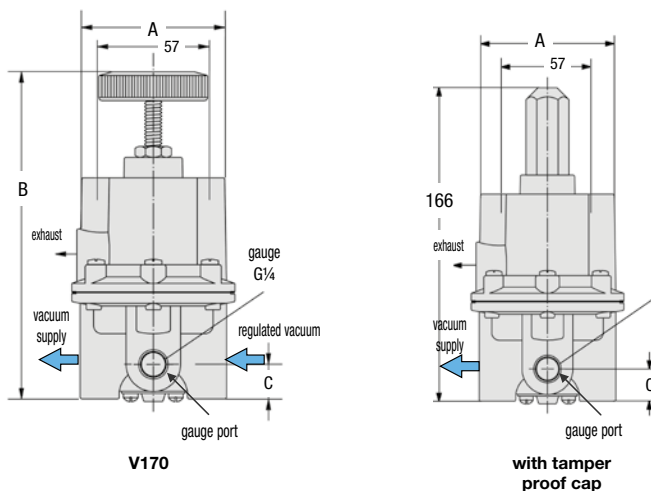
NPT	connection thread	V170-0..N
Verstellsicherung	made of aluminium, adjustment by screwdriver, total height 160 mm	V170-0..T
FKM-Elastomere		V170-0..V

Accessories, enclosed

pressure gauge	Ø 63 mm, 0 bar down to -1bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-34



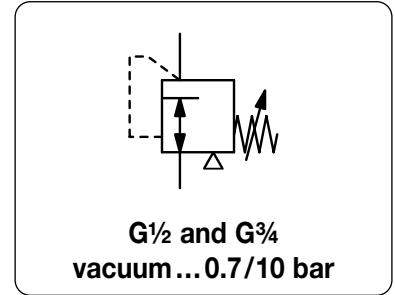
cross-section



PRECISION VACUUM PRESSURE REGULATOR 800 L/MIN

R251

Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 17 bar	
Accuracy	response sensitivity: < 2.5 mbar	
Adjustment	by handwheel with locknut	
Air consumption	without constant bleed	
Flow rate	800 l/min*1 in vacuum range,	4200 l/min*2 in positive pressure range
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	
Mounting position	any	
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F	
Material	Body: aluminium die-cast	Inner valve: stainless steel and brass
	Elastomer: NBR/Buna-N	



Dimensions				K _v	Flow rate	Connection thread	Vacuum range	Order number
A	B	C	D	value	m ³ /h*1	G	bar	
mm	mm	mm	mm	m ³ /h	l/min*1			

Vacuum pressure regulator								supply pressure max. 17 bar, without constant bleed	R251
87	238	40	98	2,5	48	800	G $\frac{1}{2}$	-1 ... +0.7	R251-04A
								-1 ... +2.0	R251-04B
								-1 ... +10	R251-04D
87	238	40	98	2,5	48	800	G $\frac{3}{4}$	-1 ... +0.7	R251-06A
								-1 ... +2.0	R251-06B
								-1 ... +10	R251-06D



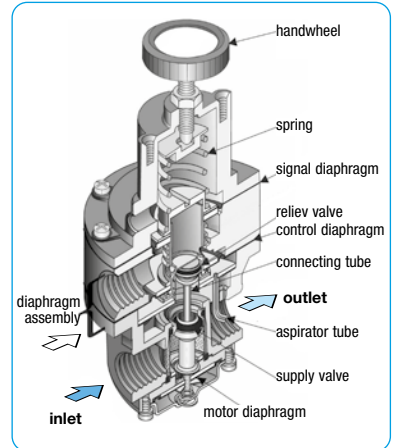
R251

Special options, add the appropriate letter

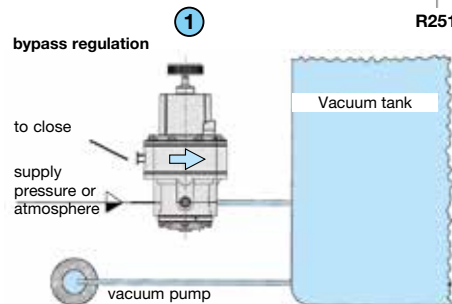
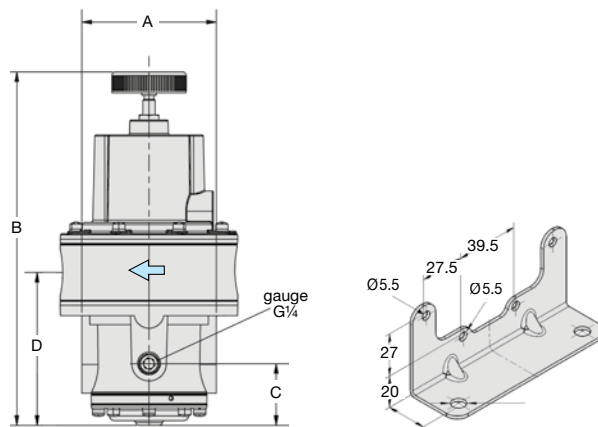
NPT	connection thread	R251-0 . . N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 240 mm	R251-0 . . T
FKM elastomer		R251-0 . . V

Accessories, enclosed

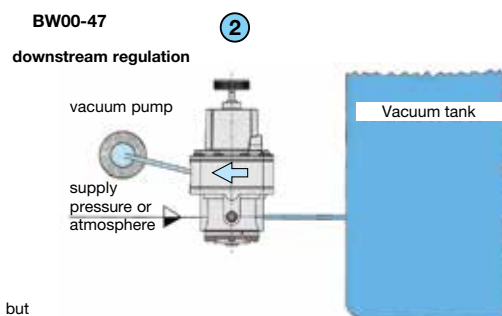
pressure gauge	Ø 63 mm, -1 ... 0 bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-47



cross section
connection for downstream regulation



1 Bypass regulation
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.



2 Downstream regulation
The regulator is located between the pump and the tank. The vacuum pump is energy-saving and it is easy to fill the tank to its optimal level with pressure or vacuum.

Note
A strainer is provided on the atmospheric or pressure side, but an additional filter is recommended.

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

Gauges: see chapter for measuring devices

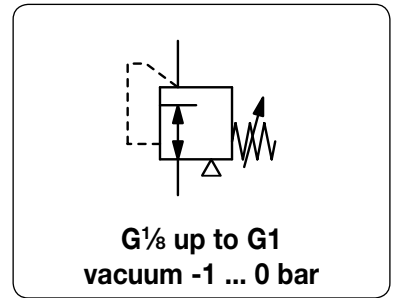
PDF CAD
www.aircom.net

Order example:
R251-04A

VACUUM ADJUSTMENT VALVES

V04 / V05

Description	When these valves reach a certain precalibrated vacuum degree, they introduce atmospheric air into the circuit to prevent the increase of the set value and keep it constant.	
Application	They are used as safety valves on non-commissioned tanks or containers at high vacuum level and on vacuum cup lifting systems.	
Media	compressed air or non-corrosive gases	
Adjustment	V04: by rotating the knurled bush in both directions V05: by knurled head screw or adjusting knob on spindle with fine thread	
Mounting position	any	
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F	
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N	Inner valve: spring steel and brass



Dimensions			Flow rate		Connection thread	Vacuum-range	Order number
A	B	SW	m ³ /h*1	l/min*1	G	bar	

Vacuum adjustment valve						Vacuum regulator with external leakage	V04
45	7	12	4	60	G ¹ / ₈	-1 ... -0.3	V04-01
57	15	24	20	330	G ¹ / ₂	-1 ... -0.3	V04-04
60	12	30	40	660	G ³ / ₄	-1 ... -0.3	V04-06
65	12	35	70	1100	G1	-1 ... -0.3	V04-08



V04-01 V04-04

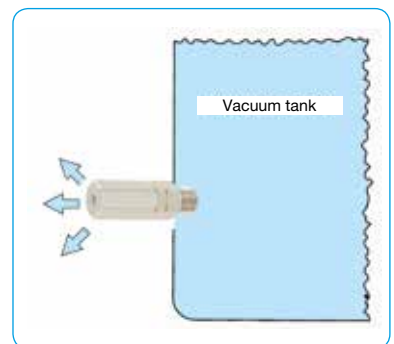
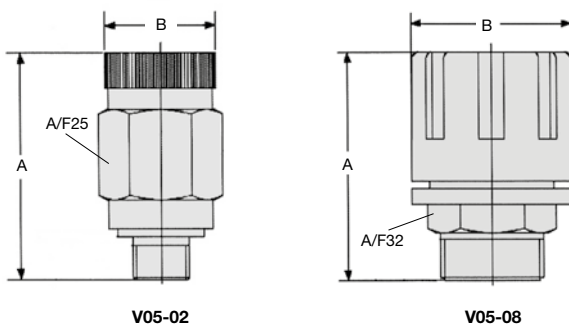
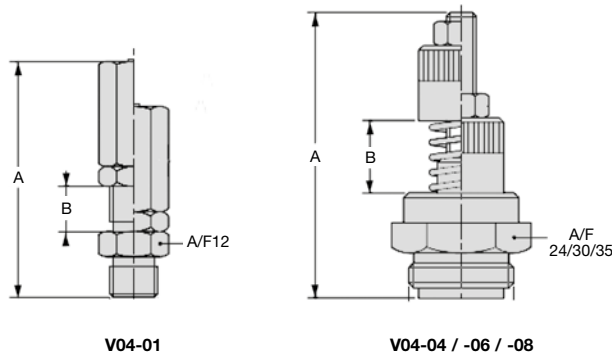
Vacuum adjustment valve, precise						Vacuum regulator with external leakage	V05
63	26	25	4	260	G ¹ / ₄	-1 ... 0	V05-02
82	52	32	20	700	G1	-1 ... 0	V05-08



V04-06 V04-08



V05-02 V05-08



BACK PRESSURE REGULATOR

	DESCRIPTION	OVERPRESSURE	ADJUSTMENT RANGE	CONNECTION	DEVICE	PAGE
		max. bar	bar	thread		
STANDARD	aluminium	30	0.2 ... 1.5 / 15	G $\frac{1}{8}$ - G2	DBC	8.02
	brass	65	0.2 ... 1.5 / 50	G $\frac{1}{8}$ - G2	DBM	8.04
	+130 °C	65	0.2 ... 1.5 / 50	G $\frac{1}{8}$ - G $\frac{1}{2}$	DBM-X54	8.05
PRECISE	high-precision	35	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10BP	8.06
	free of non-ferrous metal	35	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10BP-X63	8.06
	aluminium	17	0.01 ... 0.14 / 10	G $\frac{1}{4}$ - $\frac{1}{2}$ "NPT	DB240	8.07
	aluminium	10	0.001 ... 0.14 / 7	G $\frac{1}{4}$ and G $\frac{3}{8}$	DB300	8.09
	aluminium	17	0.03 ... 0.7 / 10	G $\frac{3}{8}$ - G $\frac{3}{4}$	DB400	8.10
LOW PRESSURE	precise	10	0.002 ... 0.035 / 0.8	G $\frac{1}{4}$ - G $\frac{1}{2}$	DB110	8.08
	precise	6	0.005 ... 0.045 / 3	G $\frac{1}{2}$ - G2	DBC	8.11
PILOT-OPERATED	precise	17	0 ... 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	DB208	8.12
	precise	17	0 ... 10	G $\frac{3}{8}$ - G $\frac{3}{4}$	DB450	8.13
MINIATURE	screw-in, knurled screw	21	1.7 ... 2.4 / 14	G $\frac{1}{4}$ a	59	8.14
	screw-in, plastic knob	21	0 ... 3.5 / 7	G $\frac{1}{4}$ a	130	8.14
	tapped exhaust	21	0 ... 1.0 / 7	G $\frac{1}{4}$	134	8.14
STAINLESS STEEL	for many gases, FDA also	65	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - G2	D3000	15.24
	+130 °C	65	0.1 ... 1.5 / 50	G $\frac{1}{4}$ - G2	D3000-X54	15.27
	low pressure	6	0.005 ... 0.045 / 3	G $\frac{1}{2}$ - G2	D3100	15.28



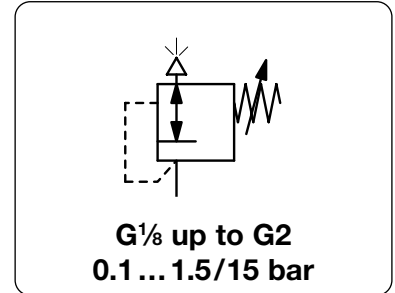
8

Back pressure



8

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 30 bar		
Adjustment	by plastic knob with snap-lock for DBC-01, by handwheel for DBC-02 to -A6 by T-handle with locknut for DBC-06 to -16		
Gauge port	G $\frac{1}{8}$ at DBC-01, G $\frac{1}{4}$ from DBC-02 on, on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Body: aluminium	O-rings: NBR/Buna-N, optionally FKM or EPDM	Inner valve: brass
	Diaphragm: NBR/Buna-N with PTFE coating		



Dimensions			Regul. system	Relief	Over-	Connection	Adjustment	Order
A	B	C	D: diaphragm	capacity	pressure	thread	range	number
mm	mm	mm	P: piston	l/min*1	max. bar	G	bar	

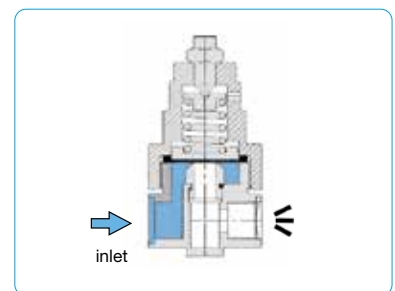
Aluminium back pressure regulator			overpressure max. 30 bar		DBC			
40	82	13	D	200	30	G $\frac{1}{8}$	0.2 ... 1.5	DBC-01A
							0.3 ... 3.0	DBC-01B
							0.8 ... 8.0	DBC-01D
							1.5 ... 15	DBC-01E
40	82	13	D	200	30	G $\frac{1}{4}$	0.2 ... 1.5	DBC-A2A
							0.3 ... 3.0	DBC-A2B
							0.8 ... 8.0	DBC-A2D
							1.5 ... 15	DBC-A2E
78	167	33	D	400	30	G $\frac{1}{4}$	0.2 ... 1.5	DBC-02A
							0.3 ... 3.0	DBC-02B
							0.8 ... 8.0	DBC-02D
							1.5 ... 15	DBC-02E
78	167	33	D	500	30	G $\frac{3}{8}$	0.2 ... 1.5	DBC-03A
							0.3 ... 3.0	DBC-03B
							0.8 ... 8.0	DBC-03D
							1.5 ... 15	DBC-03E
82	178	38	D	2200	30	G $\frac{1}{2}$	0.2 ... 1.5	DBC-04A
							0.3 ... 3.0	DBC-04B
							0.8 ... 8.0	DBC-04D
							1.5 ... 15	DBC-04E
82	178	38	D	2500	30	G $\frac{3}{4}$	0.2 ... 1.5	DBC-A6A
							0.3 ... 3.0	DBC-A6B
							0.8 ... 8.0	DBC-A6D
							1.5 ... 15	DBC-A6E



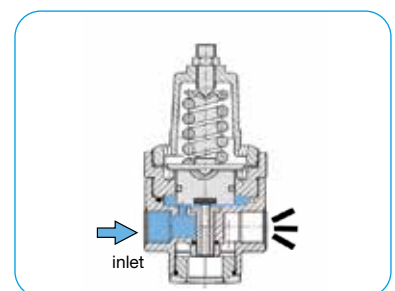
DBC-01/-A2



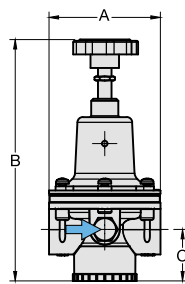
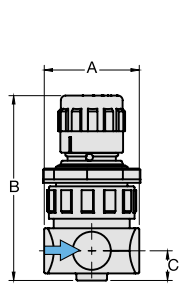
DBC-04/-A6



cross-section with diaphragm (D)



cross-section with piston (P)



*1 at 7 bar overpressure and open outlet

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

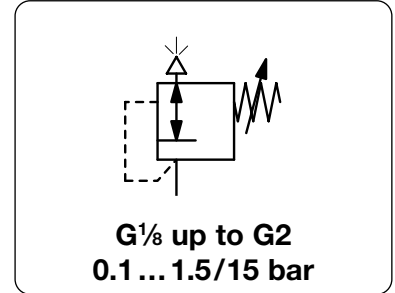
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
DBC-01A

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 30 bar		
Adjustment	by plastic knob with snap-lock for DBC-01, by handwheel for DBC-02 to -A6 by T-handle with locknut for DBC-06 to -16		
Gauge port	G $\frac{1}{8}$ at DBC-01, G $\frac{1}{4}$ from DBC-02 on, on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Body: aluminium	O-rings: NBR/Buna-N, optionally FKM or EPDM	Inner valve: brass
	Diaphragm: NBR/Buna-N with PTFE coating		



Dimensions			Regul. system	Relief capacity	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	D: diaphragm	P: piston	l/min*1	G	bar	

Aluminium back pressure regulator							overpressure max. 30 bar	DBC
215	393	128	P	12000	30	G1½	0.2 ... 1.5	DBC-12A
							0.3 ... 3.0	DBC-12B
							0.8 ... 8.0	DBC-12D
							1.5 ... 15	DBC-12E
215	393	128	P	12000	30	G2	0.2 ... 1.5	DBC-16A
							0.3 ... 3.0	DBC-16B
							0.8 ... 8.0	DBC-16D
							1.5 ... 15	DBC-16E



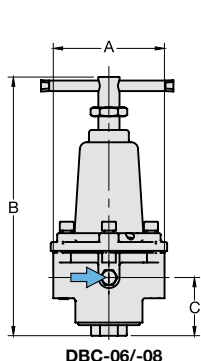
DBC-12/-16

Special options, add the appropriate letter

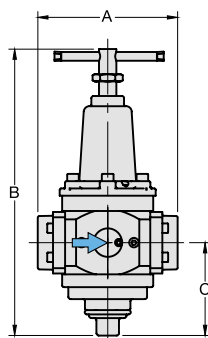
NPT	connection thread	from G $\frac{1}{4}$ (02)	DBC-... N
FKM o-ring	PTFE-diaphragm		DBC-... V
EPDM o-ring	PTFE-diaphragm		DBC-... E
flange connection	see chapter for stainless steel devices / flanges		DBC-... F.

Accessories, enclosed

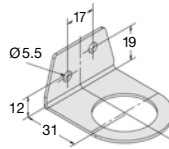
pressure gauges	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$	MA5002-...*2
pressure gauges	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	from G $\frac{1}{2}$	MA6302-...*2
mounting bracket	made of steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	BW30-02
mounting nut	made of aluminium	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	M30x1,5A
mounting bracket	made of steel	for G $\frac{1}{4}$ (02) to G $\frac{3}{4}$ (A6)	BW00-44
		for G $\frac{3}{4}$ (06) and G1	BW00-42
		for G1½ and G2	BW00-61
set of mount. brackets	made of steel		



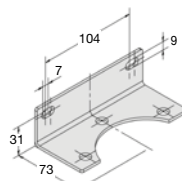
DBC-06/-08



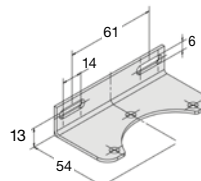
DBC-12/-16



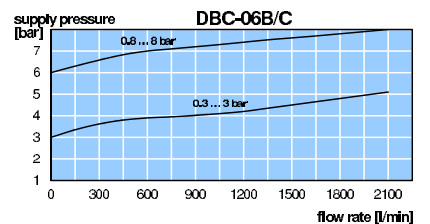
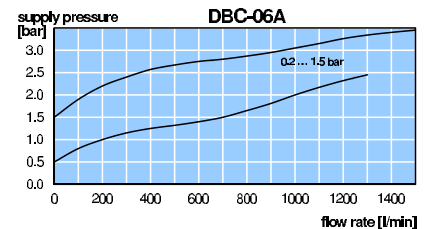
BW30-02



BW00-42



BW00-44



*1 at 7 bar overpressure and open outlet

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 G $\frac{3}{4}$ thread at outlet

Gauges: see chapter for measuring devices

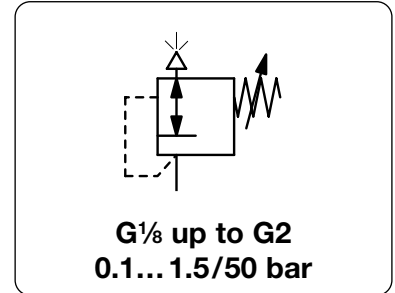
PDF CAD
www.aircom.net

Order example:
DBC-06A

BRASS BACK PRESSURE REGULATOR, UP TO 50 BAR

DBM

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air, non-corrosive gases or liquids		
Adjustment	by spindle with locknut for DBM-01	by black plastic knob with snap-lock for DBM-02	Overpressure see chart, max. 65 bar
Gauge port	by T-handle with locknut for DBM-04/-08	by hexagonal spindle (spanner size 24 mm) with locknut for DBM-12/-16	
Temperature range	G $\frac{1}{4}$ on both sides of the body, from DBC-02 on G $\frac{1}{2}$ at DBM-01, screw plugs supplied 0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F		
Mounting position	any		
Material	Body: brass	O-rings: FKM, optionally EPDM	
	Diaphragm: NBR/Buna-N with PTFE coating	Inner valve: brass	



Dimensions			Regul. system	Relief capacity	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	D: diaphragm P: piston	l/min*1	max. bar	G	bar	

Brass back pressure regulator					overpressure max. 30/65 bar	DBM		
40	82	10	D	400	30	G $\frac{1}{8}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-01A DBM-01B DBM-01D DBM-01E
40	82	10	D	400	30	G $\frac{1}{4}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-A2A DBM-A2B DBM-A2D DBM-A2E
63	140	34	D	800	30	G $\frac{1}{4}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-02A DBM-02B DBM-02D DBM-02E
63	141	34	P		65		3.0 ... 30 5.0 ... 50	DBM-02F DBM-02G
63	140	34	D	800	30	G $\frac{3}{8}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-03A DBM-03B DBM-03D DBM-03E
63	141	34	P		65		3.0 ... 30 5.0 ... 50	DBM-03F DBM-03G
63	156	34						
78	161	38	D	2500	30	G $\frac{1}{2}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-04A DBM-04B DBM-04D DBM-04E
78	157	38	P		65		3.0 ... 30 5.0 ... 50	DBM-04F DBM-04G
118	289	66	D	8000	30	G $\frac{3}{4}$	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-06A DBM-06B DBM-06D DBM-06E
118	314	66	P		65		3.0 ... 30 5.0 ... 50	DBM-06F DBM-06G
118	289	66	D	8000	30	G1	0.2 ... 1.5 0.3 ... 3.0 0.8 ... 8.0 1.5 ... 15	DBM-08A DBM-08B DBM-08D DBM-08E
118	314	66	P		65		3.0 ... 30 5.0 ... 50	DBM-08F DBM-08G



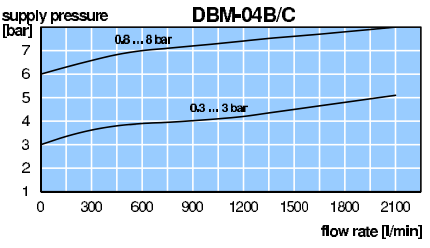
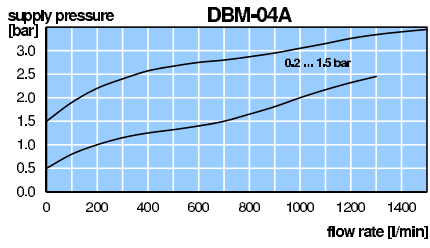
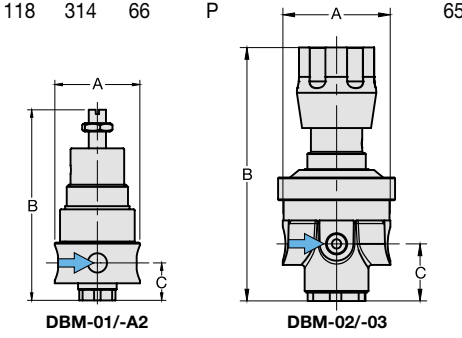
DBM-02/-03



DBM-04

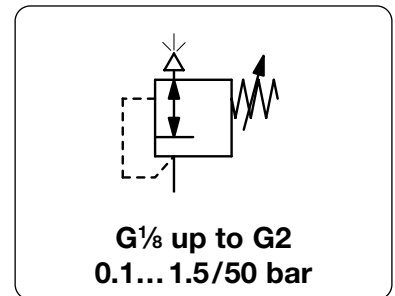


DBM-06/-08



*1 at 7 bar overpressure and open outlet
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar 60 = 0...60 bar

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air, non-corrosive gases or liquids	Overpressure	see chart, max. 65 bar
Adjustment	by spindle with locknut for DBM-01 by T-handle with locknut for DBM-04/-08	by black plastic knob with snap-lock for DBM-02 by hexagonal spindle (spanner size 24 mm) with locknut for DBM-12/-16	
Gauge port	G $\frac{1}{4}$ on both sides of the body, from DBC-02 on	G $\frac{1}{2}$ at DBM-01, screw plugs supplied	
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F		
Mounting position	any		
Material	Body: brass Diaphragm: NBR/Buna-N with PTFE coating	O-rings: FKM, optionally EPDM Inner valve: brass	



Dimensions			Regul. system	Relief capacity	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	D: diaphragm P: piston	l/min*1	max. bar	G	bar	

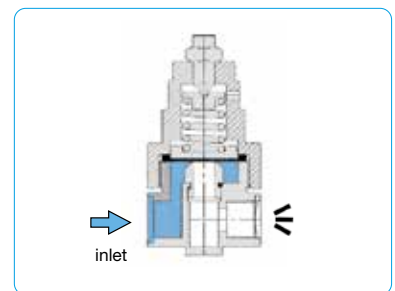
Brass back pressure regulator						overpressure max. 30/65 bar	DBM	
180	385	128	D	25 000	30	G $\frac{1}{2}$	0.2... 1.5 0.3... 3.0 0.8... 8.0 1.5... 15	DBM-12A DBM-12B DBM-12D DBM-12E
180	400	128	P		65		3.0... 30 5.0... 50	DBM-12F DBM-12G
180	385	128	D	25 000	30	G2	0.2... 1.5 0.3... 3.0 0.8... 8.0 1.5... 15	DBM-16A DBM-16B DBM-16D DBM-16E
180	400	128	P		65		3.0... 30 5.0... 50	DBM-16F DBM-16G



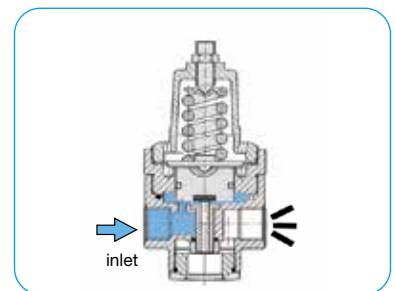
DBM-12/-16

Special options, add the appropriate letter

NPT	connection thread	from G $\frac{1}{4}$ (02)	DBM-... N
down to -40 °C / -40 °F	low temperature version		DBM-... X51
up to 130 °C / 266 °F	high temperature version	up to DBM-04	DBM-0... X54
EPDM o-ring	PTFE diaphragm		DBM-... E
T-handle	instead of knob	DBM-02 only	DBM-02. T
flange connection	see chapter for stainless steel devices / flanges		DBM-... F.
nitrogen	N $_2$: 07	carbon dioxide CO $_2$: 03	argon Ar: DBM-... 05
helium	He: 09	hydrogen H $_2$: 11	methane CH $_4$: DBM-... 13
oxygen	O $_2$: 15	propane C $_3$ H $_8$: 16	nitrous oxide N $_2$ O: DBM-... 17
		water H $_2$ O:	DBM-... W



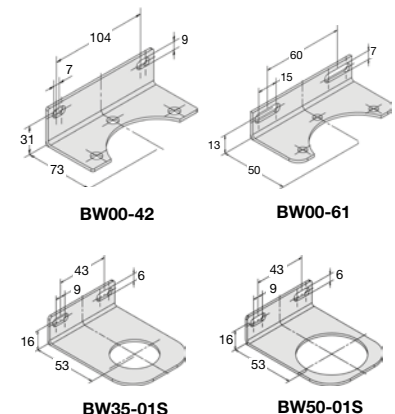
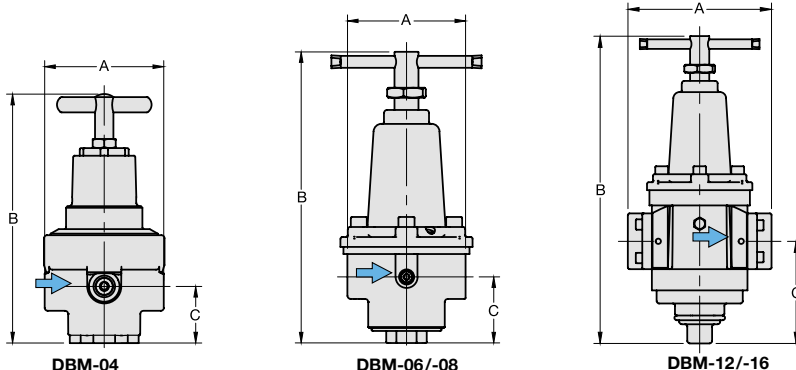
cross-section with diaphragm (D)



cross-section with piston (P)

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$ Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$ Ø 50 / Ø 63 mm, 0...25 bar, G $\frac{1}{4}$ Ø 50 / Ø 63 mm, 0...60 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$ for G $\frac{3}{4}$ to G2 für G $\frac{1}{4}$ bis G2 für G $\frac{1}{4}$ bis G2	MA5002-...*2 MA6302-...*2 MA...02-25 MA...02-60
mounting bracket	made of stainless steel	for G $\frac{1}{4}$ and G $\frac{3}{8}$	BW35-01S
mounting nut	made of stainless steel	for G $\frac{1}{4}$ and G $\frac{3}{8}$	M35x1,5S
mounting bracket	made of stainless steel	for G $\frac{1}{2}$	BW50-01S
mounting nut	made of stainless steel	for G $\frac{1}{2}$	M50x1,5S
mounting bracket	made of steel	for G $\frac{3}{4}$ and G1	BW00-42
set of mount. brackets	made of steel	for G $\frac{1}{2}$ and G2	BW00-61



*1 at 7 bar overpressure and open outlet

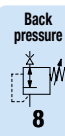
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

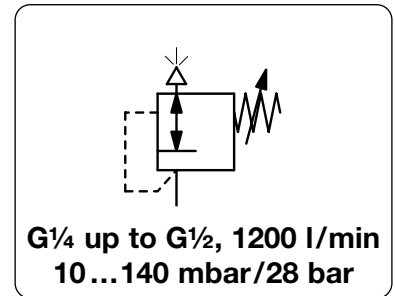


Order example:
DBM-12A



PRECISION BACK PRESSURE REGULATOR OF ADVANCED ACCURACY, UP TO 35 BAR 10BP

Description	The back pressure regulator is a high-flow, high-precision pneumatic relief valve with adjustable setpoint. It provides protection against overpressure in the downstream section of pneumatic systems. A convoluted diaphragm provides the sensitivity for venting to the atmosphere in response to the slightest upstream change.
Media	compressed air or non-corrosive gases
Overpressure	max. 21 bar up to pressure range of 14 bar, max. 35 bar beyond
Adjustment	by handwheel with locknut
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel and brass



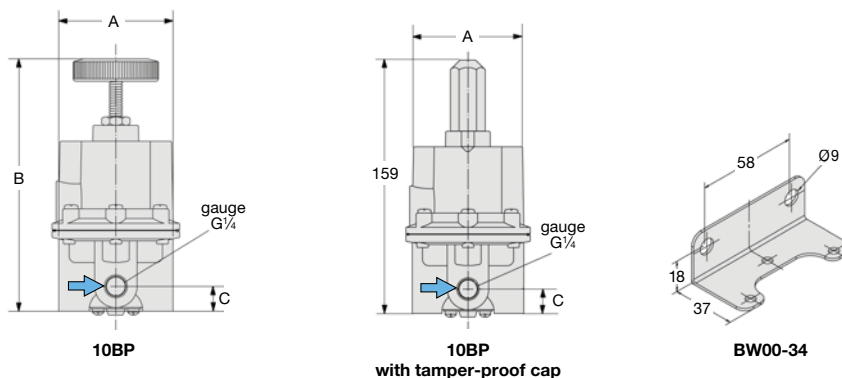
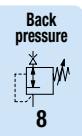
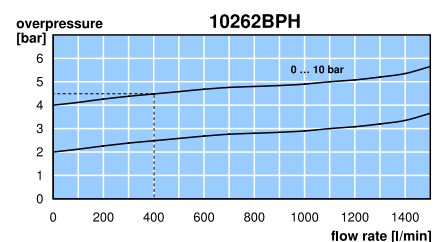
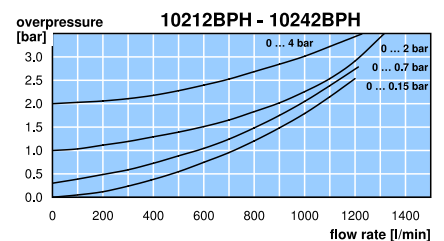
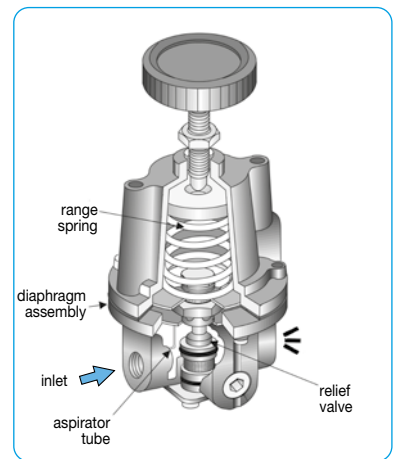
Dimensions			Relief capacity l/min*1	Over- pressure max. bar	Connection thread G	Adjustment range bar	Order number
A	B	C					

Precision back pressure regulator							overpressure max. 21/35 bar	Model 10BP
67	162	19	1200	21	G $\frac{1}{4}$	0.01 ... 0.14	10212BPH	
						0.01 ... 0.7	10222BPH	
						0.01 ... 2.1	10232BPH	
						0.07 ... 4.1	10242BPH	
						0.14 ... 10	10262BPH	
67	171	19	1200	35	G $\frac{1}{4}$	0.20 ... 14	10272BPH	
						0.30 ... 21	10282BPH	
						0.30 ... 28	10292BPH	



Special options, add the appropriate letter		
G $\frac{3}{8}$	connection thread	102.3BPH
G $\frac{1}{2}$	connection thread, recommended for mbar range	102.4BPH
NPT	connection thread	102.2BP
FKM elastomer		102. .BP . J
free of non-ferrous metal	FKM elastomer	102. .BP . X63
tamper-proof cap	aluminium, adjustment by screwdriver, total height 159 mm	102. .BP . T

Accessories, enclosed		
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2 MA5002-25 MA5002-60 MA6302-C2 BW00-34
	Ø 50 mm, 0... 25 bar, G $\frac{1}{4}$	
	Ø 50 mm, 0... 60 bar, G $\frac{1}{4}$	
	Ø 63 mm, 0...160 mbar, G $\frac{1}{4}$	
mounting bracket	made of steel	



*1 at 5 bar overpressure and open outlet
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

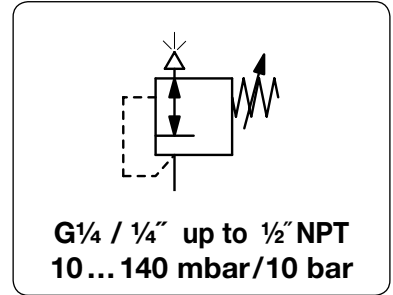
PDF CAD
www.aircom.net

Order example:
10212BPH

PRECISION BACK PRESSURE REGULATOR

DB240

Description	The back pressure regulator is a high-flow, high-precision pneumatic relief valve with adjustable setpoint. It provides protection against overpressure in the downstream section of pneumatic systems. A convoluted diaphragm provides the sensitivity for venting to the atmosphere in response to the slightest upstream change.
Media	compressed air or non-corrosive gases
Overpressure	max. 17 bar
Adjustment	by handwheel with locknut
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



Dimensions			Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
A	B	C					

Precision back pressure regulator							overpressure max. 17 bar	DB240
67	154	19	1100	17	G $\frac{1}{4}$	0.01 ... 0.14	DB240-020	
						0.01 ... 1.0	DB240-02A	
						0.01 ... 2.0	DB240-02B	
						0.07 ... 4.0	DB240-02C	
						0.14 ... 10	DB240-02D	



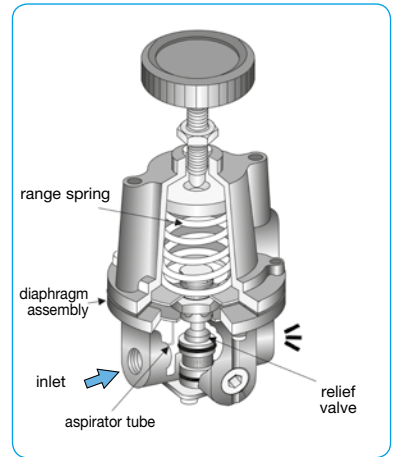
DB240

Special options, add the appropriate letter

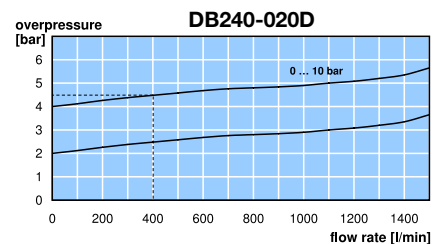
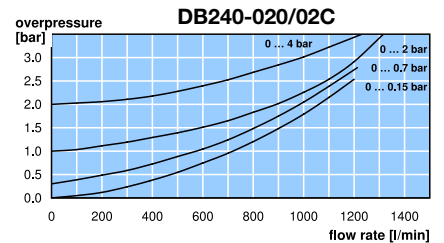
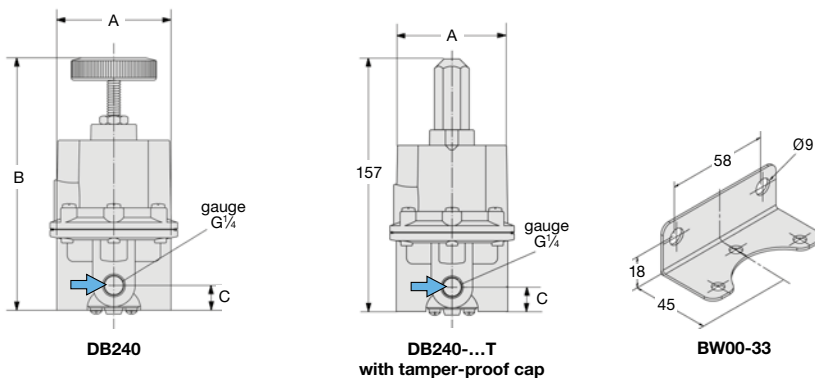
$\frac{1}{4}$" NPT	connection thread	DB240-02 . N
$\frac{3}{8}$" NPT	connection thread	DB240-03 . N
$\frac{1}{2}$" NPT	connection thread, recommended for mbar range	DB240-04 . N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 157 mm	DB240-0 . . T

Accessories, enclosed

pressure gauge	\varnothing 50 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube, from 1 bar on	MA5002-...*2
	\varnothing 63 mm, 0...160 mbar, G $\frac{1}{4}$, capsule type	MA6302- C2
mounting bracket	made of steel	BW00-33



cross-section



*1 at 5 bar overpressure and open outlet
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB240-020

Description Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.

Media compressed air or non-corrosive gases

Recommendation connection thread G½ for pressure range 0...35 / 140 / 280 mbar

Overpressure max. 10 bar

Accuracy response sensitivity <2 mbar

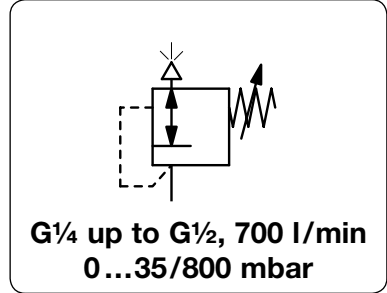
Adjustment by handwheel with locknut

Gauge port G¼ on both sides of the body, screw plugs supplied

Mounting position any

Temperature range 0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F

Material Body: aluminium die-cast
Elastomer: NBR/Buna-N, optionally FKM
Inner valve: stainless steel and brass



Dimensions			Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number
A	B	C					

Low back pressure regulator							overpressure max. 10 bar	DB110
67	180	25	700	10	G¼	2... 35	DB110-020	
						2... 140	DB110-02A	
						2... 280	DB110-02B	
						2... 400	DB110-02C	
						2... 800	DB110-02D	
67	180	25	700	10	G½	2... 35	DB110-040	
						2... 140	DB110-04A	
						2... 280	DB110-04B	
						2... 400	DB110-04C	
						2... 800	DB110-04D	



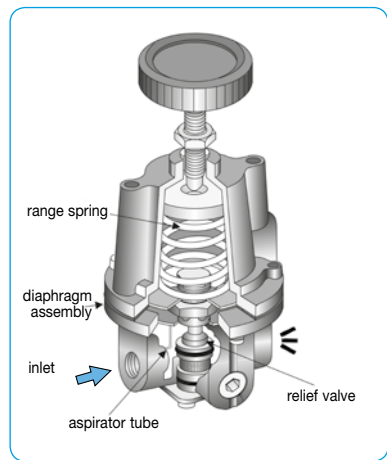
DB110

Special options, add the appropriate letter

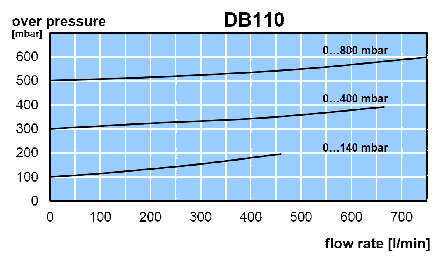
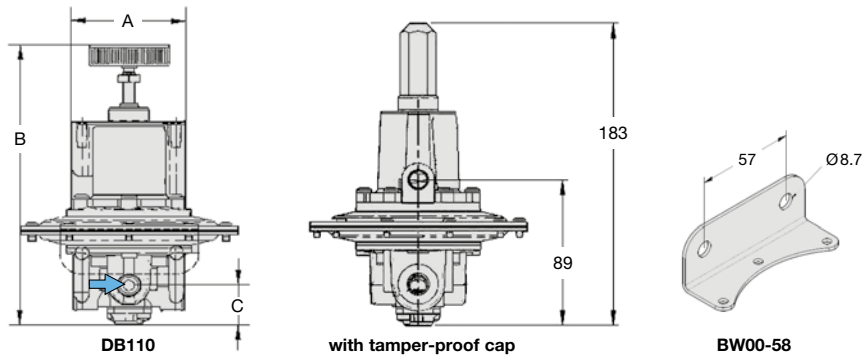
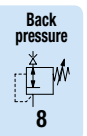
G¾	connection thread	DB110-0.. 3
NPT	connection thread	DB110-0.. N
FKM elastomer		DB110-0.. V
tamper-proof cap	aluminium, adjustment by screwdriver, total height 183 mm	DB110-0.. T

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 mbar, G¼, capsule type	MA6302-...*2
	Ø 63 mm, 0... 1 bar, G¼, Bourdon tube	MA6302-01
connecting parts gauge	at NPT connection thread, adapter ¼" NPT - G¼i	VP-0202N
mounting bracket	made of steel	BW00-58



functional principle

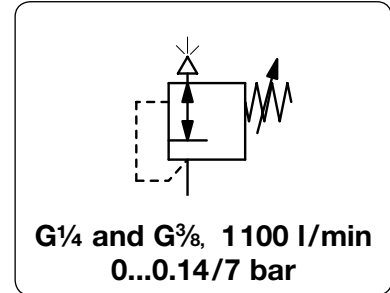


*1 at 200 mbar overpressure and open outlet
*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar

PRECISION BACK PRESSURE REGULATOR, SMALL AND LIGHTWEIGHT

DB300

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 10 bar
Accuracy	response sensitivity <2 mbar
Adjustment	by handwheel with locknut
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass



Dimensions			Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number
A	B	C					

Precision back pressure regulator							overpressure max. 10 bar	DB300
57	126	19	1100	10	G $\frac{1}{4}$	0.001... 0.14	DB300-020	
						0.01 ... 0.7	DB300-021	
						0.03 ... 2.0	DB300-02A	
						0.07 ... 4.0	DB300-02B	
						0.14 ... 7.0	DB300-02C	
57	126	19	1100	10	G $\frac{3}{8}$	0.001... 0.14	DB300-030	
						0.01 ... 0.7	DB300-031	
						0.03 ... 2.0	DB300-03A	
						0.07 ... 4.0	DB300-03B	
						0.14 ... 7.0	DB300-03C	



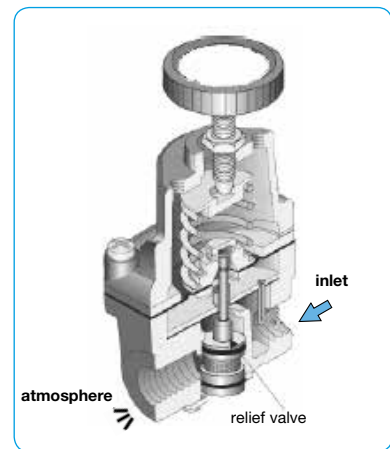
DB300

Special options, add the appropriate letter

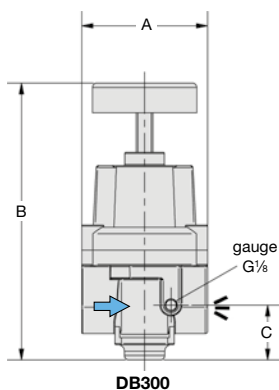
NPT	connection thread	DB300-0..N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 141 mm	DB300-0..T
FKM elastomer		DB300-0..V

Accessories, enclosed

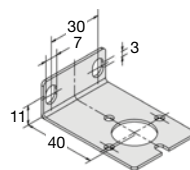
pressure gauge	Ø 63 mm, 0... 160 mbar, G $\frac{1}{4}$ -connecting parts required	MA6302-C2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{8}$	MA5001-...*2
connecting parts gauge	for MA6302-C2	AM-04
mounting bracket	made of steel	BW00-46



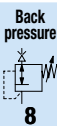
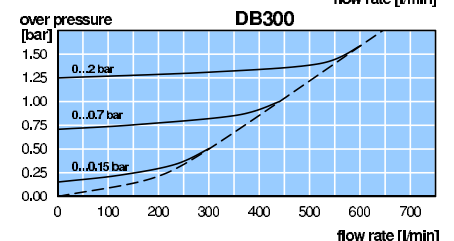
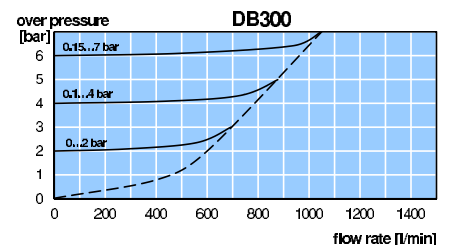
cross-section



DB300



BW00-46



*1 at 7 bar overpressure and open outlet
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

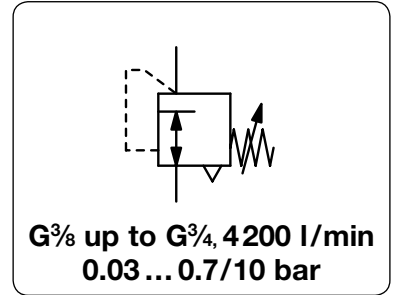


Order example:
DB300-020

PRECISION BACK PRESSURE REGULATOR

DB400

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 17 bar
Adjustment	by handwheel with locknut
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and cadmium-plated steel



Dimensions			Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number
A	B	C					

Precision back pressure regulator							overpressure max. 17 bar	DB400
89	206	39	3 800	17	G $\frac{3}{8}$	0.03 ... 0.7		DB400-031
						0.03 ... 2.0		DB400-03A
						0.07 ... 4.0		DB400-03B
						0.15 ... 10		DB400-03C
89	206	39	4 000	17	G $\frac{1}{2}$	0.03 ... 0.7		DB400-041
						0.03 ... 2.0		DB400-04A
						0.07 ... 4.0		DB400-04B
						0.15 ... 10		DB400-04C
89	206	39	4 200	17	G $\frac{3}{4}$	0.03 ... 0.7		DB400-061
						0.03 ... 2.0		DB400-06A
						0.07 ... 4.0		DB400-06B
						0.15 ... 10		DB400-06C



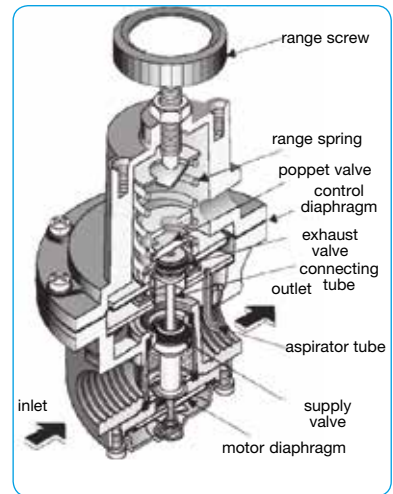
DB400

Special options, add the appropriate letter

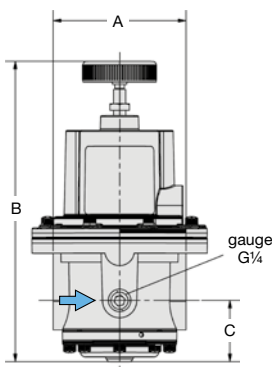
NPT	connection thread	DB400-0..N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 295 mm	DB400-0..T
FKM elastomer		DB400-0..V

Accessories, enclosed

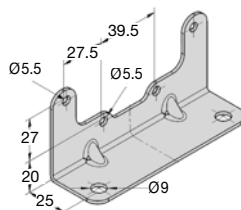
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-...*
mounting bracket	made of steel	BW00-47



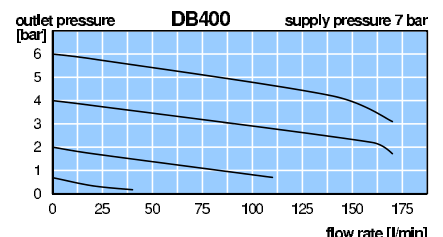
cross-section



DB400



BW00-47



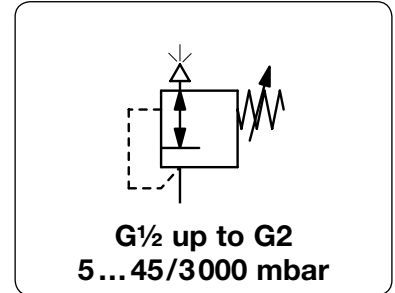
*1 at 7 bar inlet pressure and 1.4 bar outlet pressure
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB400-031

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 6 bar
Adjustment	by handwheel with locknut for DBC-04 by hexagonal spindle (spanner size 24 mm) with locknut for DBC-08/-16
Gauge port	G $\frac{1}{4}$ for operation pressure, on both sides of the body, connection parts required
Mounting position	any
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: aluminium Diaphragm: NBR/Buna-N with PTFE coating O-rings: NBR/Buna-N, optionally FKM or EPDM Inner valve: brass



Dimensions			Relief capacity l/min*1	Over- pressure max. bar	Connection thread G	Adjustment range mbar	Order number
A	B	C					
mm	mm	mm					

Aluminium back pressure regulator			NBR/Buna-N with PTFE coating	DBC			
82	191	38	300	6	G $\frac{1}{2}$	5 ... 45	DBC-04N
			500			20 ... 200	DBC-04P
			1000			150 ... 700	DBC-04Q
161	299	45	1300	6	G $\frac{3}{4}$	50 ... 300	DBC-06P
			2300			100 ... 700	DBC-06Q
			5000			200 ... 1200	DBC-06R
161	299	45	1300	6	G1	50 ... 300	DBC-08P
			2300			100 ... 700	DBC-08Q
			5000			200 ... 1200	DBC-08R
265	299	45	1300	6	G $1\frac{1}{4}$	50 ... 300	DBC-10P
			2300			100 ... 700	DBC-10Q
			5000			200 ... 1200	DBC-10R
265	299	45	1300	6	G $1\frac{1}{2}$	50 ... 300	DBC-1AP
			2300			100 ... 700	DBC-1AQ
			5000			200 ... 1200	DBC-1AR
215	444	128	2500	6	G $1\frac{1}{2}$	20 ... 50	DBC-12N
			5000			50 ... 150	DBC-12P
			7500			150 ... 300	DBC-12Q
			10000			300 ... 3000	DBC-12R
215	444	128	2500	6	G2	20 ... 50	DBC-16N
			5000			50 ... 150	DBC-16P
			7500			150 ... 300	DBC-16Q
			10000			300 ... 3000	DBC-16R



DBC-04



DBC-06/-08



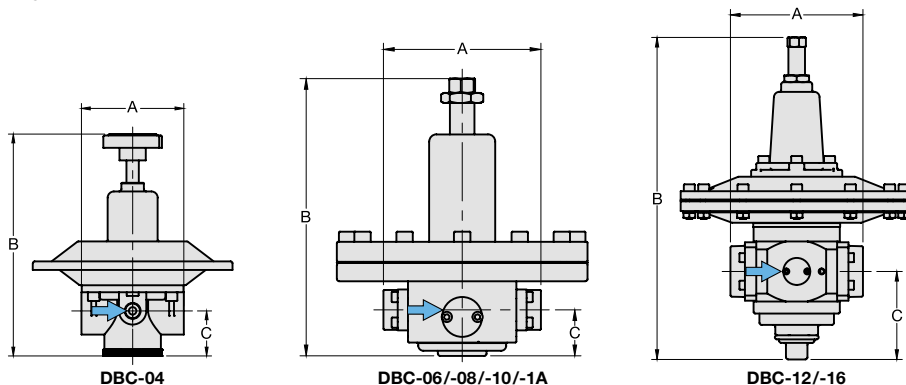
DBC-12/-16

Special options, add the appropriate letter

NPT	connection thread	for G $\frac{1}{2}$, G $1\frac{1}{2}$ (12) and G2	DBC-... N
NPT	connection thread	for G $\frac{3}{4}$ to G $1\frac{1}{2}$ (1A)	DBC-... N
FKM o-ring	PTFE-diaphragm		DBC-... V
EPDM o-ring	PTFE-diaphragm		DBC-... E
flange connection	see chapter for stainless steel devices / flanges		DBC-... F.

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$, capsule type, up to 400 mbar	MA6302-...*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube, up 1 bar	MA6302-...*2
connection parts	required for pressure gauge	AM-01
mounting bracket	made of stainless steel	BW00-26S

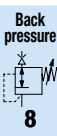


*1 at 6 bar overpressure and open outlet
*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C4 = 0...400 mbar, C01 = 0...1 bar, 04 = 0...4 bar, 06 = 0...6 bar

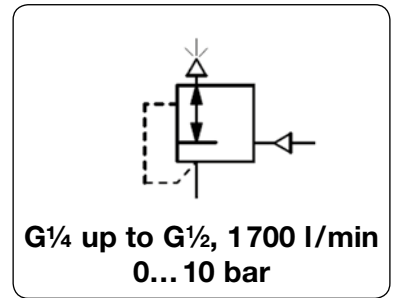
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DBC-04N



Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 17 bar	Pilot pressure	0 ... 10 bar
Accuracy	1% at 7 bar pilot pressure	Response sensitivity	1 mbar
Adjustment	depending on the level of signal pressure the response value will change accordingly		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die casting O-rings: NBR/Buna-N, optionally FKM	Elastomer:	NBR/Buna-N Inner valve: brass and zinc-plated steel



Dimensions			Relief capacity	Over-pressure	Adjustment range	Connection thread	Order number
A	B	C	l/min*1	max. bar	bar	G	

Back pressure regulator, pilot-operated							pilot pressure overpressure	0...10 bar max. 17 bar	DB208
76	98	24	1700	17	0... 10	G $\frac{1}{4}$		DB208-02	
						G $\frac{3}{8}$		DB208-03	
						G $\frac{1}{2}$		DB208-04	



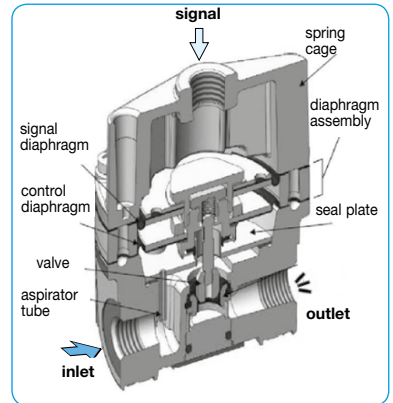
DB208

Special options, add the appropriate letter

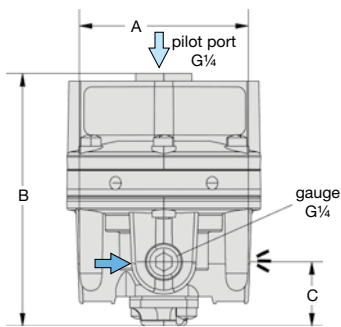
NPT	connection thread	DB208-0.N
FKM elastomer		DB208-0.V

Accessories, enclosed

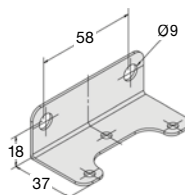
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-34



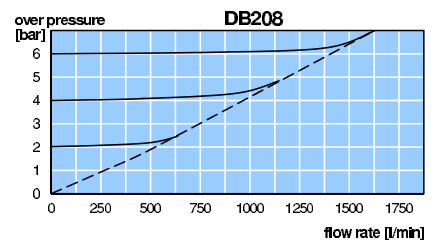
cross-section



DB208



BW00-34



*1 at 7 bar inlet pressure and open outlet
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

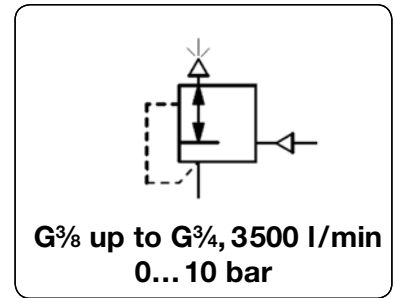


Order example:
DB208-02

PRECISION BACK PRESSURE REGULATOR, PILOT-OPERATED

DB450

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 17 bar	Pilot pressure	0 ... 10 bar
Accuracy	3% at 7 bar pilot pressure	Response sensitivity	2.5 mbar
Adjustment	depending on the level of signal pressure the response value will change accordingly		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die casting O-rings: NBR/Buna-N, optionally FKM	Elastomer:	NBR/Buna-N
		Inner valve:	brass and aluminium



Dimensions			Relief capacity	Over-pressure	Adjustment range	Connection thread	Order number
A	B	C	l/min*1	max. bar	bar	G	

Back pressure regulator, pilot-operated						pilot pressure overpressure	0...10 bar max. 17 bar	DB450
87	129	40	3500	17	0... 10	G $\frac{3}{8}$		DB450-03
						G $\frac{1}{2}$		DB450-04
						G $\frac{3}{4}$		DB450-06



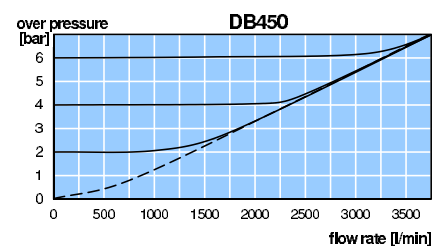
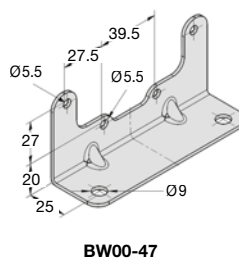
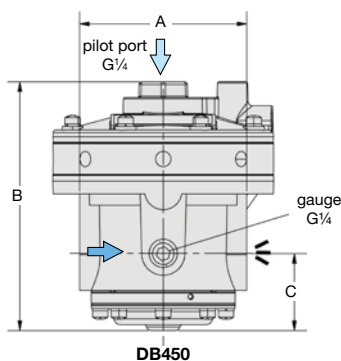
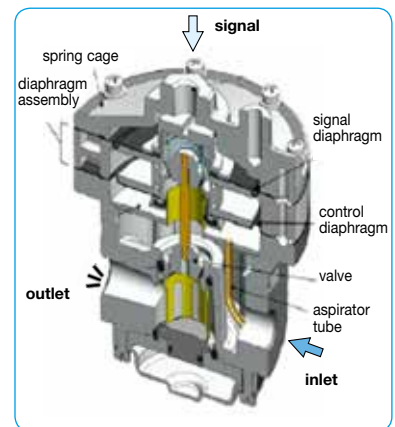
DB450

Special options, add the appropriate letter

NPT	connection thread	DB450-0. N
FKM elastomer		DB450-0. V

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
mounting bracket	made of steel	BW00-47



*1 at 6 bar inlet pressure and open outlet

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
DB450-03

Description Pressure relief valve for protecting compressed air devices from overpressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible. Low-cost piston-operated valve of small size and high relief capacity.

Model 59 Small, sensitive diaphragm-type valve made to screw in. Relief flow is proportional to overpressure. Model 134 features a tapped exhaust.

Media compressed air or non-corrosive gases, model 134 also for liquids

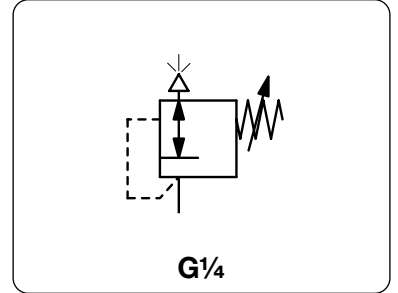
Overpressure Adjustment max. 21 bar by knurled screw at model 59 by plastic knob with snap-lock at model 130 and 134

Gauge port model 134: for inlet pressure G $\frac{1}{8}$ on both sides of the body model 59/130: not available

Temperature range 0 °C to 50 °C / 32 °F to 132 °F

Material Body: aluminium at model 59 and 130, brass at model 134
Elastomer: NBR/Buna-N at model 130 and 134
Spring cage: plastic at type 130 and 134

Mounting position any
brass at model 134
Seal: silicone at model 59
Inner valve: brass



Dimensions			relief capacity	Over-pressure	Connection	Adjustment	Order number
A	B	C	l/min*1	max. bar	thread	range	
mm	mm	mm			G	bar	

Back pressure regulator				overpressure max. 21 bar, with male thread	Model 59
20	50	-	1500	21	G $\frac{1}{4}$ a
					1.7 ... 2.4
					2.8 ... 3.5
					3.8 ... 14
					59-02A- 35
					59-02A- 50
					59-02A-200



Model 59

Back pressure regulator				overpressure max. 21 bar, with male thread	Model 130
43	88	-	540	21	G $\frac{1}{4}$ a
					0 ... 3.5
					0 ... 7.0
					130-02- 50
					130-02-100



Model 130

Back pressure regulator				overpressure max. 21 bar with tapped exhaust and gauge port	Model 134
40	76	10	540	21	G $\frac{1}{4}$
					0 ... 1.0
					0 ... 1.8
					0 ... 3.5
					0 ... 7.0
					134-02- 15
					134-02- 25
					134-02- 50
					134-02-100



Model 134

Special options, add the appropriate letter

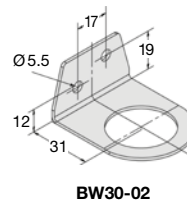
free of grease and oil specially cleaned, suitable for oxygen for 130 and 134 13.-02-... L

Accessories, enclosed

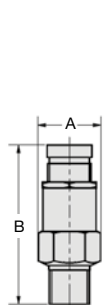
pressure gauge	Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{8}$	for 134	MA4001-... ^{*2}
mounting bracket	made of steel	for 130 and 134	BW30-02
mounting nut	made of plastic	for 130 and 134	M30x1,5K
	made of aluminium	for 130 and 134	M30x1,5A

Model 59			relief		
range	set pressure	capacity	range	set pressure	capacity
bar	Druck	l / min	bar	Druck	l / min
3.8 ... 14	1.8 bar	500			
	3.6 bar	900			
	5.4 bar	1 100			
	7.0 bar	1 500			
	8.6 bar	1 700			
	10.0 bar	2 000			

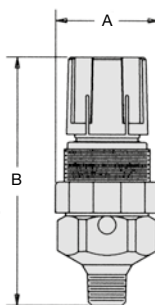
Model 130			relief		
range	set pressure	capacity	range	set pressure	capacity
bar	Druck	l / min	bar	Druck	l / min
0 ... 3.5	0.7 bar	50			
	1.8 bar	190			
	3.6 bar	310			
0 ... 7	3.6 bar	280			
	5.2 bar	385			
	7.0 bar	540			



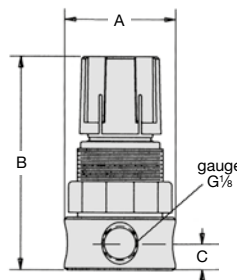
BW30-02



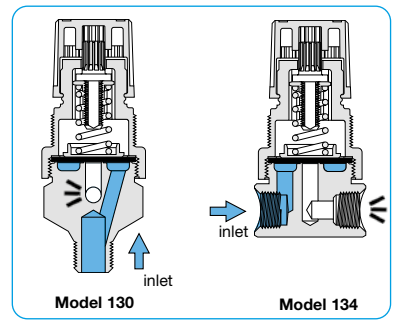
Model 59



Model 130



Model 134



cross-section

*1 at 7 bar overpressure and open outlet
*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
59-02A-35

WATER PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE max. bar	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
MINIATURE	made of plastic	11	0 ... 1 / 9	G $\frac{1}{8}$ and G $\frac{1}{4}$	R25	9.02
	made of plastic	11	0 ... 1.8 / 9	G $\frac{1}{4}$ and G $\frac{3}{8}$	R45	9.02
	preset, for drinking water	10	1 / 2 / 3... 8	G $\frac{1}{4}$	239K	9.03
STANDARD	female thread	60	0.2 ... 2 / 45	G $\frac{1}{4}$ - G2	RWI	9.04
	male thread	25	0.2 ... 2 / 20	R $\frac{3}{8}$ " - R2 $\frac{1}{2}$ "	RWA	9.06
	flange	40	0.2 ... 2 / 20	DN 8-DN125	RWF	9.08
	stainless steel, flange	40	0.2 ... 2 / 20	DN15-DN50	RAF	9.10
	stainless steel, female thread	40	0.2 ... 2 / 20	G $\frac{1}{2}$ - G2	RAI	9.11
STEAM PRESSURE REGULATOR	spheroidal graphite iron	19	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, flange	RU	9.12
	red brass	17	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, flange	RU-R	9.12
	stainless steel	19	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, flange	RU-S	9.12

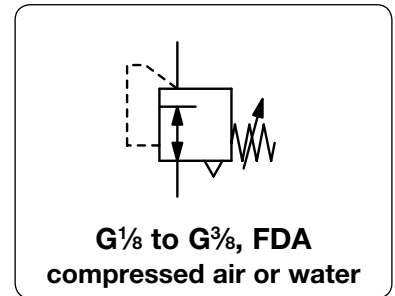


9

Special



Description	Miniature pressure regulator with diaphragm, designed for compressed air and water applications. All internal wetted sections are corrosion-resistant, lead free and without any brass components. Material approved by the NSF and FDA. Regulator for modular application with many integrated fixing holes.		
Media	compressed air, non-corrosive gases or water		
Supply pressure	max. 11 bar		
Adjustment	by plastic knob with snap-lock		
Relieving function	relieving for air, non-relieving for water		
Gauge port	G $\frac{1}{8}$ on both sides of R25,	G $\frac{1}{4}$ on both sides of R45, screw plugs supplied	
Mounting position	any		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: glass fibre-reinforced acetal	Elastomer: NBR/Buna-N	
	Inner valve: glass fibre-reinforced acetal		



Dimensions			Flow rate		Connection	Pressure	Order no.	Order no. for
A	B	C	water	air	thread	range	for water	compressed air
mm	mm	mm	l/min*1	l/min*1	G	bar	non-relieving	relieving

Pressure regulator							supply pressure max. 11 bar	R25	
40	78	12	3	150	G $\frac{1}{8}$	0...1.0	R25-010K	R25-010	
						0...1.8	R25-01AK	R25-01A	
						0...4.0	R25-01BK	R25-01B	
						0...9.0	R25-01CK	R25-01C	
40	78	12	3	150	G $\frac{1}{4}$	0...1.0	R25-020K	R25-020	
						0...1.8	R25-02AK	R25-02A	
						0...4.0	R25-02BK	R25-02B	
						0...9.0	R25-02CK	R25-02C	



R25

Pressure regulator for high flow							supply pressure max. 11 bar	R45	
52	87	13	10	680	G $\frac{1}{4}$	0...1.8	R45-02AK	R45-02A	
						0...4.0	R45-02BK	R45-02B	
						0...9.0	R45-02CK	R45-02C	
52	87	13	13	960	G $\frac{3}{8}$	0...1.8	R45-03AK	R45-03A	
						0...4.0	R45-03BK	R45-03B	
						0...9.0	R45-03CK	R45-03C	



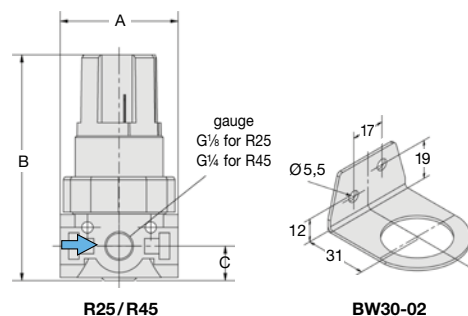
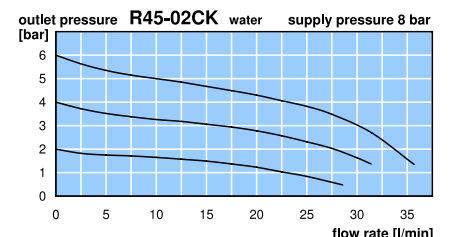
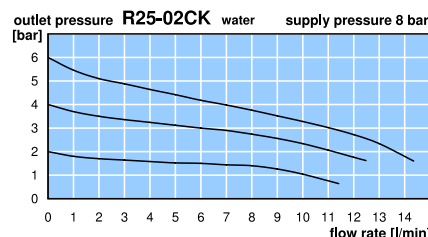
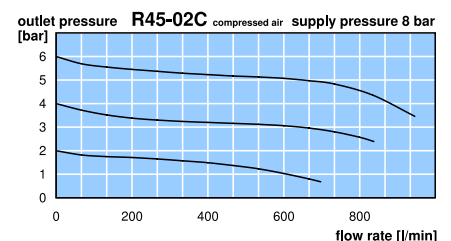
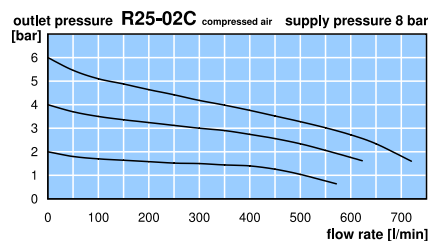
R45

Special options, add the appropriate letter

adjustment lock	socket wrench adjustment, height 64 mm	R25 only R25-0...T
------------------------	--	--------------------

Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for R25	MA4001-...*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for R45	MA5002-...*2
mounting bracket	made of steel		BW30-02
mounting nut	made of plastic		M30x1,5K
	made of aluminium		M30x1,5A



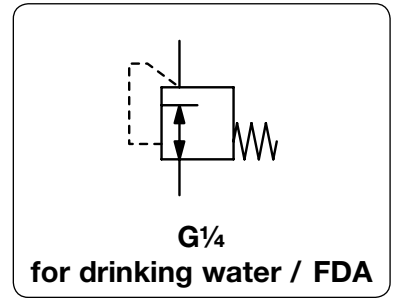
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop, for water supply pressure 2 bar above outlet pressure
 *2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
 R25-010K

General	In-Line pressure regulator with factory-set outlet pressure, reducing from e.g. 10 bar to 5 bar. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Description	regulator for drinking water conforms to the FDA, EU and DIN 50930-6, TÜV drinking water directives
Application	applications areas such as drinking water, food and medical industry
Supply pressure	max. 10 bar
Accuracy	± 0.3 bar, for compressed air P _i : 6 bar and 10 l/min
Temperature range	4 °C to 60 °C / 39.2 °F to 140 °F
Material	Body: Grivory® GV-5 FWA Inner parts: Stainless steel DIN 1.4404 / AISI 316L Elastomer: FPM



Dimensions			Flow rate	Supply	Connection	Outlet	Order
ØA	B	A/F	water	pressure	thread	pressure	number
mm	mm	mm	l/min*1	max. bar	G	bar*2	

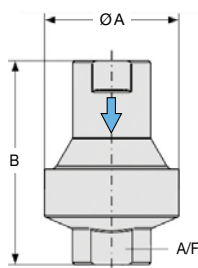
Regulator for drinking water				Grivory, accuracy *2	P _i : max. 10bar,	239K
34	52	17	10	10	G1/4	1 239K0210
			10			2 239K0220
			10			3 239K0230
			10			4 239K0240
			10			5 239K0250
			10			6 239K0260
			10			7 239K0270
			10			8 239K0280



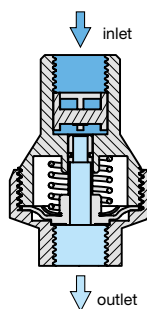
239K

Special options, add the appropriate letter

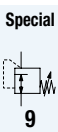
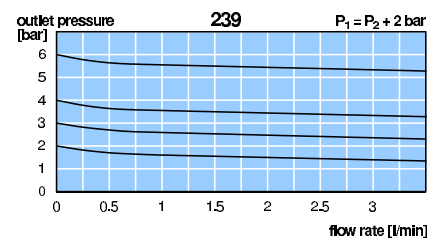
NPT	connection thread	239K1 . . .
deviant pressure range	indicate on order	239K . . XX



239K



cross-section



*1 P_i = 10 bar; Δp = 0.8 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 NI/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 NI/min)



PRESSURE REGULATOR FOR WATER, WITH FEMALE THREAD

RWI

Description

Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated. particularly all regulators RWI...C with outlet range 1.5 ...6 bar

Drinking water

Media

preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. Especially suitable for compressed air are regulators RWI...D. It has to be considered that these regulators are non-relieving.

Pressure difference Reduction ratio

1 bar, between inlet and outlet pressure
between supply and outlet pressure should not be greater than:
20:1 for RWI...A, 10:1 for RWI...D, 6:1 for RWI...G/H, 3:1 for RWI...I

Mounting position

any, preferably vertical
G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.

Gauge port

ATEX

PED

Temperature range

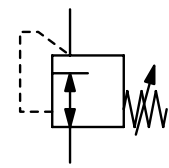
Material

according to ATEX94/9EG, EN1127, EN13463 for zone 1, 2, 21 and 22 according to EU directives DGRL/PED for liquids and gases of group 2
0 °C to 80 °C / 32 °F to 176 °F
see opposite page

Screw standard

according to DIN ISO 228

drinking water



G¼ up to G2
0.2... 2/45 bar

Dimensions			Flow rate	Kvs	Nominal	Connection	Pressure		Order
A	B	C	recommended	value	size	thread	inlet	outlet	number
mm	mm	mm	(m³/h)*1	(m³/h)*2	DN	G	max. bar	bar	

Regulator with female thread

gunmetal, NBR/Buna-N
drinking water: RWI...C

RWI

70	186	46	0.2	0.5	DN 8	G¼	25	0.2 ... 2	RWI-02A
	167	47					25	1.5 ... 8	RWI-02D
	188	47					40	2.0 ... 20	RWI-02H
	191	48					60	20 ... 45	RWI-02I
70	186	46	0.2	0.6	DN 10	G¾	25	0.2 ... 2	RWI-03A
	167	47					25	1.5 ... 8	RWI-03D
	188	47					40	2.0 ... 20	RWI-03H
	191	48					60	20 ... 45	RWI-03I
85	154	27	1.3	2.9	DN 15	G½	16	0.2 ... 2	RWI-04A
	168	27	1.3	2.9			25	0.5 ... 4	RWI-04B
	168	27	1.3	2.9			25	1.5 ... 6	RWI-04C
	189	47	0.5	1.2			25	1.5 ... 8	RWI-04D
	163	27	1.3	2.9			25	1.5 ... 10	RWI-04E
	182	27	1.3	2.9			25	1.5 ... 12	RWI-04F
	233	27	1.3	2.9			25	2.0 ... 20	RWI-04G
	229	47	0.5	1.2			40	2.0 ... 20	RWI-04H
	218	47	0.5	1.2			60	20 ... 45	RWI-04I
95	157	27	2.3	3.9	DN 20	G¾	16	0.2 ... 2	RWI-06A
	169	27	2.3	3.8			25	0.5 ... 4	RWI-06B
	169	27	2.3	3.9			25	1.5 ... 6	RWI-06C
	190	47	0.6	1.3			25	1.5 ... 8	RWI-06D
	164	27	2.3	3.9			25	1.5 ... 10	RWI-06E
	182	27	2.3	3.9			25	1.5 ... 12	RWI-06F
	234	27	2.3	3.9			25	2.0 ... 20	RWI-06G
	229	47	0.6	1.3			40	2.0 ... 20	RWI-06H
	218	47	0.6	1.3			60	20 ... 45	RWI-06I
105	156	29	3.6	5.4	DN 25	G1	16	0.2 ... 2	RWI-08A
	105	170	29	3.6			25	0.5 ... 4	RWI-08B
	105	170	29	3.6			25	1.5 ... 6	RWI-08C
	95	242	56	0.7			25	1.5 ... 8	RWI-08D
	105	164	29	3.6			25	1.5 ... 10	RWI-08E
	105	184	29	3.6			25	1.5 ... 12	RWI-08F
	105	235	29	3.6			25	2.0 ... 20	RWI-08G
	95	256	55	0.7			40	2.0 ... 20	RWI-08H



RWI-02...03A

RWI-04...10A

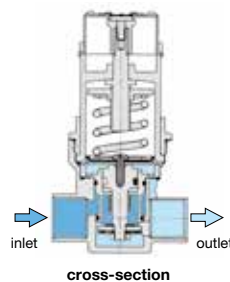
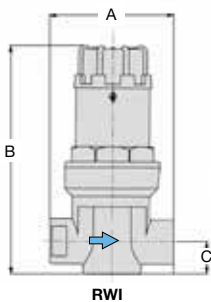
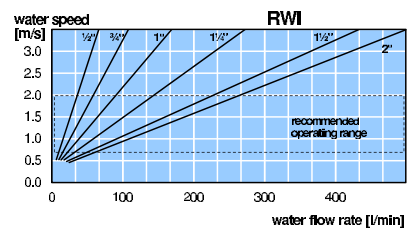
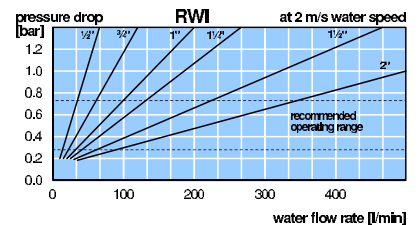


RWI-02...08D

RWI-02...08H/I



RWI-02...10B/C/E/F/G



Special

9

*1 at 2 m/s water speed

*2 for compressed air the flow is 70 times greater

PDF CAD
www.aircom.net

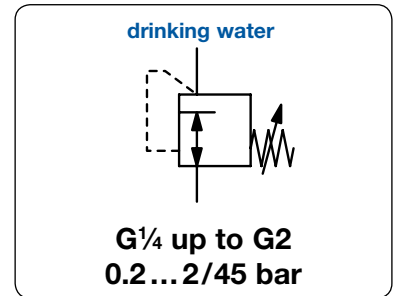


Order example:
RWI-02A

PRESSURE REGULATOR FOR WATER, WITH FEMALE THREAD

RWI

		Material									
Regulator	RW	RWI...A	RWI...B	RWI...C	RWI...D	RWI...E	RWI...F	RWI...G	RWI...H	RWI...J	
Nominal size	DN	DN 8-10	DN 15-80	DN 15-50	DN 15-50	DN 8-50	DN 15-50	DN 15-50	DN 15-50	DN 8-50	DN 8-20
Body	all	gunmetal CnSn5Zn5Pb2-C-GS / CC499K (Rg5)									
Spring cage	< DN 32	Ms (< DN 25)	PA	Ms	PA	Ms (< DN 25)	Ms	Ms (< DN 25)	Ms (< DN 25)	Ms (< DN 25)	
	> DN 40	-	Rg	GG	GG (> DN 32)	GG	GG (> DN 32)	GG (> DN 32)	GG (> DN 32)	GG (> DN 32)	
Seals	all	NBR/Buna N									
Diaphragm	< DN 25	CR	NBR/Buna N	CR	NBR/Buna N	CR	NBR/Buna N	CR	NBR/Buna N	piston / NBR/Buna N	
	> DN 32	NBR/Buna N		CR	NBR/Buna N	CR	NBR/Buna N	piston / NBR/Buna N	piston / NBR/Buna N		
Spring cage	< DN 32	Ms	Ms, SS, Ho	Ms	Ms, SS, Ho (< DN 25 Ms)	Ms	Ms, SS, Ho (< DN 25 Ms)	Ms	Ms, SS, Ho (< DN 25 Ms)	Ms	Ms
	> DN 40	-	Ms, SS	Ms, Rg, SS	Ms, SS	Ms, SS	Ms, SS	Ms, Rg, SS	Ms, Rg, SS	Ms, Rg, SS	-
Reg. assembly	< DN 32	cartridge		valve seat	cartridge	valve seat	cartridge	valve seat	valve seat		
removable	> DN 40	valve seat									
Legend:	Ms: brass	SS: stainless steel	Rg: gunmetal	GG: grey cast iron	Ho: Hostaform C						



Dimensions			Flow rate	Kvs-	Nominal	Connection	Pressure		Order
A	B	C	recommended	value	size	thread	inlet	outlet	number
mm	mm	mm	(m ³ /h)*1	(m ³ /h)*2	DN	G	max. bar	bar	

Regulator with female thread							gunmetal, NBR/Buna-N drinking water: RWI...C	RWI		
120	174	47	5.8	6.1	DN 32	G1 $\frac{1}{4}$	16	0.2 ... 2	2	RWI-10A
120	187	47	5.8	6.0			25	0.5 ... 4	4	RWI-10B
120	186	47	5.8	6.1			25	1.5 ... 6	6	RWI-10C
104	323	61	3.0	4.2			25	1.5 ... 8	8	RWI-10D
120	182	47	5.8	6.1			25	1.5 ... 10	10	RWI-10E
120	200	47	5.8	6.1			25	1.5 ... 12	12	RWI-10F
120	252	47	5.8	6.1			25	2.0 ... 20	20	RWI-10G
104	385	61	3.0	4.2			40	1.5 ... 20	20	RWI-10H
150	371	60	9.0	9.0	DN 40	G1 $\frac{1}{2}$	16	0.2 ... 2	2	RWI-12A
150	301	60	9.0	9.0			25	0.5 ... 4	4	RWI-12B
150	293	52	9.0	9.0			25	1.5 ... 6	6	RWI-12C
108	323	61	3.2	4.5			25	1.5 ... 8	8	RWI-12D
150	365	52	9.0	9.0			25	1.5 ... 10	10	RWI-12E
150	361	60	9.0	9.0			25	1.5 ... 12	12	RWI-12F
150	386	60	9.0	9.0			25	2.0 ... 20	20	RWI-12G
108	392	61	3.2	4.5			40	1.5 ... 20	20	RWI-12H
160	371	60	14	13	DN 50	G2	16	0.2 ... 2	2	RWI-16A
160	301	60	14	13			25	0.5 ... 4	4	RWI-16B
160	293	52	14	13			25	1.5 ... 6	6	RWI-16C
147	378	72	6.9	7.2			25	1.5 ... 8	8	RWI-16D
160	365	52	14	13			25	1.5 ... 10	10	RWI-16E
160	361	60	14	13			25	1.5 ... 12	12	RWI-16F
160	386	60	14	13			25	2.0 ... 20	20	RWI-16G
147	421	72	6.9	7.2			40	1.5 ... 20	20	RWI-16H

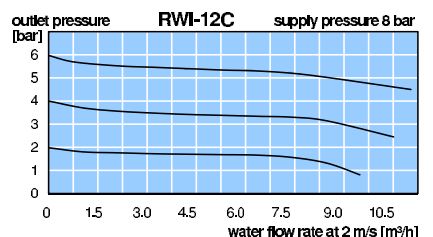
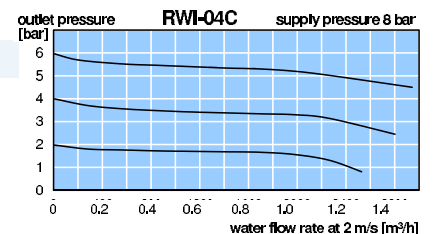
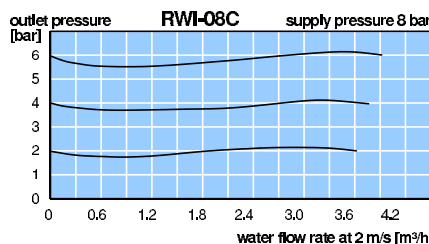
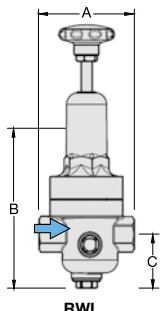


Special options, add the appropriate letter

NPT	connection thread	RWI-...N
Elastomer	CR: C FKM: V	RWI-...V
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.	RWI-...X

Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*3} bar, G $\frac{1}{4}$	up to G $\frac{1}{2}$ MA5002-... ^{*3}
	Ø 63 mm, 0... ^{*3} bar, G $\frac{1}{4}$	from G $\frac{3}{4}$ MA6302-... ^{*3}
	Ø 50 / Ø 63 mm, 0...25 bar, G $\frac{1}{4}$	für G $\frac{1}{4}$ up to G2 MA...02-25
	Ø 50 / Ø 63 mm, 0...60 bar, G $\frac{1}{4}$	für G $\frac{1}{4}$ up to G $\frac{3}{4}$ MA...02-60



*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater
*3 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices


PDF CAD
www.aircom.net

Order example:
RWI-10A

PRESSURE REGULATOR FOR WATER, WITH MALE THREAD

RWA

Description Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated. particularly all regulators RWA-...C with pressure range 1.5 ...6 bar. Regulators with DN 15 up to DN 25 have the same constructions dimensions as D06F from Honeywell, according to DVGW up to DN 32.

Drinking water 

Media preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. It has to be considered that these regulators are non-relieving.

Pressure difference 1 bar, between inlet and outlet pressure

Gauge port G $\frac{1}{4}$ on both sides of the body for outlet pressure, ports are closed with screw plugs.

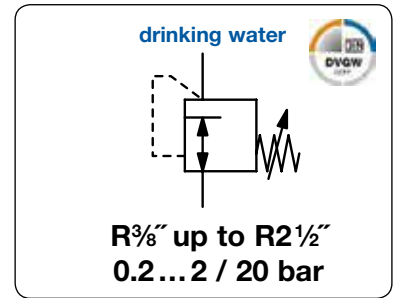
Mounting position any, preferably vertical

ATEX according to ATEX94/9EG, EN1127, EN13463 for zone 1, 2, 21 and 22

PED according to EU directives DGRL/PED for liquids and gases of group 2

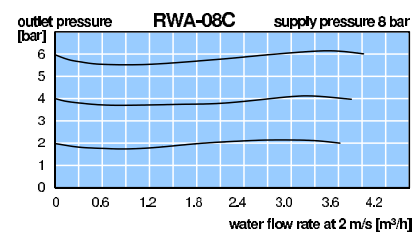
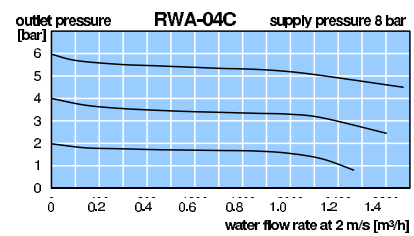
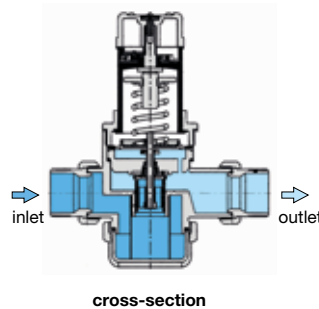
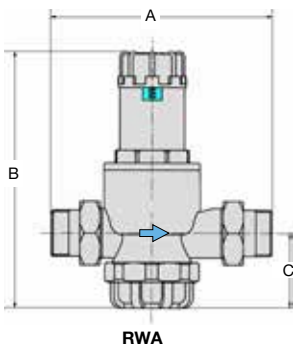
Temperature range 0 °C to 80 °C / 32 °F to 176 °F

Material see opposite page




Dimensions			Flow rate	Kvs-	Nominal	Connection	Pressure		Order
A	B	C	recommended	value	size	thread	inlet	outlet	number
mm	mm	mm	(m ³ /h)*1	(m ³ /h)*2	DN	R	max. bar	bar	

Regulator with male thread							gunmetal, NBR/Buna-N	RWA	
							drinking water: RWA-...C		
137	154	27	1,3	2.9	DN 10	$\frac{3}{8}$ "	16	0.2 ... 2	RWA-03A
	163						25	0.5 ... 4	RWA-03B
	168						25	1.5 ... 6	RWA-03C
	163						25	1.5 ... 10	RWA-03E
	182						25	1.5 ... 12	RWA-03F
	233						25	2.0 ... 20	RWA-03G
137	154	27	1,3	2.9	DN 15	$\frac{1}{2}$ "	16	0.2 ... 2	RWA-04A
	163						25	0.5 ... 4	RWA-04B
	168						25	1.5 ... 6	RWA-04C
	163						25	1.5 ... 10	RWA-04E
	182						25	1.5 ... 12	RWA-04F
	233						25	2.0 ... 20	RWA-04G
141	156	27	2,3	3.9	DN 20	$\frac{3}{4}$ "	16	0.2 ... 2	RWA-06A
	163						25	0.5 ... 4	RWA-06B
	168						25	1.5 ... 6	RWA-06C
	163						25	1.5 ... 10	RWA-06E
	182						25	1.5 ... 12	RWA-06F
	233						25	2.0 ... 20	RWA-06G
161	155	29	3,6	5.4	DN 25	1"	16	0.2 ... 2	RWA-08A
	164						25	0.5 ... 4	RWA-08B
	168						25	1.5 ... 6	RWA-08C
	164						25	1.5 ... 10	RWA-08E
	182						25	1.5 ... 12	RWA-08F
	233						25	2.0 ... 20	RWA-08G
177	156	47	5,8	6.1	DN 32	1 $\frac{1}{4}$ "	16	0.2 ... 2	RWA-10A
	219						25	0.5 ... 4	RWA-10B
	222						25	1.5 ... 6	RWA-10C
	219						25	1.5 ... 10	RWA-10E
	234						25	1.5 ... 12	RWA-10F
	252						25	2.0 ... 20	RWA-10G



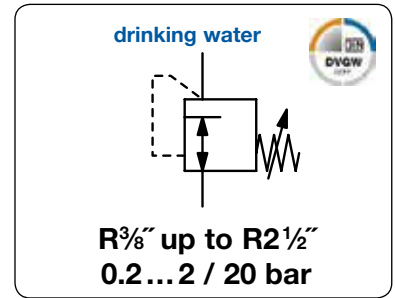
*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater

PDF CAD
www.aircom.net

 Order example:
RWA-03A

Regulator	Material						
	RW	RWA-..A	RWA-..B	RWA-..C	RWA-..E	RWA-..F	RWA-..G
Nominal size	DN	DN 10-65	DN 15-65	DN 10-65	DN 15-65	DN 15-100	DN 10-65
Body	all	gunmetal CnSn5ZN5Pb2-C-GS / CC499K (Rg5)					
Spring cage	< DN 32	PA	Ms	PA	Ms	Ms (< DN 25)	Ms (< DN 25)
	> DN 40	Rg	GG	GG	GG	GG (> DN 32)	GG (> DN 32)
Seals	all	NBR/Buna N					NBR/Buna-N
Diaphragm	< DN 25	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
	> DN 32	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
Inner valve	< DN 32	Ms, SS, Ho			Ms, SS, Ho (< DN 25 Ms)		
	> DN 40	Ms, SS			Ms, SS		
Reg. assembly removable	< DN 32	cartridge				valve seat	
	> DN 40	valve seat				valve seat	

Legend: **Ms**: brass **SS**: stainless steel **Rg**: gunmetal **GG**: grey cast iron **Ho**: Hostaform C **NBR/Buna-N**: nitrile rubber



Dimensions			Flow rate	Kvs	Nominal Connection		Pressure		Order number
A	B	C	recommended	value	size	thread	inlet	outlet	
mm	mm	mm	(m³/h)*1	(m³/h)*2	DN	R	max. bar	bar	

Regulator with male thread							gunmetal, NBR/Buna-N drinking water: RWA-..C	RWA		
210	370	59	9,0	9,0	DN 40	1 1/2"	16	0.2 ... 2	2	RWA-12A
	301	51					25	0.5 ... 4	4	RWA-12B
	293	51					25	1.5 ... 6	6	RWA-12C
	361	51					25	1.5 ... 10	10	RWA-12E
	361	51					25	1.5 ... 12	12	RWA-12F
	386	51					25	2.0 ... 20	20	RWA-12G
210	372	61	14	13	DN 50	2"	16	0.2 ... 2	2	RWA-16A
	372	61					25	0.5 ... 4	4	RWA-16B
	294	53					25	1.5 ... 6	6	RWA-16C
	363	53					25	1.5 ... 10	10	RWA-16E
	364	53					25	1.5 ... 12	12	RWA-16F
	388	53					25	2.0 ... 20	20	RWA-16G
273	394	68	24	20	DN 65	2 1/2"	16	0.2 ... 2	2	RWA-20A
	324						25	0.5 ... 4	4	RWA-20B
	324						25	1.5 ... 6	6	RWA-20C
	392						25	1.5 ... 10	10	RWA-20E
	384						25	1.5 ... 12	12	RWA-20F
	408						25	2.0 ... 20	20	RWA-20G

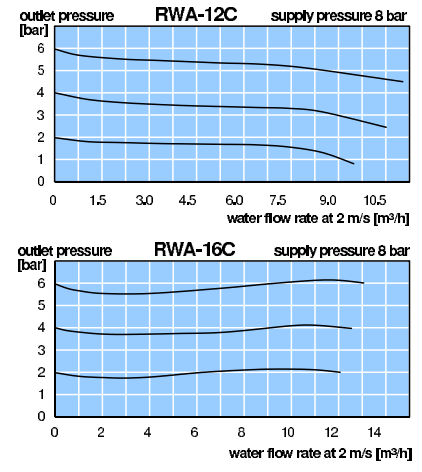
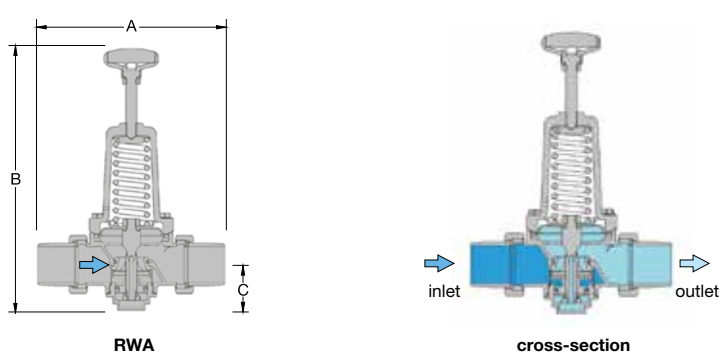


Special options, add the appropriate letter

NPT	connection thread		RWA-.. .N
Elastomer	CR: C	FKM: V	RWA-.. .V
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.		RWA-.. .X

Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*3} bar, G1/4	up to G1/2	MA5002-..^{*3}
	Ø 63 mm, 0... ^{*3} bar, G1/4	up to G3/4	MA6302-..^{*3}
	Ø 50 mm, 0...60 bar, G1/4	from G1/4 up to G2	MA ..02-25



*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater
^{*3} 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Description Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated.

Drinking water particularly all regulators RWF-..C with pressure range 1.5 ...6 bar.

Media preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. It has to be considered that these regulators are non-relieving.

Pressure difference 1 bar, between inlet and outlet pressure

Gauge port G $\frac{1}{4}$ on both sides of the body for outlet pressure, ports are closed with screw plugs.

Mounting position any, preferably vertical

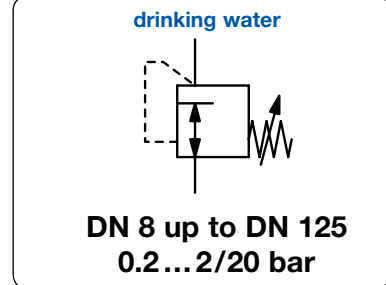
ATEX according to ATEX94/9EG, EN1127, EN13463 for zone 1, 2, 21 and 22

PED according to EU directives DGRL/PED for liquids and gases of group 2

Flanges according to DIN 1092. length according to DIN558-1

Temperature range 0 °C to 80 °C / 32 °F to 176 °F

Material see opposite page



Dimensions				Flow rate	K _{vs}	Nominal	Pressure		Order
A	B	C	D	recommended	value	size	inlet	outlet	number
mm	mm	mm	mm	(m ³ /h)*1	(m ³ /h)	DN	max. bar	bar	

Pressure regulator with flange							gunmetal, NBR/Buna N, w/o gauge drinking water: RWF-..C	RWF		
130	178	48	80	0.2	0.5	DN 8	25	0.8 ... 8	RWF-02D	
							40	1.5 ... 20	RWF-02G	
				0.2	0.5	DN 10	25	0.8 ... 8	RWF-03D	
							40	1.5 ... 20	RWF-03G	
130	175	48	95	1.3	2.9	DN 15	16	0.2 ... 2	RWF-04A	
							25	0.5 ... 4	RWF-04B	
								1.5 ... 6	RWF-04C	
								1.5 ... 10	RWF-04E	
								1.5 ... 12	RWF-04F	
								2.0 ... 20	RWF-04G	
150	183	53	105	2.3	3.9	DN 20	16	0.2 ... 2	RWF-06A	
							25	0.5 ... 4	RWF-06B	
								1.5 ... 6	RWF-06C	
								1.5 ... 10	RWF-06E	
								1.5 ... 12	RWF-06F	
								2.0 ... 20	RWF-06G	
160	185	58	115	3.6	5.4	DN 25	16	0.2 ... 2	RWF-08A	
							25	0.5 ... 4	RWF-08B	
								1.5 ... 6	RWF-08C	
								1.5 ... 10	RWF-08E	
								1.5 ... 12	RWF-08F	
								2.0 ... 20	RWF-08G	
180	197	70	140	5.8	6.1	DN 32	16	0.2 ... 2	RWF-10A	
							25	0.5 ... 4	RWF-10B	
								1.5 ... 6	RWF-10C	
								1.5 ... 10	RWF-10E	
								1.5 ... 12	RWF-10F	
								2.0 ... 20	RWF-10G	
200	386	75	150	9.0	9.0	DN 40	16	0.2 ... 2	RWF-12A	
							25	0.5 ... 4	RWF-12B	
								1.5 ... 6	RWF-12C	
								1.5 ... 10	RWF-12E	
								1.5 ... 12	RWF-12F	
								2.0 ... 20	RWF-12G	



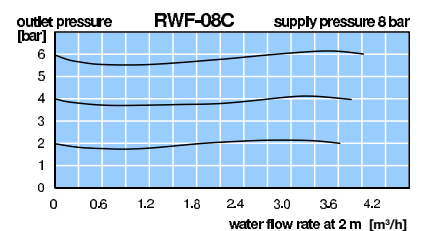
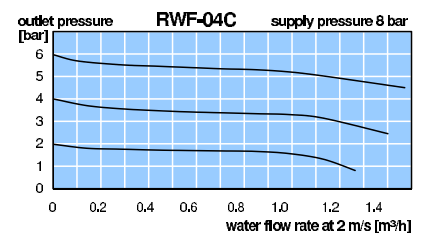
RWF-02...08D/G



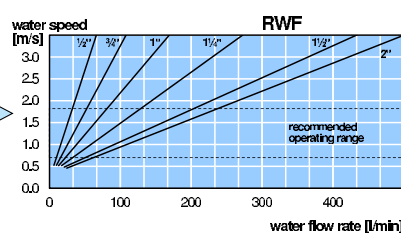
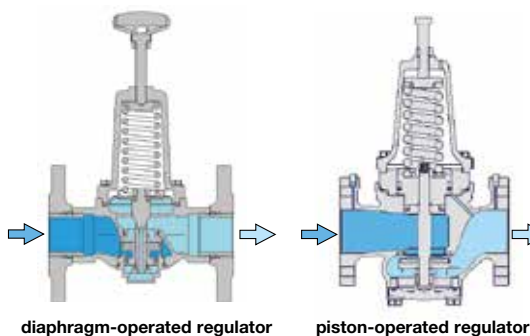
RWF-...10...16G



RWF-24A
accessories: pressure gauge



Special



*1 at 2 m/s water speed * for compressed air the flow is 70 times greater

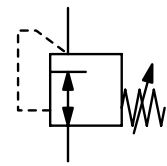
PRESSURE REGULATOR FOR WATER, WITH FLANGE

RWF

Regulator Nominal size	RW DN	Material						
		RWF-..A DN 8-10	RWF-..B DN 15-80	RWF-..C DN 15-125	RWF-..D DN 15-125	RWF-..E DN 15-125	RWF-..F DN 15-100	RWF-..G DN 8-80
Body	all	gunmetal CnSn5Zn5Pb2-C-GS / CC499K (Rg5)						
Spring cage	< DN 32 > DN 40	Ms (< DN 25) -	PA Rg	Ms	PA	Ms	Ms (< DN 25) GG (> DN 32)	
Seals	all	NBR/Buna-N						
Diaphragm	< DN 25 > DN 32	CR	NBR/Buna-N				piston / NBR/Buna-N piston / NBR/Buna-N	
Inner valve	< DN 32 > DN 40	Ms	Ms, SS, Ho		Ms, SS, Ho (< DN 25 Ms)			Ms, SS
Reg. assembly removable	< DN 32 > DN 40	cartridge				valve seat		

Legend: Ms: brass SS: stainless steel Rg: gunmetal GG: grey cast iron Ho: Hostaform C CR: chloroprene rubber, NBR/Buna-N: nitrile rubber

drinking water



DN 15 up to DN 125
0.2... 2/20 bar

Dimensions				Flow rate	Kvs-	Nominal	Pressure		Order
A	B	C	D	recommended	value	size	inlet	outlet	number
mm	mm	mm	mm	(m³/h)*1	(m³/h)	DN	max. bar	bar	

Pressure regulator with flange						gunmetal, NBR/Buna N, w/o gauge drinking water: RWF-..C	RWF			
230	394	83	165	14	13	DN 50	16	0.2 ... 2	2	RWF-16A
324							25	0.5 ... 4	4	RWF-16B
324								1.5 ... 6	6	RWF-16C
396								1.5 ... 10	10	RWF-16E
384								1.5 ... 12	12	RWF-16F
411								2.0 ... 20	20	RWF-16G
290	420	93	185	24	20	DN 65	16	0.2 ... 2	2	RWF-20A
349							25	0.5 ... 4	4	RWF-20B
349								1.5 ... 6	6	RWF-20C
418								1.5 ... 10	10	RWF-20E
411								1.5 ... 12	12	RWF-20F
429								2.0 ... 20	20	RWF-20G
310	427	100	200	26	24	DN 80	16	0.2 ... 2	2	RWF-24A
	518	136		60	60			0.5 ... 4	4	RWF-24B
	356	100		26	24			1.5 ... 6	6	RWF-24C
	518	136		60	60			1.5 ... 6	6	RWF-25C
	521			60	60			3.0 ... 10	10	RWF-24E
	545			60	60		25	4.0 ... 12	12	RWF-24F
	436			24	24		25	2.0 ... 20	20	RWF-24G
350	540	140	200	80	80	DN 100	16	0.5 ... 4	4	RWF-32B
	540							1.5 ... 6	6	RWF-32C
	542							3.0 ... 10	10	RWF-32E
	600	135						4.0 ... 12	12	RWF-32F
400	730	165	270	130	130	DN 125	16	0.5 ... 4	4	RWF-40B
	540							1.5 ... 6	6	RWF-40C
	542							3.0 ... 10	10	RWF-40E



RWF-.. 24B/C/E
accessories: pressure gauge



RWF-.. 12...16F/G
accessories: pressure gauge



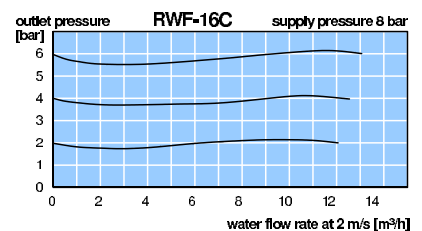
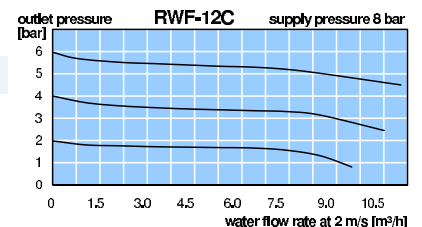
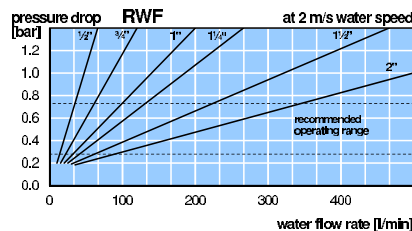
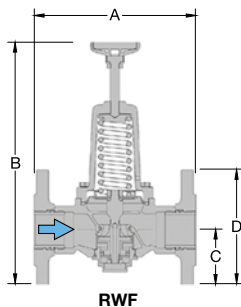
RWF-24F
accessories: pressure gauge

Special options, add the appropriate letter

Elastomer	EPDM: E	CR: C	FKM: V	RWF-.. .V
flange connection	ANSI			RWF-.. .F2
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.			RWF-.. .X

Accessories, enclosed

pressure gauge Ø 63 mm, vertical 0...*2 bar, G¼ MT6302-..*2



*1 at 2 m/s water speed * for compressed air the flow is 70 times greater
*2 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
RWF-16A

Special

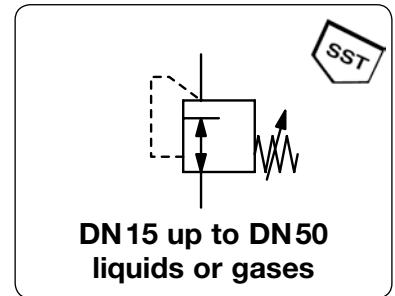


9

FLANGE PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

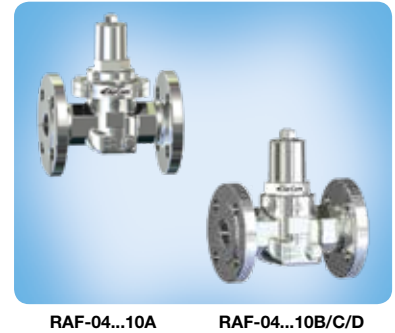
RAF

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable. With stainless-steel dirt-trap / strainer
Medium	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Supply pressure	see chart, max. 40 bar
Minimum press. difference	$P_1 : P_2 = 1$ bar
Adjustment	with hexagon socket, with locknut
Relieving function	non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any, preferably vertical
Flange	according DIN 1092, overall length according DIN 558-1
Temperature range	0 °C to 190 °C / 32 °F to 374 °F media and ambient temperature
Material	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L Elastomer and seals: FKM / FPM



Dimensions			K _v -value	Flow rate water	Supply pressure max. bar	Mounting flange DN	Pressure range bar	Order number
A	B	C						

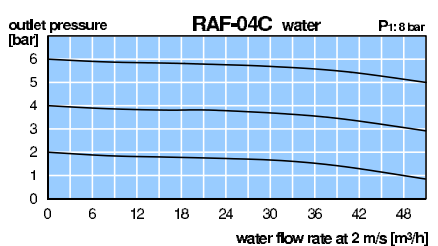
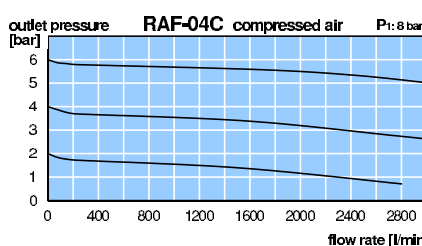
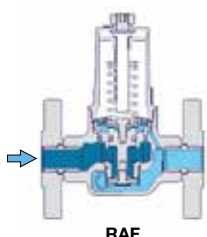
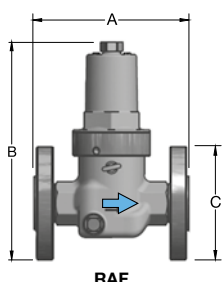
Regulator with flange								for liquids, supply pressure max. 25/40 bar non-relieving, 1.4408 / V4A / 316L, FKM	RAF
130	137	95	2.9	50	25	DN 15	0.2 ... 2	RAF-04A	
	118				0.5 ... 4		RAF-04B		
	118				1.5 ... 6		RAF-04C		
	118				1.5 ... 10		RAF-04D		
	136				2.0 ... 20		RAF-04F		
150	137	105	3.9	65	25	DN 20	0.2 ... 2	RAF-06A	
	118				0.5 ... 4		RAF-06B		
	118				1.5 ... 6		RAF-06C		
	118				1.5 ... 10		RAF-06D		
	137				2.0 ... 20		RAF-06F		
160	150	115	5.4	90	25	DN 25	0.2 ... 2	RAF-08A	
	118				0.5 ... 4		RAF-08B		
	118				1.5 ... 6		RAF-08C		
	118				1.5 ... 10		RAF-08D		
	137				2.0 ... 20		RAF-08F		
180	150	140	6.1	102	25	DN 32	0.2 ... 2	RAF-10A	
	118				0.5 ... 4		RAF-10B		
	118				1.5 ... 6		RAF-10C		
	118				1.5 ... 10		RAF-10D		
	137				2.0 ... 20		RAF-10F		
200	269	150	9.0	150	25	DN 40	0.2 ... 2	RAF-12A	
	219				0.5 ... 4		RAF-12B		
	219				1.5 ... 6		RAF-12C		
	219				1.5 ... 10		RAF-12D		
	247				2.0 ... 20		RAF-12F		
230	269	165	13	216	25	DN 50	0.2 ... 2	RAF-16A	
	219				0.5 ... 4		RAF-16B		
	219				1.5 ... 6		RAF-16C		
	219				1.5 ... 10		RAF-16D		
	247				2.0 ... 20		RAF-16F		



Accessories, enclosed

SST pressure gauge	Ø 50 mm, 0... ^{*3} bar, G $\frac{1}{4}$, for DN 15	MS5002-... ^{*3}
	Ø 63 mm, 0... ^{*3} bar, G $\frac{1}{4}$, and all the rest of them	MS6302-... ^{*3}

Spezial



^{*1} at 2 m/s water speed ^{*2} for compressed air the flow is 70 times greater
^{*3} 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

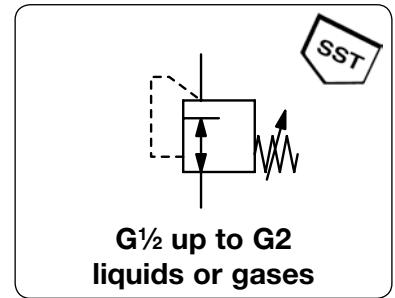


Order example:
RAF-04A

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

RAI

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable. With stainless-steel dirt-trap / strainer
Medium	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Supply pressure	see chart, max. 40 bar
Minimum press. difference	$P_1 : P_2 = 1$ bar
Adjustment	with hexagon socket, with locknut
Relieving function	non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any, preferably vertical
Temperature range	0 °C to 190 °C / 32 °F to 374 °F medium and ambient temperature
Material	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L Elastomer and seals: FKM / FPM

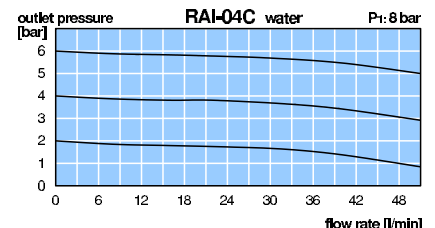
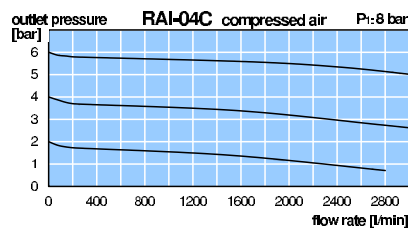
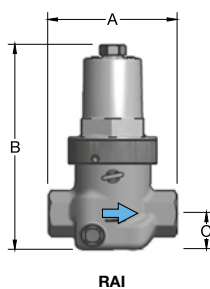


Dimensions			Kv- value (m ³ /h)*1	Flow rate water l/min	Supply pressure max. bar	Nominal size DN	Connection thread G	Pressure- range bar	Order number
A	B	C							

Regulator with female thread					for liquids, supply pressure max. 25/40 bar non-relieving, 1.4408 / V4A / 316L, FKM			RAI	
95	166	29	2,9	50	25	DN 15	G $\frac{1}{2}$	0.2 ... 2	RAI-04A
95	147	29			25			0.5 ... 4	RAI-04B
95	147	29			25			1.5 ... 6	RAI-04C
95	147	29			25			1.5 ... 10	RAI-04D
95	165	29			40			2.0 ... 20	RAI-04F
95	166	29	3,9	65	25	DN 20	G $\frac{3}{4}$	0.2 ... 2	RAI-06A
95	147	29			25			0.5 ... 4	RAI-06B
95	147	29			25			1.5 ... 6	RAI-06C
95	147	29			25			1.5 ... 10	RAI-06D
95	165	29			40			2.0 ... 20	RAI-06F
110	189	39	5,4	90	25	DN 25	G1	0.2 ... 2	RAI-08A
110	157	39			25			0.5 ... 4	RAI-08B
110	157	39			25			1.5 ... 6	RAI-08C
110	157	39			25			1.5 ... 10	RAI-08D
110	176	39			40			2.0 ... 20	RAI-08F
120	189	39	6,1	102	25	DN 32	G1 $\frac{1}{4}$	0.2 ... 2	RAI-10A
120	157	39			25			0.5 ... 4	RAI-10B
120	157	39			25			1.5 ... 6	RAI-10C
120	157	39			25			1.5 ... 10	RAI-10D
120	176	39			40			2.0 ... 20	RAI-10F
150	306	37	9,0	150	25	DN 40	G1 $\frac{1}{2}$	0.2 ... 2	RAI-12A
150	256	37			25			0.5 ... 4	RAI-12B
150	256	37			25			1.5 ... 6	RAI-12C
150	256	37			25			1.5 ... 10	RAI-12D
150	284	37			40			2.0 ... 20	RAI-12F
160	306	37	13,0	150	25	DN 50	G2	0.2 ... 2	RAI-16A
160	256	37			25			0.5 ... 4	RAI-16B
160	256	37			25			1.5 ... 6	RAI-16C
160	256	37			25			1.5 ... 10	RAI-16D
160	284	37			40			2.0 ... 20	RAI-16F



Accessories, see opposite side



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 for compressed air the flow is 65 times greater

PDF CAD
www.aircom.net



Order example:
RAI-04A

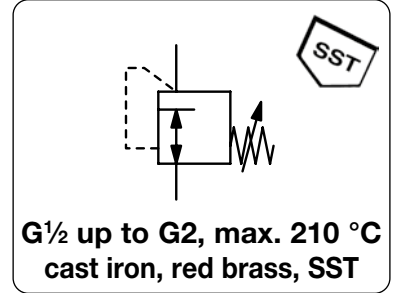
Special



PRESSURE REGULATOR FOR STEAM UP TO 210 °C / 410 °F

RU

Description	Directly acting pressure regulator with stainless steel inner parts suitable for steam and compressed air.		
Media	compressed air, non-corrosive gases or steam with dryness of at least 98%		
Supply pressure	RUG: max. 19 bar at 210 °C / 410 °F, max. 17 bar for red brass version RUH: max. 10 bar at 184 °C / 363 °F		
Air consumption	without constant bleed		
Adjustment	by plastic knob	Relieving function	non-relieving
Gauge port	not available	Mounting position	any
Temperature range	RUG: max. 210 °C / 410 °F,	RUH: max. 184 °C / 363 °F	
Material	Body: spheroidal cast iron EN-GJS-400-18-LT (GGG40.3), optionally red brass Rg5 or stainless steel 1.4404 at RUG Spring cage: epoxy-coated aluminium, nickel-plated aluminium at RUG Inner valve / bellows: stainless steel 1.4404 and 1.4571 O-ring / seal: EPDM and PTFE		



Dimensions			Nominal size	K _v -value	P ₁ max.	Connection thread	Pressure range	Order number
A	B	C	DN	(m³/h)	bar	G	bar	
mm	mm	mm						

Pressure regulator for steam								RU
								supply pressure max. 10 / 19 bar, non-relieving, spheroidal cast iron
83	182	55	15	1.5	19	G½	0.14...1.7 1.4 ...4.0 3.5 ...8.6	RUG-04A RUG-04B RUG-04C
96	182	55	20	2.5	19	G¾	0.14...1.7 1.4 ...4.0 3.5 ...8.6	RUG-06A RUG-06B RUG-06C
108	182	55	25	3.0	19	G1	0.14...1.7 1.4 ...4.0 3.5 ...8.6	RUG-08A RUG-08B RUG-08C
134	220	67	25	6.8	10	G1	0.14...1.7 1.4 ...4.0 3.5 ...9.0	RUH-08A RUH-08B RUH-08C
134	220	67	40	11.5	10	G1½	0.14...1.7 1.4 ...4.0 3.5 ...9.0	RUH-12A RUH-12B RUH-12C
134	220	67	50	15.0	10	G2	0.14...1.7 1.4 ...4.0 3.5 ...9.0	RUH-16A RUH-16B RUH-16C



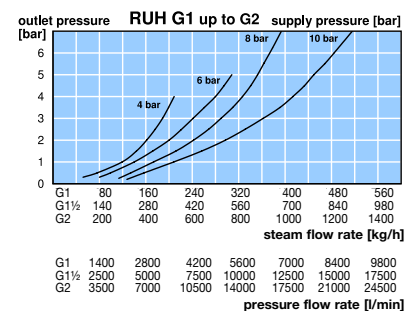
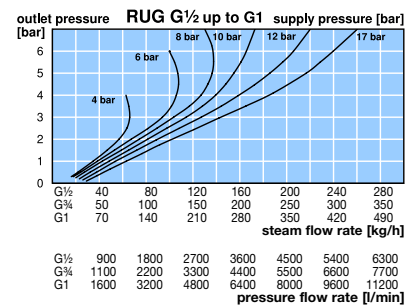
RUG-04A



RUG-04BSF
made of stainless steel, with flange

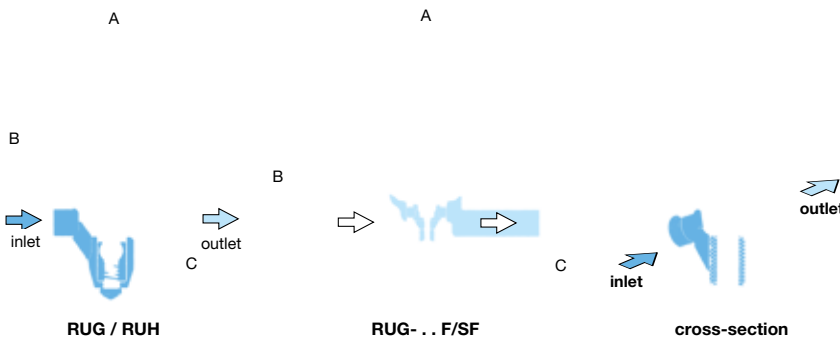
Special options, add the appropriate letter

stainless steel 1.4404	body with connection thread	for RUG	RUG-0...S
	body with flange	for RUG	RUG-0...SF
red brass Rg5	body of red brass Rg5, P ₁ max. 17 bar	for RUG	RUG-0...R
flange of spheroidal cast iron	GGG40.3	for RUG	RUG-0...F



Special

9



Model	A	B	C
RUG-04R/S	83	192	62
RUG-06R/S	96	192	62
RUG-08R/S	108	192	62

Model	A	B	C
RUG-04F/SF	150	182/192	55/62
RUG-06F/SF	150	192/192	55/62
RUG-08F/SF	160	192/192	55/62

PDF CAD
www.aircom.net



Order example:
RUG-04A

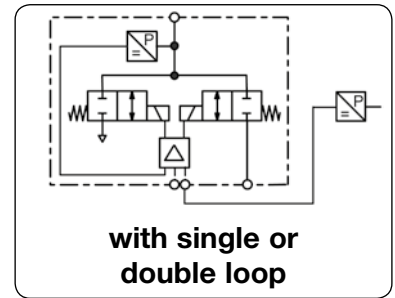
PROPORTIONAL PRESSURE REGULATORS

PRINCIPLE	DESCRIPTION	ACCURACY max.	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
CONTROL VALVE high accuracy	on PCB	± 0.2 %	0 ... 0.005/ 10	G $\frac{1}{8}$	PM	10.02
	falling characteristic	± 0.2 %	0 ... 0.005/ 35	G $\frac{1}{8}$	PQ1	10.04
	with double loop	± 0.2 %	0 ... 0.005/ 35	G $\frac{1}{8}$	PQ2	10.05
	up to 2000 l/min	± 0.25 %	0 ... 0.1 / 35	$\frac{1}{4}$ "NPT - $\frac{3}{4}$ "NPT	PQ3...PQ6	10.07
PROPORT. MAGNET very robust	proven, many options	± 0.5 %	0 ... 0.5 / 1	G $\frac{1}{8}$ - G1	PR	10.09
	for flow applications	± 0.5 %	0 ... 6 / 50	G $\frac{3}{8}$	PF	10.11
	digital control, also SST	± 0.5 %	0 ... 0.1 / 50	G $\frac{1}{8}$ - G1	PP	10.13
	programmable	± 0.5 %	0 ... 1 / 12	G $\frac{1}{8}$ - G $\frac{3}{8}$	PD	10.15
FLAPPER/NOZZLE highly sensitive	integrated booster, Atex	± 0.5 %	0,2... 1 / 8	$\frac{1}{4}$ "NPT	PT6	10.18
PIEZO-OPERATED very fast	high accurate, Atex	± 0.25 %	0,2... 1 / 8	$\frac{1}{4}$ "NPT	PT7	10.19
	minimal power consumption	± 0.2 %	0 ... 0.1 / 16	G $\frac{1}{8}$ and G $\frac{1}{4}$	PRE	10.21
MOTORISED REGUL.	failfreeze	± 1 %	0,14... 1.8 / 8	$\frac{1}{4}$ "NPT	P180	10.22
HIGH PRESSURE	proportional magnet	± 0.5 %	0 ... 30 / 50	G $\frac{1}{4}$	PP0	10.13
	control valves	± 0.5 %	0 ... 40 / 70	G $\frac{1}{8}$	PQH	10.17
ATEX	control valves	± 1 %	0 ... 2 / 6	G $\frac{1}{8}$	PCEX	10.16
	flapper nozzle	± 0.5 %	0,2... 1 / 8	$\frac{1}{4}$ "NPT	PT6	10.18
	piezo-operated	± 0.25 %	0,2... 1 / 8	$\frac{1}{4}$ "NPT	PT7	10.19
VACUUM	on PCB	± 0.2 %	-1 ... 0 / + 1	G $\frac{1}{8}$	PM	10.02
	control valves	± 0.2 %	-1 ... 0 / + 1	G $\frac{1}{8}$	PQ1	10.04
	with double loop	± 0.2 %	-1 ... 0 / + 1	G $\frac{1}{8}$	PQ2	10.05
	proportional magnet	± 0.5 %	-1 ... 0 / + 1	G $\frac{1}{8}$ - G1	PR	10.09
	digital control	± 0.5 %	-1 ... 0	G $\frac{1}{8}$ - G1	PP	10.13
	piezo-operated	± 0.2 %	-1 ... 1 / +10	G $\frac{1}{8}$ and G $\frac{1}{4}$	PRE	10.21
SETPOINT	with 10-speed-potentiometer				PPB	10.23



10

Description	Proportional control valve with closed loop control technology for better control of pressurised gases. The instrument can be built as single closed loop or dual closed loop control valve. dry, lubricated or unlubricated and 5 µm filtered compressed air or non-corrosive gases	
Media	constant outlet pressure at voltage drop	
Fail freeze	0 ... 10 V, impedance 4.7 kΩ,	ratio of internal to external relationship is 10% to 90%
Second loop	15 ... 24 V DC, residual ripple < 10%, with reverse voltage protection	
Supply voltage	0 ... 10 V / 4.7 kΩ, 4 ... 20 mA / 100 Ω,	jumper selectable command
Impedance	0 ... 10 V at max. 10 mA	
Monitor signal	terminal strip for 2.5 mm ²	
Electrical connection	3.6 W regulating, 0.5 W non-regulating	Air consumption without constant bleed
Power consumption	< 0.15% FS	Repeatability < 0.02 FS
Linearity / Hysteresis	< 1% FS at 0 °C to 50 °C / 32 °F to 122 °F	Adjustment zero point and span
Temperature influence	0 °C to 70 °C / 32 °F to 158 °F	Mounting position any, vibration-resistant
Temperature range	Ports: brass	Elastomer: FKM
Material	Transducer: aluminium and silicon	Valves: nickel-plated brass



Dimensions			Flow rate	Supply pressure	Accuracy	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. mbar/bar	%	G	mbar/bar	
mm	mm	mm						

Proportional press. regulator									0-10 V input and monitor signal, supply voltage 24 V DC, fail freeze, single loop for DIN rail	PM
56	78	54	35	10 mbar	0.2	G $\frac{1}{2}$	0 ... 5 mbar	PM1DE-A5		
				20 mbar			0 ... 10 mbar	PM1DE-B1		
				200 mbar			0 ... 100 mbar	PM1DE-C1		
				1 000 mbar			0 ... 600 mbar	PM1DE-C6		
56	78	54	35	2 bar	0.2	G $\frac{1}{2}$	0 ... 1 bar	PM1DE-01		
				3 bar			0 ... 2 bar	PM1DE-02		
				9 bar			0 ... 4 bar	PM1DE-04		
				9 bar			0 ... 6 bar	PM1DE-06		
				15 bar			0 ... 10 bar	PM1DE-10		
56	78	54	35	2 bar	0.2	G $\frac{1}{2}$	0 ... -1 bar	PM1DE-V0		
				2 bar			-1 ... +1 bar	PM1DE-V1		

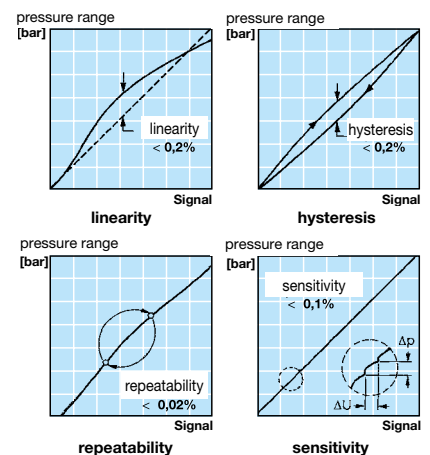
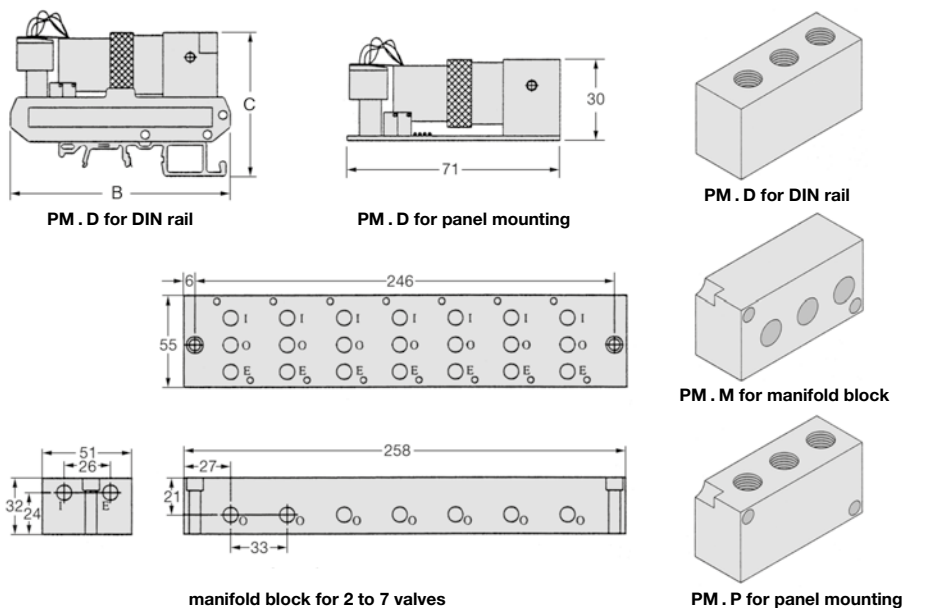


Special options, add the appropriate letter

double loop	second loop feedback 0 ...10 V	PM2
4-20 mA	supply signal, jumper selectable command	PM I . . .
flow 100 l/min	increased flow rate	PM HF
panel mounting	on plane level	PM . P . . .
mounting for manifolds	connections downwards	PM . M . . .

Accessories, enclosed

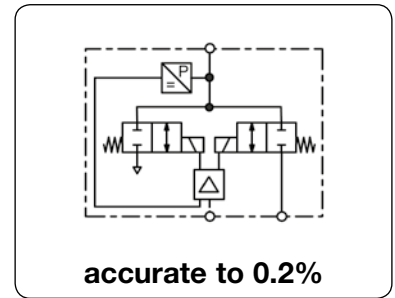
manifold block for 2 to 7 valves number of valves added to order number **SBM-**



*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request

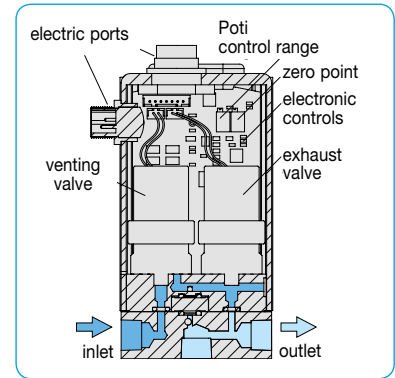
Technical features

• Pressure range	0...10 mbar up to 0...35 bar	• Linearity	± 0.15% FS
• Input signal	0...10 V and 4...20 mA	• Hysteresis	± 0.15% FS
• Security	constant outlet pressure at voltage drop	• Response sensitivity	< 0.1% FS
• Response time	10 to 15 ms	• Repeatability	± 0.02% FS
• Adjustment	zero point and span	• Protection class	IP 65
• Sensitivity	immune to shock and vibration up to 25 g	• Air consumption	without constant bleed



General technical features

Description	Two solenoid valves control the system pressure. One valve is for inlet control, the other for outlet control. A strain gauge pressure transducer measures system pressure and provides a feedback signal to the electronic controls. Any difference between command and feedback signals causes one of the solenoid valves to open, causing system pressure to increase or decrease.		
Mounting position	any, immune to shock and vibration up to 25 g		
Protection class	IP 65 housing		
Temperature range	-5 °C to 70 °C / 23 °F to 158 °F		
Material	Body: aluminium	Elastomer: FKM	Ports: brass
	Transducer: aluminium and silicon	Valves: nickel-plated brass	



Pneumatic features

Media	dry, unlubricated and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart, minimum 10% above outlet pressure
Flow rate	35 l/min at 7 bar supply pressure and open outlet, optionally 100 l/min 3 l/min at controlled outlet pressure
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without constant bleed

Electrical features

Supply voltage	15 ... 24 V DC, reverse voltage protection existing
Power consumption	3.6 W for regulation, 0.5 W non-regulating
Signal range	0 ... 10 V, optionally 4 ... 20 mA
Impedance	4.7 kΩ at voltage signal, 100 Ω at current signal 10 kΩ at voltage signal, 100 Ω at current signal, for external feedback
Monitor signal impedance	> 4.7 kΩ at voltage signal, < 100 Ω at current signal
Electrical connector	plug M16x0.75, 7-pin, with coupling socket
Monitor signal	0 ... 10 V, optionally 4 ... 20 mA
Security	constant outlet pressure at voltage drop

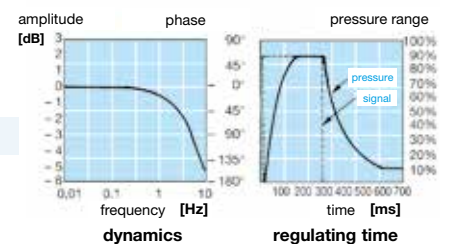
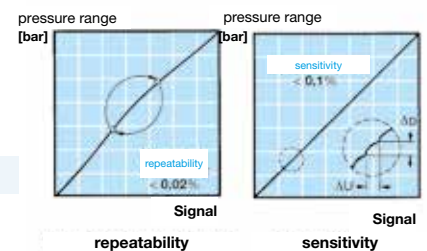
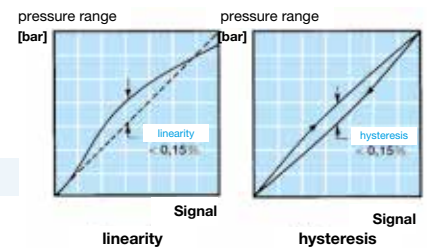
Accuracy

Linearity/Hysteresis	± 0.15% FS
Response sensitivity	< 0.1% FS
Response time	10 to 15 ms
Repeatability	± 0.02% FS
Temperature influence	< 0.01% FS per °C/K at 0 °C to 50 °C / 32 °F to 122 °F < 1.00% FS per °C/K at 50 °C to 70 °C / 122 °F to 158 °F
Accuracy over all	± 0.2 % FS
Regulating time	< 2 s to fill 0.1 l volume to 90% of the initial pressure (or to exhaust) < 40 s to fill 2 l volume to 90% of the initial pressure (< 80 s to exhaust)

Adjustment

Zero point	The zero point can be increased by up to 20% of full scale, e.g. from 0 bar to 1.2 bar at a 6 bar regulator. External adjustment via potentiometer Z "zero".
Span	The maximum pressure value of the control range can be reduced by up to 20% depending on the selected pressure range, e.g. from 6 to 4.8 bar. External adjustment via potentiometer S "span".

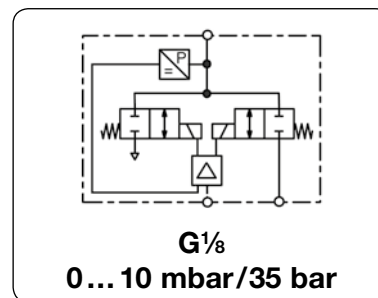
*1 at 7 bar supply pressure and 3 bar outlet pressure



Description The pneumatic proportional valve produces outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system consisting of valves, manifold, housing and electronic controls.

Single loop Pressure is controlled by two solenoid valves. One valve functions as inlet control, the other as exhaust. The pressure outlet is measured by an internal pressure transducer which provides a feedback signal to the electronic controls. This feedback signal is compared with the command input signal. Any difference between the two signals causes one of the two solenoid valves to open, allowing flow into or out of the system. Accurate pressure is maintained by these two valves.

Accuracy Linearity / Hysteresis: ± 0.15% FS
 Response sensitivity: < 0.1% FS
 Repeatability: ± 0.02% FS
 Accuracy over all: ± 0.2% FS



Dimensions			Flow rate	Supply pressure	Accuracy	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. mbar/bar*2	%	G	mbar/bar	

Single loop regulator			0 ... 10 V input and feedback signal, supply voltage 24 V DC, 35 l/min*1, with coupling socket		PQ1			
51	106	8	35	10 mbar	0.2	G ¹ / ₈	0 ... 5 mbar	PQ1EE-A5
				20 mbar			0 ... 10 mbar	PQ1EE-B1
				40 mbar			0 ... 20 mbar	PQ1EE-B2
				100 mbar			0 ... 50 mbar	PQ1EE-B5
				200 mbar			0 ... 100 mbar	PQ1EE-C1
				400 mbar			0 ... 200 mbar	PQ1EE-C2
				800 mbar			0 ... 400 mbar	PQ1EE-C4
51	106	8	35	1000 mbar	0.2	G ¹ / ₈	0 ... 600 mbar	PQ1EE-C6
				2 bar			0 ... 1 bar	PQ1EE-01
				3 bar			0 ... 2 bar	PQ1EE-02
				9 bar			0 ... 4 bar	PQ1EE-04
				9 bar			0 ... 6 bar	PQ1EE-06
				9 bar			0 ... 8 bar	PQ1EE-08
				15 bar			0 ... 10 bar	PQ1EE-10
				15 bar			0 ... 12 bar	PQ1EE-12
				24 bar			0 ... 16 bar	PQ1EE-16
				24 bar			0 ... 20 bar	PQ1EE-20
51	106	8	35	38 bar	0.2	G ¹ / ₈	0 ... 25 bar	PQ1EE-25
				38 bar			0 ... 30 bar	PQ1EE-30
				38 bar			0 ... 35 bar	PQ1EE-35
				0 bar			0 ... -1 bar	PQ1EE-V0
				2 bar			-1 ... +1 bar	PQ1EE-V1



PQ1

Special options, add the appropriate letter or number

4-20 mA input and monitor signal	PQ1 IC- . . .
flow 100 l/min increased flow rate, max. 10 bar, not combinable with Opt. ..X58	PQ1HF
continuous regulation improved characteristic curve through proportional inlet valve, max. 10 bar	PQ1X58
declining curve inverted outlet	PQ1X59

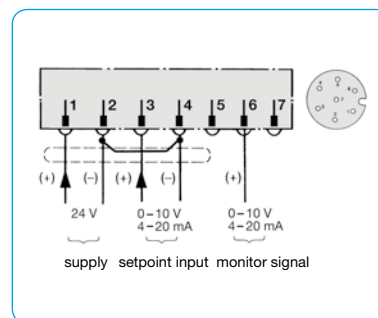
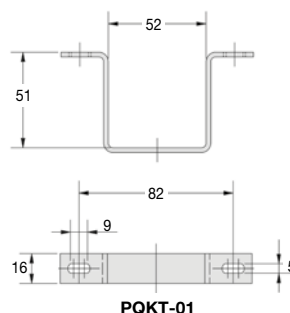
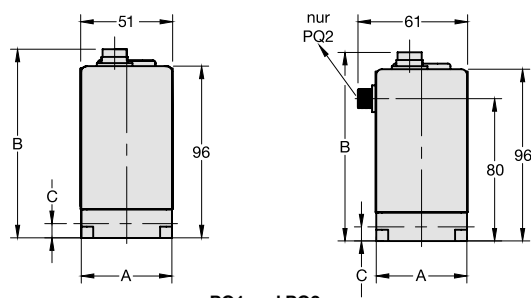
Accessories, enclosed

coupling socket	M16x0,75, 7-pin with 2 m cable	straight	PRK-A2L
		angular	PRK-C2L
mounting bracket	made of steel		PQKT-01



PRK-A

PRK-C



*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
 *2 higher supply pressure on request
 *3 air consumption

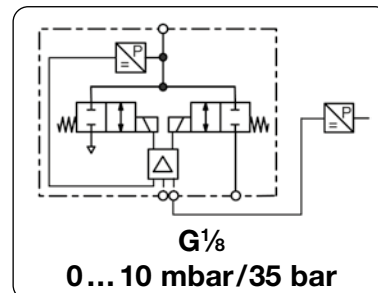
PROPORTIONAL PRESSURE REGULATOR WITH DOUBLE LOOP, ACCURATE TO 0.2%

PQ2

Description The pneumatic proportional valve produces outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system consisting of valves, manifold, housing and electronic controls.

Double loop The servo valve expands in single loop operation by combining an additional feedback from an external sensing device with the internal transducer. The external sensor provides information on the control status. The PQ2 then compares the command signal with the second loop feedback signal. Should there be a difference in the signal comparisons, the servo valve will make adjustments to the internal loop to bring the system into balance. This provides accurate final outlet. The acceptance of electrical feedback from an external sensor enables precise control of conditions such as pressure, force, torque, position or flow.

External pressure transducer Any pressure transducer for 0-10 V and 4-20 mA output signal and suitable for 15-24V DC supply voltage can be applied. An appropriate coupling socket plus cable is required.



Dimensions			Flow rate	Supply pressure	Accuracy	Connection thread	Pressure range	Order number
A	B	C	l/min*1	max. mbar/bar*2	%	G	mbar/bar	
mm	mm	mm						

Double loop regulator				0 ... 10 V input / feedback / second loop signal, supply voltage 24 V DC, 35 l/min*1, with both coupling sockets		PQ2		
51	106	8	on request	10 mbar	0.2	G ¹ / ₈	0 ... 5 mbar	PQ2EE-A5
				20 mbar			0 ... 10 mbar	PQ2EE-B1
				40 mbar			0 ... 20 mbar	PQ2EE-B2
				100 mbar			0 ... 50 mbar	PQ2EE-B5
				200 mbar			0 ... 100 mbar	PQ2EE-C1
				400 mbar			0 ... 200 mbar	PQ2EE-C2
				800 mbar			0 ... 400 mbar	PQ2EE-C4
				1000 mbar			0 ... 600 mbar	PQ2EE-C6
51	106	8	35	2 bar	0.2	G ¹ / ₈	0 ... 1 bar	PQ2EE-01
				3 bar			0 ... 2 bar	PQ2EE-02
				9 bar			0 ... 4 bar	PQ2EE-04
				9 bar			0 ... 6 bar	PQ2EE-06
				9 bar			0 ... 8 bar	PQ2EE-08
				15 bar			0 ... 10 bar	PQ2EE-10
				15 bar			0 ... 12 bar	PQ2EE-12
				24 bar			0 ... 16 bar	PQ2EE-16
				24 bar			0 ... 20 bar	PQ2EE-20
				38 bar			0 ... 25 bar	PQ2EE-25
				38 bar			0 ... 30 bar	PQ2EE-30
				38 bar			0 ... 35 bar	PQ2EE-35
51	106	8	35	0 bar	0.2	G ¹ / ₈	0 ... -1 bar	PQ2EE-V0
				2 bar			-1 ... +1 bar	PQ2EE-V1



PQ2



combination example:
booster with proportional valve and second loop via pressure transducer

Special options, add the appropriate letter or number

4-20 mA	input / feedback / second loop signal	PQ2 IC- . . .
flow 100 l/min	increased flow rate, max. 10 bar	PQ2 HF
continuous regulation	improved characteristic curve through proportional inlet valve, max. 10 bar	PQ2 X58
declining curve	inverted outlet	PQ2 X59

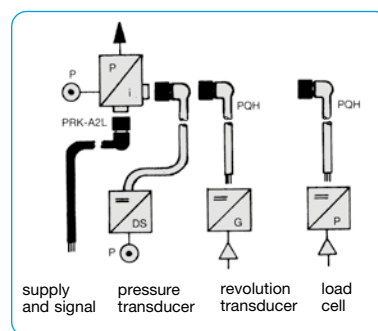
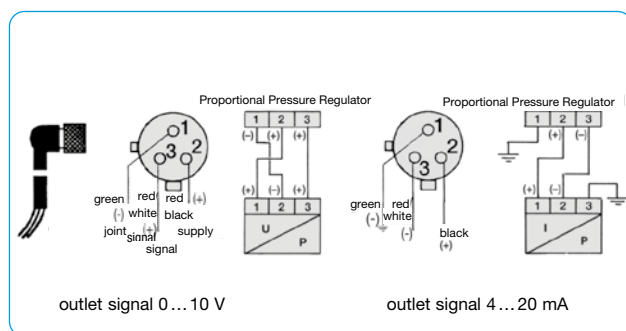
Accessories, enclosed

coupling socket	M16x0.75,	7-pin with 2.0 m cable,	supply and signal,	straight	PRK-A2L
				angular	PRK-C2L
coupling socket	½" UNF,	3-pin with 0.9 m cable,	for second loop,	straight	PQH-L1
				angular	PQH-L2
mounting bracket	made of steel				PQKT-01



PRK-A

PRK-C



*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request

Technical details: see previous page

PDF CAD
www.aircom.net

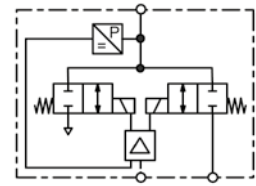


Order example:
PQ2EE-A5

PROPORTIONAL PRESSURE REGULATOR WITH HIGH ACCURACY AND HIGH FLOW PQ3...PQ6

Technical features

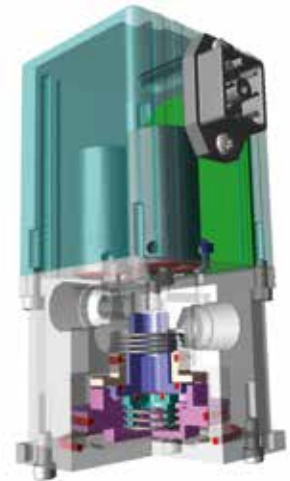
• Pressure range	-1... 35 bar	• Accuracy	$\pm 0.4\%$
• Input signal	0-10 V; 4-20 mA	• Mounting position	any
• Protection class	IP65	• Adjustment	zero point, span, hysteresis
• Response time	15 ... 20 ms	• Air consumption	without air consumption
• Power consumption	6 W		



accurate 0.4%

General technical features

Description	Two solenoid valves control the system pressure. One valve is for inlet control, the other for outlet control. In order to achieve high volume flow the regulator is pilot-controlled, i.e. the valves control an integral volume booster. Extraordinary accuracy is reached by measuring the outlet pressure of the booster and feeding back the according signal.		
Mounting position	any, preferably upright		
Protection class	IP65		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F		
Material	Booster body: nickel-plated aluminium	Elastomer: FKM, NBR/Buna-N	
	Transducer: aluminium and silicon	Valves: nickel-plated brass	

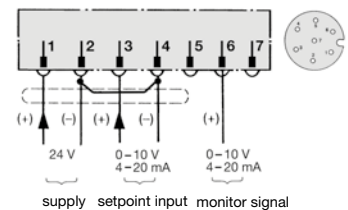


Pneumatic features

Media	dry, unlubricated and 40 µm filtered compressed air or non-corrosive gases		
Supply pressure	see chart, minimum 10% above outlet pressure		
Flow rate	PQ3:	700 l/min at 8 bar supply pressure and 6 bar outlet pressure	
	PQ4 / PQ6:	2000 l/min at 8 bar supply pressure and 6 bar outlet pressure	
Exhaust	nearly same relief capacity as ventilation capacity		
Air consumption	without constant bleed		

Electrical features

Supply voltage	15-24 V DC		
Power consumption	max. 6 W		
Command signal	0-10 V, optionally 4-20 mA		
Command signal impedance	10 kΩ at voltage signal,	100 Ω at current signal	
Electrical connector	plug M16x0.75, 7-pin, with coupling socket, optionally plug M12		
Monitor signal	0-10 V, optionally 4-20 mA		
Security	constant outlet pressure at voltage drop		



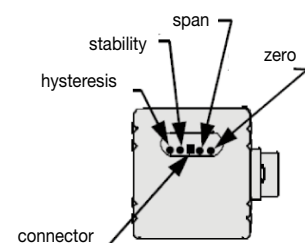
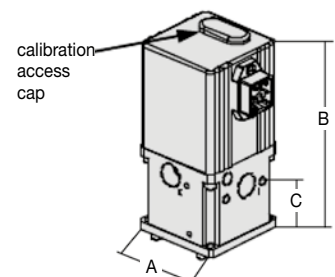
connection diagram for supply and signal

Accuracy

Linearity / Hysteresis	$\pm 0.3\%$ FS	> 7 bar outlet pressure $\pm 0.5\%$ FS
Response sensitivity	< 0.1% FS	
Response time	10 ... 15 ms	
Repeatability	$\pm 0.2\%$ FS	
Accuracy	$\pm 0.4\%$ FS	

Adjustment

Adjustment	Adjustment by calibration access cap on the top of the valve.
Zero point	The zero point can be changed by up to 10% of full scale, e.g. from 0 bar to 0.6 bar at a 6 bar regulator. External adjustment via potentiometer Z "zero".
Span	The maximum pressure value of the control range can be reduced by up to 10%, e.g. from 6 bar to 5.4 bar. External adjustment via potentiometer S "span".
Hysteresis	Response sensitivity can be adjusted via potentiometer H "hysteresis".



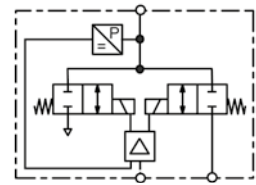
PROPORTIONAL PRESSURE REGULATOR WITH HIGH ACCURACY AND HIGH FLOW PQ3...PQ6

Description

Closed loop electronic pressure regulator consisting of two solenoid valves, an internal pressure transducer, and an electronic control circuit mounted to an integral volume booster. The pressure is controlled by activating the solenoid valves, which apply pressure to the pilot side of the volume booster.

Single loop

Pressure is controlled by two solenoid valves. One valve functions as inlet control, the other as exhaust. The pressure outlet is measured by an internal pressure transducer which provides a feedback signal to the electronic controls. This feedback signal is compared with the command input signal. Any difference between the two signals causes one of the two solenoid valves to open, allowing flow into or out of the system. Accurate pressure is maintained by these two valves.



0...0.1 bar/35 bar

Dimensions			Flow rate l/min*1	Supply pressure max. bar	Accuracy %	Connection thread G/NPT	Pressure range bar	Order number
A	B	C						
mm	mm	mm						

Single loop regulator

0 ... 10 V input and feedback signal
supply voltage 24 V DC, with coupling socket

PQ3/PQ4/PQ6

51	123	34	700	0.2	0.25	1/4" NPT	0...0,1	PQ3EE-C1	
				1.0			0...0,5	PQ3EE-C5	
				2.0			0...1,0	PQ3EE-01	
				3.0			0...2,0	PQ3EE-02	
				9.0			0...4,0	PQ3EE-04	
				9.0			0...6,0	PQ3EE-06	
				9.0			0...8,0	PQ3EE-08	
				15			0...10	PQ3EE-10	
				15			3/8" NPT	0...12	PQ3EE-12
				24				0...16	PQ3EE-16
				24				0...20	PQ3EE-20
				38				0...25	PQ3EE-25
				38				0...30	PQ3EE-30
38	0...35	PQ3EE-35							
77	175	65	2000	0.2	0.4	1/2" NPT	0...0,1	PQ4EE-C1	
				1.0			0...0,5	PQ4EE-C5	
				2.0			0...1,0	PQ4EE-01	
				3.0			0...2,0	PQ4EE-02	
				9.0			0...4,0	PQ4EE-04	
				9.0			0...6,0	PQ4EE-06	
				9.0			0...8,0	PQ4EE-08	
15	0...10	PQ4EE-10							
77	175	65	2000	0.2	0.4	3/4" NPT	0...0,1	PQ6EE-C1	
				1.0			0...0,5	PQ6EE-C5	
				2.0			0...1,0	PQ6EE-01	
				3.0			0...2,0	PQ6EE-02	
				9.0			0...4,0	PQ6EE-04	
				9.0			0...6,0	PQ6EE-06	
				9.0			0...8,0	PQ6EE-08	
				15			0...10	PQ6EE-10	



PQ3EE-10



PQ4EE-10

Special options, add the appropriate letter

4-20 mA	input and monitor signal	PQ . IC- . .
M12 connector	5-pin (coupling socket not included)	PQ M12

Accessories, enclosed

coupling socket	M16x0.75, 7-pin with 2 m cable	straight	PRK-A2L
		angular	PRK-C2L
coupling socket	M12x1, 5-pin with 2 m cable, 5 x 0.25	angular	KM12-C5-2
	5-pin with 5 m cable, 5 x 0.25	angular	KM12-C5-5
mounting bracket	made of steel	for PQ3	PQKT-01
mounting bracket	made of steel	for PQ4/PQ6	PQKT-02



PRK-A

PRK-C

Technical details: see previous page

PDF CAD
www.aircom.net



Order example:
PQ3EE-C1

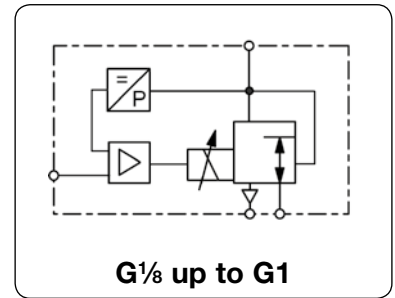
Description The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact monoblock assembly with proportional solenoid valve, electronic regulator and internal pressure transducer.

In the process, the outlet pressure is transformed into a proportional electrical signal and compared with the input signal. If the outlet pressure exceeds the preset setpoint, the valve exhausts down to the pressure desired.

The valve has no constant bleed. At absence of input signal or supply voltage the valve exhausts. The power supply of the setpoint potentiometer is provided by the proportional valve via connector pin number 5.

Pressure transducer Open transducers: 100 mbar, 500 mbar, 1 bar and vacuum

Application examples Proportional pressure regulators are being used for blowing machines, ultrasonic equipments, testing machines, painting systems, contouring systems, laser welding machines, textile machines, cheese presses, pneumatic brakes, clamping devices and medical engineering.



General technical features

Description 3-port/2-way valve with proportional magnet, integrated hybrid PCB and closed loop with pressure transducer in compact monoblock assembly.

Mounting position any, preferably upright

Protection class IP 54 with standard connector, IP 65 with special connector

Shock resistance 3G

Temperature range 0 °C up to 50 °C / 32 °F to 122 °F, high temperature version on request

Material Body: brass (G¹/₈) and aluminium (G¹/₄, G¹/₂ u. G1) Inner valve: brass and SST
Seals: NBR/Buna-N, on request EPDM or FKM FKM for 50 bar version

Pneumatic features

Media dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases

Supply pressure see chart, min. 10% above outlet pressure

Flow rate see chart, at 7 bar inlet pressure and open outlet

Exhaust same nominal size as on inlet valve, thus same relief capacity

Air consumption without air consumption

Electrical features

Supply voltage 24 V DC + 15% - 10%, residual ripple max. 10%

Power consumption 12 W at G¹/₈, 22 W at G¹/₄, 30 W at G¹/₂, 44 W at G1

Current consumption 0.5A at G¹/₈, 1.0A at G¹/₄, 1.25A at G¹/₂, 1.7A at G1

Command signal 0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, digital or Profibus DB rising curve as standard, optionally declining curve

Impedance 100 kΩ at voltage signal (0.1 mA current consumption)
500 Ω at current signal

Electrical connector circular plug according to DIN 43651, 7-pin plug for analogue signal
16-pin plug for digital signal

Accuracy

Linearity/Hysteresis < 1% FS

Response sensitivity < 0.1% FS

Repeatability < 0.1% FS

Over all accuracy ± 0.5%

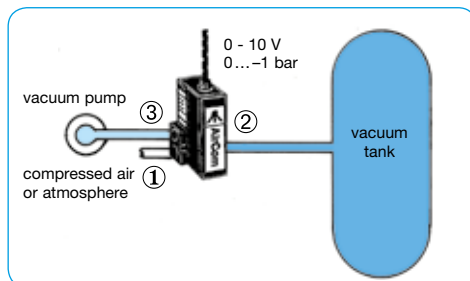
Regulating time < 1 s over the range, 70 ms at 10 to 90% or 90 to 10% of the range

Adjustment

Zero point calibration ± 10% FS via potentiometer P2

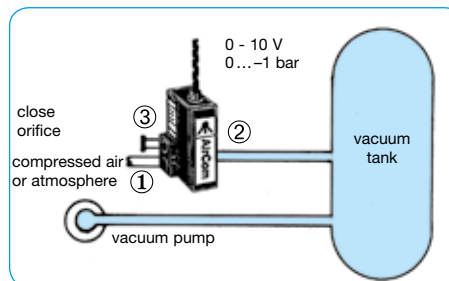
Range calibration + 5% FS or -10% FS via potentiometer P1

Amplification calibration 1:1 up to 1:10 via potentiometer P7



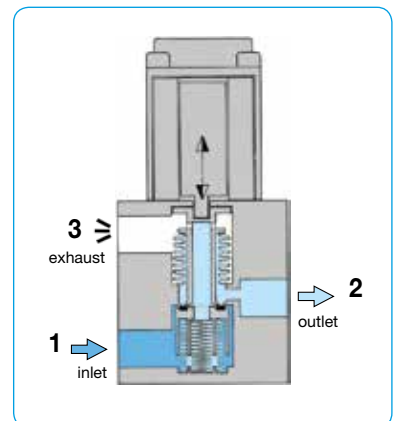
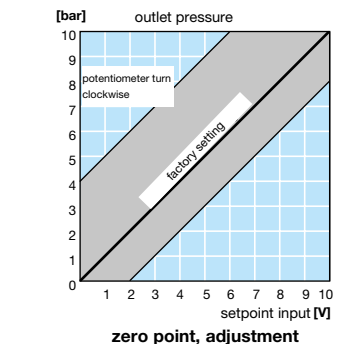
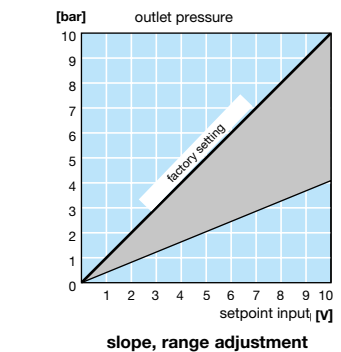
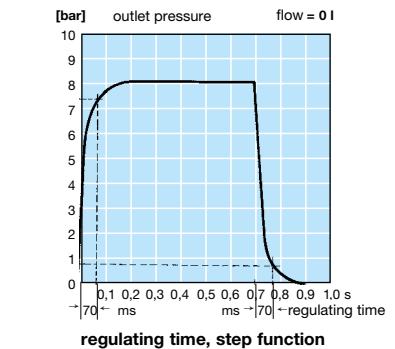
Downstream regulation (V1)

The vacuum pump saves energy and it is easy to fill the tank either with vacuum or pressure. A filter is recommended at orifice ①.



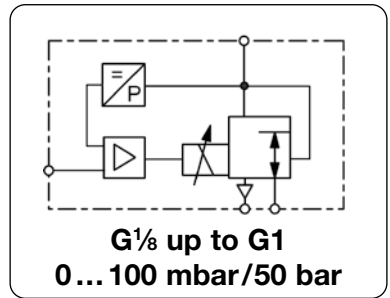
Upstream regulation (V2)

Upstream installation is preferred if rapid evacuation of a tank or system is required. A filter is recommended at orifice ①.



Technical features

• Pressure range	0...-1.0 bar to 0... 1.0 bar	• Linearity / Hysteresis	< 1% FS
• Command signal	0... 10 V, 0... 20 mA, 4... 20 mA, digital	• Response sensitivity	± 0,5% FS
• Feedback signal	0... 10 V, 0... 20 mA, 4... 20 mA	• Repeatability	± 0,5% FS
• Adjustment	zero point, range and amplification	• Regulating time	< 1 s
• Pressure sensors	100 / 500 mbar, 1 bar	• Power consumption	12 / 22 / 30 / 44 W
• Flow rate	250 / 820 / 1700 / 6500 l/min	• Exhaust	full nominal size



Dimensions			Nominal size	K _v -value	Flow rate	Supply max.	Connection thread	Pressure range	Order number
A	B	C	DN	(m ³ /h)	l/min*1	bar	G	bar	
mm	mm	mm							

Proportional pressure valve										0-10 V input signal, supply voltage 24 V DC, with coupling socket	PR
35	80	63	3	0.18	210	-1	G ¹ / ₈	0...-1.0	PRA00-00V1		
						-1		0...-0.5	PRA00-00V1A5		
						-1		0...-0.1	PRA00-00V1A1		
						3		-1.0... 1.0	PRA00-01V1		
						1		0... 0.1	PRA00-A100		
						2		0... 0.5	PRA00-A500		
						2		0... 1.0	PRA00-0100		
52	105	74	6	0.6	700	-1	G ¹ / ₄	0...-1.0	PR000-00V1		
						-1		0...-0.5	PR000-00V1A5		
						-1		0...-0.1	PR000-00V1A1		
						3		-1.0... 1.0	PR000-01V1		
						1		0... 0.1	PR000-A100		
						2		0... 0.5	PR000-A500		
						2		0... 1.0	PR000-0100		
70	150	101	12	1.2	1400	-1	G ¹ / ₂	0...-1.0	PR100-00V1		
						2		0... 1.0	PR100-0100		
96	190	115	20	4.8	5600	-1	G1	0...-1.0	PR200-00V1		
						2		0... 1.0	PR200-0100		



Special options, add the appropriate letter or number

input signal	0-20 mA 4-20 mA 8 bit digital with hold function Profibus DP			PR...1-.... PR...2-.... PR...3-.... PR...8-....
feedback signal	0-10 V 0-20 mA 4-20 mA		from G ¹ / ₄ on	PR...1-.... PR...2-.... PR...3-....
external feedback signal	0-10 V 0-20 mA 4-20 mA			PR...4-.... PR...5-.... PR...6-....
deviant pressure range for vacuum	indicate on order Bypass version		G ¹ / ₈ and G ¹ / ₄ G ¹ / ₂ G1	PR...-XX.. PR...-..V2 PR1...-..V2 PR2...-..V2
for absolute pressure protection class IP65	special cable box, PRK-IP65			PR...-..0A PR...-..06
body made of stainless steel	valve body and inner parts, 1.4304, EPDM seals, G ¹ / ₄ and G ¹ / ₂			PR...-..SS
body made of aluminium for oxygen	nly valve body, max. 20 bar specially cleaned, FKM elastomer		G ¹ / ₄ only	PR...-..19 PR...-..15



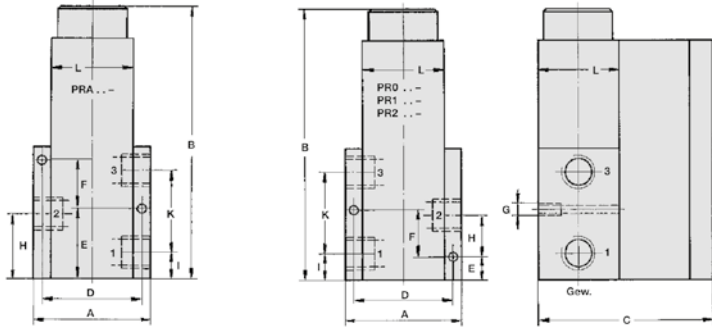
Accessories, enclosed

coupling socket	7-pin with 2 m cable 7-pin with 5 m cable 7-pin with 2 m cable, IP65 7-pin with 2 m cable 7-pin with 5 m cable	straight straight straight angular angular	PRK-A2L PRK-A5L PRK-I2L PRK-C2L PRK-C5L
other cable length	e.g. 10 m available		



*1 at 6 bar supply pressure and 5 bar outlet pressure

DIMENSIONS AND CONNECTION DIAGRAM "AIRTRONIC"®



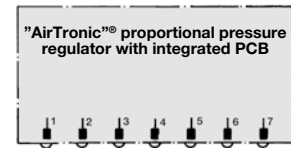
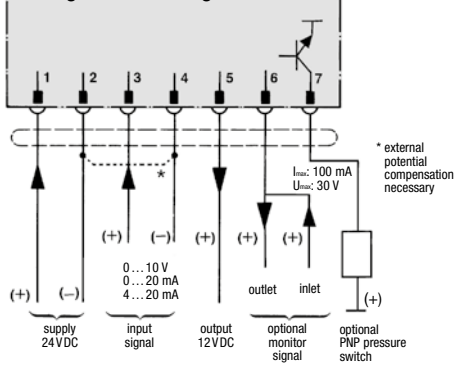
Proport. regulator	thread	A	B	C	D	E
PRA . . .	G 1/2	35	80	63	29	18
PRO . . .	G 1/4	52	105	74	43	10
PR1 . . .	G 1/2	70	150	101	57.5	12
PR2 . . .	G 1	96	190	115	79	15

Proport. regulator	F	G	H	I	K	L
PRA . . .	7	M 4	15	10	16.6	25
PRO . . .	20	M 4	16	11*	34	36
PR1 . . .	28	M 6	23	15	48.5	45
PR2 . . .	33	M 8	30	20	60	60

* 14 mm from 30 bar pressure range on

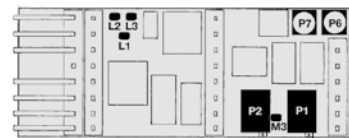
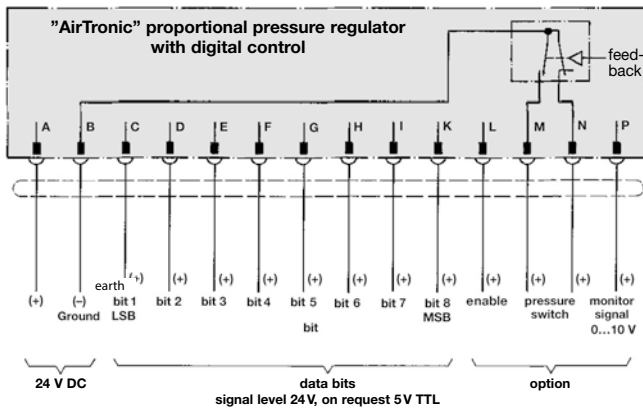
"AIRTRONIC"® PROPORTIONAL PRESSURE REGULATOR WITH INTEGRATED PCB

"AirTronic" proportional pressure regulator with integrated PCB



"AIRTRONIC"® CONNECTION DIAGRAM

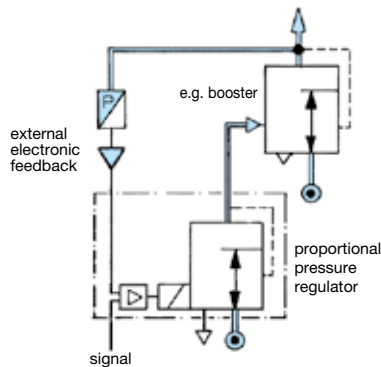
CONNECTION DIAGRAM WITH POTENTIOMETER



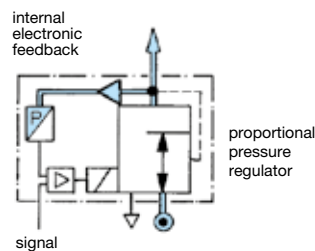
- P1 range: -10%...+5%
- P2 zero point: ± 10%
- P6 option pressure switch: 5...15%
- P7 proportional amplification: 1...11
- M3 measuring point offset zero
- L1 earth (GND)
- L2 solenoid +24 V
- L3 solenoid (pulse width modulation) PWM

CONNECTION DIAGRAM FOR DIGITALLY CONTROLLED PROPORTIONAL PRESSURE REGULATOR

ADJUSTMENT OF THE PROPORTIONAL REGULATOR



EXTERNAL ELECTRONIC FEEDBACK
0 ... 10 V or 0/4 ... 20 mA



INTERNAL ELECTRONIC FEEDBACK
as standard

Description The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact mono block assembly with proportional solenoid valve, electronic regulator and internal pressure transducer. The valve works as a slide valve and is designed for flow applications such as thermal cutting. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software. Data record can be saved and used for further valves. The valve has a constant bleed. At absence of input signal or supply voltage the valve exhausts.

Software Display: signal, outlet pressure, PID parameters, pressure switch signal etc.

Scope function view setpoint, outlet pressure, internal signals from PID control

Media dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases

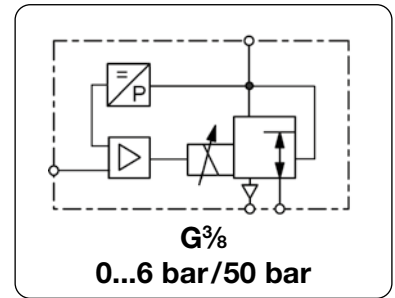
Supply voltage 24 V DC ± 10 V, residual ripple < 10% **Power consumption** 14 W (810mA current consumption)

Signal range 0-10 V, 100 kΩ impedance 0/4-20 mA, 250 Ω impedance

Electr. connection plug M12x1, 5-pin (protection class IP65) **Mounting position** any, preferably solenoid on top

Accuracy hysteresis: 0.5% FS **Linearity/repeatability** < ± 0.5% FS

Temp. range fluid / ambient: 0 °C to 60 °C / 32 °F to 140 °F **Material** Body: aluminium Elastomer: NBR/Buna-N



Dimensions			Nominal size	K _v -value	Flow rate	Supply max.	Connection thread	Pressure range	Order number
A	B	C	DN	(m³/h)	l/min*1	bar	G	bar	

Proportional pressure regulator									
0-10 V command signal, supply voltage 24 V DC, without M12 coupling socket									
60	160	78	8	1,45	1700	12	G3/8	0 ... 6	PF000-0600
						18		0 ... 10	PF000-1000
						18		0 ... 16	PF000-1600
						22		0 ... 20	PF000-2000
						40		0 ... 30	PF000-3000
						50		0 ... 40	PF000-4000
						60		0 ... 50	PF000-5000



PF000-1000

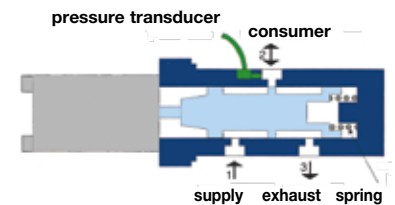


Special options, add the appropriate letter or number

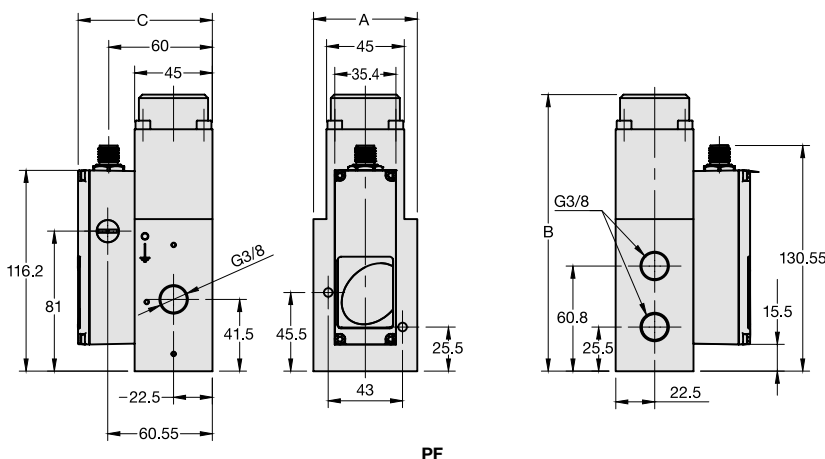
command signal	0-20 mA	PF..1-....
	4-20 mA	PF..2-....
monitor signal	0-10 V	PF.1.-....
	4-20 mA	PF.3.-....
deviant pressure range	indicate on order	PF...-XX.
for oxygen	specialy cleaned, FKM elastomers	PF...-..15

Accessories, enclosed

RS232 module	with 9-pin D-sub plug and 2 m cable	PDRS232
	with USB plug and 2 m cable	PDUSB
software	basic version "light"	PDSOFT1
coupling socket	M12x1, 5-pin, with 2 m cable, 5 x 0.25	angular KM12-C5-2
	M12x1, 5-pin, with 5 m cable, 6 x 0.25	angular KM12-C5-5

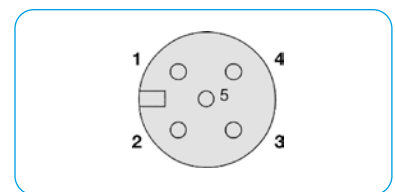


The position of the slide is continuously shifting according to command signal and pressure change at the outlet. Thereby a constant outlet pressure is achieved.



PF

*1 at 6 bar supply pressure and 5 bar outlet pressure



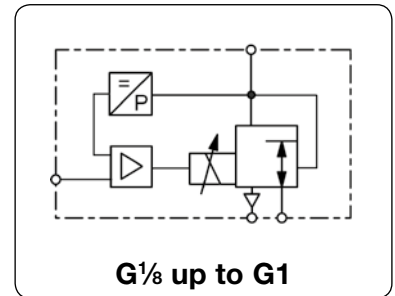
view from solder pin side

pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

connection diagram



Description	The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact mono block assembly with proportional solenoid valve, electronic regulator and internal pressure transducer. The valve works as a 3-port/2-way valve with proportional magnet. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software. Data record can be saved and used for further valves. The valve has no constant bleed. At absence of input signal or supply voltage the valve exhausts.
Software	Display: signal, outlet pressure, parameter, pressure switch signal etc. Scope function: view setpoint, outlet pressure, internal signals from PID control Parameters: command signal, zero point, overload threshold, ramp Valve diagnosis: parameters factory set or customised, optimization of the valve



General technical features

Description	3-port/2-way valve with proportional magnet and digital control
Mounting position	any, preferably vertical
Protection class	IP65 with mounted coupling socket
Shock resistance	3G
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, fluid / ambient temperature
Material	Body: brass (for G ¹ / ₈ and G ¹ / ₄) or aluminium (for G ¹ / ₂ and G1) Inner valve: brass and stainless steel Seals: NBR/Buna-N, EPDM or FKM on request, FKM for 50 bar version

Pneumatic features

Media	dry, lubricated, unlubricated and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart
Flow rate	see chart, at 7 bar supply pressure and open outlet
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without air consumption

Electrical features

Supply voltage	24 V DC ±10%
Electrical connection	M12, 5-pin coupling socket
Power consumption	12 W at G ¹ / ₈ , 24 W at G ¹ / ₄ , 34 W at G ¹ / ₂ , 44 W at G1
Current consumption	500 mA at G ¹ / ₈ , 1000 mA at G ¹ / ₄ , 1400 mA at G ¹ / ₂ , 1800 mA at G1
Command signal	0-10 V, 0-20 mA, 4-20 mA
Impedance	100 kΩ at voltage signal (0.1 mA current consumption) 250 Ω at current signal
Setpoint input	0-10 V, 0-20 mA, 4-20 mA

Accuracy

Linearity/Hysteresis	< ± 0.5% FS
Repeatability	± 0.5% FS
Response sensitivity	± 0.5% FS
Over all accuracy	± 0.5% FS

Adjustment and parameter settings

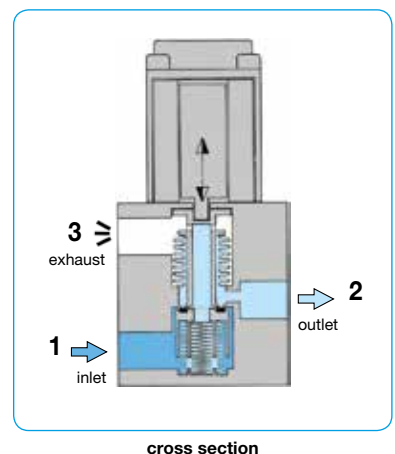
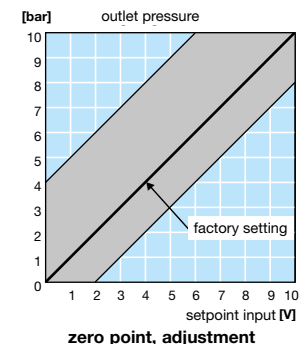
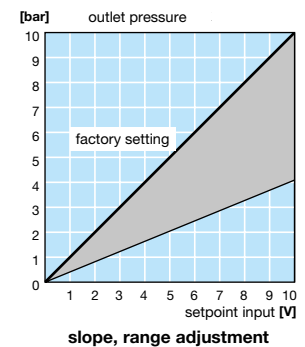
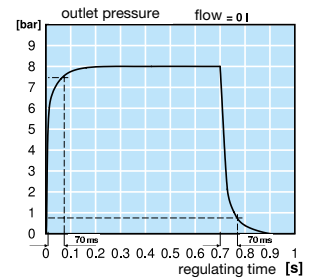
Zero point / range	Zero point and range can be calibrated percentagewise.
Control mode / Amplification	Through the software different control modes may be chosen. All parameters of P/PI/PID controllers can be tuned.
Diagnosis	A diagnostic tool including data recording is available within the software.
Characteristic curve	Increasing or decreasing curve can be set (increasing by standard).

Downstream regulation for vacuum/positive pressure regulators (V1)

Recommended when tank shall be evacuated or filled with positive pressure. At inlet port (1) either compressed air or atmosphere has to be applied. The use of a filter is advisable.

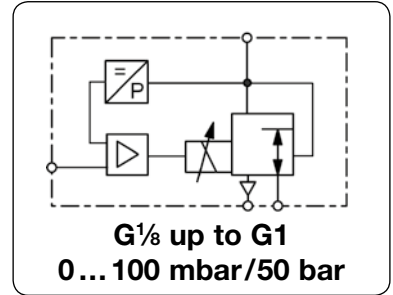
Downstream regulation for vacuum regulators (V3)

Recommended when tank shall be evacuated. Exhaust port (3) will be closed. Inlet port (1) must be connected with vacuum pump. Outlet port (2) has to be connected with consumer or tank.



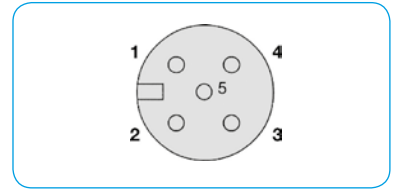
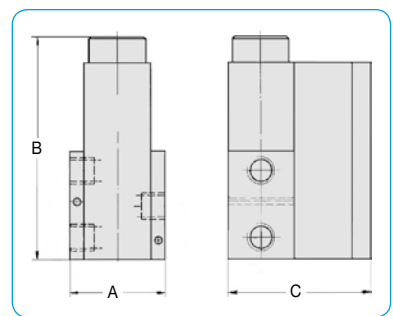
Technical features

- **Pressure range** 0...0.1 bar bis 0...50 bar
- **Command signal** 0-10 V, 0-20 mA, 4-20 mA
- **Output signal** 0-10 V, 0-20 mA, 4-20 mA
- **Regulating time** < 1 s
- **Pressure sensor** 100 / 500 mbar, 1 / 5 / 10 / 16 / 20 / 30 / 50 bar
- **Flow rate** 250 / 820 / 1700 / 6500 l/min
- **Linearity / Hysteresis** ± 0.5% FS
- **Response sensitivity** ± 0.5% FS
- **Repeatability** ± 0.5% FS
- **Rated input** 12 / 22 / 30 / 44 W
- **Relief capacity** full nominal size



Dimensions			Nominal size	K _v -value	Flow rate	Supply max.	Connection thread	Pressure range	Order number
A	B	C	DN	(m ³ /h)	l/min*1	bar	G	bar	

Proportional pressure regulator									
0-10 V command signal, supply voltage 24 V DC, with coupling socket									
35	83	57	3	0.18	210	-1	G ¹ / ₈	0...-1.0	PPA00-00V3
						2		0... 0.1	PPA00-A100
						2		0... 0.5	PPA00-A500
						2		0... 1.0	PPA00-0100
						8		0... 3.0	PPA00-0300
						12		0... 6.0	PPA00-0600
						12		0... 10	PPA00-1000
						18		0... 16	PPA00-1600
						22		0... 20	PPA00-2000
						30		0... 25	PPA00-2500
52	105	68	6	0.6	700	-1	G ¹ / ₄	0...-1.0	PP000-00V3
						2		0... 0.1	PP000-A100
						2		0... 0.5	PP000-A500
						2		0... 1.0	PP000-0100
						8		0... 3.0	PP000-0300
						12		0... 6.0	PP000-0600
						12		0... 10	PP000-1000
						18		0... 16	PP000-1600
						22		0... 20	PP000-2000
						40		0... 30	PP000-3000
						60		0... 50	PP000-5000
70	136	85	12	1.2	1400	-1	G ¹ / ₂	0...-1.0	PP100-00V3
						2		0... 1.0	PP100-0100
						8		0... 3.0	PP100-0300
						12		0... 6.0	PP100-0600
						12		0... 10	PP100-1000
						14		0... 12	PP100-1200
96	190	101	20	4.8	5600	-1	G1	0...-1.0	PP200-00V3
						2		0... 1.0	PP200-0100
						8		0... 3.0	PP200-0300
						12		0... 6.0	PP200-0600
						12		0... 10	PP200-1000
						14		0... 12	PP200-1200



Special options, add the appropriate letter or number

setpoint input	0-20 mA	1		4-20 mA	PP..2-....	
feedback output	0-10 V	1	0-20 mA	2	4-20 mA	PP..3-....
deviant pressure range	indicate on order				PP...-XX..	
for absolute pressure					PP...-..0A	
body made of stainless steel	P ₂ = max. 20 bar, body / inner parts, 1.4304, EPDM, G ¹ / ₄ and G ¹ / ₂				PP...-..SS	
body made of aluminium	valve body only, max. 20 bar G ¹ / ₄ only				PP0...-..19	
for oxygen	specially cleaned, FKM elastomer				PP...-..15	
for dynamic application	P ₂ = for 30 bar- up to 50 bar version G ¹ / ₄ only				PP0...-..DY	
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V				PP...-..KU	
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA				PP...-..KI	

Accessories, enclosed

S232 module	with D-sub plug and with USB plug and basic version "light"	2 m cable		PDRS232
software		2 m cable		PDSOB
coupling socket	M12x1, 5-pin with	2 m cable, 5 x 0.25	angular	PDSOFT1
		5 m cable, 5 x 0.25	angular	KM12-C5-2
adapter cable	M12x1, 5-pin with	0.2 m cable		KM12-C5-5
				PRK-PR-PP

*1 at 6 bar supply pressure and 5 bar outlet pressure

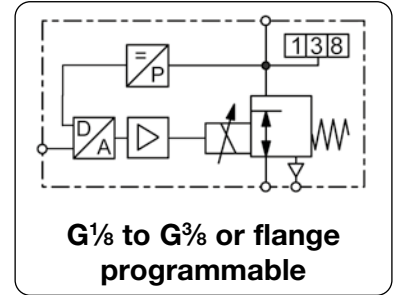
pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply earth	blue
	analog earth	
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

connection diagram

Description The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.

Software Display: signal, outlet pressure, PID parameters, pressure switch signal etc.
Scope function: view setpoint, outlet pressure, internal signals from PID control

Parameters command signal, zero point, overload threshold, ramp
Valve diagnosis: parameters factory-set or customised, optimization of the valve.

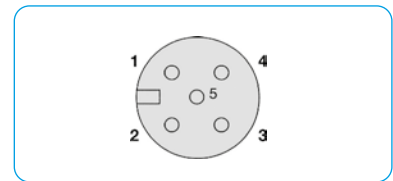


General technical features

Description 3-port/2-way valve with proportional magnet and digital control
Mounting position any, preferably upright
Protection class IP65 with mounted coupling socket
Temperature range 0 °C to 50 °C / 32 °F to 122 °F ambient
Material Body: aluminium Inner valve: POM (Polyacetal)
Elastomer: NBR/Buna N and FPM

Pneumatic features

Media dry, lubricated or unlubricated and 50 µm filtered compressed air or non-corrosive gases
Supply pressure see chart
Flow rate see chart, at 7 bar supply pressure and open outlet
Exhaust same nominal size as on inlet valve, thus same relief capacity
Air consumption without air consumption



Electrical features

Supply voltage 24 V DC \pm 10%
Electrical connection M12x1, 5-pin plug, with coupling socket
Power consumption 12 W at nominal size 4, 40 W at nominal size 8
Current consumption 850 mA at nominal size 4, 1640 mA at nominal size 8
Command signal 0-10 V, 0-20 mA, 4-20 mA
Impedance 100 k Ω at voltage signal (0.1 mA current consumption)
500 Ω at current signal
Feedback output 0-10 V = 3 bar only, 6 bar and 10 bar pressure range possible

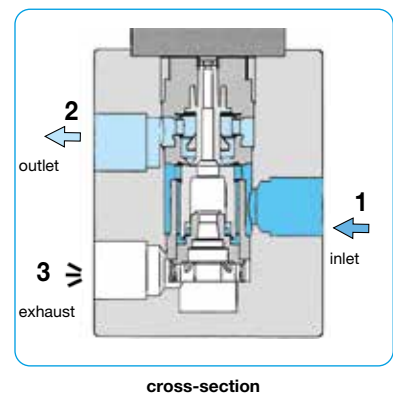
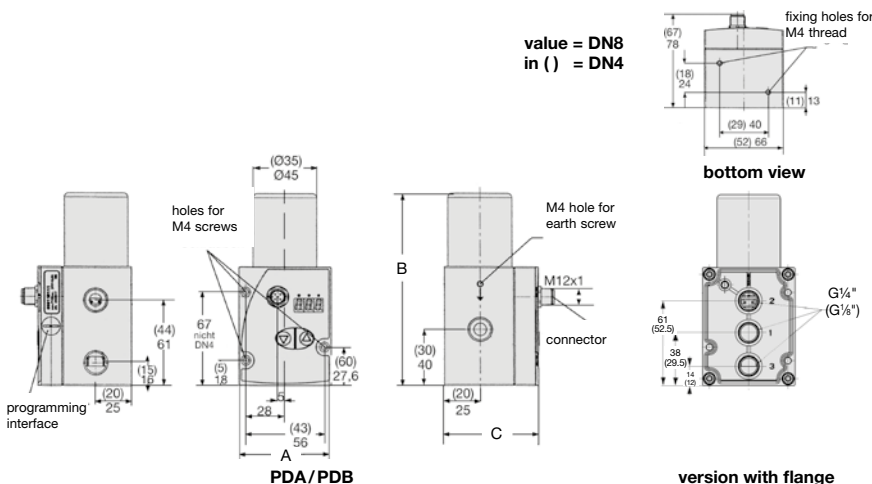
pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
	analog ground	
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

Accuracy

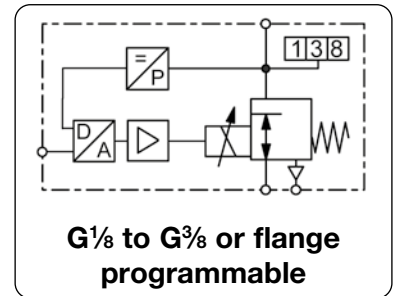
Linearity/Hysteresis < 1,0% FS
Repeatability < 0,5% FS
Minimum outlet pressure 1% FS
Response sensitivity < 0,5% FS
Minimum setpoint 100 mV (0.2 mA / 4.2 mA)
Over all accuracy \pm 0,5% FS

Adjustment and parameter settings

Zero point / range Zero point and range can be calibrated percentagewise.
Control mode / Amplification Through the software different control modes may be chosen. All parameters of P/PI/PID controllers can be tuned.
Diagnosis A diagnostic tool including data recording is available within the software.
Characteristic curve Increasing or decreasing curve can be set (increasing by standard).



Description	The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.		
Media	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases		
Supply voltage	24 V DC ± 10 V, residual ripple < 10%		
Signal range	0-10 V, 100 kΩ impedance, 0/4-20 mA, 250 Ω impedance		
Electrical connection	plug M12x1, 5-pin, with coupling socket	Pressure switch	PNP, adjustable ± 5% from setpoint
Power consumption	21 W at DN4, 40 W at DN8		
Linearity/Hysteresis	< 0.5% FS / < 1% FS		
Mounting position	any		
Temperature range	fluid: 0 °C to 60 °C / 32 °F to 140 °F ambient: 0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: aluminium	Elastomer: NBR/Buna-N	Inner valve: POM



Dimensions			Nominal size	Flow rate	Supply max.	Connection thread	Pressure range	Order number
A	B	C	DN	l/min*1	bar	G	bar	

Proportional pressure regulator						0-10 V input and outlet signal, supply 24 V DC, without display, with coupling socket		PD	
52	112	67	4	0.43	470	6	G1/8	0 ... 1	PDA41-010
						6		0 ... 3	PDA41-030
						9		0 ... 5	PDA41-050
						9		0 ... 6	PDA41-060
						13		0 ... 8	PDA41-080
						13		0 ... 10	PDA41-100
						13		0 ... 12	PDA41-120
						6	G1/4	0 ... 1	PDA42-010
						6		0 ... 3	PDA42-030
						9		0 ... 5	PDA42-050
						9		0 ... 6	PDA42-060
						13		0 ... 8	PDA42-080
						13		0 ... 10	PDA42-100
						13		0 ... 12	PDA42-120
66	138	78	8	1.2	1300	6	G1/4	0 ... 1	PDA82-010
						6		0 ... 3	PDA82-030
						9		0 ... 5	PDA82-050
						9		0 ... 6	PDA82-060
						13		0 ... 8	PDA82-080
						13		0 ... 10	PDA82-100
						13		0 ... 12	PDA82-120
						6	G3/8	0 ... 1	PDA83-010
						6		0 ... 3	PDA83-030
						9		0 ... 5	PDA83-050
						9		0 ... 6	PDA83-060
						13		0 ... 8	PDA83-080
						13		0 ... 10	PDA83-100
						13		0 ... 12	PDA83-120



PDA without display



PDB with display



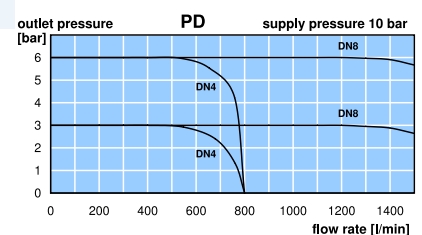
programming via PC

Special options, add the appropriate letter or number

display	3-digit, red	PDB
NPT	connection thread	PD N
0-20 mA	setpoint input and monitor signal	PD 1
4-20 mA	setpoint input and monitor signal	PD 2
flange version		PD . . F
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V	PD KU
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA	PD KI

Accessories, enclosed

RS232 module	with D-sub plug and 2 m cable	PDRS232
	with USB plug and 2 m cable	PDUSB
software	basic version "light"	PDSOFT1
coupling socket	M12x1, 5-pin, with 2 m cable, 5 x 0.25 angular	KM12-C5-2
	5 m cable, 5 x 0.25 angular	KM12-C5-5



*1 at 6 bar supply pressure and 5 bar outlet pressure

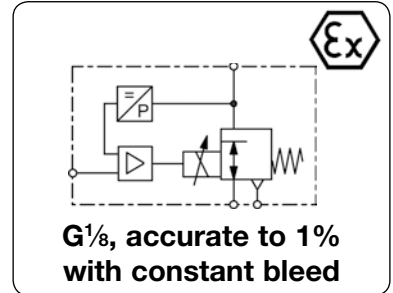
Technical details: see previous page

PDF CAD
www.aircom.net



Order example:
PDA41-010

Description	Piezo-operated proportional pressure valve with closed loop in a two-wire system. Outlet pressure is proportional to an electrical input signal. The valve can be mounted in any position and is immune to shock or vibration. It is pilot-controlled to reach a higher flow rate.		
Media	lubricated or unlubricated and 50 µm filtered compressed air or non-corrosive gases		
Supply voltage	not necessary due to two-wire system (supply through 4...20 mA command signal)		
Electrical connector	coupling socket, 4-pin according to DIN 43651, size 15 x 15 mm	connector turnable in 90° steps	
ATEX classification	Compliance with directive 94/9/EC for use in potentially explosive atmosphere of group IIC, temperature classification T4.		
Power consumption	< 200 mW	Failsafe feature	Ignition protection type: II1G Ex ia IIC T4; II1D Ex D20 T135°C
Linearity/Hysteresis	< 1% FS	Repeatability	exhaust at power breakdown < 0.5% FS
Mounting position	any	Protection class	IP 65
Air consumption	The pilot valve has an air consumption of 1.6 l/min		
Temperature range	Media: 0 °C to 60 °C / 32 °F to 140 °F	Ambient:	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: aluminium and plastic	Elastomer:	NBR/Buna-N and FKM
	Inner valve: stainless steel and plastic		

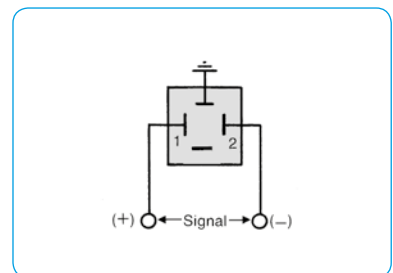
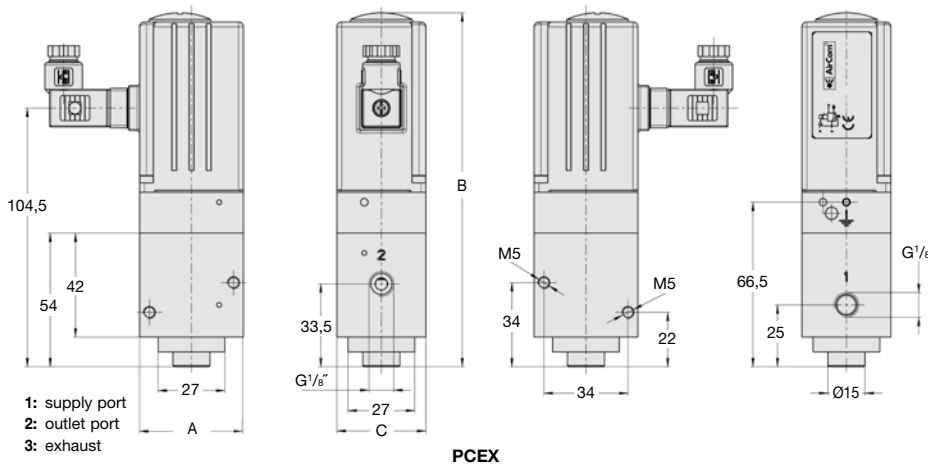
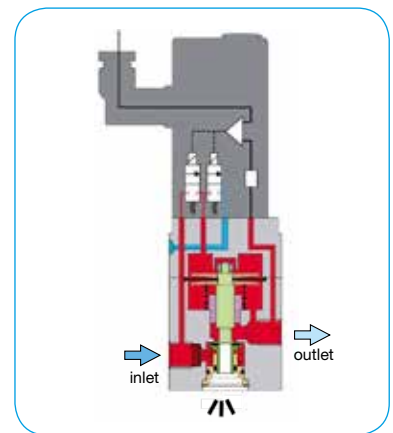


Dimensions			Nominal size	K _v -value	Flow rate	Supply min./max.	Connection thread	Pressure range	Order number
A	B	C	DN	(m ³ /h)	l/min*1	bar	G	bar	

Proportional pressure regulator									4-20 mA input signal, ATEX with coupling socket, with constant bleed	PCEX
42	143	36	4	0.5	550	2.5/3.0	G ¹ / ₈	0...2		PCEX-02
						3.5/5.0		0...3		PCEX-03
						4.5/6.0		0...4		PCEX-04
						5.5/8.0		0...5		PCEX-05
						6.5/8.0		0...6		PCEX-06

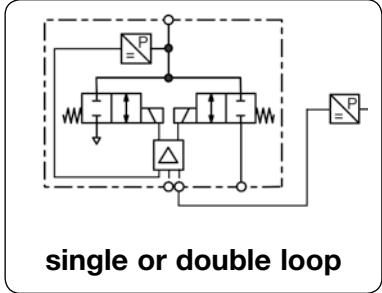


PCEX



*1 at 6 bar supply pressure, 5 bar outlet pressure, equal exhaust forward flow

Description	Proportional control valve with closed loop control technology for better control of pressurised gases. The instrument can be built as single closed loop or dual closed loop control valve. dry, lubricated or unlubricated and 20 µm filtered compressed air or non-corrosive gases constant outlet pressure at voltage drop	
Media	0-10 V, impedance 4.7 kΩ, ratio of internal to external relationship is 10% to 90%	
Fail freeze	15-24 V DC, residual ripple < 10%, with reverse voltage protection	
Second loop	0-10 V / 10 kΩ, 4-20 mA / 100 Ω	
Supply voltage		
Impedance		
Protection class	IP65	
Electrical connector	M12, 6-pin	
Power consumption	24 W (985mA) regulating, 2.4W (100mA) non-regulating	
Linearity/Hysteresis	< 0.5% FS	
Adjustment	zero, span, hysteresis	
Temperature range	0 °C to 70 °C / 32 °F to 158 °F	
Material	Ports: brass Transducer: silicon	Repeatability < 0.5% FS Mounting position any, vibration-resistant Elastomer: FKM Valves: stainless steel



Dimensions			K _v -value	Flow rate	Supply pressure	Accuracy	Connection thread	Pressure range	Order number
A	B	C							
mm	mm	mm	(m ³ /h)	l/min*1	max. bar	%	G	bar	

Proportional pressure valve									
									0-10 V input and monitor signal, w. coupling socket supply voltage 24 V DC, single loop
PQH1									
76	122	15	0.016	280	75	0.5	G $\frac{1}{8}$	0 ... 40	PQH1EE-40
								0 ... 50	PQH1EE-50
								0 ... 60	PQH1EE-60
								0 ... 70	PQH1EE-70

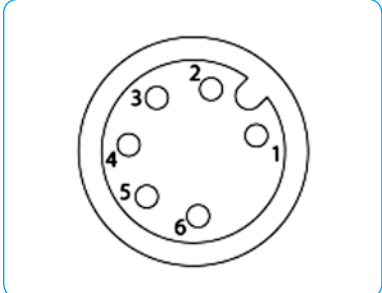
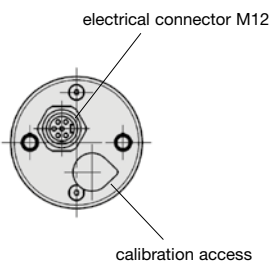
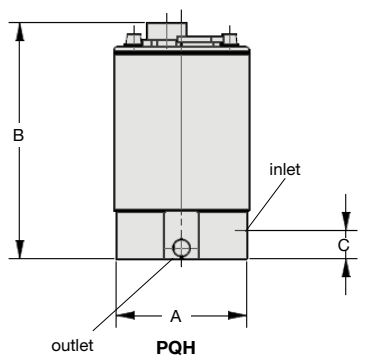
Proportional pressure valve									
									0-10 V input, monitor- and feedback signal, with coupling socket, supply volt. 24 V DC, double loop
PQH2									
76	122	15	0.016	280	75	0.5	G $\frac{1}{8}$	0 ... 40	PQH2EE-40
								0 ... 50	PQH2EE-50
								0 ... 60	PQH2EE-60
								0 ... 70	PQH2EE-70



PQH1

Special options, add the appropriate letter or number

4-20 mA	input and feedback signal	PQH . IC- ..
for oxygen		PQH15
stainless steel manifold		PQHSS



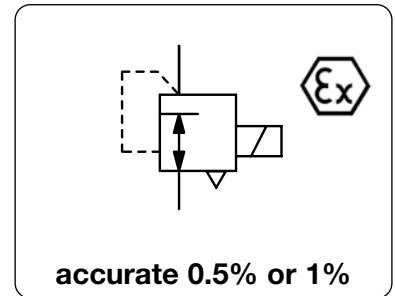
view from solder pin side

Pin	Description
1	TTL output
2	set point +
3	set point ground
4	supply 24V DC
5	supply earth
6	analogue output signal

connection plan

*1 at 70 bar supply pressure and open outlet

Description	The proportional pressure transducer translates a direct current or voltage input signal into a proportional pneumatic outlet signal. The valve uses proven moving coil and flapper nozzle technology with a built-in pneumatic relay with slight amplification and positive bias. Additional supply voltage is not necessary. The device has to be protected against vibration.	
Media	5 µm filtered compressed air or non-corrosive gases	
Supply voltage	not required	
Electrical connector	plug according to DIN 43650A, contact gap 18 mm, 3-pin, with coupling socket 30 x 30 mm	
Command signal	0...10 V / 1.1 kΩ at PT6...-B, otherwise 900 Ω	4...20 mA / 200 Ω at PT6...-B, otherwise 260 Ω
Failsafe	exhaust at power breakdown	
Linearity	< 0.5 % FS at 0.2...2 bar, otherwise < 1% FS	
Hysteresis	< 0.25% FS at 0.2...2 bar, otherwise < 1% FS	
Adjustment	Zero point: by 0.3 bar Range: 40% FS	
Temperature range	-30 °C to 65 °C / -22 °F to 149 °F	
Material	Body: chromated aluminium Nozzle: sapphire in nickel-plated brass plate	Response sensitivity < 0.2% FS Repeatability < 0.1% FS Vibration sensitivity < 2% FS, for 10 g and 15... 500 Hz Mounting position upright ± 15° Protection class IP 65 Elastomer: NBR/Buna-N Inner valve: stainless steel, brass, zinc-plated steel



Dimensions			Flow rate	Supply pressure	Command signal	Pressure range	Order number
A	B	C	l/min*1	max. bar	V/mA	bar	
mm	mm	mm					

Proportional pressure regulator 0-10 V			¼" NPT, depending on pressure range air consumption 2... 8 l/min		PT600		
57	93	13	250	8	0-10 V	0.2...1 0.2...2	PT600-B100 PT600-B200
57	132	13	300	10	0-10 V	0...2 0...4 0...8	PT600-0200 PT600-0400 PT600-0800

Proportional press. regulator 4-20 mA			¼" NPT, depending on pressure range air consumption 2... 8 l/min		PT602		
57	93	13	250	8	4-20 mA	0.2...1 0.2...2	PT602-B100 PT602-B200
57	132	13	300	10	4-20 mA	0...2 0...4 0...8	PT602-0200 PT602-0400 PT602-0800

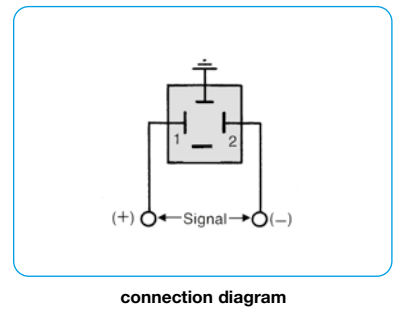
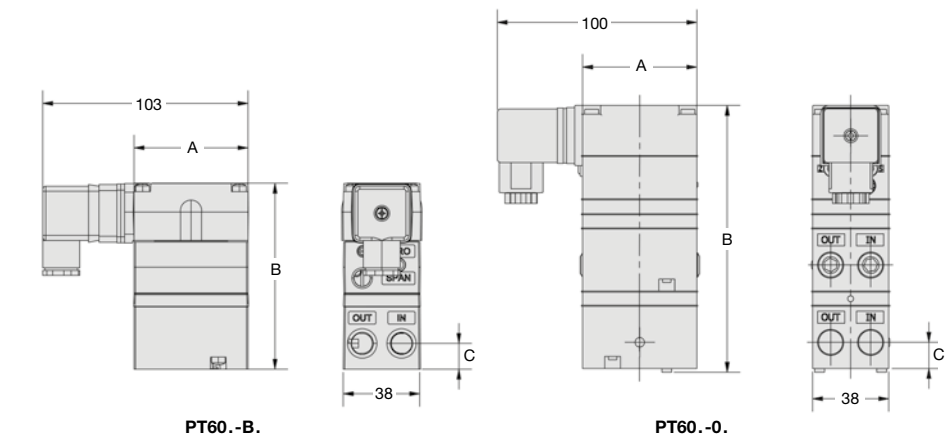
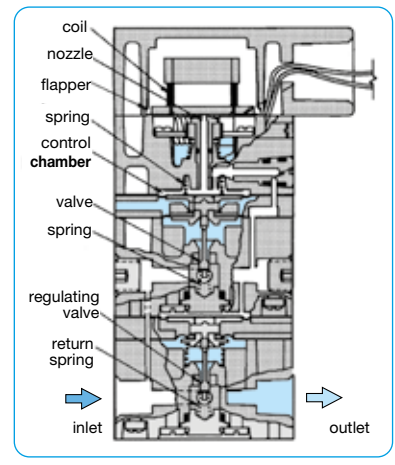


Special options, change the appropriate number

Ex-i-Atex	Atex II 1G Ex ia IIC T4	4-20 mA only	PT602-..01
------------------	-------------------------	--------------	------------

Accessories, enclosed

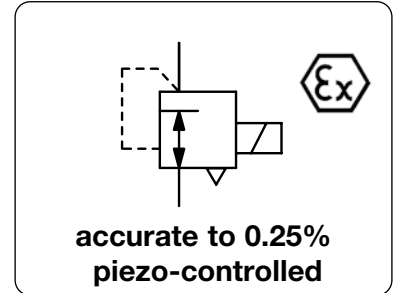
mounting bracket	made of steel, for standard version made of steel, for Din rail	SA-PT1 SA-PT2
isolate transmitter	Ex ia II C, E/A: 0-20 mA, 24 V DC, EX 1-32	KFD2-CD



*1 at 7 bar supply pressure and 1.4 bar outlet pressure

PROPORTIONAL PRESSURE REGULATOR WITH PIEZO ELEMENT AND ELECTRICAL FEEDBACK PT7

Description	The proportional valve translates a direct current or voltage signal into a linear proportional pneumatic outlet signal. With rapid response controls using low-powered piezo microelectronics, flapper nozzle and solid state control circuit. The proportional valve has internal electronic with an electrical feedback sensor and is housed in NEMA4X (IP65) enclosure with six outlet ranges, jumper selectable. Input and outlet ports on both ends of the body simplify pneumatic piping.		
Media	5 µm filtered compressed air or non-corrosive gases		
Supply voltage	7...30 V DC, 90 mW, required for 0...10 V setpoint input only, with reverse voltage protection		
Electrical connector	plug according to DIN 43650A, contact gap 18 mm, 3-pin, with coupling socket 30 x 30 mm		
Command signal	0...10 V / 10 kΩ, 3-pin, 24 V DC supply voltage, 4...20 mA / 330 Ω, two-wire, min. 7 V DC on input		
Failsafe	exhaust at power breakdown		
Linearity	< 0.25% FS		
Hysteresis	< 0.1% FS at 0.2...0.5 bar, otherwise < 0.25% FS		
Adjustment	Zero point: by 0.3 bar Range: 40% FS		
Temperature range	-40 °C to 70 °C / -40 °F to 158 °F		
Material	Body: chromated aluminium Nozzle: sapphire in nickel-plated brass plate Elastomer: NBR/Buna-N Inner valve: stainless steel, brass, zinc-plated steel		

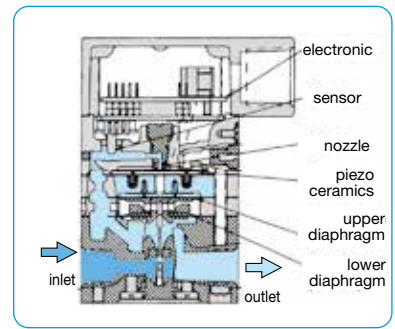


Dimensions			Flow rate	Supply pressure	Command signal	Pressure range	Order number
A	B	C	l/min*1	max. bar	V/mA	bar	
mm	mm	mm					

Proportional pressure regulator 0-10 V							¼" NPT, air consumption 2...8 l/min subject to pressure range	PT780
57	95	13	250	8	0-10 V	0.2...1	PT780-B100	
						0.2...2	PT780-B200	
57	133	13	300	10	0-10 V	0...2	PT780-0200	
						0...4	PT780-0400	
						0...8	PT780-0800	



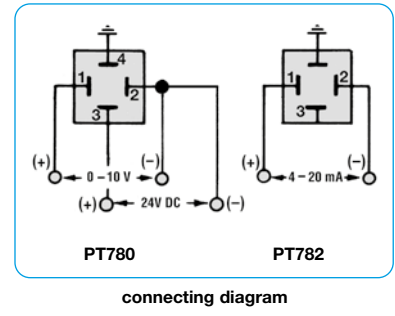
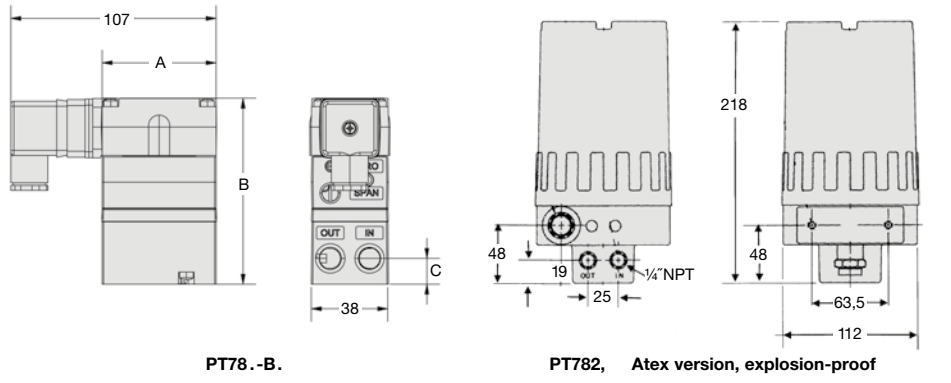
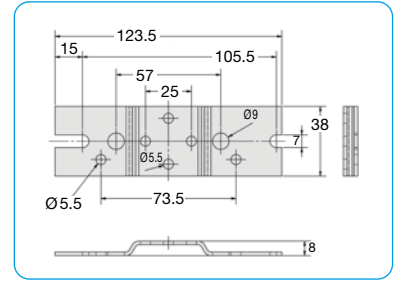
Proportional press. regulator 4-20 mA							¼" NPT, air consumption 2...8 l/min subject to pressure range	PT782
57	95	13	250	8	4-20 mA	0.2...1	PT782-B100	
						0.2...2	PT782-B200	
57	133	13	300	10	4-20 mA	0...2	PT782-0200	
						0...4	PT782-0400	
						0...8	PT782-0800	



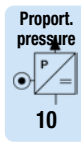
Special options, change the appropriate number				
-i-Atex	Atex II 1G Ex ia IIB T4		4-20 mA only	PT782-...01
-d-Atex	Atex ds IIC T6	max. 2 bar	4-20 mA only	PT782-...0E

Accessories, enclosed

mounting bracket	made of steel, for standard version	SA-PT1
	made of steel, for DIN rail	SA-PT2
mounting clip	made of steel, Atex version, explosion-proof	SA-PT3
isolate transmitter	Ex ia II C E/A: 0...20 mA, 24 V DC, EX 1-32	KFD2-CD



*1 at 7 bar supply pressure and 1.4 bar outlet pressure



Description

Piezo-operated proportional pressure valve based on the principle of a piezo element which bends when voltage is applied. At the end of the piezo element is a flapper valve, which operates against a precision nozzle to create back pressure on the control diaphragm of a booster relay. A pressure transducer provides feedback of the outlet pressure compared with the setpoint value with correction by the electronic control system if necessary.

Minimal power consumption

- no self-heating, even none at pressure absence
- safe battery operation over a long period

Piezo element

- almost no power consumption necessary for regulation
- extremely quick regulating operations
- low-noise regulation especially for medical and laboratory technology

Small and light design

- particularly suitable for portable devices in conjunction with battery operation
- ideal for limited space conditions

PRE1

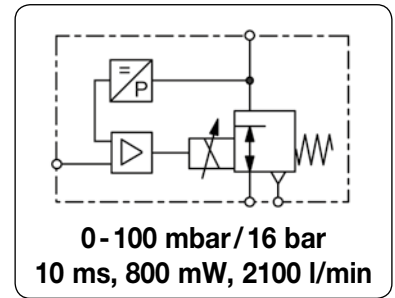
DN 2.5, 350 l/min, coupling socket M8x1, 3-pin,
monitor signal optionally 0... P_{2max} \triangleq 0...10 V,

monitor signal, 4-pin
max. 1 mA, $R_a > 1k\Omega$

PRE2

DN 6, 1600 l/min, coupling socket M12x1.5, 5-pin
monitor signal standard 0... P_{2max} \triangleq 0...10 V,

max. 1 mA, $R_a > 1k\Omega$



General features

Description	Piezo-operated 3-port/2-way proportional pressure regulator with internal pressure sensor and closed loop.	
Protection class	IP 30 for PRE1 according to DIN EN 60529 IP 65 for PRE2 according to DIN EN 60529 with coupling socket and tapped exhaust	
Mounting position	any	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	
Material	Body: plastic	Elastomer: NBR/Buna-N
	Inner valve: brass and spring steel	

Pneumatic features

Media	dry, unlubricated and 5 μ m filtered compressed air or non-corrosive gases	
Supply pressure	min. 1.5 bar (at $P_2 \leq 8$ bar) or 2 bar (at $P_2 \geq 8$ bar) and additional P_1 : min. 1 bar greater than P_2 max. 2.5 bar up to 17 bar, depending on pressure range according to chart	
Flow rate	PRE1: max. 350 l/min at $P_1 = 10$ bar, $P_2 = 6$ bar and open outlet	DN 2.5
	PRE2: max. 1600 l/min at $P_1 = 10$ bar, $P_2 = 6$ bar and open outlet	DN 6
Exhaust	PRE1: 180 l/min at $P_2 = 6$ bar, 20 l/min at $P_2 = 200$ mbar	
	PRE2: 1000 l/min at $P_2 = 6$ bar, 400 l/min at $P_2 = 2$ bar	
Air consumption	PRE1: < 1.0 l/min independent of pressure range PRE2: < 1.0 l/min independent of pressure range	

Electrical features

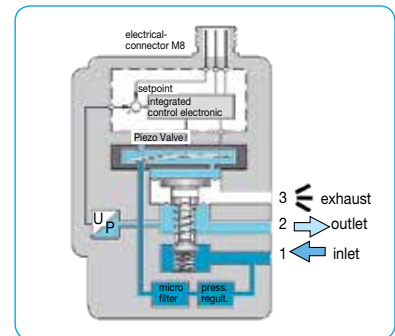
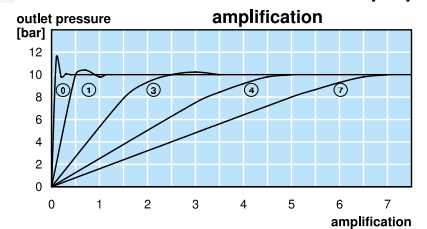
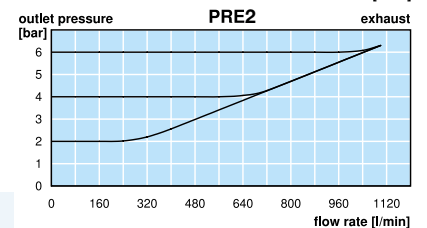
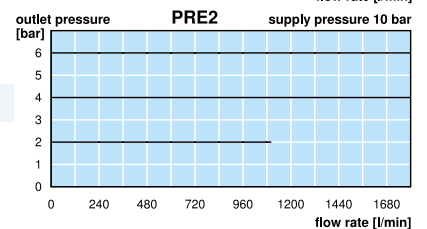
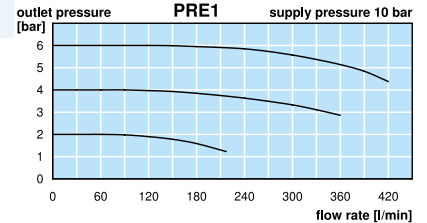
Supply voltage	PRE1: 24 V DC \pm 10%, 0.4 W, current consumption max. 15 mA PRE2: 24 V DC \pm 10%, 0.8 W, current consumption max. 30 mA	
Command signal	4...20 mA or 0...10 V	
Impedance	PRE1: $\geq 66 k\Omega$ at voltage signal, $\leq 500 \Omega$ at current signal	
	PRE2: $\geq 55 k\Omega$ at voltage signal, $\leq 500 \Omega$ at current signal	
Electrical connector	PRE1: coupling socket M8x1, 3-pin	PRE1-R: coupling socket M8x1, 4-pin
	PRE2: coupling socket M12x1.5, 5-pin	
Monitor signal	PRE1-R: as option 0... P_{2max} / 0...10 V, max. 1 mA, $R_a > 1k\Omega$	
	PRE2: standard 0... P_{2max} / 0...10 V, max. 1 mA	
Electronic switch	PRE2 only, PNP, "on" when setpoint and actual value match in the tolerance range 0 V DC = off, U_N -0,7 V DC = on, output current < 200 mA, tolerance P_2 : \pm 2%	
Failsafe	If signal or electrical supply fails, outlet pressure falls to zero and the regulator exhausts.	
Note	For long connection lines shielding is to be used. Pay attention to voltage drops. As the case may be, current signal is preferable.	

Accuracy

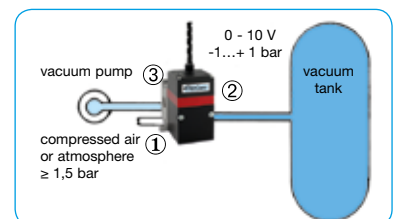
Linearity	< 0.5% FS,	at 0.1 and 0.2 bar range	< 1 % FS
Hysteresis	< 0.2% FS,	at 0.1 and 0.2 bar range	< 0.5% FS
Response sensitivity	< 0.1% FS,	at 0.1 and 0.2 bar range	< 0.5% FS at PRE1 < 0.2% FS at PRE2
Repeatability	< 0.2% FS,	at 0.1 and 0.2 bar range	< 0.5% FS
Response time	10 ms		
Over all accuracy	\pm 0.2% FS (Monitor signal \pm 1,5 % FS)		

Adjustment

Zero point	calibration only by factory
Range	calibration only by factory



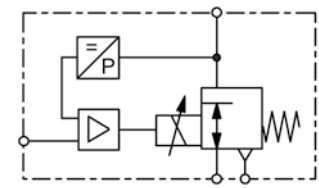
cross-section PRE1



PRE2-V1 for vacuum

Technical features

- Highly dynamic** 10 ms, critical frequency 43 Hz
- Low power consumption** 400 mW / 800 mW nominal power
- No self-heating** due to low power consumption
- Battery operation** due to low power consumption
- For portable devices** up to 3 bar pressure range
- No over-oscillation** adjustable closed loop amplification
- No resonance oscillation** adjustable closed loop amplification
- Linearity** < 0.5% or 1% FS
- Hysteresis** < 0.2% or 0.5% FS
- Response sensitivity** < 0.1% or 0.5% FS
- Repeatability** < 0.2% or 0.5% FS
- Failsafe** exhaust at power breakdown
- Protection class** IP 30 or IP 65
- Two-wire system** for signal 4...20 mA



0 ... 100 mbar / 16 bar
10 ms, 800 mW, 2400 l/min

Dimensions			Supply pressure	Flow rate	Connection thread	Pressure range	Order number for inlet signal	
A	B	C	max. bar	l/min*1	G	bar	4-20 mA	0-10 V

Proportional valve						supply voltage 24 V DC, constant bleed, with straight coupling socket and 5 m cable	PRE	PRE
36	61	54	2.5	50	G ¹ / ₈	0 ... 0.1	PRE1-IA1	PRE1-UA1
				100	0 ... 0.2	PRE1-IA2	PRE1-UA2	
			6.0	200	0 ... 2	PRE1-I02	PRE1-U02	
				10	250	0 ... 5	PRE1-I05	PRE1-U05
			280	0 ... 6	PRE1-I06	PRE1-U06		
			350	0 ... 8	PRE1-I08	PRE1-U08		
46	84	68	2.5	800	G ¹ / ₄	-1 ... 1	PRE2-IV1	PRE2-UV1
				1500	-1 ... 6	PRE2-I06V1	PRE2-U06V1	
			12	1700	-1 ... 10	PRE2-I10V1	PRE2-U10V1	
			2.5	300	-0.2 ... 0.2	PRE2-IA2V1	PRE2-UA2V1	
			2.5	900	0 ... 1	PRE2-I01	PRE2-U01	
			7.0	1100	0 ... 2	PRE2-I02	PRE2-U02	
			10	1500	0 ... 6	PRE2-I06	PRE2-U06	
			12	1700	0 ... 10	PRE2-I10	PRE2-U10	
			17	2400	0 ... 16	PRE2-I16	PRE2-U16	



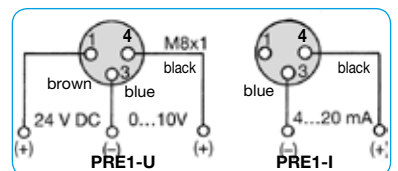
PRE1



PRE2

Special options, add the appropriate letter

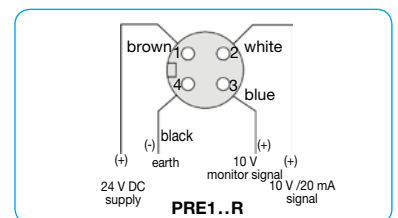
- monitor signal** 0-10 V, standard at PRE2 for PRE1 PRE1...R
- flange connection** without manifold PRE...F
- w/o coupling socket** and without cable PRE...H
- mounting clips** for DIN rail PRE...C
- deviant pressure ranges** PRE...XX



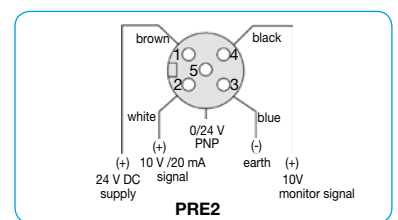
connection diagram

Accessories, enclosed

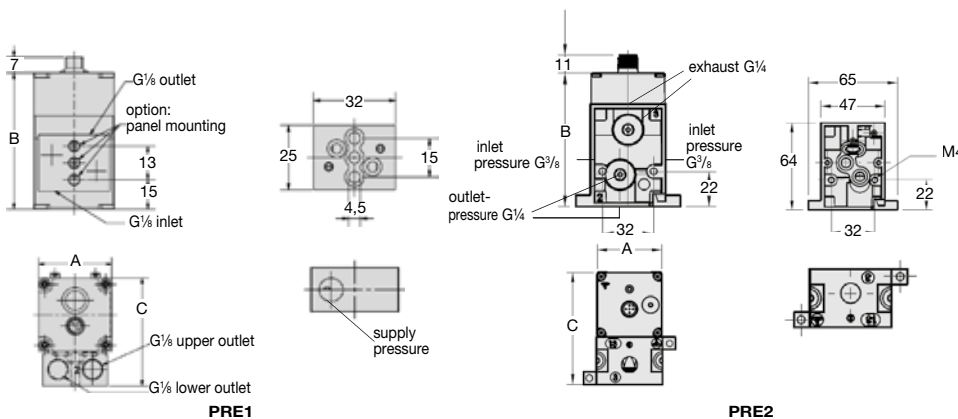
- coupling socket** with 5 m cable, angular
 - M8x1, 3-pin for PRE1 **KM08-C3-5**
 - M8x1, 4-pin for PRE1-R **KM08-C4-5**
 - M12x1.5, 5-pin for PRE2 **KM12-C5-5**



connection diagram



connection diagram



*1 at open outlet

Technical details: see previous page

PDF CAD
www.aircom.net

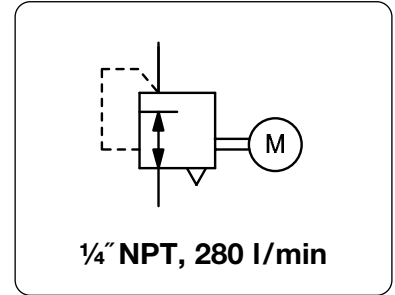


Order example:
PRE1-IA1

MOTORIZED PRESSURE REGULATOR

P180

Description	Motorised air pressure regulator designed for precise pneumatic control using an electrical signal from a remote location. A slip clutch prevents from motor damages at overload or end position limitations.
Media	dry, oil-free and 5 µm filtered compressed air or non-corrosive
Operation	With no electrical power the regulator maintains a precise setpoint despite variable supply pressure and flow rates. When power is applied to the motor the pressure outlet changes.
Power consumption	6 W
Control signal	24 V DC
Electrical connector	4 single wires, optionally plug according to DIN 43650A, contact gap 18 mm, 3-pin with coupling socket
Accuracy	at varying supply pressures: max. 2.3 l/min, subject to outlet pressure, < 1% of volume flow
Air consumption	relieving
Relieving function	140 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint, any, preferably upright
Relief capacity	140 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint, optionally 280 l/min
Gauge port	1/4" NPT on both sides of the body
Material	Body: zinc die-cast Inner valve: stainless steel and brass
	Mounting position any, preferably upright
	Temperature range -18 °C to 60 °C / 0 °F to 140 °F
	Elastomer: NBR/Buna-N
	Mounting bracket: black-coated steel



Dimensions			Power	Flow	Switching	Connection	Pressure	Order
A	B	C	consumption	rate	time	thread	range	number
mm	mm	mm	W	l/min*1	s	NPT	bar	

Motorised pressure regulator								P ₁ max. 10 bar, relieving, with constant bleed, control signal 24 V AC, 6 rpm	P180
62	195	14	6	280	40	1/4" NPT	0.14...1.8	P180-02AV	
					30		0.14...4.0	P180-02BV	
					50		0.14...8.0	P180-02CV	

Special options, add the appropriate letter

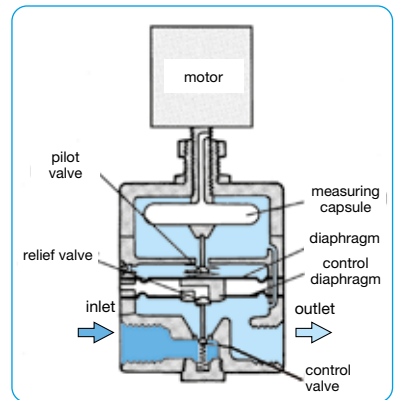
higher exhaust	two times greater than standard	P180-02 . H
DIN connector	connection with DIN plug 30x30 mm	P180-02 . D



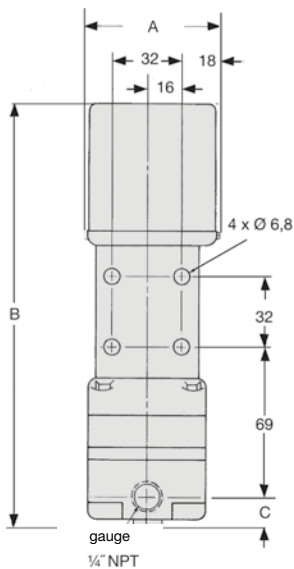
P180

Accessories, enclosed

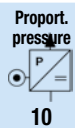
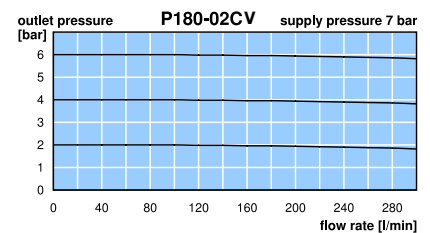
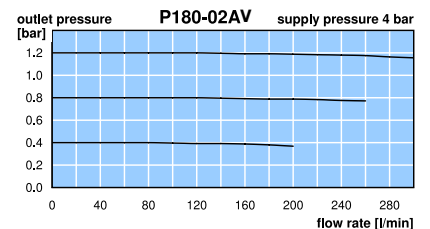
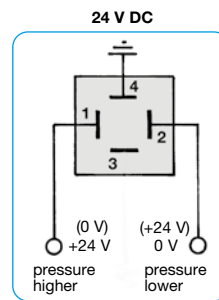
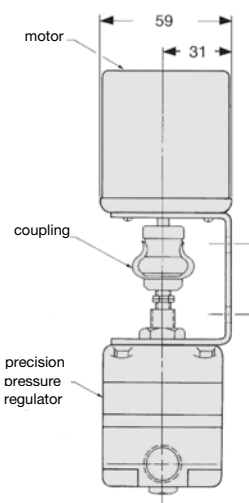
pressure gauge	Ø 50 mm, 0... *2 bar, G1/4, connecting parts necessary	MA5002-..*2
gauge connecting parts	adapter 1/4" NPT - R1/4f	VP-0202N



cross-section



P180

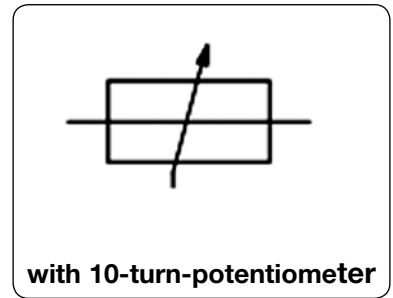


*1 at 7 bar supply pressure and 6 bar outlet pressure
*2 02 = 0...2.5 bar, 06 = 0...6 bar, 10 = 0...10 bar

SETPOINT POTENTIOMETER

PPB

Description	The series line of potentiometers are designed for use as a command signal for control valves. A 10 volt reference is used to provide excitation to the potentiometer. An op-amp measures the output on the wiper of the potentiometer and provides buffering to eliminate external components from affecting the linearity of the potentiometer. A three wire cord is provided and is attached to the pc board to make necessary power signal and common connections		
Field of application	0-10 V version PPB-U is compatible with all proportional pressure regulators. 4-20 mA version PPB-I is compatible with all valves of Series PQ and PM. For all other valves, e.g Series PP, PR, PRE, a setpoint of 4.1 ... 18.5 mA is generated.		
Measuring range	0 ... 999	Supply voltage	15 - 24 V DC
Current consumption	max. 30 mA	Linearity/Hysteresis	± 0.25% FS
Mounting position	any	Temperature range	0 °C to 70 °C / 32 °F to 158 °F



Dimensions			Output signal	Order number
F	H	G	V / mA	
mm	mm	mm		

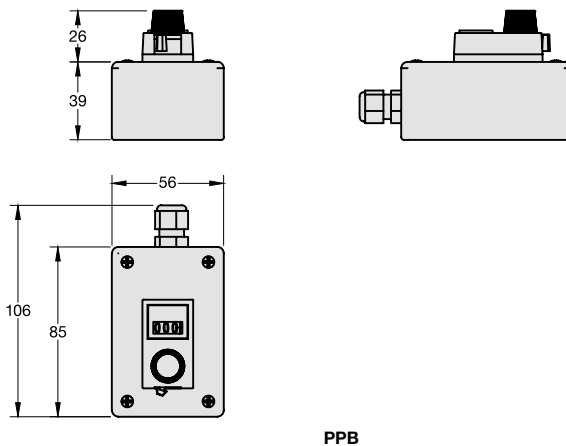
Setpoint Potentiometer			supply voltage 15 - 24 V DC	PPB
85	55	40	0-10 V	PPB-U
85	55	40	4-20 mA	PPB-I



PPB-U



PPB-I



Pin	Description	3-pin cable
1	voltage supply 24V DC	black
2	analogue setpoint	white
3	supply earth	green

connecting plan



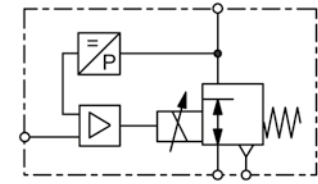
VOLUMENSTROMBOOSTER-PROPORTIONALVENTIL-KOMBINATIONEN

What are volume booster / proportional valve combinations used for?

Combinations of volume boosters and proportional valves lend themselves for electronically regulating high volume flows. On the one hand common proportional valves are not available with connection sizes big enough, on the other hand combinations are in most cases more economic. There are two ways of regulating: Single loop systems are suitable for standard applications without high requirements for accuracy and without consideration of pressure drop at high flow. Double loop regulations on the contrary are much more accurate and also qualified for dynamic processes.

General operational description:

The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.



G $\frac{1}{4}$ up to G3
compressed air or liquids

Single loop

At single loop combinations the pressure difference between command signal and outlet pressure is being ignored because the proportional valve only refers to its own outlet pressure within the pilot chamber. The outlet pressure performance is dependent of the volume booster's accuracy.

Double loop

Combinations with a second feedback have the possibility to balance pressure differences. For this a pressure transducer is installed in the outlet line of the booster. The electrical signal of the transducer is applied as a feedback signal onto the proportional valve. The valve detects any pressure differences and compensates them automatically. In high flow applications a pressure drop at the outlet of the pilot regulator is thus minimised.

General features

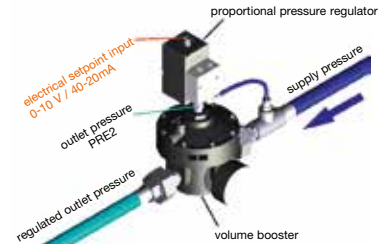
Construction type	The volume booster / proportional valve combinations are delivered completely assembled and calibrated.
Mounting position	preferred horizontal (see figure)
Protection class	IP 54 with ordinary coupling socket as standard, optionally IP 65 for some devices (see according product information sheets)
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for all proportional valves, for booster ranges refer to according product sheets

Pneumatic features

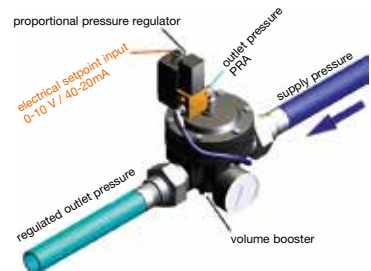
Command signal	The proportional valves may only be fed with dry and 5 µm filtered compressed air. The pneumatic command signal must always be air!
Media	Preferred dry, 5 µm filtered compressed air for supply of the proportional valves. The volume boosters can operate with air or non-corrosive gases, model R120 even with liquids. The respective air consumption and the relieving function strongly have to be regarded.
Inlet pressure	dependent of the according combination (see according product information sheets)
Pressure supply	The proportional valve has to be separately supplied with compressed air with regard to the valve's maximum inlet pressure.
Exhaust	The proportional valve exhausts only the booster's pilot chamber. The booster, if in relieving version, exhausts the volume of the supply pressure line. The relief capacity is subject to the differential pressure.
Volume flow	see specifications of the according volume booster

Electrical features

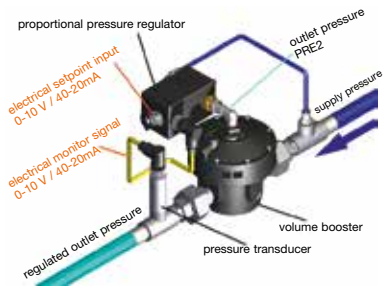
Supply voltage	All valves have to be supplied with 24 V DC.
Power consumption	see according product information sheets
Setpoint input	0-10 V as standard, optionally 4-20 mA for all valves
Monitor signal	A feedback signal is not reasonable for the single loop version because here only the pressure of the booster's pilot chamber is monitored. That value does not give any information about the outlet pressure behind the booster.



PRE2, R450 with single loop



PRA, R119 with single loop

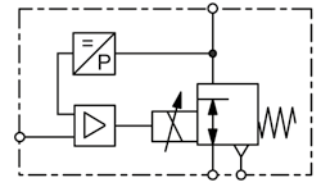


PQ2, R450 with double loop

General operational description:

The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.

At single loop combinations the pressure difference between command signal and outlet pressure is being ignored because the proportional valve only refers to its own outlet pressure within the pilot chamber. The outlet pressure performance is dependent of the volume booster's accuracy.



**G¹/₄ up to G3
compressed air or liquids**

Single loop combination examples

Flow rate l/min	Connection thread G	Outlet pressure bar	Part number Booster	Part number Prop.valve	Order number of combination
--------------------	---------------------------	---------------------------	------------------------	---------------------------	--------------------------------

R750 with PRE1, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 17 bar

1000	G ¹ / ₄	0... 8	R750-02I	PRE1-U08	BP1U750-02
------	-------------------------------	--------	----------	----------	-------------------

R450 with PRE1, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 17 bar

4000	G ¹ / ₂	0... 8	R450-04I	PRE1-U08	BP1U450-04
------	-------------------------------	--------	----------	----------	-------------------

R119 with PPA, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 21 bar

5600	G ¹ / ₂	0... 10	R119-04J	PPA00-1000	BP1U119-04
9000	G ³ / ₄	0... 10	R119-06J	PPA00-1000	BP1U119-06
10000	G1	0... 10	R119-08J	PPA00-1000	BP1U119-08
12000	G1 ¹ / ₂	0... 10	R119-12J	PPA00-1000	BP1U119-12
42000	G2	0... 10	R119-16J	PPA00-1000	BP1U119-16
44000	G2 ¹ / ₂	0... 10	R119-20J	PPA00-1000	BP1U119-20
110000	G3	0... 10	R119-24J	PPA00-1000	BP1U119-24

RGB4 with PRE1-A2, for compressed air or gases setpoint 0-10 V, P₁ max. 4 bar

700	G ¹ / ₂	0...0,2	RGB4-04J	PRE1-UA2	BP1UGB4-04
2800	G1	0...0,2	RGB4-08J	PRE1-UA2	BP1UGB4-08
5600	G1 ¹ / ₂	0...0,2	RGB4-12J	PRE1-UA2	BP1UGB4-12

RZ1 with PRE1-.01/02, for compressed air or gases setpoint 0-10 V, P₁ max. 16 bar

2900	G1	0... 1	RZ3-08J	PRE1-U02	BP1UZ-08
5700	G1 ¹ / ₂	0... 1	RZ3-12J	PRE1-U02	BP1UZ-12
21000	G2	0... 1	RZ2-16J	PRE1-U02	BP1UZ-16

R120 with PPA, for compressed air, gases or liquids setpoint 0-10 V, P₁ max. 50 bar

1200	G ¹ / ₂	0... 15	R120-04J2	PPA00-1600	BP1U120-04
4200	G ³ / ₄	0... 15	R120-06J2	PPA00-1600	BP1U120-06
5000	G1	0... 15	R120-08J2	PPA00-1600	BP1U120-08
1200	G ¹ / ₂	0... 50	R120-04J5	PP000-5000	BP1U120-04J5
4200	G ³ / ₄	0... 50	R120-06J5	PP000-5000	BP1U120-06J5
5000	G1	0... 50	R120-08J5	PP000-5000	BP1U120-08J5
14000	G1 ¹ / ₂	0... 50	R120-12J5	PP000-5000	BP1U120-12J5
15000	G2	0... 50	R120-16J5	PP000-5000	BP1U120-16J5

Special options, add the appropriate letter

4-20 mA	input signal	BP1I...-....
---------	--------------	--------------



BP1U450-04



BP1U119-16



BP1UZ-08



BP1U120-08J5

Gauges: see chapter for measuring devices
Further details: see chapter for single devices

PDF CAD
www.aircom.net

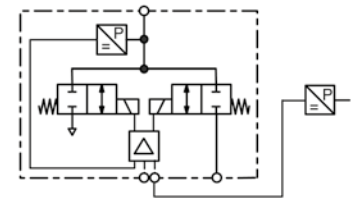


Order example:
BP1U750-02

General operational description:

The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.

Combinations with a second feedback have the possibility to balance pressure differences. For this a pressure transducer is installed in the outlet line of the booster. The electrical signal of the transducer is applied as a feedback signal onto the proportional valve. The valve detects any pressure differences and compensates them automatically. In high flow applications a pressure drop at the outlet of the pilot regulator is thus minimised.



G $\frac{1}{2}$ up to G2
compressed air or non-corrosive gases

Double loop combination example

Flow rate l/min	Connection thread G	Outlet pressure		Sensor	Part number		Order number of combination
		bar	bar		Booster	Prop.valve	

R450 with PQ2, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 17 bar

4 000	G $\frac{1}{2}$	0... 1	DAV-01H	R450-04I	PQ2EE-01	BP2U450-0401
		0... 6	DAV-06H	R450-04I	PQ2EE-06	BP2U450-0406
		0...10	DAV-10H	R450-04I	PQ2EE-10	BP2U450-0410

R200 with PQ2, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 17 bar

28 000	G1	0... 1	DAV-01H	R200-08I	PQ2EE-01	BP2U200-0801
		0... 6	DAV-06H	R200-08I	PQ2EE-06	BP2U200-0806
		0...10	DAV-10H	R200-08I	PQ2EE-10	BP2U200-0810

RGB4 with PQ2, for compressed air or gases setpoint 0-10 V, P₁ max. 4 bar

700	G $\frac{1}{2}$	0...0.35	DAV-C4H	RGB4-04J	PQ2EE-C4	BP2UGB4-04
2 800	G1	0...0.35	DAV-C4H	RGB4-08J	PQ2EE-C4	BP2UGB4-08
5 600	G $\frac{1}{2}$	0...0.35	DAV-C4H	RGB4-12J	PQ2EE-C4	BP2UGB4-12

RZ1 with PQ2, for compressed air or gases setpoint 0-10 V, P₁ max. 16 bar

2 900	G1	0...1	DAV-01H	RZ3-08J	PQ2EE-01	BP2UZ-08
5 700	G $\frac{1}{2}$	0...1	DAV-01H	RZ3-12J	PQ2EE-01	BP2UZ-12
21 000	G2	0...1	DAV-01H	RZ2-16J	PQ2EE-01	BP2UZ-16

Special options, add the appropriate letter

4-20 mA input signal BP2I ...-....



BP2U450-0406



BP2U200-0806



BP2UGB4-12

PROPORTIONAL FLOW VALVES AND MEASUREMENT DEVICE



DESCRIPTION	DN / Ø	FLOW RATE l/min	CONNECTION thread	DEVICE	PAGE
MEASURING DEVICE portable		0.02 ... 0.1/ 450	G¼ and G½	VGM	11.02
portable, hand-operated		0.02 ... 0.1/ 450	G¼ and G½	VGR	11.03
for many gases		0.05 ... 0.1/ 6000	G¼ - G1	PVM	11.06
with proportional regulator		0.05 ... 0.1/ 2000	G¼ - G½	PVR	11.07
differential pressure principle		0.03 ... 0.3/ 7000	G¼ - G¾	VPF	11.08
PROP. FLOW VALVES for air and water	0.1 /.../ 20	0 0.3 / 1185	G½ - G1	PV21...PV40	11.10
extremely small, 7 mW	0.3/ 0.4	0 ... 6 / 7	flange	PV630, PV631	11.12
pulse-width-modulated, mini	0.2 /.../ 0.8	0 ... 1 / 20	flange	PV202	11.13
pulse-width-modulated	1.2 /.../ 7.1	0 ... 70 / 420	G½ - G¾	PV202	11.14
stainless steel	1.2/ 7.1	0 ... 70 / 420	G½ - G¾	PV202-S	11.14
for water	12.5	0 ... 35 / 37	G¾ u. G½	PV203	11.14
motorised, for liquids	15 / 20	0 ... 1000 / 3500	G½ - G1	P8	11.15
w/o power consumption	0.2 /.../ 1.5	0 ... 3 / 24	M5	PVK	11.16
flow valve, Y-type	15 /.../ 65	0 ... 14 / 1233	G½ - G2½	PVE	11.17
NEEDLE VALVES compact	Ø 1.0 - 6.5	0 0.3 / 425	G¼ and G½	VR6	11.04
PINCH VALVES POM or Aluminium			G¾ - G3, DN150 Q		11.18



11

PORTABLE MASS FLOW METER, W/O MANUAL CONTROL VALVE

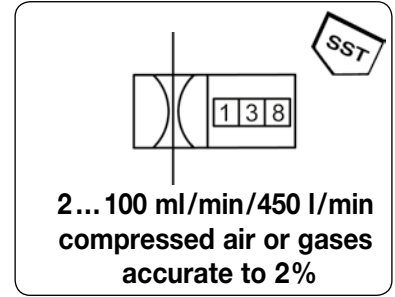
VGM

Prop.-V.



11

Description	Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges.		
Media	compressed air or non-corrosive gases	Operating pressure	max. 10 bar
Supply voltage	Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA)		
Display	Touch-display 128 x 64 px, backlighted only with external power supply (Micro-USB or 24 V DC)		
Electrical connector	optionally length 2.0 m, with free ends at 24 V DC	Function	totalisator included, physical units can be changed
Alarm functions	3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relais: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS	Response time	500 ms at 99% accuracy
Turndown ratio	1:50 (Eco) or 1:1000 (Special)	Protection class	IP 50
Flow regulation	manual fine adjustment by 15 turns	Mounting position	any, horizontal from 5 bar on
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	Warm-up time	< 1 sec. for full accuracy
Material	Body: aluminium, optionally electropolished stainless steel 316 Elastomer: FKM, optionally EPDM		



Dimensions			Operating pressure	Accuracy	Connection thread	Flow rate	Order number
A	B	C					
mm	mm	mm	max. bar	%	G	ml/min / l/min	

Mass flow meter							w/o manual control valve, LCD-Display, battery mode, portable, aluminium, FKM	VGM*1
114	44	12.5	10	2	G¼	2 ... 100 ml/min	VGM-A1	
				2		4 ... 200 ml/min	VGM-A2	
				2		10 ... 500 ml/min	VGM-A5	
				2		0.02 ... 1 l/min	VGM-B1	
				2		0.04 ... 2 l/min	VGM-B2	
				2		0.1 ... 5 l/min	VGM-B5	
160	54	17.5	10	2	G½	0.2 ... 10 l/min	VGM-C1	
				2		0.4 ... 20 l/min	VGM-C2	
				2		1 ... 50 l/min	VGM-C5	
				2		2 ... 100 l/min	VGM-D1	
				3		4 ... 200 l/min	VGM-D2	
				3		4 ... 300 l/min	VGM-D3	
				3		9 ... 450 l/min	VGM-D4	



VGM-G¼ mass flow meter

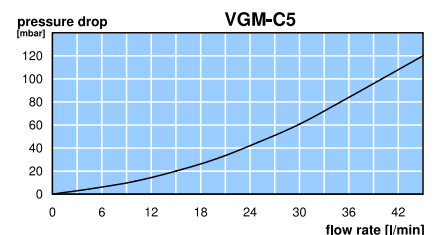
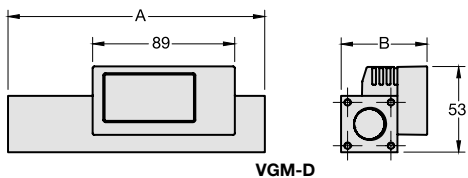
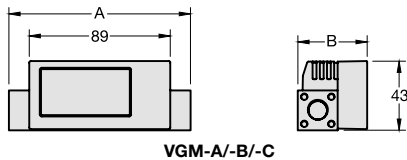


VGM-G½ mass flow meter

Special options, add the appropriate letter oder number

deviant volume flow	indicate on order	VGM-XX
stainless steel body	electropolished throughout	VGM- . . S
EPDM elastomer	for VGM-A1 to -C5	VGM- . . E
24 V DC supply	cable attached on the device, length 2 m, with free ends	VGM- . . 2
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply	VGM- . . 2 G
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front	VGM- . . T
0.1% accuracy		VGM- . . H
carbon dioxide	CO ₂	VGM- . . 03
argon	Ar	VGM- . . 05
nitrogen	N ₂	VGM- . . 07
helium	He	VGM- . . 09
hydrogen	H ₂	VGM- . . 11
methane	CH ₄	VGM- . . 13
oxygen	O ₂	VGM- . . 15
propane	C ₃ H ₈	VGM- . . 16
nitrous oxide	N ₂ O	VGM- . . 17
gases	see above	VGM- D . . .

Specific gas calibration			
gas species			max. l/min
nitrogen	07	N ₂	450
oxygen	15	O ₂	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H ₂	300
carbon dioxide	03	CO ₂	150
propane	16	C ₃ H ₈	80
methane	13	CH ₄	100



Calibration or test chart: see chapter for technical informations
*1 Note: indicate media, supply and outlet pressure on order

PDF CAD
www.aircom.net

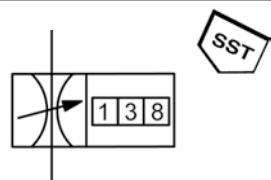


Order example:
VGM-A1

PORTABLE MASS FLOW METER, WITH AND WITHOUT MANUAL CONTROL VALVE

VGR

Description	Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges.		
Media	compressed air or non-corrosive gases	Operating pressure	max. 10 bar
Supply voltage	Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA)		
Display	Touch-display 128 x 64 px, backlit only with external power supply (Micro-USB or 24 V DC)		
Electrical connector	optionally length 2.0 m, with free ends at 24 V DC	Function	totalisator included, physical units can be changed
Alarm functions	3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relais: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS	Response time	500 ms at 99% accuracy
Turndown ratio	1:50 (Eco) or 1:1000 (Special)	Protection class	IP 50
Flow regulation	manual fine adjustment by 15 turns	Mounting position	any, horizontal from 5 bar on
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	Warm-up time	< 1 sec. for full accuracy
Material	Body: aluminium, optionally electropolished stainless steel 316 Elastomer: FKM, optionally EPDM		



**2 ... 100 ml/min/450 l/min
compressed air or gases
accurate to 2%**

Prop.-V.
11

Dimensions			Operating pressure	Accuracy	Connection thread	Flow rate	Order number
A	B	C					
mm	mm	mm	max. bar	%	G	ml/min / l/min	

Mass flow meter			with manual control valve, LCD-Display, needle valve battery mode, portable, aluminium, FKM			VGR*1	
114	44	12.5	10	2	G¼	2 ... 100 ml/min	VGR-A1
				2		4 ... 200 ml/min	VGR-A2
				2		10 ... 500 ml/min	VGR-A5
				2		0.02 ... 1 l/min	VGR-B1
				2		0.04 ... 2 l/min	VGR-B2
				2		0.1 ... 5 l/min	VGR-B5
160	54	17.5	10	2	G½	2 ... 100 l/min	VGR-C1
				2		4 ... 200 l/min	VGR-C2
				2		0.4 ... 20 l/min	VGR-C5
				3		1 ... 50 l/min	VGR-D1
				3		2 ... 100 l/min	VGR-D2
				3		4 ... 300 l/min	VGR-D3
			3		9 ... 450 l/min	VGR-D4	



VGR-G¼
mass flow meter
with manual control valve

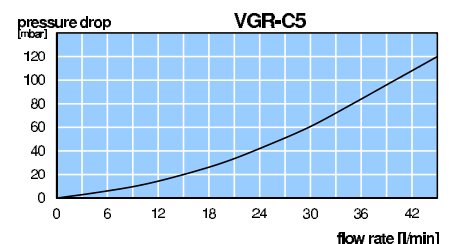
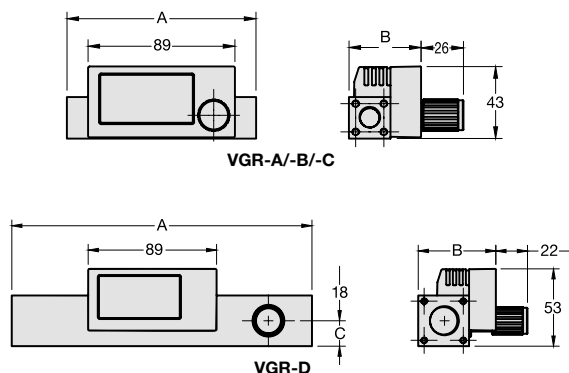


VGR-G½
mass flow meter

Special options, add the appropriate letter oder number

deviant volume flow	indicate on order	VGR-XX
stainless steel body	electropolished throughout	VGR-..S
EPDM elastomer	for VGR-A1 to -C5	VGR-..E
24 V DC supply	cable attached on the device, length 2 m, with free ends	VGR-..2
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply	VGR-..2G
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front	VGR-..T
0.1% accuracy		VGR-..H
carbon dioxide	CO ₂	VGR-..03
argon	Ar	VGR-..05
nitrogen	N ₂	VGR-..07
helium	He	VGR-..09
hydrogen	H ₂	VGR-..11
methane	CH ₄	VGR-..13
oxygen	O ₂	VGR-..15
propane	C ₃ H ₈	VGR-..16
nitrous oxide	N ₂ O	VGR-..17
gases	see above	VGR-D...

Specific gas calibration			
gas species			max. l/min
nitrogen	07	N ₂	450
oxygen	15	O ₂	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H ₂	300
carbon dioxide	03	CO ₂	150
propane	16	C ₃ H ₈	80
methane	13	CH ₄	100



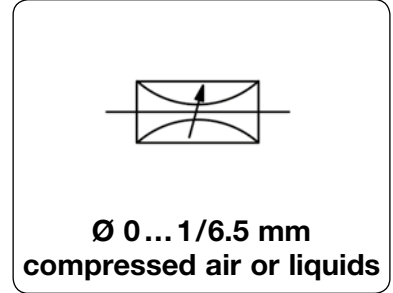
Calibration or test chart: see chapter for technical informations
*1 Note: indicate media, supply and outlet pressure on order

PDF CAD
www.aircom.net

Order example:
VGR-A1



Description	The modular, compact micro needle valve is for fine-flow adjustment of gases and liquids. It consists of an inner valve and body with straight or angle connector. The valve is free from oil and grease.		
Media	5 µm filtered compressed air, non-corrosive gases or liquids		
Operating pressure	vacuum up to positive pressure of max. 20 bar		
Adjustment	The micro valve has a 15-turn spindle to fully open from a closed condition. It operates with virtually no hysteresis and closes clockwise or optionally counterclockwise. The valve needle is non-rotating and thus provides a stable adjustment.		
Panel mounting	borehole 15 mm,	mounting through two screws M4x10	
Temperature range	-20 °C to 150 °C / - 4 °F to 302 °F for FKM,	-40 °C to 150 °C / -40 °F to 302 °F for EPDM	
Material	Body: anodized aluminium, optionally stainless steel	Elastomer: FKM, optionally EPDM	Knob: plastic
	Inner valve: nickel-plated brass, optionally stainless steel		



Dimensions			Needle size mm	K _v -value (m ³ /h)	Flow rate		Connection thread G	Order number
A	B	C			water l/min*2	air l/min*1		

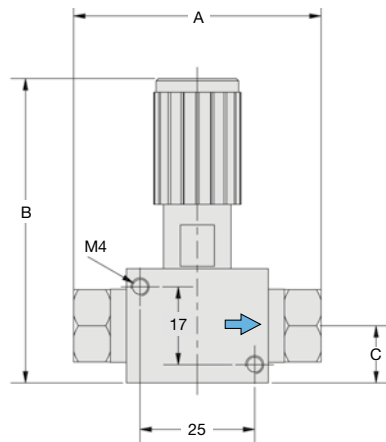
Precision needle valve					with straight pass, right-hand closing, with knob, aluminium/brass/FKM, supply: max. 20 bar			VR
54	64	10	1.0	0.0007	0... 0.01	0... 0.3	G ¹ / ₄	VR6-02A
			1.5	0.005	0... 0.10	0... 2.5		VR6-02B
			2.0	0.01	0... 0.15	0... 7.0		VR6-02C
			2.5	0.04	0... 0.60	0... 17		VR6-02D
			3.0	0.10	0... 2.30	0... 60		VR6-02E
62	80	17.5	4.0	0.58	0... 8.00	0...250	G ¹ / ₂	VR6-04A
			6.5	1.00	0... 16	0...425		VR6-04B



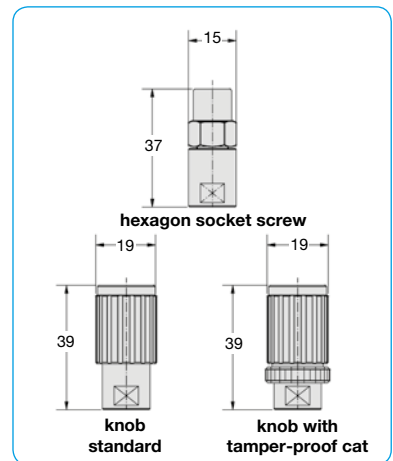
VR6 straight-way valve

Special options, add the appropriate letter

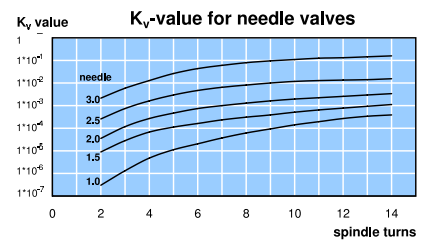
stainless steel body	body and valve made of stainless steel 316	for G ¹ / ₄	VR6-02.S
EPDM elastomer	-40 °C to 90 °C / -40 °F to 194 °F, SST body only	for G ¹ / ₄	VR6-02.SE
amper-proof cap	on valve with knob, standard		VR6-02.T
hexagon socket screw	and locknut		VR6-02.I



VR6



Options

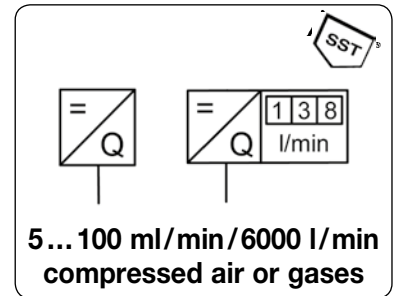


*1 at 1 bar operating pressure and open outlet
*2 at 1 bar pressure difference



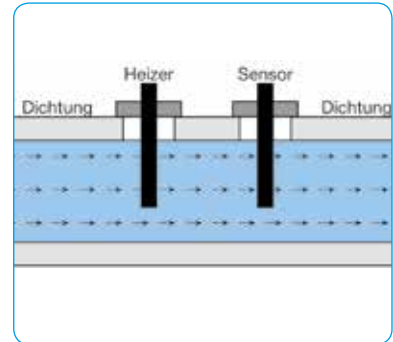
Technical features

- Benefits:**
- suitable for nearly all gases and gas mixtures
 - no moving parts
 - short response time
 - unaffected of mounting position
 - optionally with unit counter and / or flow meter
 - maintenance-free
 - low pressure drop



General technical features

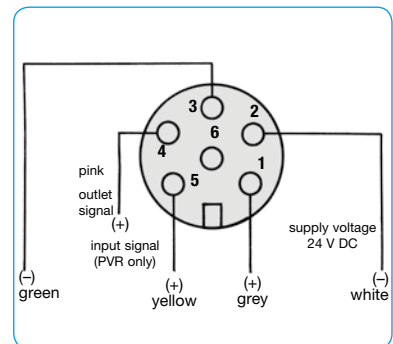
Mounting position	any
Protection class	IP 40
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium, optionally stainless steel 316L Elastomer: FKM, optionally EPDM or Kalrez Sensor: stainless steel 316L Filter/strainer: stainless steel



functional principle

Pneumatic features

Media	compressed air as well as virtually all gases and mixtures of gases
Operating pressure	max. 10 bar
Differential pressure	max. 5 bar
Mass flow rate	0 ... 100 ml/min / 2000 l/min, for PVR 0 ... 100 ml/min / 6000 l/min, for PVM



PVM and PVR connecting plan

Electrical features

Supply voltage	24 V DC + 10%
Current consumption	max. 75 mA for PVM 11, all other devices max. 250 mA
Signal ranges	4-20 mA, optionally 0 ... 5 V DC
Impedance	> 10 kΩ at voltage signal, < 375 Ω at current signal
Connection	round connector M16x1, 6-pin
EMC	according to CE
Note	at < 100 mbar inlet path is required (PVM only)

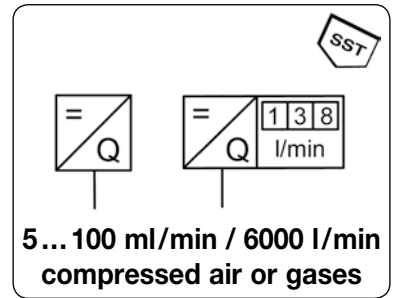
model	PVM23 - PVM27	PVM11
air	1.00	1.00
argon	2.01	1.40
CO ₂	1.20	0.74
helium	/	1.41
hydrogen	/	1.01
NH ₃	0.80	0.77
N ₂ O ₂	1.00	1.00
C ₂ H ₂	0.75	0.61
C ₃ H ₆	/	0.34
C ₃ H ₈	0.63	0.34
CH ₄	0.67	0.76
CO	1.04	1.00
C ₂ H ₄	0.89	0.60
NO	1.02	0.97
HCL	1.58	0.99

conversion factors for max. flow rate for other gases

Accuracy

Linearity / Hysteresis	> ± 3 % FS
Repeatability	> ± 0.5% FS
Pressure sensitivity	> ± 0.3% FS/bar typ. (air)
Temperature sensitivity	< ± 0.3% / °C (air)
Mounting sensitivity	< 0.3% FS at 90°
Operating time	25 s at 100% of the range
Tightness	< 2 x 10 ⁻⁸ mbar l/s He

Description	Mass flow meter directly measuring flow according to constant temperature anemometer principle. PVM 11 measures via a bypass, the other types measure the flow directly.
Features	Low pressure drop and immunity against dirt and humidity. Measurement unaffected by pressure and temperature changes. No moving parts, installation in virtually any position.
Principle	Two stainless steel probes - a heater and temperature probe - protrude inside the bore. A constant difference in temperature is created. The energy required is proportional to flow.
Media	compressed air, air as well as virtually all gases and gas mixtures
Compensation	Neither temperature nor pressure have to be compensated. There are no moving parts within the flow meter, therefore it is virtually wear-free.
Pressure drop	Low pressure drop because solely two stainless steel probes protrude inside the smooth, round measurement cell. The use of screw connections with a nominal size as big as possible is suggested.
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium, optionally SST 316L Sensor: stainless steel 316L
	Operating press. max. 10 bar Differential press. max. 5 bar Elastomer: FKM, optionally EPDM or Kalrez Filter/strainer: stainless steel



Dimensions			Operating pressure max. bar	Connection thread G	Flow rate ml/min*1 / l/min*1	Order number
A	B	C				

Mass flow meter				4-20 mA output signal, supply voltage 24 V DC, w/o display, with coupling socket, for compressed air		PVM*2	
95	94.5	15	10	G1/4	5 ... 100 ml/min 10 ... 200 ml/min 25 ... 500 ml/min 50 ... 1000 ml/min	PVM11-12 PVM11-22 PVM11-52 PVM11-13	
95	94.5	15	10	G1/4	0.10 ... 2 l/min 0.25 ... 5 l/min 0.50 ... 10 l/min	PVM11-23 PVM11-53 PVM11-14	
95	94.5	15	10	G1/4	1 ... 20 l/min 2 ... 50 l/min 5 ... 100 l/min	PVM23-24 PVM23-54 PVM23-15	
95	98.5	15	10	G1/2	5 ... 100 l/min 10 ... 200 l/min 20 ... 400 l/min	PVM25-15 PVM25-25 PVM25-45	
116	123	25	10	G1/2	20 ... 400 l/min 50 ... 1000 l/min 100 ... 2000 l/min	PVM27-45 PVM27-16 PVM27-26	
130	143	35	10	G1	150 ... 2000 l/min 200 ... 4000 l/min 250 ... 5000 l/min	PVM28-26 PVM28-46 PVM28-56	
160	172	55	10	G1	250 ... 5000 l/min 300 ... 6000 l/min	PVM29-56 PVM29-66	

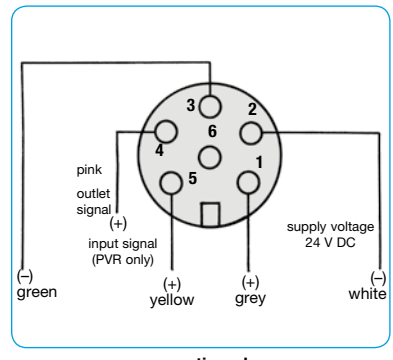
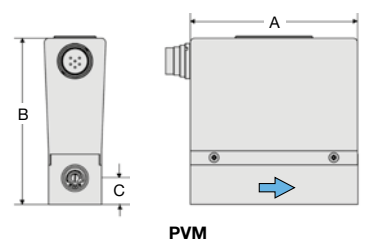


Special options, add the appropriate letter order number

special calibration	range or gas to be indicated on order	PVM Y
monitor signal	0-5 V, load resistance > 10 kΩ	PVM U
stainless steel body	316L	PVM S
		PVM S
EPDM elastomer		PVM E
Kalrez elastomer		PVM K
LCD display		PVM M
free of oil and grease	for oxygen and different gases	PVM L
carbon dioxide CO₂	03	argon Ar: 05
nitrogen	N ₂ : 05	nitrogen N ₂ : 05
helium	He: 09	methane CH ₄ : 13
hydrogen	H ₂ : 11	methane CH ₄ : 13
oxygen	O ₂ : 15	nitrous oxide N ₂ O: 17
	propane C ₃ H ₈ : 16	nitrous oxide N ₂ O: 17

Accessories, enclosed

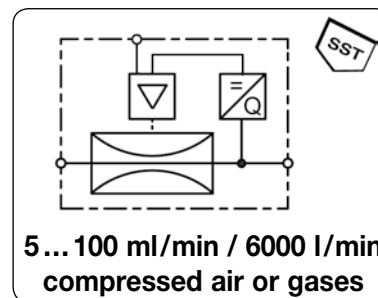
coupling socket	M16x1, 6-pin with 3 m Kabel	straight	KM16-A6-3
other cable length	5 m or 10 m available		



*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor



Description	Mass flow meter directly measuring flow according to constant temperature anemometer principle. The measured setpoint is compared with the nominal value. The valve will be readjusted accordingly.		
Mechanical Construction	PVR11/12/23: mass flow meter and meter in the same housing PVR 25: mass flow meter and meter together at the measuring bob PVR27: mass flow meter and meter as single components are bolted together		
Media	compressed air, air as well as virtually all gases and gas mixtures		
Compensation	Neither temperature nor pressure have to be compensated. There are no moving parts within the flow meter, therefore it is virtually wear-free.		
Pressure drop	Low pressure drop because solely two stainless steel probes protrude inside the smooth, round measurement cell. The use of screw connections with a nominal size as big as possible is suggested.		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: aluminium, optionally SST 316L Sensor: stainless steel 316L	Operating press. max. 10 bar	Differential press. max. 5 bar Elastomer: FKM, optionally EPDM or Kalrez Filter/strainer: stainless steel



Dimensions			K _v -value (m³/h)	Operating pressure max. bar	Connection thread G	Mass flow ml/min*1 / l/min*1	Order number
A mm	B mm	C mm					

Mass flow regulator							4-20 mA input and output signal, supply voltage 24 V DC, w/o display, with coupling socket, for compressed air	PVR*3
95	94.5	15	0.066	10	G¼	5 ... 100 ml/min 10 ... 200 ml/min 25 ... 500 ml/min 50 ... 1000 ml/min	PVR11-12 PVR11-22 PVR11-52 PVR11-13	
95	94.5	15	0.066	10	G¼	0.10 ... 2 l/min 0.25 ... 5 l/min 0.50 ... 10 l/min	PVR11-23 PVR11-53 PVR11-14	
95	97	15	0.066	10	G¼*2	0.50 ... 10 l/min 1.00 ... 20 l/min 2.50 ... 50 l/min	PVR12-14 PVR12-24 PVR12-54	
95	94.5	15	0.066	10	G¼	1 ... 20 l/min 2 ... 50 l/min 5 ... 100 l/min	PVR23-24 PVR23-54 PVR23-15	
145	132	16	0.30	10	G½	5 ... 100 l/min 10 ... 200 l/min 20 ... 400 l/min	PVR25-15 PVR25-25 PVR25-45	
257	163	25	1.0	10	G½	25 ... 400 l/min 50 ... 1000 l/min 100 ... 2000 l/min	PVR27-45 PVR27-16 PVR27-26	



PVR23



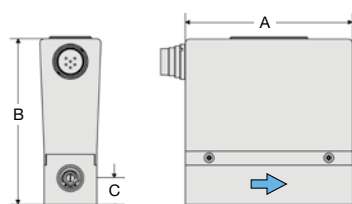
PVR25

Special options, add the appropriate letter order number

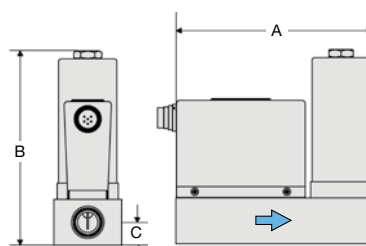
special calibration	range or gas to be indicated on order	PVRY
setpoint /monitor signal	0-5 V, load resistance > 10 kΩ	PVRU
stainless steel body	316L	PVRS
EPDM elastomer		PVRE
Kalrez elastomer		PVRK
LCD display	for flow, 3½-digit	PVRM
free of oil and grease	for oxygen and different gases	PVRL
potentiometer in cover	for flow regulation, height +40 mm	PVRX67
carbon dioxide CO ₂ :	argon Ar: 05	nitrogen N ₂ : 07
helium He: 09	hydrogen H ₂ : 11	methane CH ₄ : 13
oxygen O ₂ : 15	propane C ₃ H ₈ : 16	nitrous oxide N ₂ O: 17

Accessories, enclosed

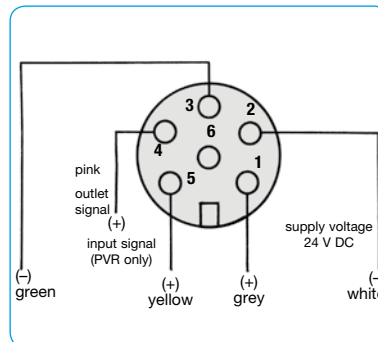
coupling socket M16x1, 6-pin with 3 m Kabel straight **KM16-A6-3**
other cable length 5 m or 10 m available



PVR11 ... PVR23



PVR25 / PVR27



connecting plan

*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor.
*2 connection thread G½ on the input side

*3 Note: indicate media, supply and outlet pressure, temperature on order



Prop.-V.



11

Description	The flow measurement device works with differential pressure technology. It allows active flow control through continuous real time measurement, realised within 1 ms. There are no moving parts within the flow monitor, therefore it is virtually wear-free.		
Media	compressed air		
Operating pressure	max. 11 bar		
Supply voltage	15...24 V DC, max. power consumption 80 mA		
Display	without display as standard, optionally 4-digit LCD display with 12 mm tall, red figures		
Electrical connector	square connector, 6-pin with coupling socket		
Output signal	0...10 V, optionally 4...20 mA or 20...4 mA		
Repeatability	< 0.25% FS		
Detectable flow	> 4% FS		
Response time	1 ms		
Mounting position	any		
Material	Body:	anodized aluminium	
	Transducer:	aluminium	
	Accuracy	< 4% FS at 10% to 100% range	
	Temperature sensitivity	0.25% per °C / K	
	Shock resistance	25 g	
	Protection class	IP 54 / Nema 4	
	Temperature range	0 °C to 50 °C / 32 °F to 122 °F	
	Elastomer:	NBR/Buna-N	

**30 ... 300 / 7 000 l/min
compressed air, 1 ms fast**

Dimensions			Operating pressure	Connection thread	Flow rate	Order number
A	B	C				
mm	mm	mm	max. bar	G	ml/min*1	

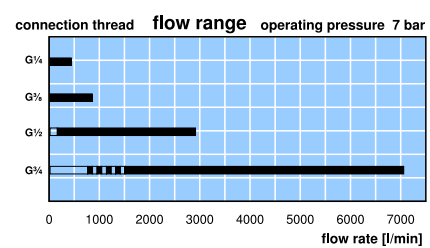
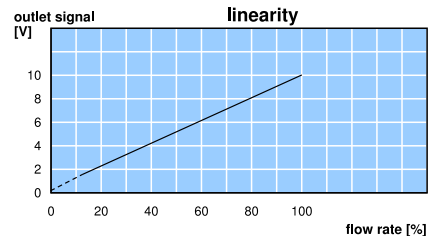
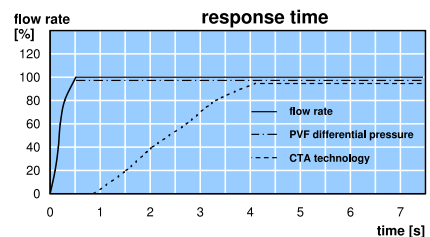
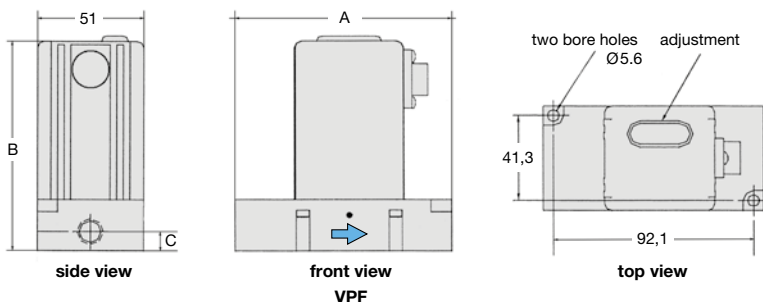
Flow meter						VPF
for compressed air, 0...10 V output signal, supply 24 V DC, without display, with coupling socket, open outlet						
102	106	10	11	G¼	30 ... 300	VPF-2
102	119	19	11	G¾	70 ... 700	VPF-3
102	119	19	11	G½	300 ... 3 000	VPF-4
102	132	25	11	G¾	700 ... 7 000	VPF-5

Special options, add the appropriate letter or number

monitor signal	4-20 mA, proportional to flow rate increase	VPF- . I
	20-4 mA, proportional to flow rate increase	VPF- . L
LED display	4-digit, red figures 12 mm tall	VPF- . A
carbon dioxide	CO ₂	VPF- . 03
argon	Ar	VPF- . 05
nitrogen	N ₂	VPF- . 07
helium	He	VPF- . 09



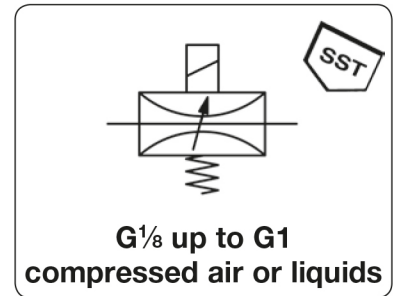
VPF



*1 at 10 bar operating pressure and open outlet



Description	2-way proportional flow valve controls the volume flow of maximum 1185 l/min for air in proportion to the input signal of 0 to 10 V or 0/4 to 20 mA. The proportional valve and the electronic control unit are ordered separately.
Product selection	To achieve the best linear flow characteristics, it is advisable not to reduce the flow too much and to have enough pressure drop at the valve for good control. Reference value: at the valve > 30% of the total pressure drop.
Installation hint	The nominal width of the orifice following the proportional valve should not be smaller than the nominal width of the valve. A constriction of the cross-section after the valve should be categorically avoided!

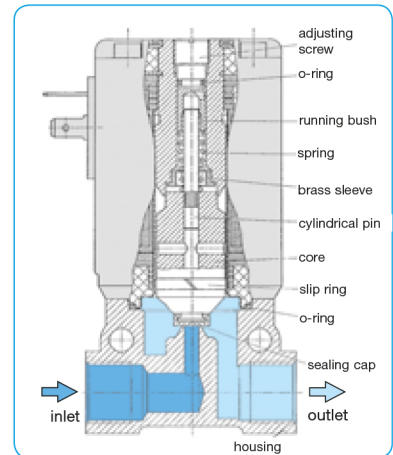


General technical features

Design	2-way proportional flow valve, normally closed during absence of current, with additional control module in cable plug or in housing for DIN rail mounting.		
Mounting position	any, preferably upright		
Protection class	IP 65 with coupling socket, IP 40 for DIN rail version		
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F for media -10 °C to 55 °C / 14 °F to 131 °F for electronics		
Material	Body: brass Elastomer:	Inner valve: FKM	brass and stainless steel Control housing: plastic

Pneumatic features

Media	compressed air, non-corrosive gases or liquids, max. viscosity 21 mm ² /s, PV40 for liquids only
Operating pressure	see chart, max. 16 bar
Flow rate	0...2 / 1185 l/min for air, 0...0.03 / 83 l/min for liquids in detail see chart, at max. supply pressure and Δp = 1 bar



Electrical features

Supply voltage 24 V DC ± 10%, residual ripple max. 5%, with reverse voltage protection

Power consumption	electronic	PV21	PV21	PV22	PV34	PV40-04	PV40-06	PV40-08
	1 W	2 W to DN 0.6	5 W from DN 0.8 on	9 W	16 W	8 W	10 W	15 W

Command signal 0-5 V, 0-10 V, 0-20 mA or 4-20 mA selectable

Impedance > 20 kΩ at voltage signal
< 200 Ω at current signal

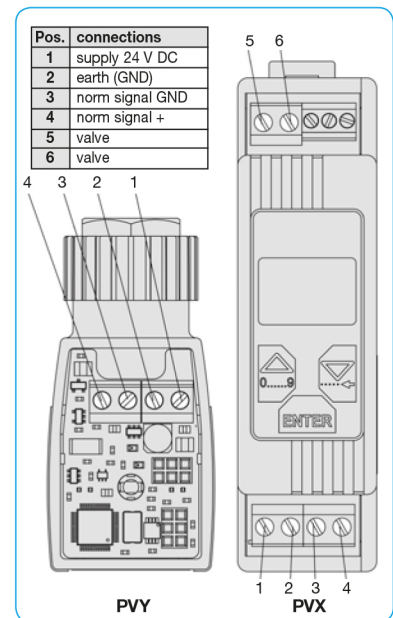
Electrical connector PV21: square connector according to DIN 43650 form B
PV22...PV40: square connector according to DIN 43650 form A

Accuracy

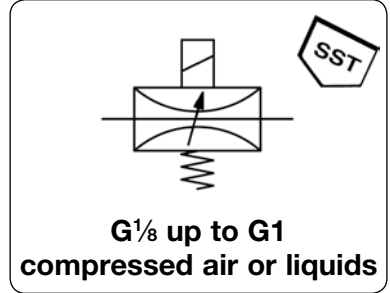
Linearity	< 10 % FS		
Hysteresis	< 5 % FS		
Response sensitivity	< 0.1% FS at DN < 0,8 mm,	< 0.25% FS at DN ≥ 0,8 mm,	< 1% FS at PV40
Repeatability	< 0.25% FS at PV22 < 0.5% FS		
Regulating time	PV21: < 15 ms,	PV22: < 20 ms,	PV34: < 50 ms, PV40: < 200 ms each for 90% of the range

Adjustment

Zero point	The zero point can be decreased or increased.
Range	The range can be decreased or increased.
Ramp	The ramping potentiometer adjusts the time delay with a range of 0 to 10 s in order to dampen sudden changes of the setpoint. Increasing and decreasing ramps have the same delay.
Zero point switch	Using a DIP switch, the zero point switch can be activated or deactivated. It is not necessary to have another switch-off valve.

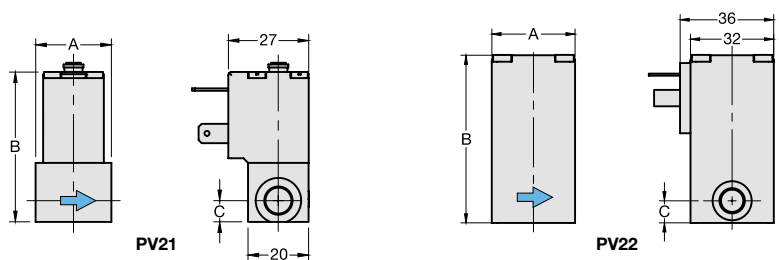


Technical features	
• Media	compressed air, non-corrosive gases or liquids, except for PV40
• Signal range	0-5 V, 0-10 V, 0-20 mA, 4-20 mA
• Pressure range	vacuum ... 2 / 16 bar
• Orifice	DN 0.1 ... DN 20
• Flow rate	max. 1185 l/min for air, max. 90 l/min for water
• Adjustment	zero point, range and ramp
• Zero switch-off	ensures reliable closure of the valve
• Linearity	< 10% FS
• Hysteresis	< 5% FS
• Response sensitivity	< 0.1% FS at DN < 0.8 mm < 0.25% FS at DN ≥ 0.8 mm < 1% FS at PV40
• Repeatability	< 0.25% FS, < 0.5% FS at PV22
• Regulating time	depending on type: < 15 ms, < 20 ms, < 50 ms or < 200 ms
• Protection class	IP65 with plug
• Impedance	> 20 kΩ at V, < 200 Ω at mA



Dimensions		Nominal K _v -	Flow rate		Operating	Differ.-	Connection	Order
A	B	size	water	air	pressure	press.	thread	number
mm	mm	DN (m ³ /h)	l/min*1	l/min*2	max. bar	max. bar	G	

Proportional flow valve										without electronics, brass, FKM, for compressed air, vacuum or liquids*2	PV	
25	50	7	0.1	0.0025	0...	0.004	0...	0.27	10	10	G ¹ / ₈	PV21-01
25	50	7	0.2	0.001	0...	0.017	0...	1.0	10	10	G ¹ / ₈	PV21-02
25	50	7	0.3	0.002	0...	0.033	0...	2.2	10	10	G ¹ / ₈	PV21-03
25	50	7	0.4	0.004	0...	0.067	0...	4.0	8	8	G ¹ / ₈	PV21-04
25	50	7	0.6	0.010	0...	0.167	0...	11	6	6	G ¹ / ₈	PV21-06
25	50	7	0.8	0.018	0...	0.3	0...	19	12	6	G ¹ / ₈	PV21-08
25	50	7	0.8	0.018	0...	0.3	0...	19	12	12	G ¹ / ₈	PV21-08B
25	50	7	1.0	0.027	0...	0.3	0...	19	10	5	G ¹ / ₈	PV21-10
25	50	7	1.0	0.027	0...	0.3	0...	19	10	10	G ¹ / ₈	PV21-10B
25	50	7	1.2	0.038	0...	0.633	0...	41	8	4	G ¹ / ₈	PV21-12
25	50	7	1.2	0.038	0...	0.633	0...	41	8	8	G ¹ / ₈	PV21-12B
25	50	7	1.6	0.055	0...	0.917	0...	59	6	3	G ¹ / ₈	PV21-16
25	50	7	1.6	0.055	0...	0.917	0...	59	6	6	G ¹ / ₈	PV21-16B
25	50	7	2.0	0.090	0...	1.5	0...	97	3	1.5	G ¹ / ₈	PV21-20
25	50	7	2.0	0.090	0...	1.5	0...	97	3	3	G ¹ / ₈	PV21-20B
32	66	8.5	0.8	0.018	0...	0.3	0...	19	16	8	G ¹ / ₈	PV22-08
32	66	8.5	0.8	0.018	0...	0.3	0...	19	16	16	G ¹ / ₈	PV22-08B
32	66	8.5	1.0	0.027	0...	1.0	0...	65	14	7	G ¹ / ₈	PV22-10
32	66	8.5	1.0	0.027	0...	1.0	0...	65	14	14	G ¹ / ₈	PV22-10B
32	66	8.5	1.2	0.040	0...	0.67	0...	43	12	6	G ¹ / ₈	PV22-12
32	66	8.5	1.2	0.040	0...	0.67	0...	43	12	12	G ¹ / ₈	PV22-12B
32	66	8.5	1.5	0.060	0...	1.0	0...	65	10	5	G ¹ / ₈	PV22-15
32	66	8.5	1.5	0.060	0...	1.0	0...	65	10	10	G ¹ / ₈	PV22-15B
46	72	8.5	2.0	0.10	0...	1.66	0...	108	8	4	G ¹ / ₄	PV22-20
46	72	8.5	2.0	0.10	0...	1.66	0...	108	8	8	G ¹ / ₄	PV22-20B
46	72	8.5	2.5	0.15	0...	2.5	0...	162	5	2.5	G ¹ / ₄	PV22-25
46	72	8.5	2.5	0.15	0...	2.5	0...	162	5	5	G ¹ / ₄	PV22-25B
46	72	8.5	3.0	0.22	0...	3.67	0...	237	3.5	1.8	G ¹ / ₄	PV22-30
46	72	8.5	3.0	0.22	0...	3.67	0...	237	3.5	3.5	G ¹ / ₄	PV22-30B
46	72	8.5	4.0	0.32	0...	5.33	0...	345	2	1	G ¹ / ₄	PV22-40
46	72	8.5	4.0	0.32	0...	5.33	0...	345	2	2	G ¹ / ₄	PV22-40B



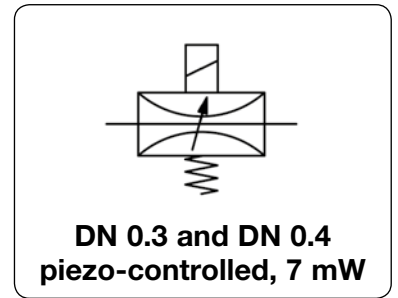
*1 at max. operating pressure and Δp = 1 bar *2 at pressure drop from 6 bar down to 5 bar

Technische Daten: siehe vorherige Seite

PDF CAD
www.aircom.net

Order example:
PV21-01

Description	The piezo miniature flow valve is highly reliable and combines precise control of flow rates with power consumption under 7 mW. It is extremely compact and weighs only 23 g. Therefore, it is very suitable for battery-operated portable devices. Preferred application in medical engineering. Electronics are not necessary.	
Media	50 µm filtered compressed air or non-corrosive gases	
Flange connection	according to CNOMO E06.36.120N (15 x 15 mm) or CNOMO E06.05.80 (30 x 30 mm) with adapter see chart, max. 8 bar	
Operating pressure	0...40 V DC, residual ripple < 10%, without reverse voltage protection	
Supply voltage	plug, contact gap 9.4 mm, 3-pin, with coupling socket (Pg 7P), optionally with wire, red (+), black (-)	
Electrical connector		
Note	The current is to be limited by a > 30 Ω resistor connected in series.	
Life cycle	< 1 billion switching cycles at 6 bar	
Power consumption	< 100 µA, i.e. 7 mW	Switch-on consumption 0.6 W
Response time	50 ms	Protection class IP 65 with coupling socket
Mounting position	any	Temperature range 0 °C to 60 °C / 32 °F to 140 °F
Material	Body: PPS plastic Inner valve: piezoelectric ceramics	Elastomer: NBR/Buna-N Manifold block: brass (M5), zinc die-cast (G½), polyamide (Ø4)



Description	Dimensions			K _v -value (m³/h)	Flow rate l/min*1	Operating pressure max. bar	Nominal size DN	Order number
	A	B	C					

Flow valve	flangeable without manifold block, with coupling socket, 0-40 V DC								PV630
	NC	15	48	51	0.005	0...6	8	0.3		PV630-03
				0.006	0...7	4	0.4	PV630-04	
NO	15	48	51	0.005	0...6	8	0.3	PV631-03	
				0.006	0...7	4	0.4	PV631-04	

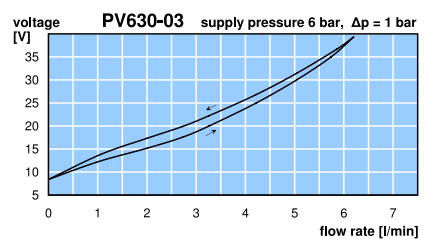
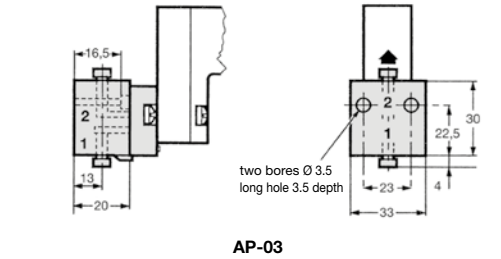
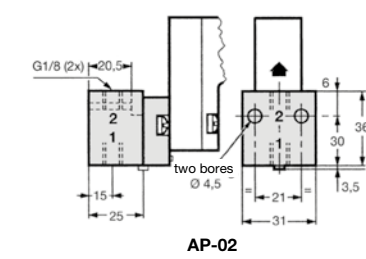
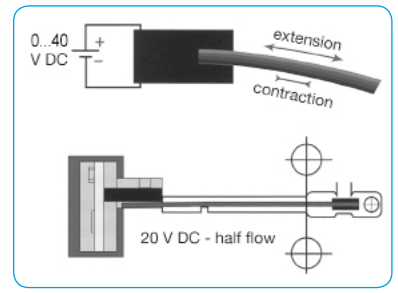
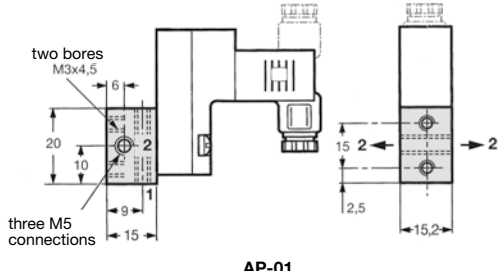
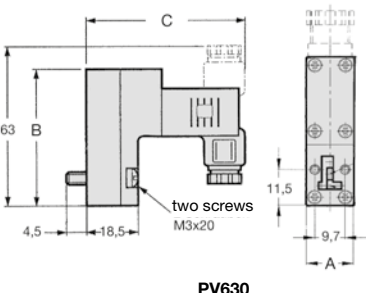


Special options, add the appropriate letter

w/o coupling socket	protection class IP00	PV63 -.0.X
with wire	length 1 m, red (+), black (-)	PV63 -.0.L

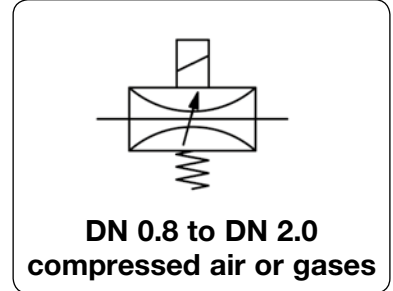
Accessories, enclosed

manifold block	M5	AP-01
	G½	AP-02
	Ø4	AP-03
in-line manifold block	Ø4	AP-04
		AP-05
	G½	



*1 at operating pressure 6 bar and Δp = 1 bar

Description	The miniature flow valve is highly reliable and combines precise control of flow rate with compact design and only 80 g weight. It can be used for vacuum or pressure up to 12 bar. Plug amplifier required.		
Media	50 µm filtered compressed air, vacuum or non-corrosive gases		
Plug amplifier	Conversion of the analogue signal into a pulse-wide modulated current. Supply voltage: 24 V DC, max. 1.1 A Switchable signal: 0...10 V, 0...20 mA, 4...20 mA Close function: < 2% of max. signal		
Electrical connector	plug, contact gap 9.4 mm, 3-pin, with coupling socket (Pg 7P)	Adjustment:	zero point and range
Operating pressure	see chart, max. 10 bar	Time ramp:	0.1 to 3 s selectable
Repeatability	< 3% FS	Frequency:	1000 Hz
Response sensitivity	< 2% FS	Life cycle	> 100 million cycles
Polarity	any for valve	Linearity	< 8% FS
Mounting position	any	Hysteresis	< 5% FS
Material	Body: brass Inner valve: stainless steel and brass	Protection class	IP 65 with coupling socket
		Temperature range	0 °C to 50 °C / 32 °F to 122 °F
		Elastomer:	FPM
		Manifold:	brass (M5), zinc die-cast (G½), polyamide (Ø4)



Prop.-V.
11

Description	Dimensions			K _v -value (m ³ /h)	Flow rate l/min*1	Operating pressure max. bar	Nominal size DN	Order number
	A	B	C					

Proportional flow valve	flangeable, for compressed air, 24 V DC,	w/o manifold block, direct control, w/o amplifier	with coupling socket, direct control, w/o amplifier	PV202				
				NC	NO			
	15	48	53	0.0012	0... 1	10	0.2	PV202-002
				0.0048	0... 5	10	0.4	PV202-004
				0.0096	0... 11	10	0.6	PV202-006
				0.0180	0... 20	10	0.8	PV202-008



Special options, add the appropriate letter

12 V DC voltage signal PV202-0..V

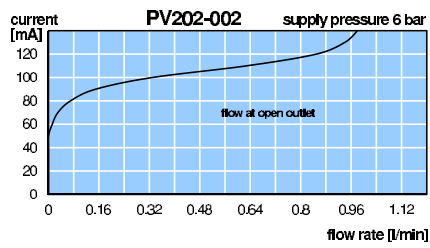
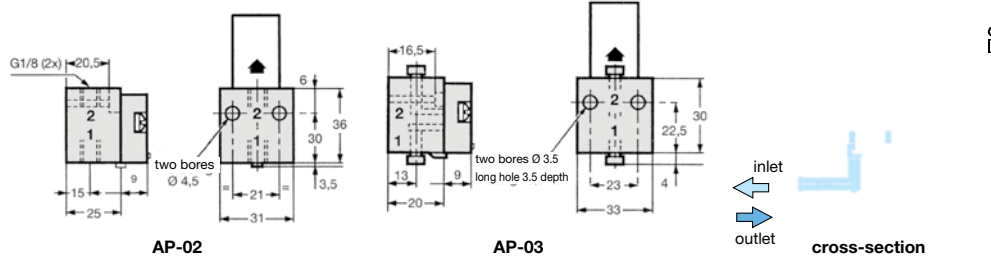
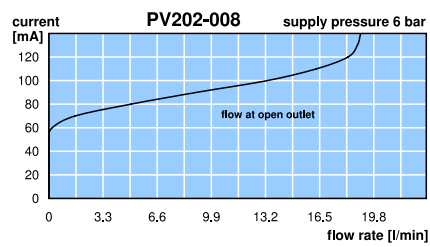
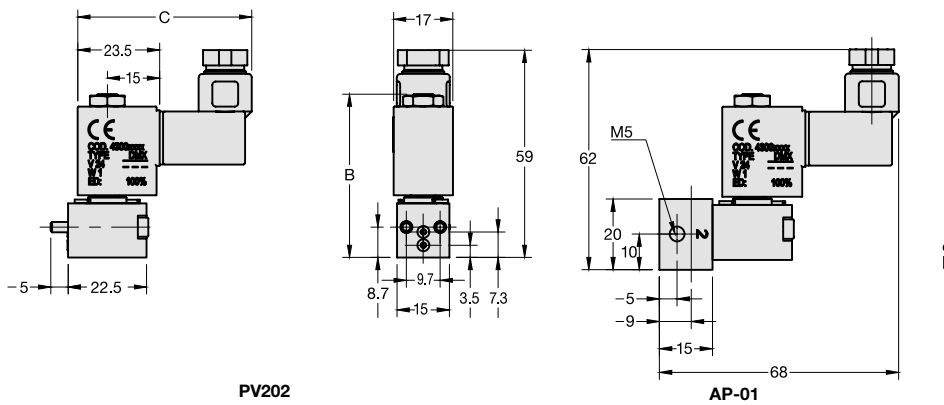


Accessories, enclosed

plug amplifier 24 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA PVY-05

manifold block M5 AP-01
G½ AP-02
Ø4 AP-03

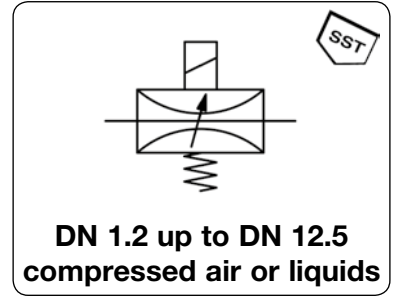
in-line manifold Ø4 AP-04
G½ AP-05



*1 operating pressure 6 bar and Δp = 1 bar



Description	The proportional flow valve can be controlled either by 24 V DC or optionally by a plug amplifier with switchable signals. 50 µm filtered compressed air, vacuum, non-corrosive gases or liquids Conversion of the analogue signal into a pulse-wide modulated current.		
Media	50 µm filtered compressed air, vacuum, non-corrosive gases or liquids		
Plug amplifier	Conversion of the analogue signal into a pulse-wide modulated current.		
Electrical connector	Supply voltage: 24 V DC, max. 1.1 A	Adjustment:	zero point and range
Protection class	Switchable signal: 0...10 V, 0...20 mA, 4...20 mA	Time ramp:	0.1 to 3 s selectable
Temperature range	Close function: < 2% of max. signal	Hum frequency:	40 to 700 Hz selectable
	plug, 3-pin, with coupling socket (Pg 9P or Pg 11P)	Operating pressure	see chart, max. 12 bar
	IP 65 with coupling socket	Mounting position	any
	-10 °C to 90 °C / 14 °F to 194 °F	at G _{1/2} : 0 °C to 50 °C / 32 °F to 122 °F	
Viscosity max.		PV202, G_{1/2}	PV203, G_{3/8} / G_{1/2}
Power consumption	100...450 mA, 8.6 W	21 mm ² /s	40 mm ² /s
Hysteresis / Sensitivity	< 5% FS / < 1% FS	100...500 mA, 11 W	100...500 mA, 11 W
Repeatability	< 1% FS	< 5% FS / < 2% FS	< 7.5% FS / < 2% FS
Body / Inner valve	brass/SST, PTFE, FKM	< 3% FS	< 3% FS



Dimensions			Media	Nominal size	K _v -value	Flow rate	Supply max.	Connection thread	Order number
A	B	C	A: air W: water	DN	(m ³ /h)	l/min*1	bar	G	

Proportional flow valve 24 V DC, direct control, without amplifier, with coupling socket, made of brass **PV202 / PV203**

25	78	8	A	1.2	0.05	0...70	8.0	G _{1/8}	PV202-1-12
				1.6	0.07	0...110	6.0		PV202-1-16
				2.4	0.13	0...70	4.0		PV202-1-24
				3.2	0.18	0...105	2.5		PV202-1-32
40	95	20	A/W*3	1.2	0.05	0...60	16	G _{1/4}	PV202-2-12
				2.4	0.12	0...110	8.0		PV202-2-24
				3.2	0.24	0...170	4.0		PV202-2-32
				4.0	0.42	0...280	2.5		PV202-2-40
				5.6	0.72	0...310	1.4		PV202-2-56
				7.1	0.90	0...390	1.0		PV202-2-71
48	97	14	A/W*3	3.2	0.24	0...190	4.0	G _{3/8}	PV202-3-32
				4.0	0.42	0...300	2.5		PV202-3-40
				5.6	0.72	0...330	1.4		PV202-3-56
				7.1	0.90	0...420	1.0		PV202-3-71
52	105	14	W	12.5	2.10	0...35*2	10	G _{3/8}	PV203-3-125W
				12.5	2.10	0...37*2	10	G _{1/2}	PV203-4-125W

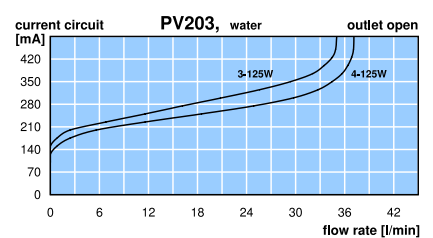
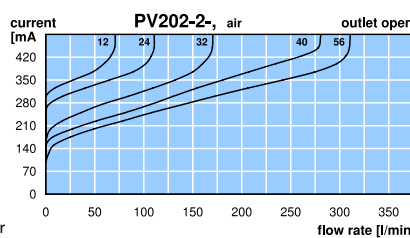
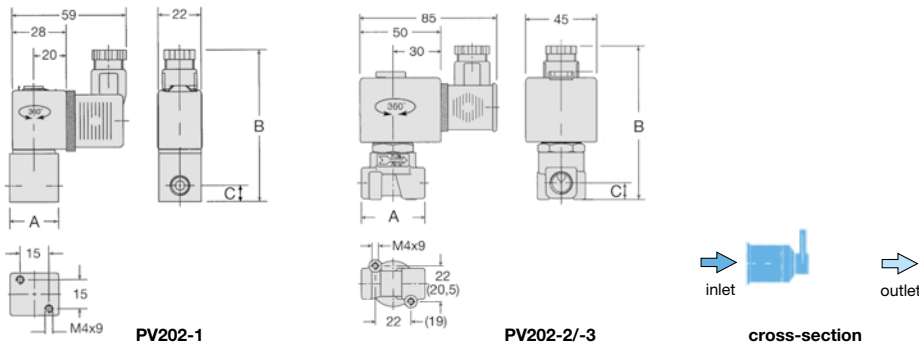


Special options, add the appropriate letter

for water or oil		for PV202, G _{1/4} and G _{3/8}	PV202-...W
stainless steel body	NPT connection thread, FKM elastomere	for PV202	PV202-...S
12 V DC	voltage signal		PV20...12V

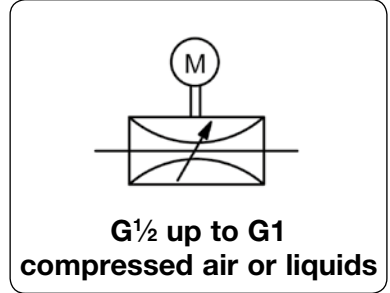
Accessories, enclosed

plug amplifier	24 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	for PV202, G _{1/8}	PVY-03
		for all others	PVY-04
plug amplifier	12 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	für PV202, G _{1/8}	PVY-08
		for all others	PVY-09



*1 for compressed air at operating pressure 6 bar and Δp = 1 bar
*2 flow rate for water since valve is pilot-controlled
*3 for liquids add **W** to order number of type PV202-2/-3

Description	Motorised proportional flow valve with low power consumption and resistance to contamination. Throttle setting by wear-resistant control drives made of oxide ceramic. Throttling occurs with drip-tight zero shut-off but no gas tightness.	
Media	compressed air, vacuum or liquids up to viscosity of 40 mm ² /s	Hysteresis ± 4%
Operation	DC, synchronous or stepping motor with standard voltage of 24 V DC or AC ±10% residual ripple. All motors fulfil standards EN50.081-1, EN50.082-2 and 89/336/EEC.	
DC motor (15 / 24)	Motor with feedback potentiometer for servo-amplifier. Resistor 1kΩ ± 20 %, control e.g. by servo-amplifier. Only part of potentiometer range is used. Voltage for potentiometer: 12 V, max. 10 mA.	
DC motor (50 / 51)	With integrated position controller. Setpoint input using jumpers: 0...10 V, 0/4...20 mA. Input resistance: 200 kΩ at voltage signal, 500 Ω at current signal.	
Stepper motor (38)	Bipolar, by means of SAA1042A (Motorola) with drop resistance of 44 Ω per phase at a driver (full-step) operating voltage of 24 V ± 5%. 2028 steps for 90° control disc turn, 200 Hz nominal step frequency.	
Temperature range	10 °C to 90 °C / 14 °F to 194 °F	
Material	Body: brass Elastomer: NBR/Buna-N, optionally FKM or EPDM	Protection class IP 54 Control discs: oxide ceramic



Prop.-V.
11

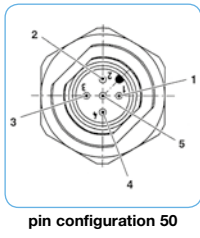
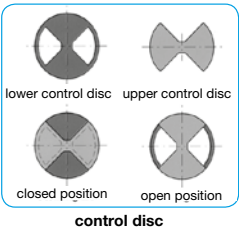
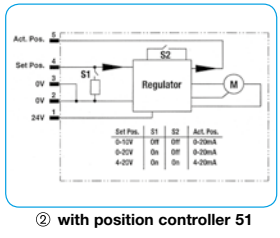
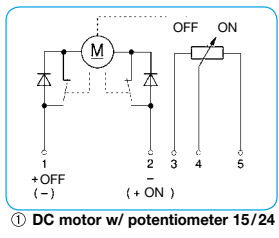
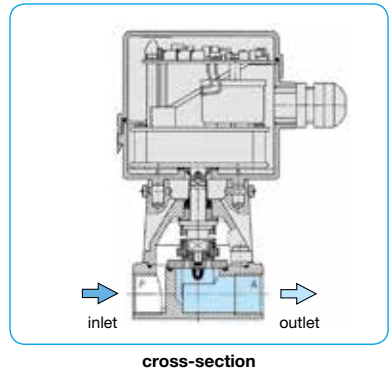
Dimensions			Nominal size	K _v -value	Flow rate		Supply max.	Connection thread	Order number
A	B	C	DN	(m ³ /h)	water l/min*1	air l/min*1	bar	G	

Proportional flow valve									
DC motor type 15, with potentiometer, 120 Ncm, 24 V DC, switching time 10...14 s*2									
55	147	13	15	1.1	0...20	0...1000	10	G ^{1/2}	P822-15
55	147	13	20	3.4	0...60	0...3000	6	G ^{1/2}	P82A-15
95	164	24	20	4.4	0...70	0...3500	6*3	G ^{3/4}	P823-15
95	164	24	20	4.4	0...70	0...3500	6*3	G1	P824-15



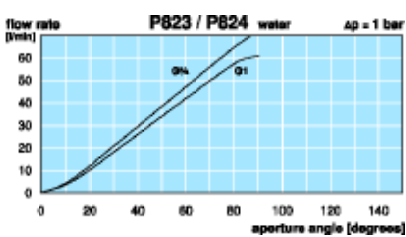
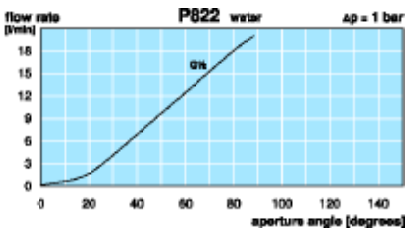
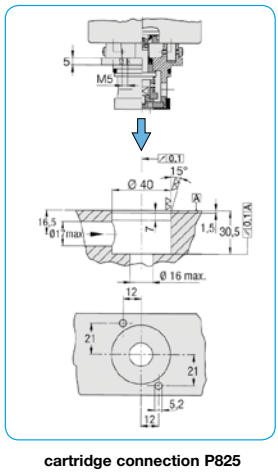
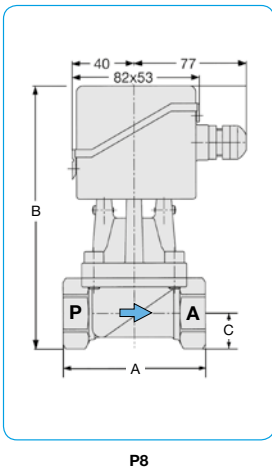
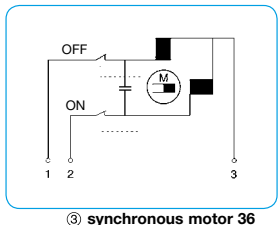
Special options, add the appropriate letter
 cartridge installation instead of thread for DN 15 P825-..

Description	Figure-No.	Watt	Δp max./Torque	Switching time*2
DC motor w/ potentiometer, 120 Ncm	①	1,5 W	6 bar/120 Ncm	10-14 s
DC motor w/ potentiometer, 200 Ncm	①	2,0 W	10 bar/200 Ncm	13 s
DC motor w/ controller	②	3,3 W	16 bar/120 Ncm f. G ^{1/2}	5 s
DC motor w/ controller	②	3,3 W	6 bar/120 Ncm f. G ^{3/4} , G1	5 s
DC motor w/ controller	②	3,8 W	.. bar/ ... Ncm f. G ^{3/4} , G1	.. s
AC motor 50 Hz	③	3,0 W	6 bar/120 Ncm	10 s
stepper motor	④	5,0 W	6 bar/120 Ncm	10 s
FKM elastomer				P82...V
EPDM elastomer				P82...E
free of grease and oil			especially cleaned, suitable for oxygen	P82...L
body nickel-plated				P82...X25



PIN	Description
Pin 1	supply voltage 24 Volt
Pin 2	supply voltage 0 Volt
Pin 3	ground potential for set value input and feedback outlet
Pin 4	set value input 0 - 10 V / 0 (4) - 20 mA
Pin 5	feedback outlet 0 (4) - 20 mA

connection diagram



*1 at 6 bar supply pressure and Δp = 1 bar

*2 subject to supply pressure

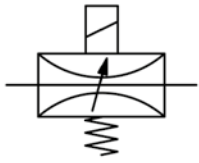
*3 10 bar at motor for 200 Ncm

PDF CAD
www.aircom.net

Order example:
P822-15



Description	Small proportional flow valve for regulating both air and non-corrosive gases. Voltage signal 10 V as standard or optionally 5 V or 20 V DC.				
Media	50 µm filtered compressed air or non-corrosive gases				
Operating pressure	see chart, max. 7 bar				
Electrical specification	command signal	max. voltage	resistance	current consumption	power consumption
	0 - 5 V DC	0 - 6.2 V DC	13 Ω	0 - 370 mA	1.9 W
	0 - 10 V DC	0 - 12.4 V DC	54 Ω	0 - 185 mA	1.9 W
	0 - 20 V DC	0 - 24.8 V DC	218 Ω	0 - 92 mA	1.9 W
Electrical connection	solder lug or terminal lug, 2.5 x 0.5 mm				
Mounting position	any				
Hysteresis	± 10% FS		Repeatability ± 3% FS		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F				
Material	Body: nickel-plated brass		Elastomer: NBR/Buna-N, optionally FKM or EPDM		
	Inner valve: stainless steel and brass				



DN 0.2 up to DN 1.5
0 - 5 / 10 / 20 V DC

Dimensions			Nominal size	K _v -value	Flow rate	Operating pressure	Connection thread	Order number
A	B	C	DN	(m ³ /h)	l/min*1	max. bar	M5	
mm	mm	mm						

Volume flow regulator M5								0-10 V DC, 2-port/2-way valve for compressed air or non corrosive gases, with terminal lug, brass, NBR/Buna-N	PVK
20	40	5	0.2	0.03	0...3	1.7	M5	PVK-092	
						3.5		PVK-093	
						7.0		PVK-097	
20	40	5	0.3	0.07	0...7	1.7	M5	PVK-132	
						3.5		PVK-133	
						7.0		PVK-137	
20	40	5	0.6	0.24	0...24	1.7	M5	PVK-252	
						3.5		PVK-253	
						7.0		PVK-257	
20	40	5	1.0	0.18	0...19	1.7	M5	PVK-402	
						3.5		PVK-403	
20	40	5	1.5	0.14	0...14	1.7	M5	PVK-602	



PVK-257
with M5 connection



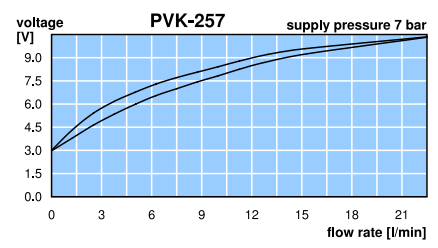
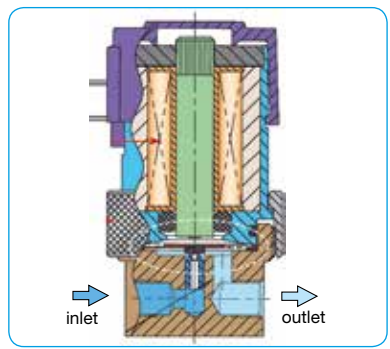
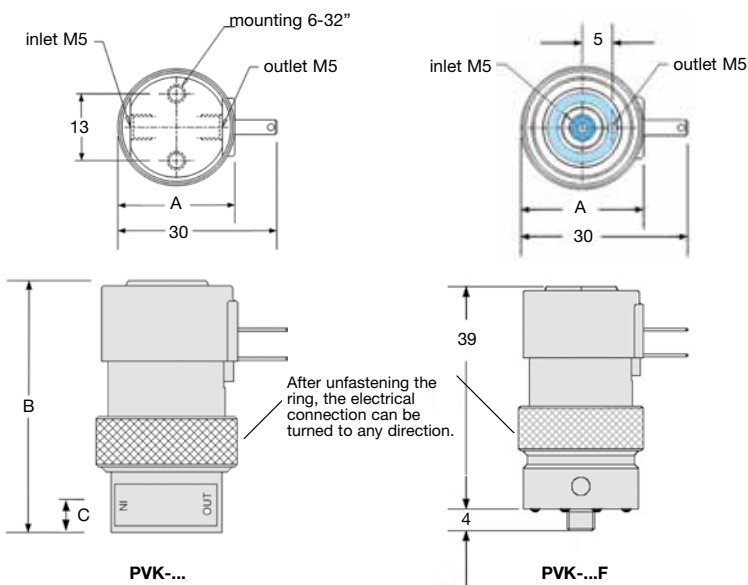
PVK-092AF
with flange connection

Special options, add the appropriate letter

0 - 5 V	input signal max. 6,2 V,	0 - 370 mA,	13 Ω	PVK-. . . A
0 - 20 V	input signal max. 25 V,	0 - 92 mA,	218 Ω	PVK-. . . C
flange connection	for panel mounting			PVK-. . . F
FKM elastomer				PVK-. . . V
EPDM elastomer				PVK-. . . E

Accessories, enclosed

manifold block for valve with flange connection, for 2, 4 ... 12 valves



*1 at max. current consumption and max. operating pressure

More miniature valves: see catalogue MV, also in ATEX version

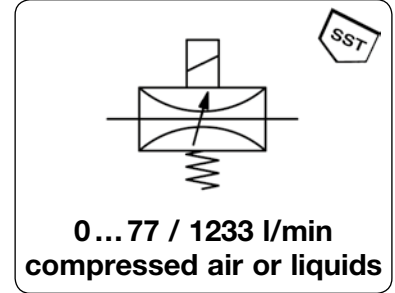
PDF CAD
www.aircom.net

Order example:
PVK-092

PROPORTIONAL FLOW VALVE WITH Y-TYPE VALVE

PVE

Description	Compact positioner with analogue control. Compressed air for remote control necessary. The stroke is made proportional to the flow through the parabolic contour of the piston. The valve shuts tight and is of anti-water hammer design.	
Media	compressed air, vacuum up to 10 ⁻² mbar or liquids up to viscosity of max. 600 cST (mm ² /s)	
Control	pneumatic:	lubricated, unlubricated and 50 µm filtered compressed air, 4...8 bar, port G ³ / ₈
	electrical:	0-10 V, optionally 4-20 mA, supply 24 V DC ± 10%, power consumption 150 mA/3.6 W
Control element	2-port/2-way valve, NC (normally closed) as standard, as option 3-port/2-way valve for mixing different media, with standard piston cable gland, optionally M12	
Electrical connection	any	Protection Class IP 66
Mounting position		Repeatability < 1.0% FS
Linearity / Hysteresis	< 2% FS	
Fail-safe	valve closes (NC) in the event of voltage failure, optionally outlet fail freeze feature	
Temperature range	Ambient: 0 °C to 50 °C / 32 °F to 122 °F	Medium: -10 °C to 180 °C / 14 °F to 356 °F
Material	Control valve body: bronze, optionally SST 316L	Cone seal: PTFE
	Proportional valve body: aluminium, PA and FV	



Prop.-V.
11

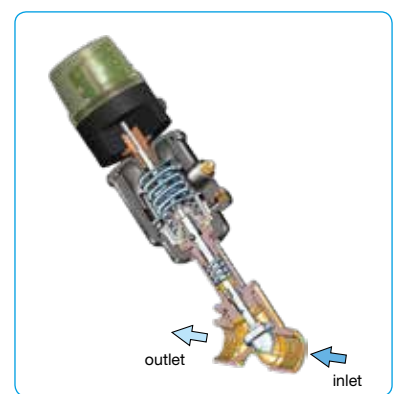
Dimensions			Nominal size	K _v -value	Supply max.	Flow rate		Connection thread	Order number
A	B	Ø*1	DN	(m ³ /h)	bar	water l/min	air l/min	G	

Volumenstromregler										PVE
2/2-Wege, NC, Bronze, Steuerdruck 4...8 bar, für Luft oder Wasser, 0-10 V, 24 V DC, failsafe										
65	155	63	15	4.6	10	0...	14	5 000	G1/2	PVE1-04B
75	185	63	20	7.1	16	0...	118	7 700	G3/4	PVE1-06C
90	209	90	25	15	16	0...	250	16 250	G1	PVE1-08D
110	246	90	32	21	12	0...	350	22 750	G1 1/4	PVE1-10D
110	298	125	32	22	16	0...	367	23 800	G1 1/4	PVE1-10E
120	245	63	40	29	4	0...	483	31 400	G1 1/2	PVE1-12C
120	262	90	40	29	8	0...	483	31 400	G1 1/2	PVE1-12D
120	314	125	40	44	16	0...	733	47 600	G1 1/2	PVE1-12E
150	259	63	50	40	2	0...	667	43 300	G2	PVE1-16C
150	276	90	50	40	6	0...	667	43 300	G2	PVE1-16D
150	328	125	50	66	10	0...	1 100	71 500	G2	PVE1-16E
190	300	90	65	68	2	0...	1 133	73 600	G2 1/2	PVE1-20D
190	352	125	65	74	6	0...	1 233	80 000	G2 1/2	PVE1-20E



Special options, add the appropriate letter

- 3-port/2-way valve** for mixing different media, bronze version only
 - fail freeze** if supply voltage fails, outlet pressure will be frozen
 - SST body** stainless steel 316L, material no. 1.4401
 - 4-20 mA** input signal
 - for oxygen *2** specially cleaned, with oxygen grease, for G¹/₂ to G2
 - cascade control** double loop, 0-10 V double loop, 4-20 mA double loop, frequency input
 - electr. connection M12** with coupling socket
- PVE3-...
PVE...3
PVE...S
PVE...I
PVE...15
PVE...KU
PVE...KI
PVE...KF
PVE...M12

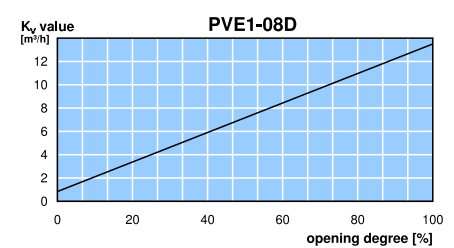
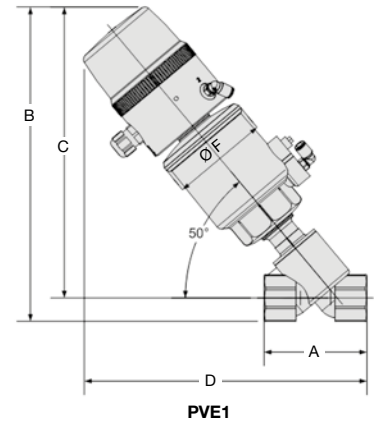


PVE with regulator control	
1	24 V DC supply voltage
2	GND (earth) supply
3	+ setpoint (0-10 V / 4-20 mA)
4	GND (earth) setpoint
5	
6	position feedback
7	+24 V DC ON/OFF output signal

PVE with cascade control	
1	24 V DC supply voltage
2	GND (earth) supply
3	+ setpoint (0-10 V / 4-20 mA)
4	GND (earth) setpoint
5	external signal input
6	
7	+24 V DC ON/OFF output signal

connecting plan

Ø head*1	thread	C	D	ØF
50 mm	1/2	213	212	69
63 mm	3/4	242	245	85
	1 1/2	287	294	85
	2	296	319	85
90 mm	1	261	267	118
	1 1/4	293	306	118
	1 1/2	304	313	118
	2	313	337	118
	2 1/2	329	369	118
125 mm	1 1/4	445	354	156
	1 1/2	356	361	156
	2	365	385	156
	2 1/2	380	417	156



*1 Ø of pilot head
*2 max. 15 bar operating pressure and 60 °C / 140 °F media temperature

PDF CAD
www.aircom.net

Order example:
PVE1-04B



Description The flow control valve functions as a pinch valve in a new design of housing with full flow cross-section. Since the straight valve passage has neither constrictions nor back-points, there is no danger of clogging or blockage. Frictional loss is at a minimum.

Media Compressed air, non-corrosive gases, liquids or other paste-like or powdery media. Solids are enclosed by the flexible sleeve at shut-off.

Sleeve Highly flexible with double-woven reinforcement in eight different grades. Sleeve simple to change.

Pressures Operating pressure: max. 4.0 bar Pilot pressure: max. 6.5
Differential pressure: max. 2.5 bar Closing pressure: $P_1 + 2.5$ bar from DN32, $P_1 + 2$ bar from DN40 on

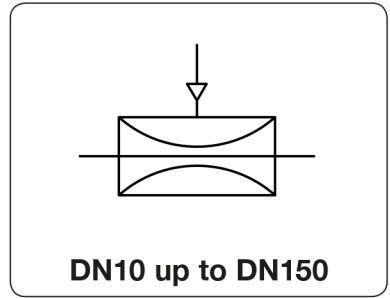
Vacuum If vacuum is greater than -100 mbar, vacuum compensation should be provided on the control side.

Accuracy In the flow range of 0 to 70% the accuracy of the linearity of pilot pressure to flow is approx. 10%.

Mounting position any

Temperature range 0 °C to max. 100 °C / 32 °F to max. 212 °F, subject to sleeve material

Material Body: POM at model QP or aluminium die-cast at model QS Sleeve: depending on selected version



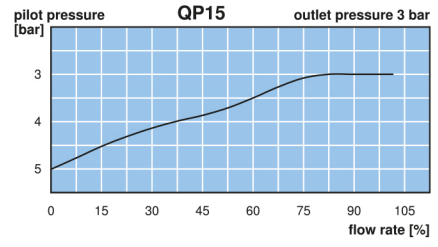
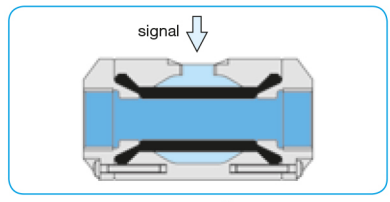
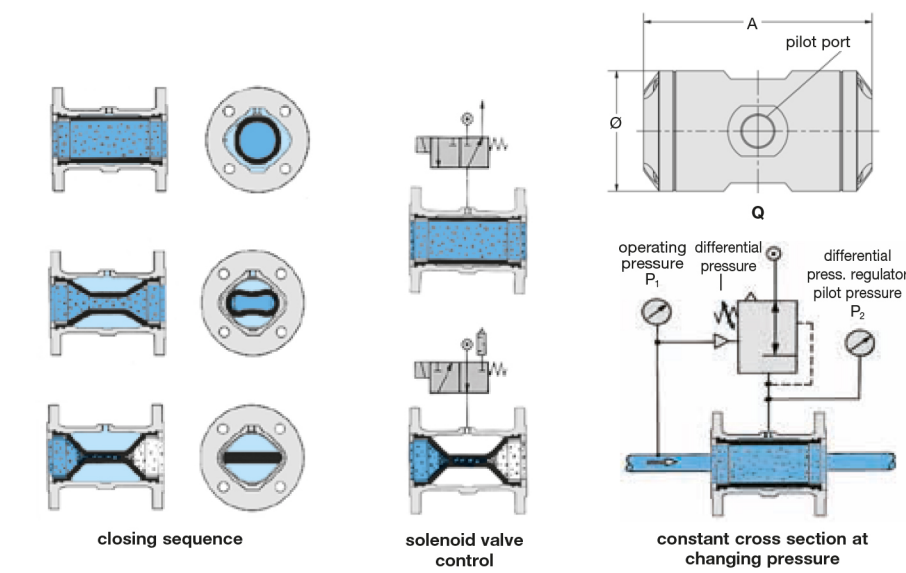
Dimensions	Nominal size	Volume of control chamber	Pilot port	Operating pressure	Connection thread	Order number
A	Ø	I	G	max. bar	G / flange	
mm	mm	DN				

Flow control valve							Q
							operating pressure max. 4 bar, pilot pressure max. 2.5 bar above operating pressure
80	44	10	0.03	G¼	4	G¾	QP10 -03NR
95	50	15	0.04	G¼	4	G½	QP15 -04NR
110	58	20	0.05	G¼	4	G¾	QP20 -06NR
125	65	25	0.07	G¼	4	G1	QP25 -08NR
140	83	32	0.10	G¼	4	G1¼	QP32 -10NR
150	95	40	0.13	G¼	4	G1½	QP40 -12NR
200	100	50	0.23	G¼	4	G2	QS50 -16NR
240	134	65	0.49	G¼	4	G2½	QS65 -20NR
290	154	80	0.95	G¼	4	G3	QS80 -24NR
280	220	100	1.80	G¾	4	flange	QS100-FLNR
350	250	125	3.30	G¾	4	flange	QS125-FLNR
420	285	150	6.40	G¾	4	flange	QS150-FLNR



Special options, add the appropriate letter

- flange connection** according to DIN 2532, PN10 from G1¼ on Q... -FL...
- sleeve NR** natural rubber, black 80 °C / 176 °F Q... -... NR
- sleeve NRL** rubber, suitable for food, black 70 °C / 158 °F Q... -... NL
- sleeve NRLH** rubber, suitable for food, light 70 °C / 158 °F Q... -... NH
- sleeve NBR** nitrile rubber / Buna-N, suitable for food 80 °C / 176 °F Q... -... NB
- sleeve EPDM** ethylene-propylene rubber, suitable for food, black 100 °C / 212 °F Q... -... EP
- sleeve FKM** fluorine rubber, black 100 °C / 212 °F Q... -... FK
- sleeve CR** chloroprene rubber / neoprene, black 80 °C / 176 °F Q... -... CR
- sleeve CSM** natural rubber, chlorosulphonyl polyethylene 80 °C / 176 °F Q... -... CS



Stainless steel pinch valves: see chapter for stainless steel devices

PDF CAD
www.aircom.net

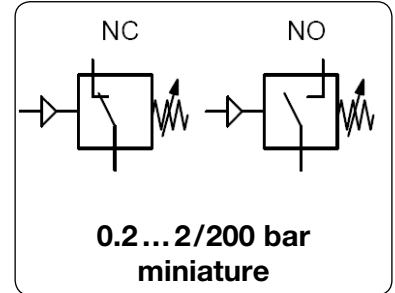
Order example:
QP10-03NR

PRESSURE SWITCHES

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESSURE	miniature, low cost	0.2 ... 2 / 200	G $\frac{1}{8}$ and G $\frac{1}{4}$	DS08 ... DS46	12.02
	many variations	0.1 ... 1 / 200	G $\frac{1}{8}$ m and G $\frac{1}{4}$ m	DS16 ... DS18	12.03
	low pressure, handwheel	0.005 ... 0.02 / 12	G $\frac{1}{8}$ m and G $\frac{1}{4}$ m	DSP	12.05
	low pressure, plastic	0.003 ... 0.03 / 7	$\frac{1}{8}$ "NPT m	F4200	12.06
	small hysteresis	0.014 ... 0.14 / 7	$\frac{1}{8}$ "NPT m	F4300	12.07
	high accuracy	0.004 ... 0.012 / 0.15	nipple	F4000	12.08
	for PCB	0.014 ... 0.14 / 7	nipple	F4400	12.08
VACUUM	many options	-0.2 ... -1	G $\frac{1}{8}$	DS15	12.03
	with handwheel	-0.005... -0.02 / -0.7	G $\frac{1}{8}$ m and G $\frac{1}{4}$ m	DSP-V	12.05
	plastic	-0.001... -0.01 / -1	$\frac{1}{8}$ "NPTm	F4200-X	12.06
	also flangable	-0.007... -0.17 / -1	$\frac{1}{8}$ "NPTm	F4300-X	12.07
	with adjustable hysteresis	-0.007... -0.38 / -0.5	nipple	F4000-X	12.08
	with small hysteresis	-0.007... -0.17 / -1	nipple	F4400-X	12.08
DIFFERENTIAL PRESS.	with handwheel	5 ... 20 / 50 mbar	nipple	DSP-W	12.05
ATEX	dust, EXII 3D IP65 T90	0.3 ... 1.5 / 150	G $\frac{1}{4}$ male	DS34	12.04
	gas, EXII 2G ExdII C T6	1 ... 6 / 400	G $\frac{1}{4}$ female	DS35	12.04
	gas, EXII 2G Ex ia T4	0.005 ... 0.02 / 12	G $\frac{1}{8}$ m and G $\frac{1}{4}$ m	DSP	12.05
PNEUMAT. SIGNAL	pressure	0.07 ... 0.35 / 7	$\frac{1}{8}$ "NPTm	PP700/PP701	12.09
	vacuum	-0.03 ... 0.17 / -0.85	$\frac{1}{8}$ "NPTm	VP700/VP701	12.09
ELECTRICAL SIGNAL	with pressure indicator	-1 ... 1 / 10	G $\frac{1}{8}$ m	DSB/DSC	12.10
STAINLESS STEEL	many options	0.5 ... 5 / 200	G $\frac{1}{4}$ m	DS18	12.03
	low pressure, handwheel	0.005 ... 0.02 / 12	G $\frac{1}{8}$ m and G $\frac{1}{4}$ m	DSP	12.05



Description	The small-sized pressure switch closes or opens an electrical contact when the desired pressure is reached. If it falls below, the contact will be reset.		
Media	DS10: compressed air	DS13: compressed air and water	All others: compressed air, water hydraulic oil
Burst pressure	min. 20 bar,	DS13: max. 15 bar,	DS40C/D: max. 250 bar
Contact	silver-coated, max. 2A Ohm resistive load, max. 100 VA		
Hysteresis	< 10% FS, DS10 and D40: 10 ... 15% FS		
Mounting position	any		
Life span	10 ⁶ operating cycle for max. 200 switches / min		
Protection class	IP 00, with protective cap IP 65		
Tolerance	± 0.2 bar at 0.2 ... 2 bar,	± 0.5 bar at 1 ... 10 bar	Voltage 42 V
Electrical connection	contact pin 2 x 6.3 x 0.8 except for DS10 and DS40: screwed connection M2		
Temperature range	-25 °C to 85 °C / -13 °F to 185 °F DS13: -20 °C bis 75 °C / -4 °F to 167 °F		
Material	Body:	brass for DS08, DS14, DS46	
		steel for DS25, DS40	
		plastic for DS13	
	Elastomer:	NBR/Buna-N, optionally EPDM, FKM and Kalrez	



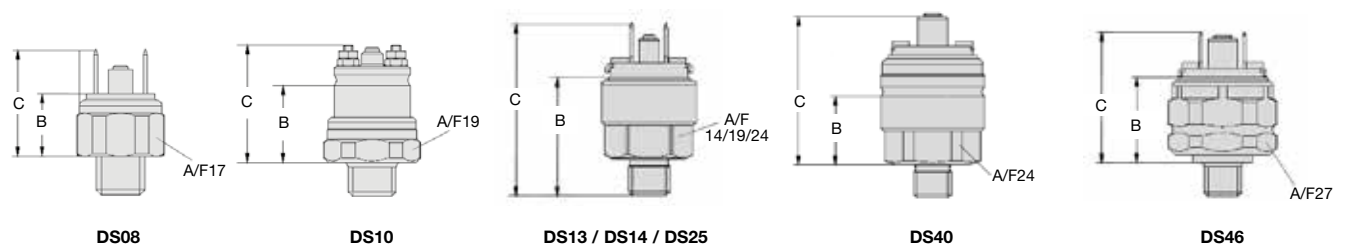
Dimensions			Body	Electr. connection	Connection thread	Pressure transmission	Measurement range	Order number	NO contact	NC contact
A/F	B	C	made of		G	by	bar	contact	NO	NC

Mini-Pressure switch, 42 V								NBR/Buna-N		DS	
17	13	22	brass	flat plug	G¼	diaphragm	0.3 ... 1.0	2 ... 10	DS08-21A	DS08-20A	
									DS08-21B	DS08-20B	
19	16	25	brass	screw connection	G½	diaphragm	1.0 ... 10		DS10-11B		
14	23	37	plastic	flat plug	G½	diaphragm	0.2 ... 1.0	2 ... 8	DS13-11A	DS13-10A	
									DS13-11B	DS13-10B	
19	21	34	brass	flat plug	G½	diaphragm	0.3 ... 1.0	2 ... 10	DS14-11A	DS14-10A	
									DS14-11B	DS14-10B	
24	20	34	steel	flat plug	G½	diaphragm	0.2 ... 1.0	2 ... 10	DS25-11A	DS25-10A	
									DS25-11B	DS25-10B	
24	22	31	steel	screw connection	G½	diaphragm	0.3 ... 1.0	2 ... 10	DS40-11A	DS40-10A	
		37				diaphragm	1.0 ... 10		DS40-11B	DS40-10B	
						piston	10 ... 70		DS40-11C	DS40-10C	
						piston	50 ... 200		DS40-11D	DS40-10D	
27	29	35	brass	flat plug	G¼	diaphragm	0.2 ... 0.5	2 ... 10	DS46-21A	DS46-20A	
									DS46-21B	DS46-20B	



Special options, add the appropriate letter				
G¼ male	connection thread	only for	DS10 to DS40	DS...-2..
FKM elastomer	for diaphragm	not for	DS13	DS...-...V
	for piston	only for	DS40 (C/D)	DS...-...V
EPDM elastomer		only for	DS10 and DS40	DS...-...E
Kalrez elastomer		only for	DS10 and DS40	DS...-...K
gold contact		not for	DS08	DS...-...G

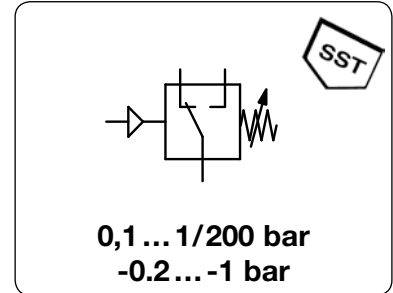
Accessories, enclosed			
protection cap	for DS10	K210	for DS08, DS13 and DS14
	for DS25	K250	for DS40 and DS46
			K214
			K400



PRESSURE SWITCH, UP TO 600 MBAR

DS15...DS18

Description	The pressure switch closes or opens an electrical contact when the desired pressure is reached. If it falls below, the contact will be reset.		
Media	compressed air, non-corrosive gases or liquids		
Overpressure	see chart for max. static pressure, dynamic pressures are 50% lower		
Switch contact	DS15/16: NO contact, optionally NC contact	DS17/18: SPDT switch	
Contact load	DS15/16: 2 A at 42 V DC, DS17: 4 A at 42 V DC, DS18: 4 A at 250 V AC		
Electrical connector	DS15/16: screw terminal, DS17/18: spade terminal 6.3 x 0.8 mm, optionally also for DS15/16		
Hysteresis	DS15/16: 5...20%, DS17/18: adjustable to 10...30% by factory		
Life cycle	10 ⁶ switching cycles at < 50 bar	Switching frequency	max. 200 cycles/min
Vibration resistance	10 g at 5...200 Hz	Shock resistance	30 g
Certifications	CSA-certified and UL-listed	Mounting position	any
Protection class	IP 00, with coupling socket IP 65		
Temperature range	-30 °C to 100 °C / -22 °F to 212 °F for NBR/Buna-N, -30 °C to 120 °C / -22 °F to 248 °F for EPDM, -5 °C to 120 °C / 23 °F to 248 °F for FKM		
Material	Body: steel, brass at DS15, optionally stainless steel at DS18 Elastomer: NBR/Buna-N, optionally EPDM or FKM		



Switches



12

Pressure transmission by	Overpressure protection < bar	Measuring tolerance ± bar	Measurement range bar	Order number
--------------------------	-------------------------------	---------------------------	-----------------------	--------------

Pressure switch G ¹ / ₄ m, NO 42V	steel, NBR/Buna-N, without protective cap	DS16		
diaphragm	300	0.2	0.1 ... 1.0	DS16-A
		0.5	1.0 ... 10	DS16-B
		1.0	10 ... 20	DS16-C
		2.0	20 ... 50	DS16-D
piston	600	5.0	50 ... 150	DS16-E



DS16

Pressure switch G ¹ / ₄ m, SPDT 42V	steel, NBR/Buna-N, with coupling socket	DS17		
diaphragm	100	0.2	0.3 ... 1.5	DS17-A
	100	0.5	1.0 ... 10	DS17-B
	300	1.0	1.0 ... 10	DS17-C
	300	3.0	10 ... 50	DS17-D
	300	5.0	10 ... 100	DS17-E
piston	600	5.0	50 ... 200	DS17-H



DS17

Pressure switch G ¹ / ₄ m, SPDT 250V	steel, NBR/Buna-N, with coupling socket	DS18		
diaphragm	100	0.2	0.3 ... 1.5	DS18-A
	300	1.0	1.0 ... 10	DS18-C
	300	3.0	10 ... 50	DS18-D
	300	5.0	10 ... 100	DS18-E
piston	600	5.0	50 ... 200	DS18-H



DS18

DS15T

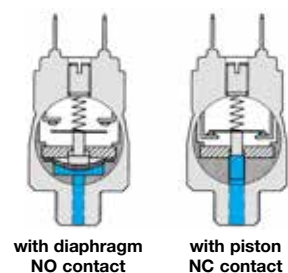
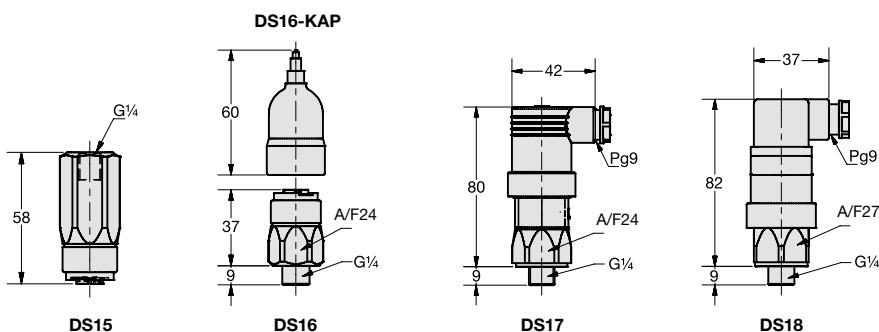
Vacuum switch G ¹ / ₈ f, NO 42V	brass, FKM, without protective cap	DS15		
diaphragm	20	0.1	-0.2 ... -1	DS15-03

Special options, add the appropriate letter

EPDM elastomer		not for DS15	DS1-. .E
FKM elastomer		not for DS15	DS1-. .V
free of oil and grease	suitable for oxygen, max. 10 bar		DS1-. .L
NC contact	instead of normally open contact	for DS15 and DS16	DS1-. .1
spade terminal	6.3 x 0.8 mm, galvanised	for DS15 and DS16	DS1-. .T
600 bar overpressure	maximum	for DS16	DS16-. .U
gold contact	max. 24 V AC/DC, 50 mA	for DS17	DS17-. .G
250 V	max. voltage	for DS17	DS17-. .W
stainless steel body	0.5...5/200 bar	for DS18	DS18-. .S
factory-set pressure	pressure indication falling pressure VF . . rising pressure		DS1-. .VS . .

Accessories, enclosed

protection cap	straight, IP65	for DS15 and DS16	DS16-KAP
-----------------------	----------------	-------------------	----------

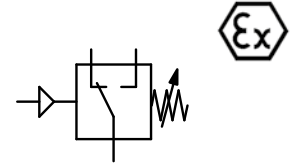


PDF CAD
www.aircom.net



Order example:
DS16-A

Description	The pressure switch closes or opens an electrical contact when the desired pressure is reached. When the pressure falls below the adjusted setpoint, the contact will be reset.	
Media	compressed air or non-corrosive gases	
Overpressure	see chart for max. static pressure,	
Contact load	DS34: 1 A at 230 V AC,	Switch contact SPDT switch
ATEX version	DS34: II 3D IP 65 T90°C	DS35: 2 A at 230 V AC
Electrical connector	3-wire connection cable, length 2 m, cross-sectional area 0.75 mm ² at DS34 or 0.5 mm ² at DS35	
Hysteresis	< 25% FS, ca. 10% FS in the lower range	
Life cycle	10 ⁸ switching cycles at < 50 bar	Switching frequency 200 cycles/min
Vibration resistance	10 g at 5...200 Hz	Shock resistance 30 g
Mounting position	any	Protection class IP 65
Temperature range	-20 °C to 80 °C / 23 °F to 176 °F for NBR/Buna-N and EPDM -5 °C to 80 °C / 23 °F to 176 °F for FKM	
Material	Body: zinc-plated steel at DS34, aluminium at DS35	optionally EPDM or FKM
	Elastomer: NBR/Buna-N,	



**0.3... 1.5/400 bar
dust- and gas-proof**

Pressure transmission by	Overpressure protection < bar	Measurement tolerance ± bar	Measurement range bar	Order number
--------------------------	-------------------------------	-----------------------------	-----------------------	--------------

Pressure switch G ¹ / ₄ male	SPDT switch 230 V AC, 1A	dust-proof	II 3D IP 65 T90°C	DS34
diaphragm	300	0.2	0.3 ... 1.5	DS34-A
		0.5 - 1.0	1.0 ... 10	DS34-B
		1.0	10 ... 20	DS34-C
		2.0	20 ... 50	DS34-D
piston	600	5.0	50 ... 150	DS34-E



DS34, dust protection

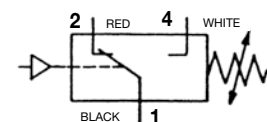
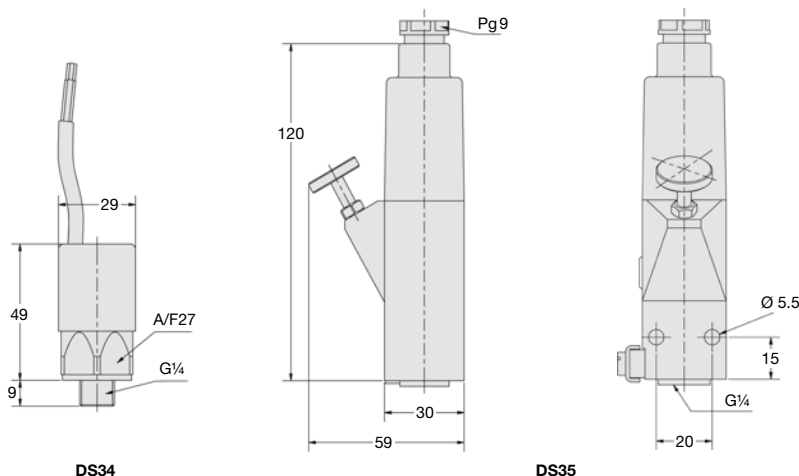
Pressure switch G ¹ / ₄ female	SPDT switch 230 V AC, 1A	gas-proof	II 2G Ex d II C T6/T5	DS35
diaphragm	200	0.5	1 ... 6	DS35-B
		3.0	5 ... 50	DS35-D
piston	600	3 - 5	20 ... 100	DS35-E
		5 - 9	100 ... 400	DS35-K



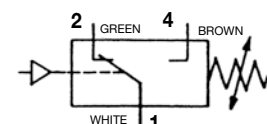
DS35, gas protection

Special options, add the appropriate letter

EPDM elastomer	-20 °C to 80 °C / -4 °F to 176 °F	DS3. - . E
FKM elastomer	- 5 °C to 80 °C / 23 °F to 176 °F	DS3. - . V
free of oil and grease	suitable for oxygen, max. 10 bar, diaphragm version only	DS3. - . L
adjusted switchpoint	± 5%, indicate on order	DS3. - . X



pin configuration DS34



pin configuration DS35



Description	Adjustable pressure switch for monitoring pressure, vacuum and differential pressure. From the 6 bar device on two turns of the adjusting knob are necessary for the whole adjustment range, so the scale on the knob is inappropriate.		
Media	compressed air, non-corrosive gases or liquids	Overpressure	see chart
Switch contact	SPDT switch with silver contact, optionally gold contact	Vibration resistance	20 g
Contact load	2 A at 24 V DC, 6 A at 250 V AC	Switching time	30 ms
Electrical connector	AMP spade terminal, 6.3 x 8 mm, according to DIN 46244	Hysteresis	see chart
Life cycle	10 ⁶ switching cycles	Protection class	IP 65 w/ coupling socket
Certifications	VDE, TÜV design test, optionally Atex	Measurement range	-20 °C to 85 °C / -4 °F to 185 °F for NBR/Buna-N, EPDM and polyamide, up to 130 °C / 266 °F for FKM
Mounting position	any, but indication needed for switch point < 100 mbar	Order number	
Temperature range	-20 °C to 85 °C / -4 °F to 185 °F for NBR/Buna-N, EPDM and polyamide, up to 130 °C / 266 °F for FKM		
Material	Body: Zytel, a high-quality polyamide Elastomer: NBR/Buna-N, optionally EPDM, FKM or special FKM (saturated steam-resistant) Pressure connection: brass, at DSP-W polyamide, optionally stainless steel or PVDF		

5 ... 20 mbar / 12 bar
-5 ... -20 / -700 mbar

Switches



12

Dimensions		Overpressure protection	hysteresis max.	Measurement range	Order number
B	Ø	< bar	mbar / bar	mbar / bar	
mm	mm				

Pressure switch G ¹ / ₄ male, for low pressure			wetted sections: brass and NBR/Buna-N, scale toleranz 10%		DSP-D
68	45	0.5	3 mbar	5 ... 20 mbar	DSP-DB2
		0.5	5 mbar	10 ... 50 mbar	DSP-DB5
		0.5	10 mbar	25 ... 100 mbar	DSP-DC1
		1.0	20 mbar	50 ... 250 mbar	DSP-DC2
		1.0	50 mbar	100 ... 500 mbar	DSP-DC5
		10	150 mbar	0.25 ... 1.0 bar	DSP-D01
		10	250 mbar	0.5 ... 1.5 bar	DSP-D02
		10	500 mbar	1 ... 3.0 bar	DSP-D03
		25	0.5 / 2 bar*	1 ... 6.0 bar	DSP-D06
		25	0.5 / 2 bar*	4 ... 9.0 bar	DSP-D09
		25	0.5 / 2 bar*	7 ... 12 bar	DSP-D12



DSP-D09

Pressure switch G ¹ / ₄ male			wetted sections: brass and NBR/Buna-N, scale toleranz 10%		DSP-V
68	45	0.5	3 mbar	-5 ... - 20 mbar	DSP-V02
		0.5	5 mbar	-10 ... - 50 mbar	DSP-V05
		0.5	10 mbar	-25 ... -100 mbar	DSP-V10
		0.5	20 mbar	-50 ... -125 mbar	DSP-V12
		1.0	25 mbar	-75 ... -200 mbar	DSP-V20
		1.0	30 mbar	-100 ... -300 mbar	DSP-V30
		1.0	75 mbar	-200 ... -500 mbar	DSP-V50
		1.0	75 mbar	-300 ... -700 mbar	DSP-V70



DSP-V

Differential press. switch, nipple Ø 6.5			wetted sections: polyamide and NBR/Buna-N, scale toleranz 10%		DSP-W
77	45	0.1	3 mbar	5 ... 20 mbar	DSP-W20
		0.1	5 mbar	10 ... 50 mbar	DSP-W50

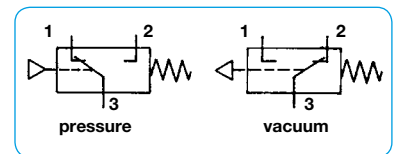


DS-KAP5

DS-KAP4

Special options, add the appropriate letter

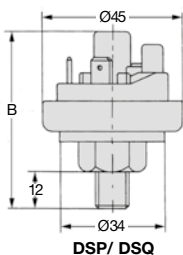
factory-set pressure		DSQ- ...
G¹/₈ male	pressure port thread, (not for DSP-W)	DSP- ... 1
stainless steel port	pressure port thread, 1.4401, (not for DSP-W)	DSP- ... S
FKM elastomer	max. 130 °C / 266 °F	DSP- ... V
EPDM elastomer		DSP- ... E
increased overpressure	max. 4 bar for pressure measurement range < 1 bar	DSP- ... U
gold contact	max. 24 V AC, 100 mA	DSP- ... G
Ex-i-Atex	II 1/2G Ex ia IIB T4 and II 1/2G Ex ia IIC T4	DSP- ... EX
Ex-ii-Atex	II 1/2G Ex ia IIB T4 and II 1/2G Ex ia IIC T4	DSP- ... SE



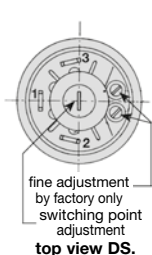
pin configuration

Accessories, enclosed

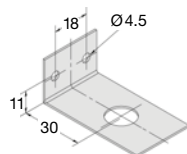
mounting bracket	made of steel, including nut	for G ¹ / ₄	BW14-01
protection cap	angular, cable feedthrough Ø 5 mm	IP44	DS-KAP4
	angular, high-strength cable gland Pg 9	IP54	DS-KAP5
		IP65	DS-KAP6



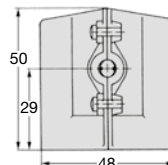
DSP/ DSQ



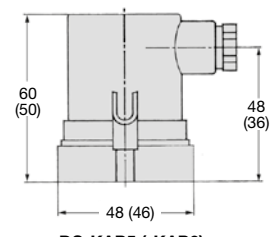
top view DS.



BW14-01



DS-KAP4

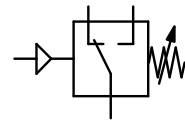


DS-KAP5 (-KAP6)

* 0.5 bar at the beginning, 2 bar at the end of the pressure range



Description	High-precision pressure and vacuum switch with electrical outlet signal. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.		
Media	compressed air, non-corrosive gases or liquids		
Switch contact	micro SPDT switch, covered by plastic cap		
Contact load	3 A at 230 V AC or 1.2 A at 125 V DC 10 A at 230 V AC or 0.5 A at 125 V DC		
Electrical connector	0.187" (4.75 mm) quick connector for Molex connector		
Repeatability	± 2% FS		
Certifications	CSA-certified and UL-listed		
Switching time	25 ms		
Mounting position	any		
Temperature range	4 °C to 66 °C / 40 °F to 150 °F		
Material	Body: polysulphone	Spring: stainless steel	Media non-contact parts: nylon, carbon fibre nylon, acetal
	Diaphragm: polyurethane		



3 ... 30 mbar / 7 bar
-1 ... -10 mbar / -1 bar

Description	Contact load	Hysteresis typical	Hysteresis max.	Over-pressure max. bar	Measurement range bar	Order number
	max. A	mbar	mbar			

Pressure and Vacuum Switch	pressure port 1/8" NPT male, with covering cap, SPDT switch	F4200
pressure switch	3	3 10 1 0.003 ... 0.03 F4200- 0,5PT
	10	7 20 2 0.014 ... 0.14 F4200- 2PT
	10	30 50 2 0.035 ... 0.35 F4200- 5PT
	10	70 110 3 0.035 ... 1.0 F4200- 15PT
	10	120 160 4 0.035 ... 2.1 F4200- 30PT
	10	240 350 8 0.035 ... 4.2 F4200- 60PT
vacuum switch	3	1 3 -0.3 -0.001 ... -0.01 F4200-X 4PT
	10	17 27 -1 -0.007 ... -0.17 F4200-X 5PT
	10	34 50 -1 -0.015 ... -0.34 F4200-X10PT
	10	68 100 -1 -0.050 ... -1.00 F4200-X30PT



F4200-100PT



F4200-60FM



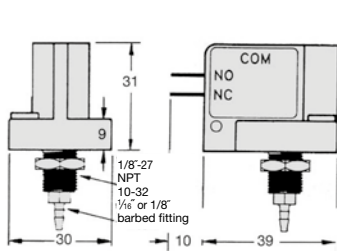
F4200-100PM



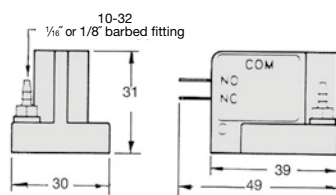
F4200-100MM

Special options, add or change the appropriate letter

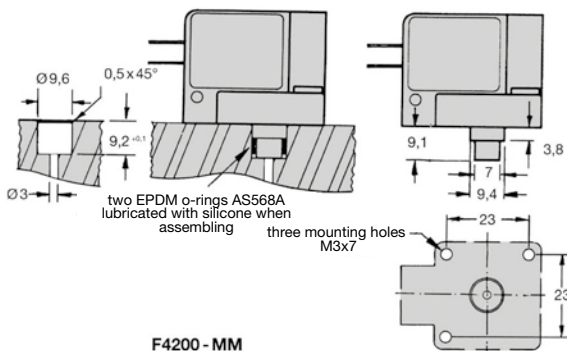
flush mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4200-...FMB80
panel mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4200-...PMB80
manifold mounting		F4200-...MM
barbed fittings	for FM and PM, made of nylon, Ø 1/16", Ø 2 mm	F4200-...B80
	nylon, Ø 1/8", Ø 4 mm	F4200-...B85
	polysulphone, Ø 1/16", Ø 2 mm	F4200-...P80
	polysulphone, Ø 1/8", Ø 4 mm	F4200-...P85
gold contact		F4200-...1B
factory-set switchpoint	± 5%, indicate on order	F4200-...X
free of oil and grease	specially cleaned, suitable for oxygen	F4200-...L



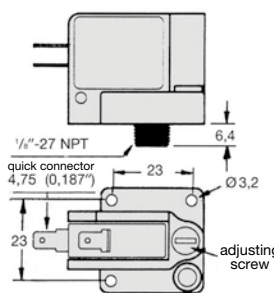
F4200 - PM



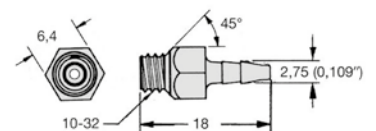
F4200 - FM



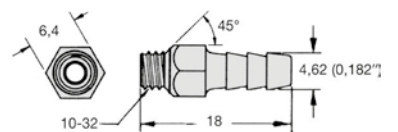
F4200 - MM



F4200 - PT



B80 / P80

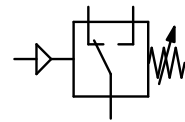


B85 / P85



PRESSURE SWITCH WITH ADJUSTABLE HYSTERESIS FOR PCB, TYPE "AIRTROL®" F4000 / F4400

Description	High-precision pressure and vacuum switch with electrical outlet signal. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.		
Media	compressed air, non-corrosive gases or liquids		
Switch contact	micro SPDT switch, covered by plastic cap		
Contact load	15 A at 230 V AC, 1.2 A at 125 V DC	see chart, consultation needed for AT1004	
Electrical connector	3 A or 4 A at 230 V AC, 0.187" (4.75 mm) quick connector for Molex connector	see chart for F4000 and AT1004	
Repeatability	± 2% FS	for F4400	
Certifications	CSA-certified and UL-listed		
Switching time	25 ms		
Mounting position	any		
Temperature range	4 °C to 66 °C / 40 °F to 150 °F		
Material	Body: polysulphone	Spring: stainless steel	Media non-contact parts: nylon, carbon fibre nylon, acetal
	Diaphragm: polyurethane		



4 ... 12 mbar / 7 bar
-7 ... -170 mbar / -1 bar

Description	Contact rating	Hysteresis typical	Over-pressure max.	Measurement range off	Measurement range on	Order number
	max. A	mbar	mbar	max. bar	mbar/bar	mbar/bar

Pressure and vacuum switch	with adjustable hysteresis nylon fitting, Ø 1/16", Ø 2 mm				F4000	
pressure switch	15	-	-	1	4... 12 mbar 6... 40 mbar	F4000- 20B80
	15	-	-	1	4... 37 mbar 8... 150 mbar	F4000- 30B80
vacuum switch	15	-	-	-1	-70...-380 mbar -135...-500 mbar	F4000- X B80

Pressure switch for PCB	with small hysteresis nylon fitting, Ø 1/16", Ø 2 mm				F4400	
pressure switch	3	7	14	2	0.014 ... 0.14 bar	F4400- 2B80
	4	14	24	2	0.035 ... 0.35 bar	F4400- 5B80
	4	30	41	3	0.035 ... 1.0 bar	F4400- 15B80
	4	40	70	4	0.035 ... 2.1 bar	F4400- 30B80
	4	100	170	8	0.035 ... 4.2 bar	F4400- 60B80
	4	140	240	8	0.070 ... 7.0 bar	F4400-100B80
vacuum switch	4	10	20	-1	-0.007 ... -0.17 bar	F4400-X 5B80
	4	20	34	-1	-0.015 ... -0.34 bar	F4400-X10B80
	4	30	50	-1	-0.050 ... -1.00 bar	F4400-X30B80

Pressure switch, factory-set	nylon fitting, ± 10% tolerance Ø 1/16", Ø 2 mm, SPDT switch		AT1004
pressure switch	switching point to be indicated on order		4...43 mbar
			AT1004-..B80

Special options,	add the appropriate letter		
barbed fitting	made of	nylon, Ø 1/8", Ø 4 mm	F4.00-... B85
		polysulphone, Ø 1/16", Ø 2 mm	F4.00-... P80
		polysulphone, Ø 1/8", Ø 4 mm	F4.00-... P85
factory-set switch point free of oil and grease	± 5%, switching point to be indicated on order		F4.00-... X
	specialy cleaned, suitable for oxygen		F4.00-... L



F4000-30B80



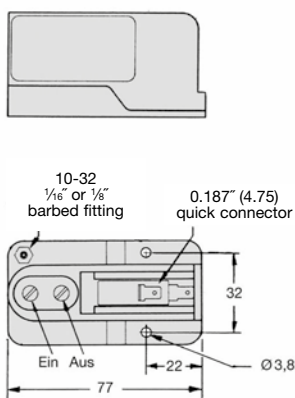
F4400-100B80



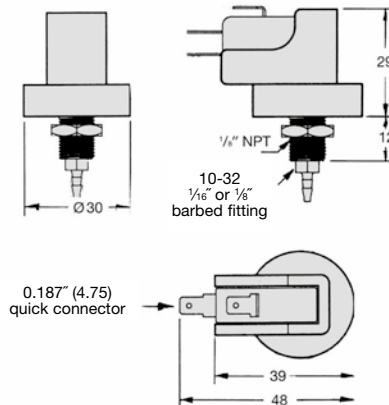
AT1004-17



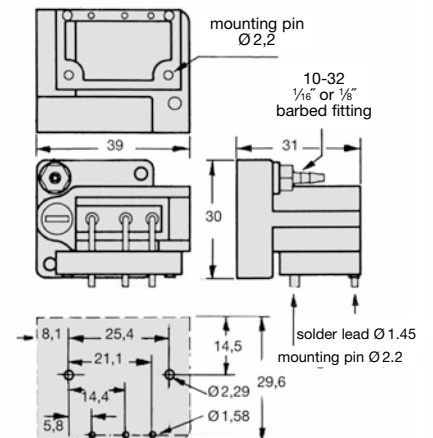
cover cap for pressure switch supplied



F4000



AT1004



F4400

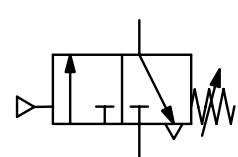
*1 not adjustable

PDF CAD
www.aircom.net



Order example:
F4000-20B80

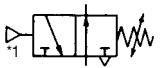
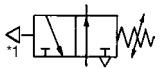
Description	Pilot-actuated pressure valve with precisely adjustable pilot setpoint. Perfect for applications which require intrinsic safety, pneumatic sequencing or pressure relief. Valves are normally opened or closed. The switch complies with FDA regulations and is suitable for water and food products.		
Media	5 µm filtered compressed air		
Pressure valve	3-port/2-way air-assisted servo valve with exhaust to atmosphere, NO or NC, made of nylon		
	Supply pressure:	1.4...8 bar, untapped exhaust	
	Air consumption:	max. 0.3 l/min at 2 bar supply pressure or max. 0.7 l/min at 7 bar	
	Pneumatic connection:	quick connector for hose external diameter of 4 mm (5/32")	
	Flow rate:	70 l/min at 7 bar, nominal size DN 0.2, $K_v = 0.05$	
	Switching time:	64 ms at 6 bar supply pressure	
Accuracy	Pressure switch:	at supply pressure variation of 0.7 bar: < 7 mbar pressure deviation	
	Vacuum switch:	at supply pressure variation of 0.3 bar: < 3 mbar pressure deviation	
	Repeatability:	± 2% FS	
Temperature range	4 °C to 60 °C / 40 °F to 140 °F		
Material	Body:	polysulphone	
	Diaphragm:	polyurethane	
	Mounting position	any	
	Spring:	stainless steel	
	Media non-contact parts:	nylon, carbon fibre nylon, acetal	



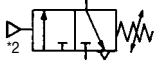
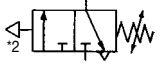
70 ... 350 mbar / 7 bar
-30 ... -170 / -850 mbar

Switches
12

Description	Supply pressure of switching valve	Hysteresis typical mbar	Hysteresis max. mbar	Over-pressure max. bar	Measurement range bar	Order number
-------------	------------------------------------	-------------------------	----------------------	------------------------	-----------------------	--------------

Switch with pneumatic output, NO	1/8" NPT male, supply pressure 1.4...8 bar		PP / VP700			
 <p>pressure switch</p>	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP700- 5PT
			20	4	0.07 ... 1.0	PP700- 15PT
	NO	20	70	4	0.07 ... 2.1	PP700- 30PT
		35	140	8	0.20 ... 4.2	PP700- 60PT
		50	240	8	0.35 ... 7.0	PP700-100PT
 <p>vacuum switch</p>	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP700- 5PT
			20	-1	-0.03 ... -0.34	VP700- 10PT
	NO	35	70	-1	-0.07 ... -0.85	VP700- 30PT

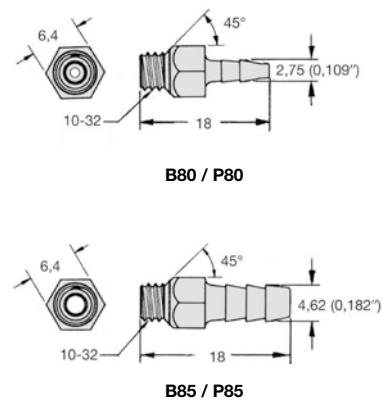
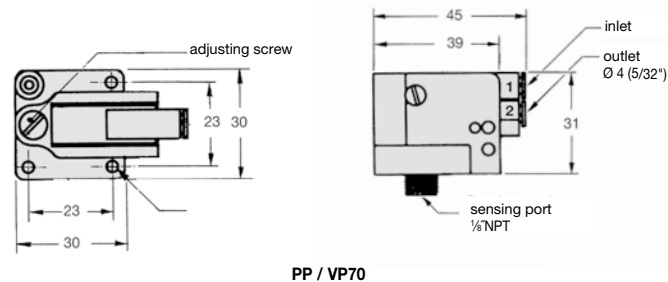


Switch with pneumatic output, NC	1/8" NPT male, supply pressure 1.4...8 bar		PP / VP701			
 <p>pressure switch</p>	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP701- 5PT
			20	4	0.07 ... 1.0	PP701- 15PT
	NC	20	70	4	0.07 ... 2.1	PP701- 30PT
		35	140	8	0.20 ... 4.2	PP701- 60PT
		50	240	8	0.35 ... 7.0	PP701-100PT
 <p>vacuum switch</p>	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP701- 5PT
			20	-1	-0.03 ... -0.34	VP701- 10PT
	NC	35	70	-1	-0.07 ... -0.85	VP701- 30PT



Special options, add or change the appropriate letter

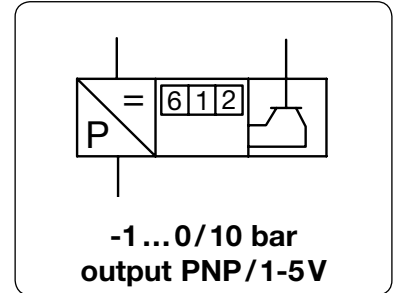
flush mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... FMB80
panel mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... PMB80
manifold mounting			.P70.-... MM
barbed fitting	for FM and PM,	nylon, Ø 1/16", Ø 2 mm	.P70.-... B80
		nylon, Ø 1/8", Ø 4 mm	.P70.-... B85
		polysulphone, Ø 1/16", Ø 2 mm	.P70.-... P80
		polysulphone, Ø 1/8", Ø 4 mm	.P70.-... P85
free of grease and oil	specially cleaned, suitable for oxygen		.P70.-... L



*1 only output signal in the absence of input signal (positive pressure, vacuum)
*2 no output signal in the absence of input signal (positive pressure, vacuum)

PROGRAMMABLE VACUUM AND PRESSURE SWITCH TRANSDUCER WITH DISPLAY DSB / DSC

Description	Pressure to the unit is continuously monitored by a piezo-resistive sensor and converted into a proportional voltage signal. The signal is then amplified and delivered as a PNP signal. dry, lubricated or unlubricated compressed air or non-corrosive gases	
Media	12 ... 30 V DC, reverse voltage protection, current consumption max. 30 mA, output current max. 250 mA	
Supply voltage	Mode: hysteresis or window, switching point and hysteresis, NO or NC, closing or opening time, bar, psi, MPa, kg/cm ² etc. Display: current pressure, highest pressure, measurement errors	
Adjustment	DSB	2x PNP freely programmable as NO or NC, max. contact load 250 mA, short-circuit-proof
Switching output	DSB	1x PNP as at DSB and 1x analogue output signal 1...5 V, output impedance < 500 Ω
Switching output	DSC	adjustable from 0% to 100% of set switching point
Hysteresis		Linearity < 1% FS
Repeatability		Switching frequency 200 Hz
LED display		Mounting position any
Error display		Shock resistance 10 g
Certifications		Protection class IP 65
Temperature range		Connection thread: nickel-plated brass
Material	Body: ABS-PC plastic, shockproof	



Switches



12

Dimensions	Digital display	Over-pressure	Output signal type	Measurement range	Order number
B	Ø	max. bar	PNP/analogue	bar	
mm	mm		max. mA		

Sensor pressure switch					connection thread G½ male, without coupling socket, M8x1, 4-pin	DS
57	16	with	2	2x PNP	250	0 ... -1 DSB-V1
						-1 ... +1 DSB-V2
						0 ... 10 DSB-10
						-1 ... 10 DSB-V10
			15			0 ... 12 DSB-12
44	16	without	2	1x PNP/1x analog	250	0 ... -1 DSC-V1
						-1 ... +1 DSC-V2
						-1 ... 10 DSC-V10



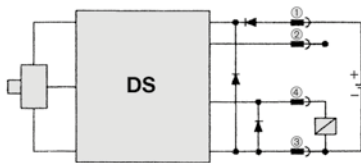
DSB with digital display



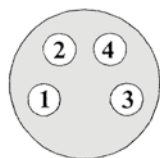
DSC

Accessories, enclosed

coupling socket	M8x1, 4-pin with 5 m cable	straight	KM8-A4-5
		angular	KM8-C4-5

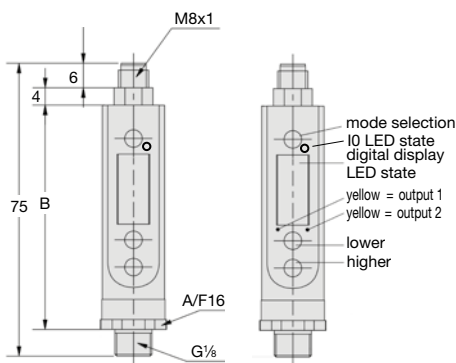
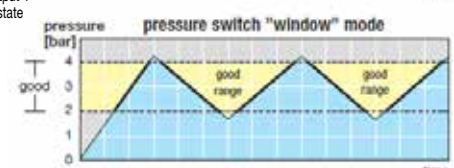
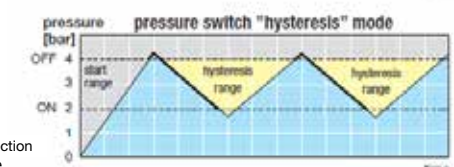
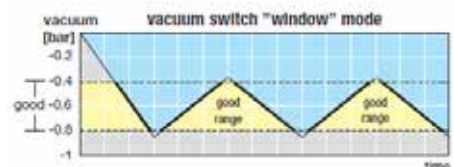
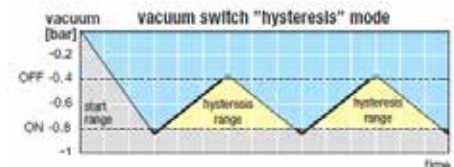


connection diagram

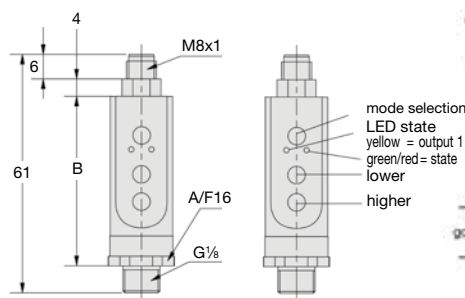


PIN configuration according to DIN EN 50044

PIN configuration DIN EN 50044		
pin	colour	configuration
1	brown	24 V DC (+)
2	white	outlet 2 / analog
3	blue	24 V DC (-)
4	black	outlet 1 / digital



DSB



DSC

PDF CAD
www.aircom.net



Order example:
DSB-V1

PRESSURE TRANSDUCER

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
for differential pressure	0 ... 1 mbar / 10 bar	G $\frac{1}{8}$	D5	13.02
for non-corrosive media	0 ... 10 mbar / 5 bar	G $\frac{1}{8}$ m - G $\frac{3}{8}$ m	D7	13.03
for compressed air or liquids	0 ... -1 / 100 bar	G $\frac{1}{8}$ m - G $\frac{3}{8}$ m	D8	13.04
for corrosive media	0 ... 0.35 / 35 bar	G $\frac{1}{8}$ m - G $\frac{3}{8}$ m	D9	13.05
for high temperature, accurate to 0.1%	0 ... 50 mbar / 1000 bar	G $\frac{1}{4}$ m and G $\frac{1}{2}$ m	DA	13.06



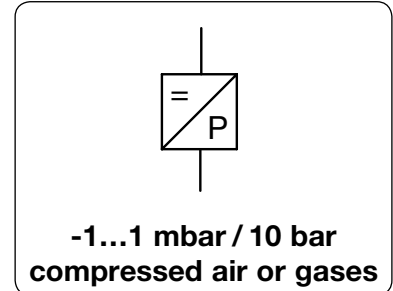
13

Transducer



13

Description	The differential pressure between port H and L is converted into a proportional, electrical signal by a silicon pressure transducer, amplified and then monitored as an analogue voltage or current signal.		
Media	compressed air or non-corrosive gases		
Supply voltage	12...32 V DC, residual ripple 5%	with voltage protection	
Electrical connector	plug M12x1, 4-pin, optionally 4-wire connection cable		
Output signal	4...20 mA: max. power consumption 260 mW	1...6 V: max. power consumption 60 mW	
Linearity/Hysteresis	< 0.1 % FS typ.	< 0.25% FS	
Repeatability	< 0.1 % FS typ.	< 0.5 % FS	
Long-term stability	< 0.2 % FS typ.	< 0.5 % FS	
Temperature sensitivity	< 0.02% FS typ. per °C at 0 to 50 °C / 32 to 122 °F	< 0.16% FS typ. per °C at 0 to 50 °C	
Response time	1 ms for 10...90% of pressure range	Shock resistance 50 g	
Vibration resistance	10 g at 5...500 Hz	Protection class IP 67 with plug mounted	
Mounting position	upright	Temperature range -25 °C to 85 °C / -13 °F to 185 °F	
Material	Body: aluminium		

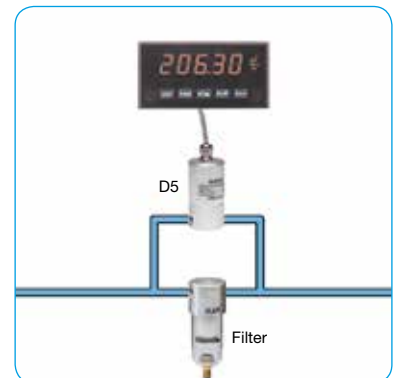


Dimensions		Differential pressure	Overpressure	Measurement range	Order number
B	Ø	max. bar	both ports max. bar	mbar/bar	

Differential pressure transducer 4-20 mA					
86	40	0.25	0.5	0... 1 mbar -1... 1 mbar 0... 2 mbar -2... 2 mbar	D5 G½, 2-wire, with angular coupling socket D5A-A1*1 D5A-A1V D5A-A2*1 D5A-A2V D5A-A5*1 D5A-A5V D5A-B1*1 D5A-B1V
86	40	0.35	0.75	0... 5 mbar -5... 5 mbar 0... 10 mbar -10... 10 mbar	D5A-B2 D5A-B2V*1 D5A-B7 D5A-B7V D5A-C3 D5A-C3V*1 D5A-O1 D5A-V1 D5A-O2*1 D5A-O5*1 D5A-10*1
86	40	0.35	3.5	0... 25 mbar -25... 25 mbar	
86	40	1.4	12	0... 70 mbar -70... 70 mbar 0...350 mbar -350...350 mbar	
86	40	2	12	0... 1 bar -1... 1 bar	
86	40	4	12	0... 2 bar 0... 5 bar 0... 10 bar	



D5 D5-L1



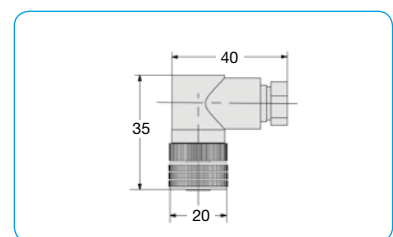
example: filter control

Special options, add the appropriate letter or number

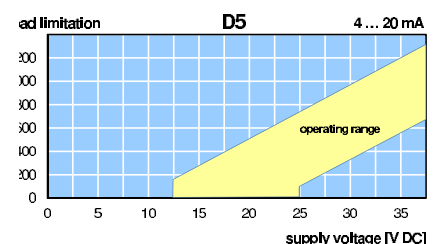
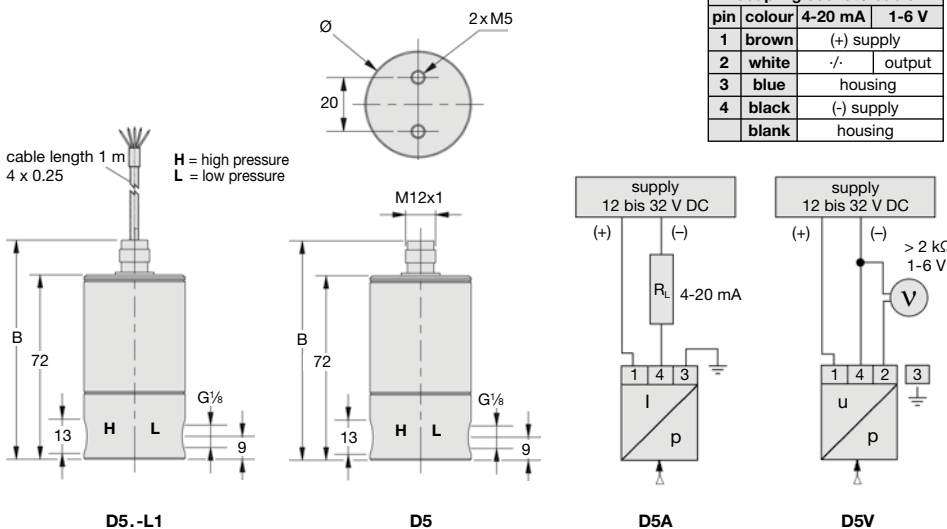
- 1-6 V** output signal, from measurement range 2 mbar > 10 mbar*1 **D5V- . .**
- 1 m connection cable** fixed at the device **D5 . . . L*1**

Accessories, enclosed

coupling socket 4-pin	M12x1, straight	KM12-A4-0	angular	KM12-C4-0
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5



KM12-C4-0



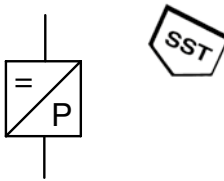
*1 Minimum order quantity 5 pieces

Test chart: see chapter "Technical information"

PDF CAD
www.aircom.net

Order example:
D5A-A1

Description	The operating pressure is converted into a proportional, electrical signal by a ceramics pressure transducer. After amplification the signal is monitored as an analogue voltage or current signal.	
Media	all non-corrosive media compatible with stainless steel, nylon, silicon, silicone and epoxy	
Supply voltage	12...32 V DC, residual ripple 5%, with reverse voltage protection, max. current consumption 4 mA	
Electrical connector	plug M12x1, 4-pin, with coupling socket	Protection class IP67 according to DIN EN60529
Output signal	4...20 mA: max. power consumption 260 mW	0...10 V: max. power consumption 50 mW
Linearity/Hysteresis	< 0.2 % FS typ. < 0.5 % FS	
Repeatability	< 0.2 % FS typ. < 0.3 % FS	
Long-term stability	< 0.5 % FS typ. < 1 % FS	
Temperature sensitivity	< 0.03% FS typ./°C < 0.08% FS/°C (0...50 °C)	
Vibration resistance	2 g at 5...500 Hz	
Temperature range	-25 °C to 85 °C / -13 °F to 185 °F	
Response time	5 ms for 10...90% of pressure range	
Material	Body: stainless steel 316L, mat. no. 1.4404	Shock resistance 50 g (11ms) Measuring cell: silicone and NBR/Buna-N o-ring



**accurate to 0.5%
compressed air or liquids**

Dimensions		Over-pressure	Measurement range	Order number for output signal	
B	Ø	max. bar	bar	4-20 mA	0-10 V
mm	mm				

for non-corrosive media			G $\frac{1}{4}$ male, open sensor, with angular coupling socket	D7A 0.5% accurate	D7V
52	21.8	0.25	0... 10 mbar	D7A-B1*1	D7V-B1*1
		0.25	-10... 10 mbar	D7A-B1V*1	D7V-B1V*1
		0.35	0... 25 mbar	D7A-B2*1	D7V-B2*1
		0.35	-25... 25 mbar	D7A-B2V	D7V-B2V
		1	0... 70 mbar	D7A-B7*1	D7V-B7*1
		1	-70... 70 mbar	D7A-B7V	D7V-B7V
		1	0... 100 mbar	D7A-C1*1	D7V-C1*1
		1	0... 200 mbar	D7A-C2*1	D7V-C2*1
		1	0... 350 mbar	D7A-C3*1	D7V-C3*1
		1	-350... 350 mbar	D7A-C3V	D7V-C3V
		1	0... 600 mbar	D7A-C6*1	D7V-C6*1
		1	0... 800 mbar	D7A-C8*1	D7V-C8*1
		2	0... 1 bar	D7A-01	D7V-01
		2	-1... 1 bar	D7A-V1	D7V-V1



D7



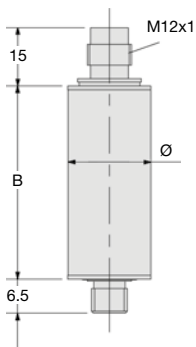
KM12-C4-0

Special options, add the appropriate letter or number

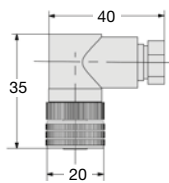
deviant measurement range	to be indicated on order	D7 .- XX
G $\frac{1}{4}$ male	connection thread	D7 .- . . 02
G $\frac{3}{8}$ male	connection thread	D7 .- . . 03
G $\frac{1}{2}$ NPTa	connection thread	D7 .- . . N
G $\frac{3}{4}$ NPTa	connection thread	D7 .- . . 02N

Accessories, enclosed

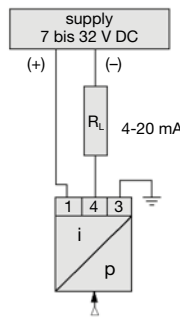
coupling socket 4-pin	M12x1, straight	KM12-A4-0	angular	KM12-C4-0
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5



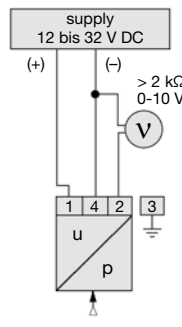
D7



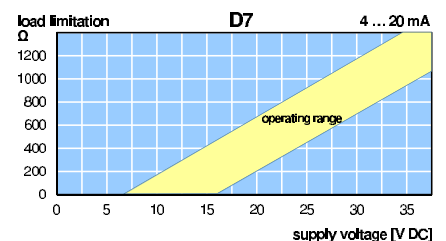
KM12-C4-0



D7A



D7V



*1 Minimum order quantity 5 pieces

*2 Minimum order quantity 10 pieces



Test chart: see chapter "Technical information"

PDF CAD
www.aircom.net



Order example:
D7A-B1

Description	The operating pressure is converted into a proportional, electrical signal by a ceramics pressure transducer. After amplification the signal is monitored as an analogue voltage or current signal.	
Media	compressed air, non-corrosive gases or liquids compatible with ceramics and NBR/Buna-N	
Supply voltage	12...32 V DC, residual ripple 5%, with reverse voltage protection, max. current consumption 4 mA	
Electrical connector	plug M12x1, 4-pin, with coupling socket	Protection class IP67 according to DIN EN60529
Output signal	4...20 mA: max. power consumption 260 mW	0...10 V: max. power consumption 50 mW
Linearity/Hysteresis	< 0.1 % FS typ. < 0.2 % FS	Repeatability < 0.1 % FS typ. < 0.2 % FS
Long-term stability	< 0.1 % FS typ. < 0.3 % FS	
Temperature sensitivity	< 0.03% FS typ./°C < 0.06% FS/°C (0...70 °C)	
Vibration resistance	10 g at 5...500 Hz	
Temperature range	-25 °C to 85 °C / -13 °F to 185 °F	
Response time	5 ms for 10...90% of pressure range	Shock resistance 50 g (11ms)
Material	Body: stainless steel 316L, mat. no. 1.4404 Measuring cell: ceramics AL ₂ O ₃ and NBR/Buna-N o-ring	

accurate to 0.2%
compressed air or liquids

Dimensions		Over-pressure	Measurement range	Order number for output signal	
B	Ø	max. bar	bar	4-20 mA	0-10 V
mm	mm				

for compressed air or liquids			G½ male, ceramic sensor, with angular coupling socket	D8A 0.2% accurate	D8V
52	21,8	1	0... 250	D8A- C2	D8V- C2
		1	0... 350*1	D8A- C3*1	D8V- C3*1
		1	0... 500*1	D8A- C5*1	D8V- C5*1
		2	0... -1	D8A- V0	D8V- V0
		2	-1... 1	D8A- V1	D8V- V1
		2	0... 1	D8A- 01	D8V- 01
		4	0... 2	D8A- 02	D8V- 02
		10	0... 5	D8A- 05	D8V- 05
		20	0... 10	D8A- 10	D8V- 10
		32	0... 16	D8A- 16*1	D8V- 16*1
		40	0... 20	D8A- 20*1	D8V- 20*1
		50	0... 25	D8A- 25*1	D8V- 25*1
		70	0... 35	D8A- 35*1	D8V- 35*1
		100	0... 50	D8A- 50*2	D8V- 50*2
		140	0... 70	D8A- 70*2	D8V- 70*2
		200	0... 100	D8A-100*2	D8V-100*2



D8



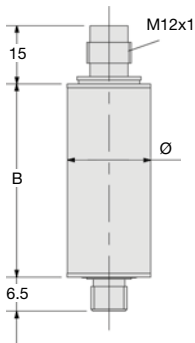
KM12-C4-0

Special options, add the appropriate letter or number

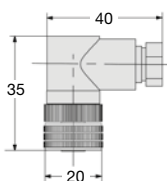
deviant measurement range	to be indicated on order	D8 . - XX
absolute pressure range	measurement range from 1 to 50 bar	D8 . . . A
G¼ male	connection thread	D8 . . . 02*2
G½ male	connection thread	D8 . . . 03*2
G½ NPTa	connection thread	D8 . . . N
G¼ NPTa	connection thread	D8 . . . 02N
for oxygen	pecially cleaned, max 40. bar	D8 . . . 15

Accessories, enclosed

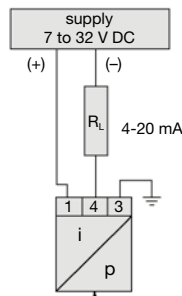
coupling socket 4-pin	M12x1, straight	KM12-A4-0	angular	KM12-C4-0
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5



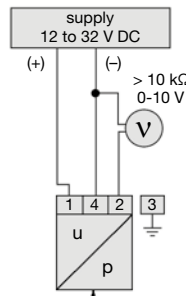
D8



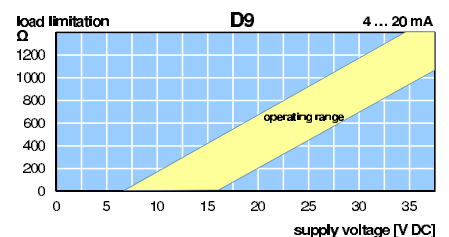
KM12-C4-0



D8A



D8V



*1 Minimum order quantity 5 pieces

*2 Minimum order quantity 10 pieces


Test chart: see chapter "Technical information"

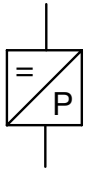
PDF CAD
www.aircom.net



Order example:
D8A-V0

Description	The operating pressure is converted into a proportional, electrical signal by a silicon pressure transducer. After amplification the signal is monitored as an analogue voltage or current signal.	
Media	all media compatible with stainless steel 316L, material no. 1.4404	
Supply voltage	12...32 V DC, residual ripple 5%, reverse voltage protection, max. current consumption 4 mA	
Electrical connection	plug M12x1, 4-pins, with coupling socket	
Outlet signal	4...20 mA: max. power consumption 260 mW	0...10 V: max. power consumption 50 mW
Linearity/Hysteresis	< 0.1 % FS typ.	
Repeatability	< 0.1 % FS typ.	
Long-term stability	< 0.1 % FS typ.	
Temperature sensitivity	< 0.03% FS typical per °C / K at 0 °C to 70 °C / 32 °F to 158 °F	
Response time	5 ms at 10...90% of measuring range	
Vibration sensitivity	10 g at 5...500 Hz	
Mounting position	any	
Material	Body/Diaphragm: stainless steel 316L, material no. 1.4404	
Shock resistance	50 g (11 ms)	
Protection class	IP 67 according to DIN EN60529	
Temperature range	-20 °C to 85 °C / -13 °F to 185 °F	





0...35 bar, accurate to 0.3% corrosive media

Dimensions		Over-pressure	Measurement range	Order number for output signal	
B	Ø	max. bar	mbar / bar	4-20 mA	0-10 V

For corrosive media		G½ male, SST, relative pressure, with angular coupling socket	D9A	D9V	
65	21,8	1	0...100 mbar	D9A-C1	D9V-C1
		1	-100...100 mbar	D9A-C1V*1	D9V-C1V*1
		1	0...200 mbar	D9A-C2	D9V-C2
		1	-200...200 mbar	D9A-C2V	D9V-C2V
		1	0...350 mbar	D9A-C3*1	D9V-C3*1
		1	-350...350 mbar	D9A-C3V*1	D9V-C3V*1
		2	0... 1 bar	D9A-01	D9V-01
		4	0... 2 bar	D9A-02*1	D9V-02*1
		10	0... 5 bar	D9A-05*1	D9V-05*1
		20	0... 10 bar	D9A-10	D9V-10
		32	0... 16 bar	D9A-16*1	D9V-16*1
		40	0... 20 bar	D9A-20	D9V-20
		70	0... 35 bar	D9A-35*1	D9V-35*1



D9



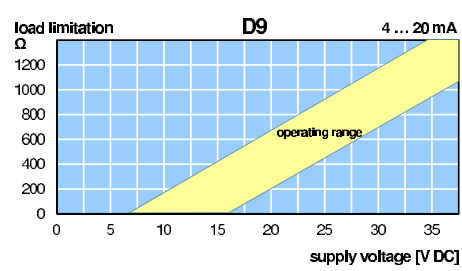
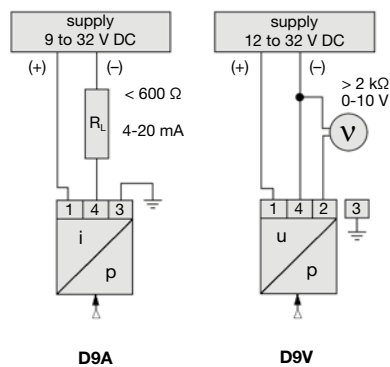
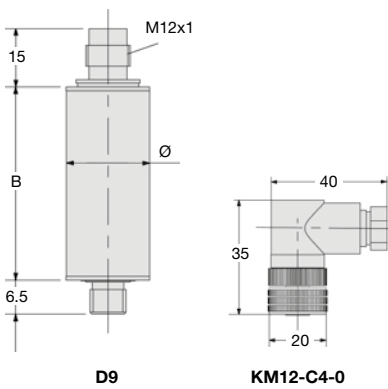
KM12-C4-0


Special options, add the appropriate letter or number

deviant measurement range	to be indicated on order	D9 . -XX
absolute pressure range	lowest measurement range 0...1 bar _{abs}	D9 . . . A*1
G¼ male	connection thread	D9 . . . 02*2
G¾ male	connection thread	D9 . . . 03*2
G½ NPTa	connection thread	D9 . . . N
G¼ NPTa	connection thread	D9 . . . 02N
for oxygen	specialy cleaned	D9 . . . 15

Accessories, enclosed

coupling socket 4-pin	M12x1, straight	KM12-A4-0	angular	KM12-C4-0
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5




**Order example:
D9A-C3**

PRESSURE TRANSDUCER, 0.1% ACCURATE, FOR HIGH TEMPERATURES, ATEX

DA

Description	Pressure transducer in compact and robust stainless steel housing with piezo-resistive measuring element. Factory-made calibration of zero point and range is possible.
Media	compressed air, non-corrosive gases or liquids
Overpressure	max. 3x full scale, min. 3 bar, for DAA-D6 and DAA-E1 max. 1500 bar
Supply voltage	9...33 V DC at current signal, 15...30 V DC at voltage signal, residual ripple 5%, reverse voltage protection, short-circuit-proof
ATEX version	only current signal 10...30 V DC, max. 1 W, as per EN 50.014 / EN 50.020: 1974 A1...A5, ATEX 2640-1
Electrical connector	plug according to DIN 43650, with coupling socket
Output signal	4...20 mA: max. power consumption 260 mW, 0...10 V: max. power consumption 50 mW
Linearity/Hysteresis	< 0.1% FS
Temperature sensitivity	Repeatability < 0.1% FS Long-term stability < 0.1% FS, < 0.5% FS at version up to 500 mbar
Response time	< 0.02% FS per °C / K, < 0.06% FS at version up to 2 bar per °C / K, at range of 0 °C to 70 °C / 32 °F to 158 °F
Vibration resistance	1 ms for 10...90% of pressure range
Mounting position	10 g at 5...500 Hz
Material	any Shock resistance 50 g Protection class IP 65 Temperature range 0 °C to 70 °C / 32 °F to 158 °F
	Body/Diaphragm: stainless steel 316L, material no. 1.4435 O-rings: FKM, optionally EPDM

-1...1000 bar, accurate to 0.1 %
compressed air or gases

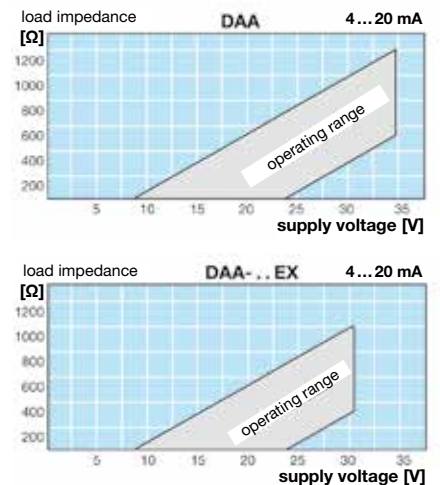
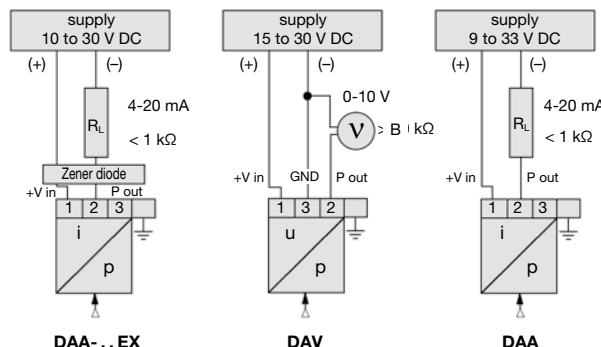
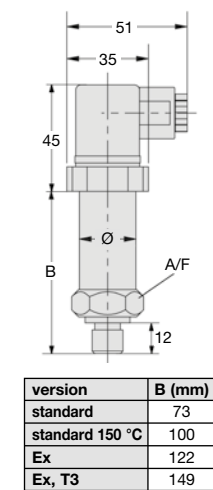
Dimensions			Accuracy	Measurement range	Order number	Measurement range	Order number
B	Ø	A/F	%	mbar/bar	4-20 mA	mbar/bar	4-20 mA
mm	mm	mm	%	mbar/bar	4-20 mA	mbar/bar	4-20 mA

Pressure transducer				G½ male, SST, overpressure with angular coupling socket, 4-20 mA	DA		
73	24	27	0.1	0... 50 mbar	DAA-B5H		
				0... 100 mbar	DAA-C1H		
				0... 160 mbar	DAA-C2H	0... 10 bar	DAA-10H
				0... 250 mbar	DAA-C3H	0... 16 bar	DAA-16H
				0... 400 mbar	DAA-C4H	0... 25 bar	DAA-25H
				0... 600 mbar	DAA-C6H	0... 40 bar	DAA-40H
				0... 1.0 bar	DAA-01H	0... 60 bar	DAA-60H
				0... 1.6 bar	DAA-02H	0... 100 bar	DAA-D1H
				0... 2.5 bar	DAA-03H	0... 160 bar	DAA-D2H
				0... 4.0 bar	DAA-04H	0... 250 bar	DAA-D3H
				0... 6.0 bar	DAA-06H	0... 400 bar	DAA-D4H
						0... 600 bar	DAA-D6H
73	24	27	0.5			0... 1000 bar	DAA-E1



Special options, add the appropriate letter or number

0-10 V output signal	not for Ex ATEX version	DAV-..	
deviant measurement range	to be indicated on order	DA..-XX	
absolute pressure range	from 50 mbar on	DA..-..A	
vacuum	0...-1 bar	DA..-..V	
Ex-Atex version	Ex II 1G Ex ia IIC T6	4...20 mA only	DAA-..EX
0.25 % linearity	for 100 mbar up to 600 bar		DA..-..G
	for 1000 bar		DA..-E1G
-25 to +100 °C/-13 to 212 °F	media temperature compensated up to 85 °C / 185 °F / T4		DA..-..S
-25 to +150 °C/-13 to 302 °F	media temperature compensated up to 85 °C / 185 °F / T3		DA..-..T
flush-mounted diaphragm	connection thread G½, also for vacuum, up to 600 bar		DA..-..F
G½ male	connection thread		DA..-..04
EPDM elastomer			DA..-..E
silicone-free oil-refill			DA..-..X32



Test chart: see chapter "Technical information"

PDF CAD
www.aircom.net

Order example:
DAA-B5H

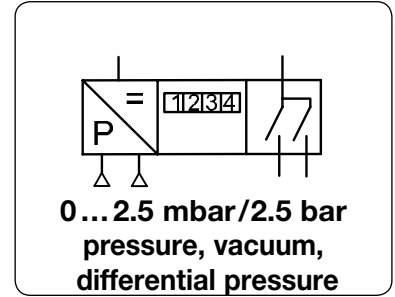
MEASURING DEVICES

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
DIGITAL DISPLAY	mounting, for low pressure	0 ... 2.5 mbar / 2.5 bar	4 mm tube	MPV, MPA	14.02
	portable, hand-operated press. gauge	0 ... 1 mbar / 10 bar	4 mm tube	MHA	14.03
	mounting, programmierbar	external sensor		MPAX	14.04
	mounting, auch ext. Sensor	0 ... 1 mbar / 10 bar	4 mm tube	MKA	14.05
ANALOGUE DISPLAY	mounting, front ring	-1 ... 0 / 25 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	ME	14.06
	mounting, triangular bezel	-1 ... 0 / 25 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	MF	14.06
	male thread, Ø 23 mm	0 ... 4 / 16 bar	M5 and G $\frac{1}{8}$	MA	14.07
	male thread, Ø 40 mm	0 ... 1 / 16 bar	G $\frac{1}{8}$	MA	14.07
	male thread Ø 50 mm	0 ... 1 / 60 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	MA	14.07
	male thread, Ø 63 mm	0 ... 60 mbar / 100 bar	G $\frac{1}{4}$	MA	14.07
STAINLESS STEEL	male thread, Ø 40 mm	0 ... 2.5 / 16 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	MS	14.08
	male thread, Ø 50 mm	0 ... 2.5 / 60 bar	G $\frac{1}{4}$	MS	14.08
	male thread, Ø 63 mm	0 ... 25 mbar / 60 bar	G $\frac{1}{4}$	MS	14.08



14

Description	A piezo-resistive pressure sensor converts the input pressure into a digital electrical signal.	
Medium	compressed air or non-corrosive gases	
Voltage supply	16...32 V DC standard, optionally 230 V AC, optional wall power supply	Overpressure see chart
Electrical connection	screw terminals for wire up to 1.5 mm ²	
Pneumatic connection	P+ : pos. pressure P- : vacuum P+/P- : differential pressure, the higher pressure is to be connected at P+	
Process connection	4 mm and 6 mm tube connections	
Display	4-digit LCD display, max. ± 1999	
Output signal	0...10 V, optionally 4...20 mA, impedance < 500 Ω	
Linearity/Hysteresis	< 1% FS, optionally < 0.5% FS	
Long-term stability	< 0.5% FS per year at < 10 mbar, < 0.1% FS per year at > 25 mbar	
Temperature sensitivity	see chart, at 0 to 50 °C / 32 to 122 °F	
Response time	< 1 ms for 10...90% of pressure range	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F compensated pressure range	
Material	Housing: glass fibre-reinforced Noryl plastic	
	Repeatability	Protection class IP 20



Repeatability	Temperature error	Linearity error	Over-pressure	Measurement range	Order number
% FS	% FS	% FS	mbar/bar	mbar/bar	

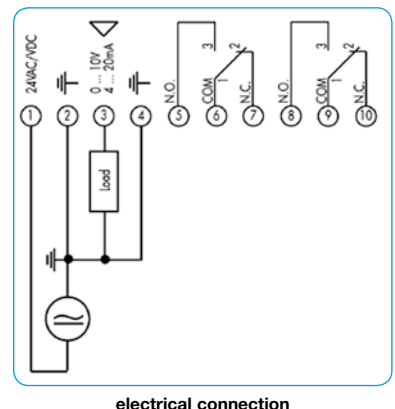
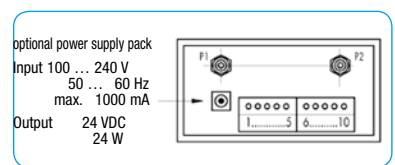
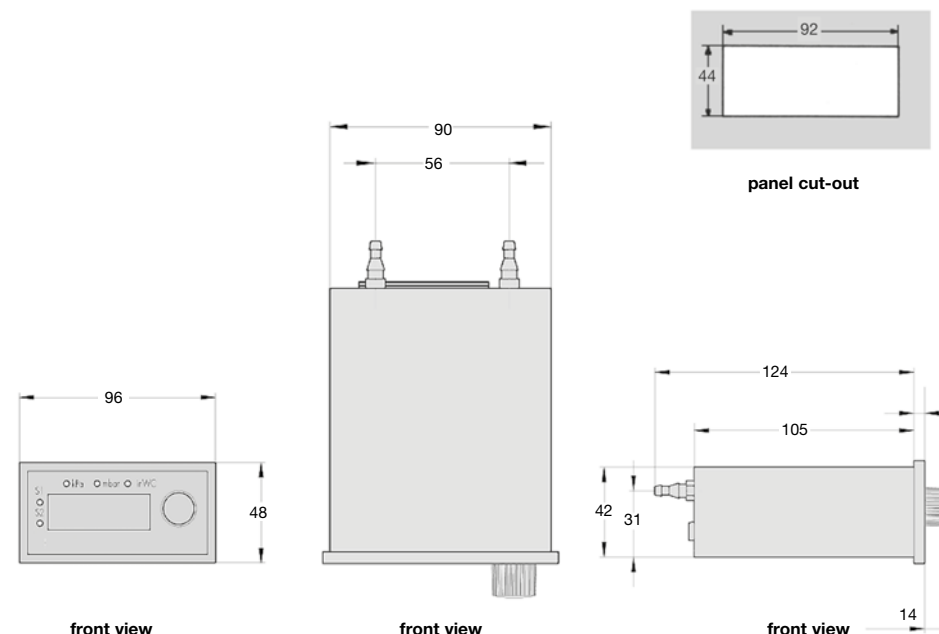
Digital gauge	for compressed air, measurement of positive pressure, vacuum and differential pressure, 24 V DC, outlet signal 0...10 V, 3½-digit display				MPV
0.2	5.0	1.0	25 mbar	0... 2,5 mbar	MPV-A2
0.2	5.0	1.0	25 mbar	0... 5 mbar	MPV-A5
0.2	2.5	1.0	25 mbar	0... 10 mbar	MPV-B1
0.5	1.0	1.0	300 mbar	0... 25 mbar	MPV-B2
0.5	1.0	1.0	750 mbar	0... 50 mbar	MPV-B5
0.5	1.0	1.0	1 bar	0...100 mbar	MPV-C1
0.5	1.0	1.0	1 bar	0...250 mbar	MPV-C2
0.5	1.0	1.0	1 bar	0...500 mbar	MPV-C5
0.5	1.0	1.0	3 bar	0... 1 bar	MPV-01
0.5	1.0	1.0	6 bar	0... 2.5 bar	MPV-02



MPV-C1S
with two limit switches

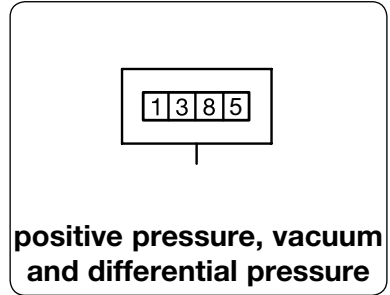
Special options, add the appropriate letter

4...20 mA output signal		MPA- . .
two limit switches	with LED, 230 V AC, 1 A, adjustable NOC	MP . . . S
linearity 0.5%		MP . . . B
230 V AC	supply voltage	MP . . . V
deviant measurement range	to be indicated on order	MP . . XX



*1 Handshake on/off, Baudrate 9600

Description	A piezo-resistive pressure sensor converts the input pressure into a digital electrical signal, which is displayed on the LCD. On-off switch is located at the side of the plastic housing.	
Media	compressed air or non-corrosive gases	Overpressure see chart
Pneumatic connection	P+ : pos. pressure P- : vacuum P+/P- : differential pressure, the higher pressure to be connected at P+ plug nipple up to 1 bar, sleeve with union nut from 2 bar on, each for hose internal diameter of Ø 4 mm	
Voltage supply	9 V battery, 2.5 mA, type 6F22, PP3 or similar	
Display	3½-digit LCD display, low battery display at low voltage, optionally 0...1 V	max. ± 1999, 12 mm tall, black numbers, red LED lights up at overpressure, then measurement is faulty
Output signal	Impedance: > 2 kΩ terminal for 2.5 mm 2-pin jack plug	
Zero point	All devices have a potentiometer for rough adjustment of zero point at the side of the housing.	
Linearity	see chart, optionally 0.2% FS	Hysteresis < 0.1% FS
Long-term stability	< 0.1% FS per year at > 20 mbar,	< 2% FS per year at < 20 mbar
Temperature sensitivity	see chart, at 0 to 50 °C / 32 to 122 °F	Repeatability see chart
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	Resolution 0,05% FS
Material	Housing: plastic	Protection class IP 54



Repeatability	Temperature error	Linearity error	Over-pressure	Measurement range	Order number
% FS	% FS	% FS	max. bar	mbar/bar	

Hand-operated gauge for compressed air, measurement of positive pressure, vacuum and differential pressure, with battery, 3½-digit display					MHA
1.0	4.0	1.0	0.25	0... 1 mbar	MHA-A1
0.3	2.5	0.8	0.25	0... 2.5 mbar	MHA-A2
0.3	1.2	0.8	0.25	0... 5 mbar	MHA-A5
0.2	1.0	0.8	0.25	0... 10 mbar	MHA-B1
0.1	1.0	0.7	0.35	0... 25 mbar	MHA-B2
0.1	1.0	0.7	0.35	0... 50 mbar	MHA-B5
0.1	1.0	0.5	0.35	0... 100 mbar	MHA-C1
0.1	1.0	0.5	0.75	0... 250 mbar	MHA-C2
0.1	1.0	0.5	1.5	0... 500 mbar	MHA-C5
0.1	1.0	0.5	3.0	-1... 1 bar	MHA-V1
0.1	1.0	0.5	3.0	0... 1 bar	MHA-01
0.1	1.0	0.5	4.0	0... 2 bar	MHA-02
0.1	2.0	0.5	10	0... 8 bar	MHA-08
0.1	2.0	0.5	12	0... 10 bar	MHA-10
0.1	2.3 mbar	1 mbar	3.3	0.7... 1.1 bar _{abs}	MHA-S1



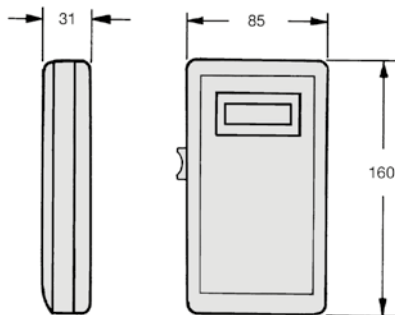
MHA

Special options, add the appropriate letter		
linearity < 0.2% FS	from 100 mbar on	MHA- . . B
0-1 V output signal	at electrical connector	MHA- . . N
P _a indication	< 20 mbar: indication P _a > 20 mbar: indication kP _a	MHA- . . P
zero point fine adjustment	in the front	MHA- . . E
deviant measurement range	to be indicated on order	MHA-XX

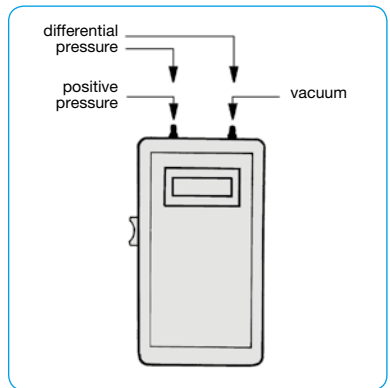


MHA-...E

Accessories, enclosed		
protective bag	for belt attachment	MHT

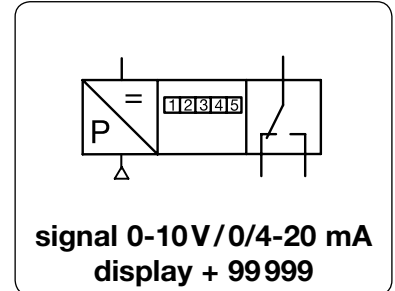


MHA



connection diagram

Description	Digital, programmable display for dual range input 0 to 10 V DC or 0/4 to 20 mA with 24 V DC transmitter power. Min./max. value memory, 16-point scale for non-linear processes. Programmable function keys / user inputs. Four setpoint alarm outlets. Analogue outlet, interface and bus capabilities. data entry by keypad, optionally by serial interface RS232 with PC software and cable or by RS485			
Programming	11 ... 36 V DC, max. power consumption 11 W or 85 ... 250 V AC, max. power consumption 15 VA			
Supply voltage	5-pin LCD display 14 mm tall, red numbers, background lighting			
Display	terminal strip for area 0.14...1.5 mm ² 0...10 V or 0/4...20 mA			
Electrical connector	0/4 ... 20 mA or 0 ... 10 V, freely selectable 2x SPDT 5 A or 4x NOC 3 A, at 24 V DC			
Analogue output card	24 V DC ± 5%, max. 50 mA			
Transistor output card	20 measurements/s			
Measuring rate	and display of min./max. value			
Measurement memory	0.12% FS at 0 °C to 50 °C / 32 °F to 122 °F			
Display accuracy	200 ms			
Response time	-20 °C to 50 °C / -4 °F to 122 °F			
Temperature range	Housing: dark red, shockproof plastic			
Material	The electrical plug-in module can be pulled out rearwards.			



Dimensions			Accuracy	Supply voltage	Input signal	Order number
A	B	C	% FS	V	mA/V	
mm	mm	mm				

Process display	5-digit display, freely scaleable, for external sensor				MPAX
97 50 107	0.12	230 V AC	0/4-20 mA / 0-10 V	MPAX-230	
97 50 107	0.12	24 V DC	0/4-20 mA / 0-10 V	MPAX- 24	



MPAX



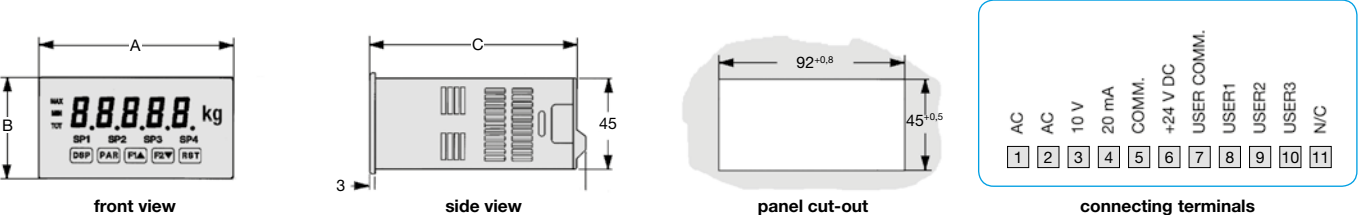
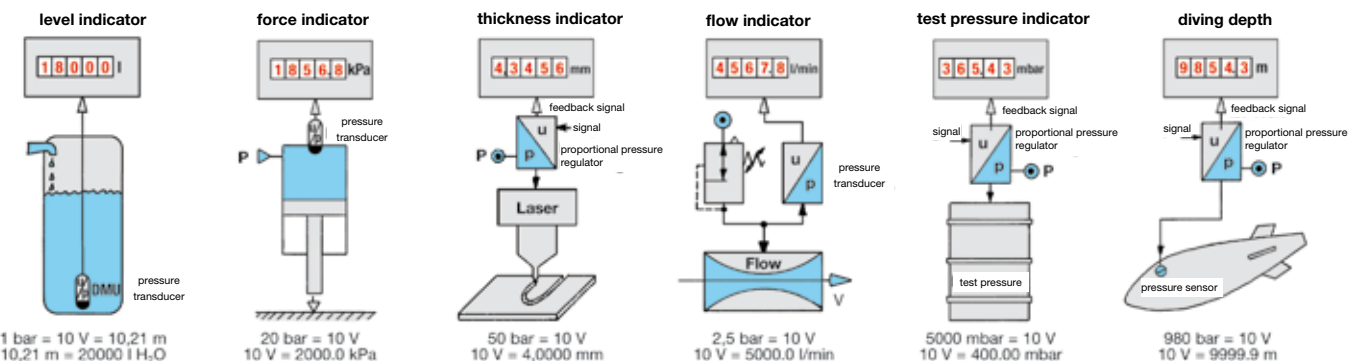
plug-in card

Special options, add the appropriate letter

programming*1	factory-set, e.g. 4-20 mA / 2-10 bar	MPAX- . . PR
interface	RS232 with 9-pin D-SUB plug-in card	MPAX- . . 32
	RS485 with 2 x RJ-11 connectors plug-in card	MPAX- . . 85
Relay output*2	2 x SPDT 5 A at 230 VAC, plug-in card	MPAX- . . 2W
	4 x NOC 3 A at 230 VAC, plug-in card	MPAX- . . 4S
transistor output*2	4 x NPN plug-in card	MPAX- . . 4N
	4 x PNP plug-in card	MPAX- . . 4P
output signal	0/4-20 mA oder 0-10 V, free selectable	MPAX- . . AA
bus interface	Profibus dp	MPAX- . . DP

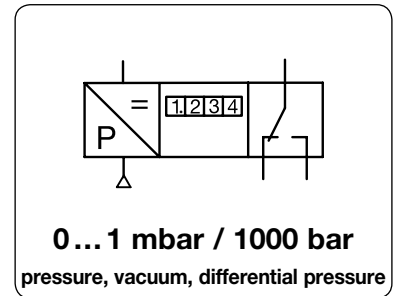
Accessories, enclosed

physical units	label sheet with standard dimensions	MPAX-BK
software	for Microsoft Windows®	MPAX-X1
programming kit	software, interface board RS232 plus cable	MPAX-EM
adapter	software, interface board USB plus cable	MPAX-USB



*1 Signal range, indicated values, dimensions or limit value, rounding factor, resolution, total account etc. to be indicated.
 *2 Only one of these two options can be realised.

Description	Suitable for measurement of positive pressure, vacuum or differential pressure.
Media	compressed air or non-corrosive gases
Supply voltage	15...30 V DC standard, optionally 230 V AC \pm 10%
Electrical connector	plug with 7-pin screw terminal for cable cross-sectional area 0.14...1.5 mm ²
Pneumatic connection	P+ : pos. pressure P- : vacuum P+/- : differential pressure, the higher pressure is to be connected at P+ plug nipple up to 1 bar, sleeve with union nut from 2 bar on, each for hose internal diameter of \varnothing 4 mm
Display	3½-digit LCD display, max. \pm 1999, 14 mm tall, black numbers
Output signal	0...10 V, impedance > 10 k Ω , optionally 4...20 mA, impedance < 500 Ω
Linearity	see chart, optionally 0.2% FS
Long-term stability	< 0.1% FS per year at > 25 mbar, < 1% FS per year at > 5 mbar, < 2% FS per year at < 5 mbar range
Temperature sensitivity	see chart, at 0 °C to 50 °C / 32 °F to 122 °F
Response time	100 ms
Temperature range	-20 °C to 50 °C / -4 °F to 122 °F
Material	Housing: aluminium
	Overpressure see chart
	Hysteresis < 0.1% FS
	Repeatability see chart
	Resolution 1 digit
	Protection class IP 54

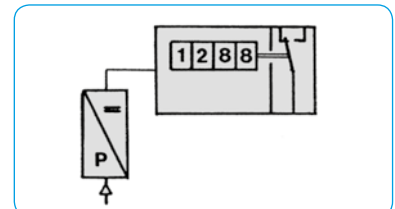


Repeatability	Temperature error	Linearity error	Over-pressure	Measurement range	Order number
% FS	% FS	% FS	max. bar	mbar/bar	

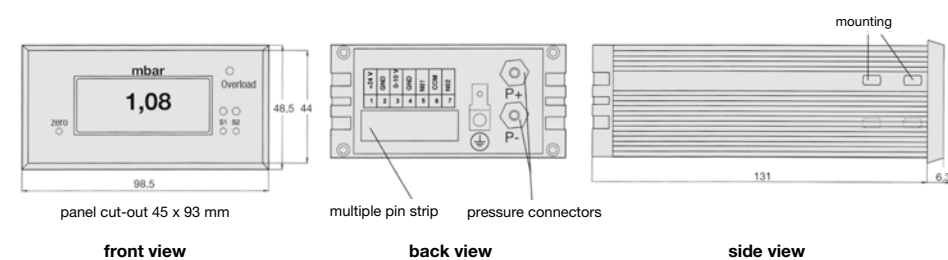
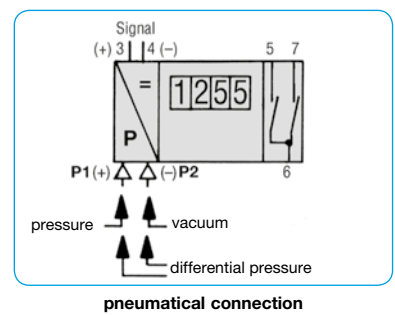
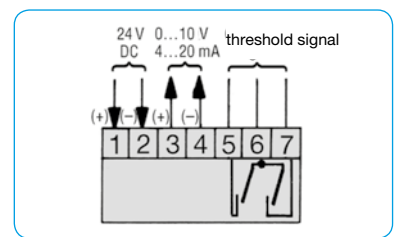
Digital gauge	for compressed air, measurement of positive pressure, vacuum and differential pressure, 24 V DC, outlet signal 0...10 V, 3½-digit display				MKA
1.0	4.0	1.0	0.25	0... 1 mbar	MKA-A1
0.3	2.5	0.8	0.25	0... 2.5 mbar	MKA-A2
0.3	1.2	0.8	0.25	0... 5 mbar	MKA-A5
0.2	1.0	0.8	0.25	0... 10 mbar	MKA-B1
0.1	1.0	0.7	0.35	0... 25 mbar	MKA-B2
0.1	1.0	0.7	0.35	0... 50 mbar	MKA-B5
0.1	1.0	0.5	0.35	0... 100 mbar	MKA-C1
0.1	1.0	0.5	0.75	0... 250 mbar	MKA-C2
0.1	1.0	0.5	1.5	0... 500 mbar	MKA-C5
0.1	1.0	0.5	3.0	-1... 1 bar	MKA-V1
0.1	1.0	0.5	3.0	0... 1 bar	MKA-01
0.1	1.0	0.5	4.0	0... 2 bar	MKA-02
0.1	2.0	0.5	10	0... 8 bar	MKA-08
0.1	2.0	0.5	12	0... 10 bar	MKA-10
0.1	2.3 mbar	1 mbar	3.3	0.7... 1.1 bar _{abs}	MKA-S1



Digital gauge for external sensor	0...10 V input signal, supply voltage 24 V DC, 3½-digit display		MKA*2
96	48	137	e.g. for pressure transducer
			MKA-00



Special options, add the appropriate letter		
two limit switches	with LED display, 230 V AC, 1 A, hysteresis 2% FS	MKA-...S
linearity < 0.2% FS	from 100 mbar	MKA-...B
4...20 mA output signal	impedance < 500 Ω	MKA-...A
4...20 mA input signal	internal resistance 100 Ω	MKA-00A
P _a indication	< 20 mbar: indication P _a > 20 mbar: indication kP _a	MKA-...P
230 V AC	supply voltage	MKA-...V
RS232*1	interface, 8 bit without parity	MKA-...R
deviant measurement range	to be indicated on order	MKA-XX

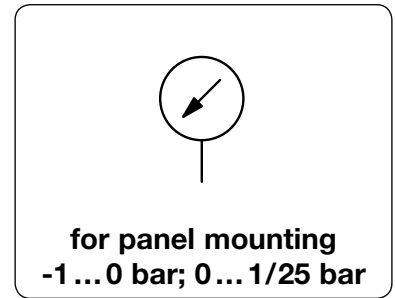


*1 Handshake on/off, Baudrate 9600 *2 indicate pressure range by order

Calibration or test chart: see chapter "Technical Information"
 Pressure transducers: see chapter "Pressure Transducers"
 PDF CAD www.aircom.net

Order example: MKA-A1

Description	Bourdon tube gauge, dust-protected, splash-proof, antirust, oil-resistant and silicone-free.		
Media	all media compliant with brass, e.g. compressed air, non-corrosive gases or fluids		
Scale	white background with black bar scale and red psi scale		
Indicator accuracy	1.6% FS on gauge Ø 63 mm 2.5% FS on gauge Ø 40 mm and Ø 50 mm		
Threaded connection	G $\frac{1}{8}$ or G $\frac{1}{4}$, on central back		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Housing: ABS plastic Lens: acrylic glass	Connection/Inner parts: brass	



Dimensions				Principle	Indicator accuracy	Display range	Order number	Order number
A	B	C	D	R: Bourdon tube K: capsule tube	% FS	bar	G $\frac{1}{8}$	G $\frac{1}{4}$

Gauge with mounting flange				chrome-plated	ME40	ME50/63		
40	61	51	46	R	2.5	0 ... 2.5 0 ... 4 0 ... 6 0 ... 10	ME4001-02 ME4001-04 ME4001-06 ME4001-10	
50	71	61	52	R	2.5	0 ... 6 0 ... 10 0 ... 16		ME5002-06 ME5002-10 ME5002-16
63	85	75	53	R	1.6	-1 ... 0 vac. 0 ... 4 0 ... 6 0 ... 10 0 ... 16		ME6302-00 ME6302-04 ME6302-06 ME6302-10 ME6302-16

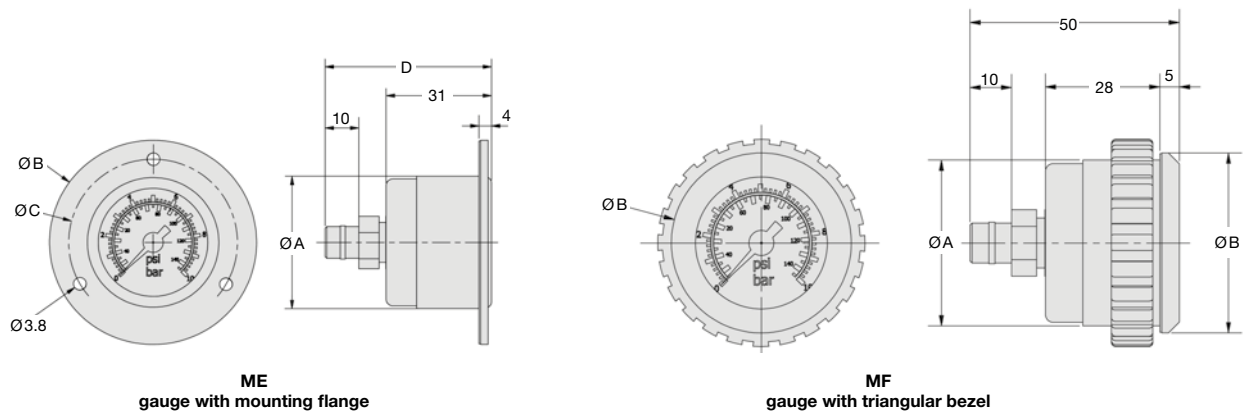


ME5002-10

Gauge with triangular bezel				chrome-plated with nut	MF40	MF50/63		
40	43	-	-	R	2.5	0 ... 2.5 0 ... 4 0 ... 6 0 ... 10	MF4001-02 MF4001-04 MF4001-06 MF4001-10	
50	55	-	-	R	2.5	-1 ... 0 vac. 0 ... 6 0 ... 10 0 ... 16		MF5002-00 MF5002-06 MF5002-10 MF5002-16
63	68	-	-	R K R	1.6	-1 ... 0 vac. 0 ... 0.25 0 ... 4 0 ... 6 0 ... 10 0 ... 16 0 ... 25		MF6302-00 MF6302-C2 MF6302-04 MF6302-06 MF6302-10 MF6302-16 MF6302-25



MF5002-10



PDF CAD
www.aircom.net

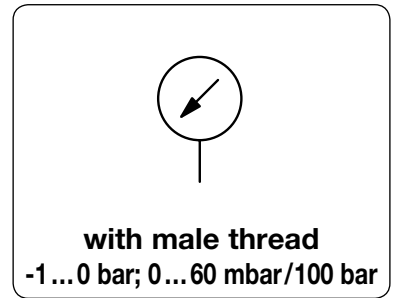
Order example:
ME4001-02

Gauges
14

PRESSURE GAUGE WITH MALE THREAD

MA

Description	Pressure gauge with Bourdon tube or capsule, dust-protected, splash-proof, antirust, oil-resistant and silicone-free. The capsule type gauge features an integrated restrictor against pressure peaks.		
Media	all media compliant with brass, e.g. compressed air, non-corrosive gases or fluids		
Scale	Bourdon tube gauge: white background with black bar scale and red psi scale capsule type gauge: white background with black mbar scale		
Indicator accuracy	1.6% FS on gauge Ø 63 mm 2.5% FS on gauge Ø 40 mm and Ø 50 mm, 4% FS on gauge Ø 23 mm		
Connection thread	G½ or G¼, on central back, M5 at gauge Ø 23 mm		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Housing: ABS plastic at Ø 40, Ø 50, Ø 63 mm nickel-plated brass at Ø 23 mm stainless steel 1.4301 at capsule gauge	Lens: acrylic glass Connection/Inner parts: brass Seal: NBR/Buna-N at capsule gauge	



Dimensions	Principle	Indicator accuracy	Display range	Order number	Order number
Ø A	R: Bourdon tube K: capsule tube	% FS	bar / mbar	G½	M5 / G¼

Pressure gauge, round		male thread on central back		MA23/40/50	MA23/50/63
23	R	4	0 ... 4 0 ... 6 0 ... 10 0 ... 12 0 ... 16	MA2301-04 MA2301-06 MA2301-10 MA2301-12 MA2301-16	MA23M5-04 MA23M5-06 MA23M5-10 MA23M5-12 MA23M5-16
40	R	2.5	0 ... 1 0 ... 2.5 0 ... 4 0 ... 6 0 ... 10 0 ... 16	MA4001-01 MA4001-02 MA4001-04 MA4001-06 MA4001-10 MA4001-16	
50	R	2.5	0 ... 1 0 ... 2.5 0 ... 4 0 ... 6 0 ... 10 0 ... 16 0 ... 25 0 ... 60	MA5001-01 MA5001-02 MA5001-04 MA5001-06 MA5001-10 MA5001-16	MA5002- 01 MA5002- 02 MA5002- 04 MA5002- 06 MA5002- 10 MA5002- 16 MA5002- 25 MA5002- 60
63	K	1.6	0 ... 60 mbar 0 ... 160 mbar 0 ... 250 mbar 0 ... 400 mbar		MA6302- B6 MA6302- C2 MA6302- C3 MA6302- C4 MA6302- C6
63	R	2.5	0 ... 0,6 bar		
63	R	1.6	-1 ... 0 vac. 0 ... 1 0 ... 2,5 0 ... 4 0 ... 6 0 ... 10 0 ... 16 0 ... 25 0 ... 60 0 ... 100		MA6302- 00 MA6302- 01 MA6302- 02 MA6302- 04 MA6302- 06 MA6302- 10 MA6302- 16 MA6302- 25 MA6302- 60 MA6302-100



MA23M5-10



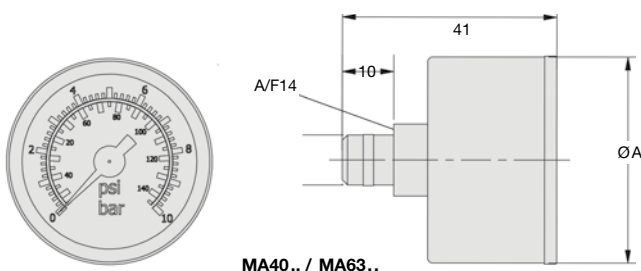
MA5001-16



MA6302-16

Special options, add the appropriate number

for oxygen specially cleaned MA 15



MA40.. / MA63..

PDF CAD
www.aircom.net

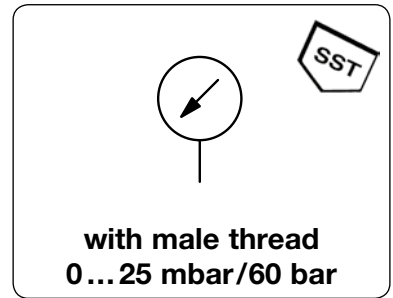


Order example:
MA2301-04

STAINLESS STEEL PRESSURE GAUGE WITH MALE THREAD

MS

Description	Pressure gauge with Bourdon tube or capsule, dust-protected and splash-proof. The capsule type gauge features an integrated restrictor against pressure peaks.	
Media	all media compliant with stainless steel, e.g. compressed air, gases or fluids	
Scale	Bourdon tube gauge: white background with black bar scale and red psi scale capsule type gauge: white background with black mbar scale	
Indicator accuracy	1.6% FS	Connection thread G $\frac{1}{8}$ or G $\frac{1}{4}$, on central back
Temperature range	medium	0 °C to 100 °C / 32 °F to 212 °F for capsule type gauge 0 °C to 200 °C / 32 °F to 392 °F for Bourdon tube gauge for appropriately conditioned compressed air down to -40 °C / -40 °F
	ambient	max. 60 °C / 140 °F
Material	Housing:	stainless steel 1.4301
	Inspection glass:	laminated safety glass at MS63, single strength glass at MS40 and MS50
	Connection:	stainless steel 1.4571 Seal: FKM at capsule gauge

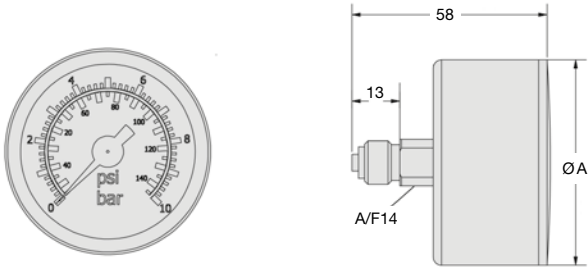


Dimensions	Principle	Indicator accuracy	Display range	Order number	Order number
\varnothing A	R: Bourdon tube	% FS	bar/mbar	G $\frac{1}{8}$	G $\frac{1}{4}$
mm	K: capsule tube				

Pressure gauge		male thread on central back	MS40	MS40/50/63
40	R	1.6	0 ... 2.5	MS4001-02
			0 ... 4	MS4001-04
			0 ... 6	MS4001-06
			0 ... 10	MS4001-10
			0 ... 16	MS4001-16
50	R	1.6	0 ... 2.5	MS5002-02
			0 ... 4	MS5002-04
			0 ... 6	MS5002-06
			0 ... 10	MS5002-10
			0 ... 16	MS5002-16
			0 ... 25	MS5002-25
63	K	1.6	0 ... 25 mbar	MS6302-B2
			0 ... 60 mbar	MS6302-B6
			0 ... 100 mbar	MS6302-C1
			0 ... 160 mbar	MS6302-C2
			0 ... 250 mbar	MS6302-C3
			0 ... 400 mbar	MS6302-C4
			0 ... 600 mbar	MS6302-C6
63	R	1.6	0 ... 1	MS6302-01
			0 ... 2.5	MS6302-02
			0 ... 4	MS6302-04
			0 ... 6	MS6302-06
			0 ... 10	MS6302-10
			0 ... 16	MS6302-16
			0 ... 25	MS6302-25
0 ... 60	MS6302-60			



Special options, add the appropriate number
for oxygen specially cleaned MS15



MS

Order example:
MS4001-02

PDF CAD
www.aircom.net

Gauges
14

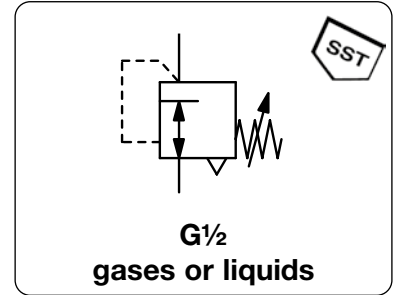
STAINLESS STEEL DEVICES

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESSURE REGULATOR	Midi-Series	0.2 ... 4.0 / 17	G½	R10-S	15.02
	Mini-Series	0.2 ... 1.8 / 9	G¼	R364-S	15.03
	for clean room enviroment, precise	0.05 ... 2 / 4	M5 and G½	RE1	15.04
	precise, also FDA	0.02 ... 1.5 / 10	G¼ and G½	R3150	15.05
	many variations, also FDA	0.1 ... 1.5 / 50	G½ - G2	R3000	15.06
	with flange	0.2 ... 3 / 16	DN15 - DN50	REF	15.10
	also FDA	0.2 ... 3 / 16	G¼ - G2	REA	15.11
	low pressure	0.005 ... 0.045 / 3	G½ - G2	R3100	15.12
VOLUME BOOSTER	for many gases	1 ... 15 / 50	G¼ - G2	R3000-J	15.22
	with ratio	3 ... 42 / 104	½"NPT and ¾"NPT	RH3-JS1	6.12
	pressure reducer	0.1 ... 24 / 99	G1	RLE	6.14
BACK PRESSURE REG.	for many gases	0.1 ... 1.5 / 50	G½ - G2	D3000	15.24
	low pressure	0.005 ... 0.045 / 3	G½ - G2	D3100	15.28
HIGH PRESSURE REG.	for many gases	1 ... 8 / 200	G¼ - G1¼	RH3000	15.18
	Tri-Clamp	0.2 ... 1,5 / 8	ASME-BPE ½" - 1½"	RTC	15.20
	differential pressure regulator	0 ... 1 / 24	½"NPT and ¾"NPT	RH44-S	15.21
	regulator P1: 241 bar	0 ... 2 / 7	½"NPT and ¼"NPT	RH0-S	4.15
	regulator P1: 690 bar	0.3 ... 35 / 414	¼"NPT	HP300-S	4.17
	regulator P1: 414 bar	0.7 ... 104 / 172	¼"NPT	HP400-S	4.17
	regulator P1: 300 bar	0.1 ... 1.7 / 35	¼"NPT	HP500-S	4.18
	regulator P1: 260 bar	0.7 ... 21 / 104	½"NPT and ¾"NPT	RH3-S	4.19
FOR PHARMACY	and food	0.25 ... 0.46 / 53	G¼ - G2½	R70	15.14
	low pressure	0.005 ... 0.007 / 0.45	G¼ - G2½	R74	15.16
FRL SERVICE UNITS	FR, for many gases, also FDA	0.8 ... 1.5 / 15	G½ - G2	B3000	15.30
	FR, Mini- and Midi-Series	0.2 ... 1.8 / 17	G¼ and G½	B548-S, B11-S	15.32
	lubricator	max. 50	G½ - G2	L3000	15.33
	filter, also FDA	max. 50	G½ - G2	F3000	15.34
	FRL	0.5 ... 8 / 15	G½ - G2	C3002, C3003	15.38
	FRL, Mini- and Midi-Series	max. 21	G¼ and G½	C10-S, F10-S, L10-S	15.40
	filter	max. 220	G¼ - G1	FH3	15.36
PINCH VALVES	2/2-solenoid valve	max. 4	G¼ - G2	QE	15.37
MOUNTING FLANGES	single or mounted	up to PN100 / ANSI	G½ - G3	F / VS	15.41



15

Description	diaphragm-operated pressure regulator in small design
Media	compressed air, gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 65 °C / 32 °F to 149 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F for spring cage made of fiberglass or stainless steel
Material	Body: stainless steel 316 Spring cage: glass fibre-reinforced plastic Elastomer: FKM Inner valve: stainless steel 316



Dimensions			Description	K _v -rate	Flow thread	Connection range	Pressure number	Order
A	B	C	value	rate	thread	range	bar	
mm	mm	mm		(m ³ /h)	m ³ /h*1 l/min*1	G		

Stainless steel pressure regulator								supply pressure max. 21 bar	R10-S
60	124	35	relieving for compressed air	2.6	180	3000	G $\frac{1}{2}$	0.2 ... 4.0	R10-04BS
								0.3 ... 9.0	R10-04CS
								0.5 ... 17	R10-04DS
60	124	35	non-relieving for liquids	2.6	2.6	43	G $\frac{1}{2}$	0.2 ... 4.0	R10-04BSK
								0.3 ... 9.0	R10-04CSK
								0.5 ... 17	R10-04DSK



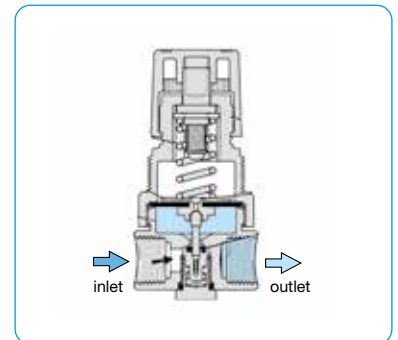
R10-S

Special options, add the appropriate letter

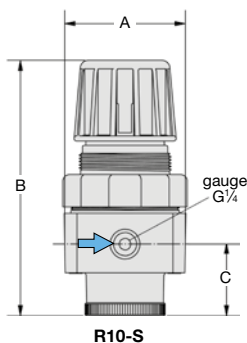
NPT	connection thread	R1. -0. . . N
spring cage made of SST	incl. SST-adjusting screw, total height= 154 mm	R11-04 . .

Accessories, enclosed

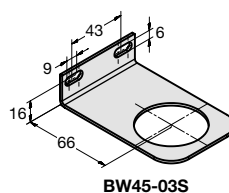
pressure gauge	Ø 50 mm, 0... *2 bar, G $\frac{1}{4}$	MS5002-..*2
mounting bracket		BW45-03S
mounting nut		M45X1,5S



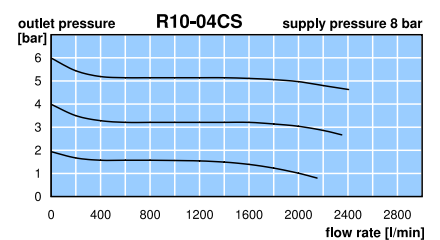
cross-section



R10-S

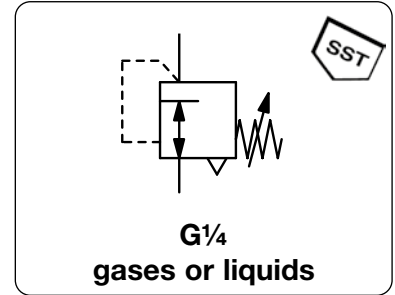


BW45-03S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Description	diaphragm-operated pressure regulator in small design
Media	compressed air, gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock, by hexagonal spindle at R354
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 65 °C / 32 °F to 149 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F for spring cage made of fiberglass or stainless steel
Material	Body: stainless steel 316 Spring cage: glass fibre-reinforced plastic at R364, stainless steel 316 at R354, optionally fibreglass at R364 Elastomer: FKM Inner valve: stainless steel 316



Dimensions			Description	K _v -value	Flow rate		Connection thread	Pressure range	Order number
A	B	C			(m ³ /h)	m ³ /h*1			

Stainless steel pressure regulator									
supply pressure max. 21 bar								R364-S	
35	75	13	relieving for compressed air	0.4	27	450	G $\frac{1}{4}$	0.2 ... 1.8	R364-02AS
								0.2 ... 4.0	R364-02BS
								0.3 ... 9.0	R364-02CS
35	75	13	non-relieving for liquids	0.4	0,4	6	G $\frac{1}{4}$	0.2 ... 1.8	R364-02ASK
								0.2 ... 4.0	R364-02BSK
								0.3 ... 9.0	R364-02CSK

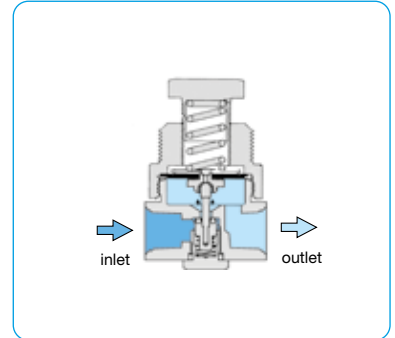


Special options, add the appropriate letter

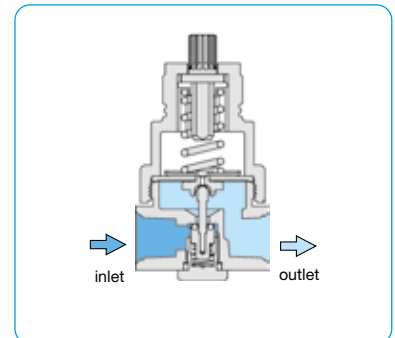
NPT	connection thread	R... -0... N
free of oil and grease	specialy cleaned	R3.4-0... L
spring cage made of SST	incl. SST-adjusting screw, total height = 60 mm	R354-02...

Accessories, enclosed

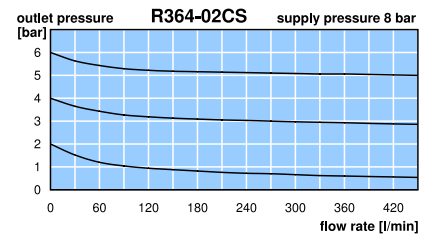
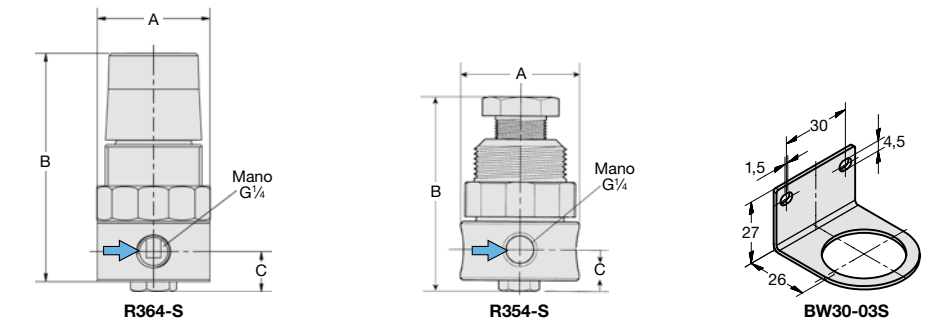
pressure gauge	Ø 40 mm, 0... *2 bar, G $\frac{1}{4}$	MS4002-... *2
mounting bracket		BW30-03S
mounting nut	made of stainless steel	M30x1,5S
	made of plastic	M30x1,5K



cross-section R354-S

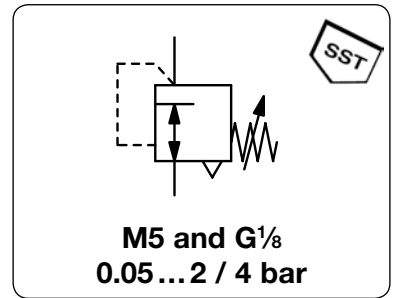


cross-section R364-S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

Description	Diaphragm pressure regulator made of stainless steel suitable for cleanroom environment and panel mounting.		
Media	compressed air or gases	Supply pressure	max. 10 bar
Accuracy	setting accuracy: < 0.3% FS	Repeatability:	< 1% FS
Air consumption	max. 0.5 l/min, subject to outlet pressure	The compressed air can be directly transmitted into the cleanroom without any piping.	
Adjustment	by plastic knob with snap-lock		
Relieving function	relieving		
Gauge port	M5 or G $\frac{1}{8}$ on both sides of the body, depending on connection thread, screw plugs supplied		
Clean room condition	Cleaned, assembled, inspected and sealed in a class 10,000 environment. All parts without oil use. HFC1416 ultrasonic cleaning of all fluid-contact parts.		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		
Material	Body: stainless steel 316, material no. 1.4436	Elastomer:	FKM
	Spring cage: PPS plastic	Valve seat:	PTFE



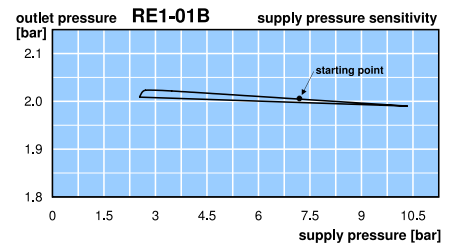
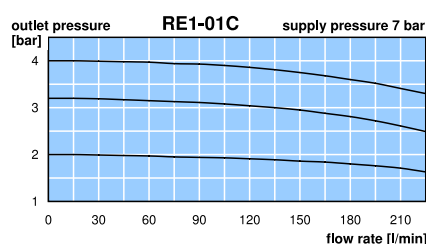
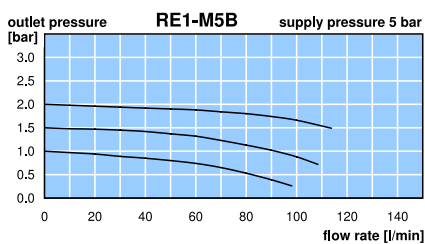
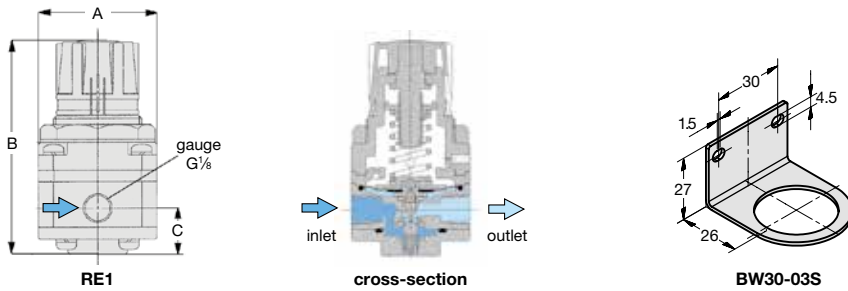
Dimensions			K _v -value (m ³ /h)	Flow rate		Connection thread M5/G	Pressure range bar	Order number
A	B	C		m ³ /h*1	l/min*1			

Precision pressure regulator							supply max. 10 bar, relieving, with internal air consumption	RE1
30	75	14	0,20	3.6	60	M5	0.05 ... 2	RE1-M5B
							0.10 ... 4	RE1-M5C
40	75	15	0,25	6	100	G $\frac{1}{8}$	0.05 ... 2	RE1-01B
							0.10 ... 4	RE1-01C



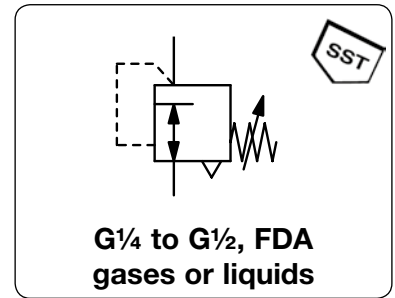
Accessories, enclosed

mounting bracket mounting nut at the device **BW30-03S**



*1 at 7 bar supply pressure and 4 bar outlet pressure

Description	Diaphragm pressure regulator made of stainless steel in robust design. Pre-pressure compensated and independent of supply pressure fluctuation.		
Media	compressed air, gases or liquids		
Supply pressure	see chart, max. 16 bar		
Accuracy	setting accuracy: < 0.5% FS;	Repeatability:	< 1.5% FS
Air Consumption	without air consumption		
Adjustment	by adjusting screw, with lock nut		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C to 80 °C / 32 °F to 176 °F ,for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Body: stainless steel 316L, W.-Nr. 1.4436	O-ring: FKM	Internal parts: stainless steel 302
	Diaphragm: NBR/Buna-N with PTFE coating		



Dimensions			Flow rate		Supply pressure	Connection thread	Pressure range	Order number
A	B	C	m 3 /h*1	l/min*1	max. bar	G	bar	

Precision pressure regulator								supply pressure max. 10 bar, relieving	R3150
105	158	39	48	800	10	G $\frac{1}{4}$	0.02 ... 1.5		R3150-02A
			84	1400	10		0.03 ... 3.0		R3150-02B
			132	2600	16		0.05 ... 10		R3150-02C
80	158	39	72	1200	10	G $\frac{1}{2}$	0.02 ... 1.5		R3150-04A
			108	1800	10		0.03 ... 3.0		R3150-04B
			156	2600	16		0.05 ... 10		R3150-04C



R3150-02
Accessory: pressure gauge

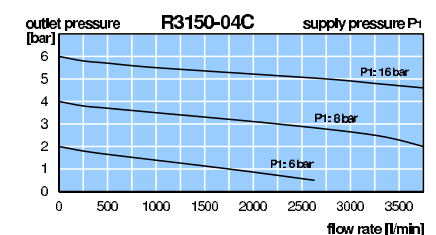
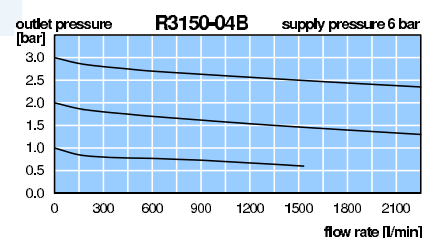
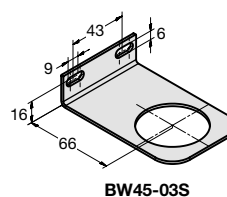
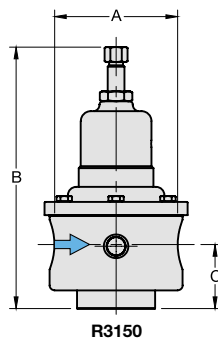
Special options, add the appropriate letter or number

NPT	connection thread	R3150-0. .N
non-relieving	for liquids	R3150-0. .K
EPDM o-ring		R3150-0. .E
EPDM o-ring	FDA approval	R3150-0. .TD
SST diaphragm	FKM o-ring	R3150-0. .S
	EPDM o-ring	R3150-0. .SE
ammonia	NH $_3$	R3150-0. .K02
carbon dioxide	CO $_2$	R3150-0. .K03
argon	Ar	R3150-0. .K05
nitrogen	N $_2$	R3150-0. .K07
helium	He	R3150-0. .K09
hydrogen	H $_2$	R3150-0. .K11
methane	CH $_4$	R3150-0. .K13
natural gas *3		R3150-0. .K14
oxygen	O $_2$	R3150-0. .K15
propane	C $_3$ H $_8$	R3150-0. .K16
nitrous oxide	N $_2$ O	R3150-0. .K17
water	H $_2$ O	R3150-0. .K17



Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MS5002-..*2
mounting bracket		BW45-03S
mounting nut		M45x1,5S



*1 see diagramm
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar *3 without DVGW-approval

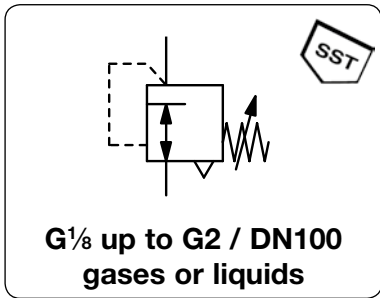
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R3150-02A

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P ₁ = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids Δp _{max.} = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving
Gauge port	G _{1/8} at R3000-01 and -A2, all others G _{1/4} on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404



Dimensions			Regul. system	K _v	Flow rate	P ₁ max.	Connection thread	Pressure range	Order number
A	B	C	D: Diaphragm P: Piston	value (m ³ /h)	m ³ /h*1 l/min*1	bar	G	bar	

SST Pressure regulator										supply pressure max. 30/50 bar, non-relieving, PTFE diaphragm and FKM o-ring	R3000
40	92	22	D	0.2	20	330	30	G _{1/8}	0.1...1.5	R3000-01AT	
									0.2...3.0	R3000-01BT	
									0.5...8.0	R3000-01DT	
									1.0...15	R3000-01ET	
40	92	22	D	0.2	20	330	30	G _{1/4}	0.1...1.5	R3000-A2AT	
									0.2...3.0	R3000-A2BT	
									0.5...8.0	R3000-A2DT	
									1.0...15	R3000-A2ET	
64	161	38	D	0.5	42	700	30	G _{1/4}	0.1...1.5	R3000-02AT	
									0.2...3.0	R3000-02BT	
									0.5...8.0	R3000-02CT	
									1.0...15	R3000-02DT	
							50		2.0...30	R3000-02ET	
							50		3.0...50	R3000-02FT	
64	175	38	P	0.5	42	700	50	G _{3/8}	0.1...1.5	R3000-03AT	
									0.2...3.0	R3000-03BT	
									0.5...8.0	R3000-03CT	
							50		1.0...15	R3000-03DT	
							50		2.0...30	R3000-03ET	
							50		3.0...50	R3000-03FT	
80	164	37	D	1.8	132	2200	30	G _{1/2}	0.1...1.5	R3000-04AT	
									0.2...3.0	R3000-04BT	
									0.5...8.0	R3000-04CT	
							50		1.0...15	R3000-04FT	
							50		2.0...30	R3000-04GT	
							50		3.0...50	R3000-04LT	



R3000-01/-A2, accessory: gauge

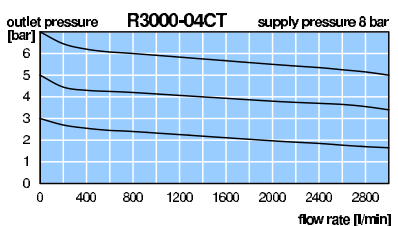
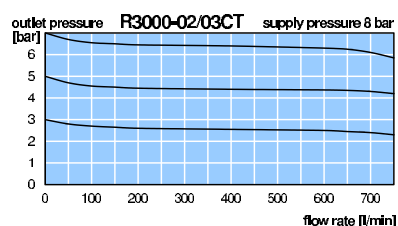
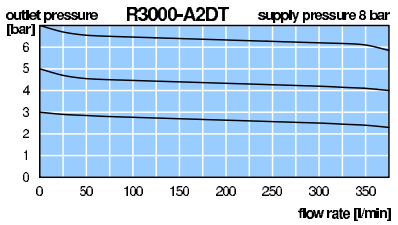
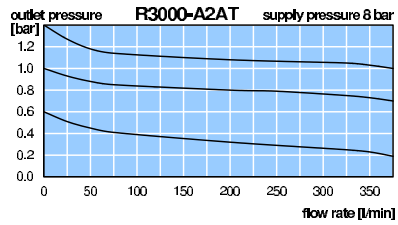
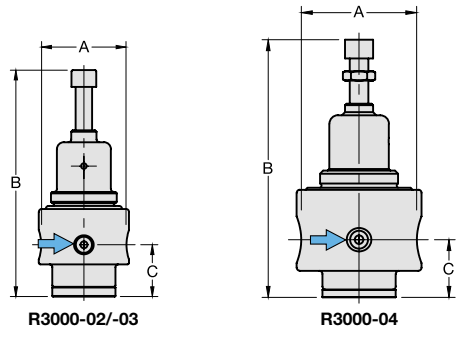


R3000-02/-03, accessory: gauge



R3000-04, accessory: gauge

Accessories, see following pages



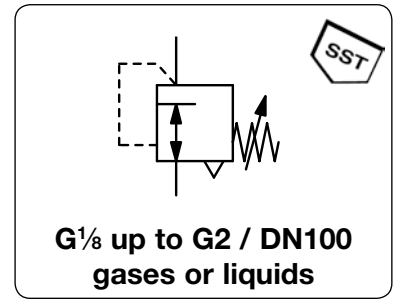
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
www.aircom.net

Order example:
R3000-01AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to $P_1 = 60$ bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.} = 25$ bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving
Gauge port	$G\frac{3}{8}$ at R3000-01 and -A2, all others $G\frac{1}{4}$ on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404

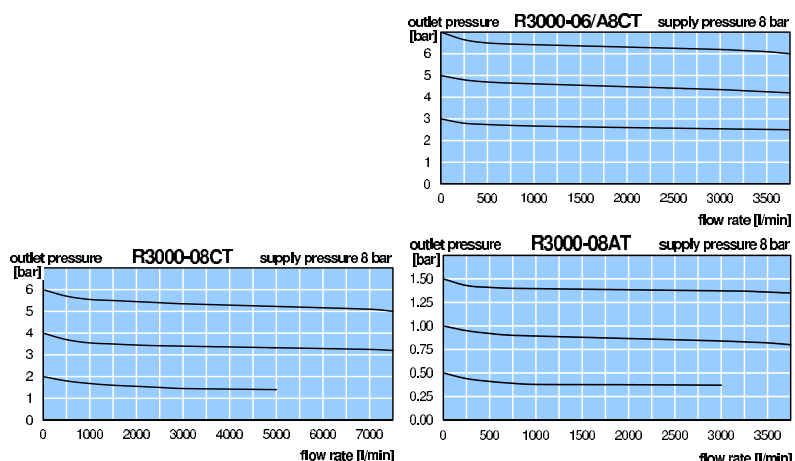
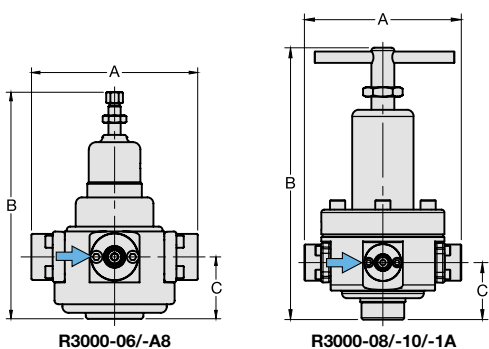


Dimensions	Regul. system	K_v	Flow	P_1	Connection	Pressure	Order
A B C	D: diaphragm	value	rate	max.	thread	range	number
mm mm mm	P: piston	(m^3/h)	m^3/h^*1 l/min*1	bar	G	bar	

SST Pressure regulator								supply pressure max. 30/60 bar, non-relieving, PTFE diaphragm and FKM o-ring	R3000	
137	187	51	P	3.0	228	3800	30	$G\frac{3}{8}$	0.1...1.5 0.2...3.0 0.5...8.0 1.0...15 2.0...30 3.0...50	R3000-06AT R3000-06BT R3000-06CT R3000-06FT R3000-06GT R3000-06LT
137	187	51	P	3.0	228	3800	30	$G1$	0.1...1.5 0.2...3.0 0.5...8.0 1.0...15 2.0...30 3.0...50	R3000-A8AT R3000-A8BT R3000-A8CT R3000-A8FT R3000-A8GT R3000-A8LT
165	286	60	D	6.0	480	8000	60	$G1$	0.1...1.5 0.2...3.0 0.5...8.0 1.0...15	R3000-08AT R3000-08BT R3000-08CT R3000-08FT
165	311	60	P	6.0	480	8000	60		2.0...30 3.0...50	R3000-08GT R3000-08LT
269	286	60	D	6.0	480	8000	60	$G1\frac{1}{4}$	0.1...1.5 0.2...3.0 0.5...8.0 1.0...15	R3000-10AT R3000-10BT R3000-10CT R3000-10FT
269	311	60	P	6.0	480	8000	60		2.0...30 3.0...50	R3000-10GT R3000-10LT
269	286	60	D	6.0	480	8000	60	$G1\frac{1}{2}$	0.1...1.5 0.2...3.0 0.5...8.0 1.0...15	R3000-1AAT R3000-1ABT R3000-1ACT R3000-1AFT
269	311	60	P	6.0	480	8000	60		2.0...30 3.0...50	R3000-1AGT R3000-1ALT



Accessories, see following pages



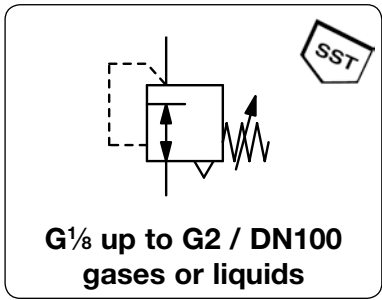
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
www.aircom.net

Order example:
R3000-06AT

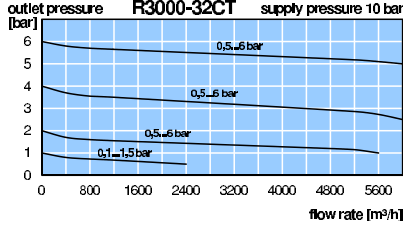
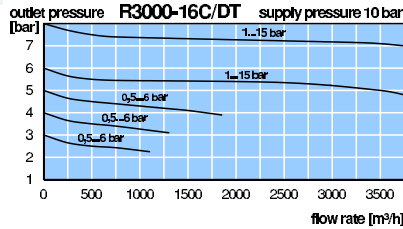
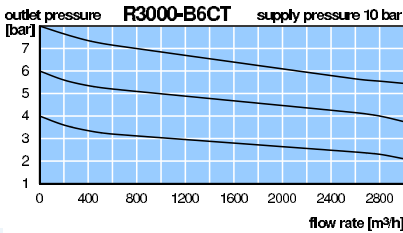
PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to $P_1 = 60$ bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.} = 25$ bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving
Gauge port	Mounting position any
Temperature range	$G\frac{1}{8}$ at R3000-01 and -A2, all others $G\frac{1}{4}$ on both sides of the body, one screw plug supplied 0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404

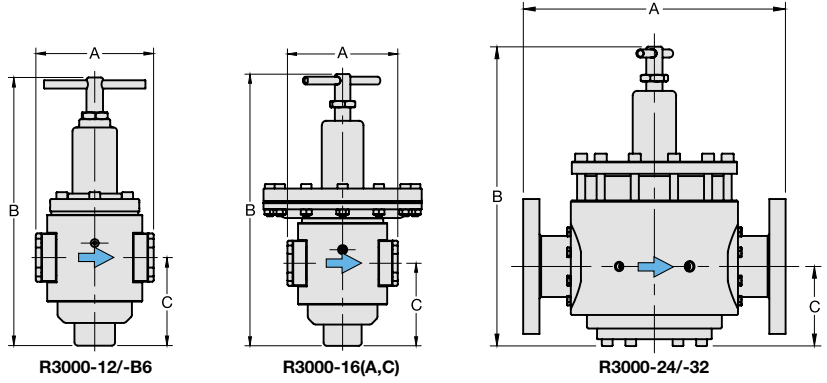


Dimensions			Regul. system	K_v	Flow		P_1	Connection	Pressure	Order
A	B	C	D: diaphragm	value	rate	rate	max.	thread	range	number
mm	mm	mm	P: piston	(m ³ /h)	m ³ /h*1	l/min*1	bar	G	bar	

SST Pressure regulator										supply pressure max. 30/50 bar, non-relieving, PTFE diaphragm and FKM o-ring	R3000
171	390	128	P	12.6	900	15000	30	$G1\frac{1}{2}$	0.1 ... 1.5	R3000-12AT	
									0.2 ... 3.0	R3000-12BT	
									0.5 ... 8.0	R3000-12CT	
									1.0 ... 15	R3000-12ET	
171	400	128	P	12.6	900	15000	50		2.0 ... 30	R3000-12GT	
									3.0 ... 50	R3000-12LT	
171	390	128	P	12.6	900	15000	30	$G2$	0.1 ... 1.5	R3000-B6AT	
									0.2 ... 3.0	R3000-B6BT	
									0.5 ... 8.0	R3000-B6CT	
									1.0 ... 15	R3000-B6ET	
171	400	128	P	12.6	900	15000	50		2.0 ... 30	R3000-B6GT	
									3.0 ... 50	R3000-B6LT	
171	421	128	D	21.0	1800	30000	30	$G2$	0.1 ... 1.5	R3000-16AT	
									0.5 ... 6.0	R3000-16CT	
									1.0 ... 15	R3000-16DT	
389	425	118	D	48.0	4500	75000	30	DN80	0.1 ... 1.5	R3000-24AT	
									0.5 ... 6.0	R3000-24CT	
									1.0 ... 15	R3000-24DT	
389	425	118	D	56.0	5500	90000	30	DN100	0.1 ... 1.5	R3000-32AT	
									0.5 ... 6.0	R3000-32CT	
									1.0 ... 15	R3000-32DT	



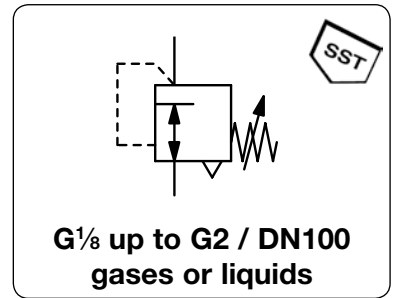
Accessories, see following pages



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 60 BAR R3000

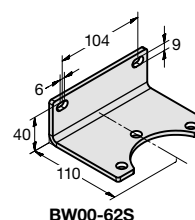
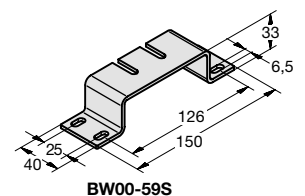
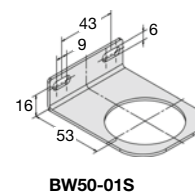
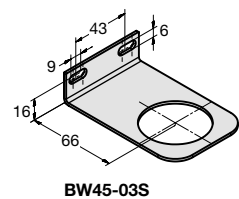
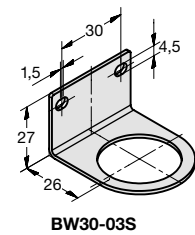
Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P ₁ = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids Δp _{max.} = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving
Gauge port	G _{1/8} at R3000-01 and -A2, all others G _{1/4} on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404



Dimensions	Regul. system	K _v	Flow	P ₁	Connection	Pressure	Order
A B C	D: diaphragm	value	rate	max.	thread	range	number
mm mm mm	P: piston	(m ³ /h)	m ³ /h*1 l/min*1	bar	G	bar	

Special options, add the appropriate letter or number

NPT	connection thread	for G _{1/8} and G _{1/4} (A2)	R3000-N
NPT	connection thread	for G _{1/4} (02) to G ₂	R3000-N
with T-handle	instead of hexagonal screw	for G _{1/4} (02) to G _{1/2}	R3000-P
diaphragm, relieving		G _{1 1/2} (1A)	R3000-R
piston, relieving			R3000-R
tapped exhaust		for R3000-01/A2	R3000-X12
down to -40 °C	low temperature version	from G _{1/4} (02) on	R3000-X51
up to 130 °C	high temperature version	from G _{1/4} (02) on	R3000-X54
FKM o-ring	for piston or PTFE diaphragm		R3000-T
EPDM o-ring			R3000-TE
EPDM o-ring	FDA-approval		R3000-TD
SST diaphragm	FKM o-ring	for G _{1/4} (02) to G ₁ (A8)	R3000-S
	EPDM o-ring	for G _{1/4} (02) to G ₁ (A8)	R3000-SE
ammonia	NH ₃		R3000-02
carbon dioxide	CO ₂		R3000-03
argon	Ar		R3000-05
nitrogen	N ₂		R3000-07
helium	He		R3000-09
hydrogen	H ₂		R3000-11
methane	CH ₄		R3000-13
natural gas *3			R3000-14
oxygen	O ₂		R3000-15
propane	C ₃ H ₈		R3000-16
nitrous oxide	N ₂ O		R3000-17
water	H ₂ O		R3000-W
flange connection	see end of the chapter / flanges		R3000-F.



Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G _{1/8}	for G _{1/8} and G _{1/4} (A2)	MS4001-..*2
	Ø 50 mm, 0...*2 bar, G _{1/4}	for G _{1/4} (02) to G _{1/2}	MS5002-..*2
	Ø 63 mm, 0...*2 bar, G _{1/4}	for G _{3/4} (06) to G ₂	MS6302-..*2
mounting bracket		for G _{1/8} and G _{1/4} (A2)	BW30-03S
mounting nut		for G _{1/8} and G _{1/4} (A2)	M30x1,5S
mounting bracket		for G _{1/4} (02), G _{3/8} , G _{3/4} and G ₁ (A8)	BW45-03S
mounting nut		for G _{1/4} (02), G _{3/8} , G _{3/4} and G ₁ (A8)	M45x1,5S
mounting bracket		for G _{1/2}	BW50-01S
mounting nut		for G _{1/2}	M50x1,5S
mounting bracket		for G ₁ (08) + G _{1 1/2} (1A)	BW00-59S
		for G _{1 1/2} (12) + G ₂ (B6)	BW00-62S

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

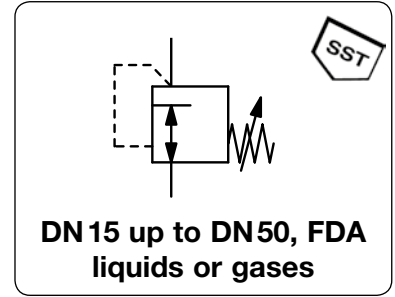
*3 without DVGW-approval



PRESSURE REGULATOR WITH FLANGE, MADE OF SPECIAL STEEL CASTING

REF

Description	Diaphragm-operated pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent.
Media	compressed air, neutral gases or liquids
Supply pressure	see chart, max. 25 bar
Adjustment	by T-handle, with locknut
Relieving function	non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 120 °C / 32 °F to 248 °F for FKM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F
Material	Body: stainless steel 316L, mat. no. 1.4408 Diaphragm: FKM, optionally EPDM or PTFE



Dimensions			K _v -value	Flow rate		Supply pressure max. bar	Connection flange DN	Pressure range bar	Order number
A	B	C		air	water				

Pressure regulator with flange										for liquids, P: max. 8/25 bar, non-relieving, FKM, PN40	REF
210	255	95	4.0	4200	66	8	DN 15	0.2...3.0	25	25	REF-04B
								2.0... 10			REF-04D
								6.0... 16			REF-04E
220	260	105	4.0	4200	66	8	DN 20	0.2...3.0	25	25	REF-06B
								2.0... 10			REF-06D
								6.0... 16			REF-06E
220	265	115	4.0	4200	66	8	DN 25	0.2...3.0	25	25	REF-08B
								2.0... 10			REF-08D
								6.0... 16			REF-08E
220	273	115	7.5	8000	125	8	DN 25	0.2...3.0	25	25	REF-A8B
								2.0... 10			REF-A8D
								6.0... 16			REF-A8E
280	290	150	7.5	8000	125	8	DN 40	0.2...3.0	25	25	REF-12B
								2.0... 10			REF-12D
								6.0... 16			REF-12E
320	298	165	7.5	8000	125	8	DN 50	0.2...3.0	25	25	REF-16B
								2.0... 10			REF-16D
								6.0... 16			REF-16E

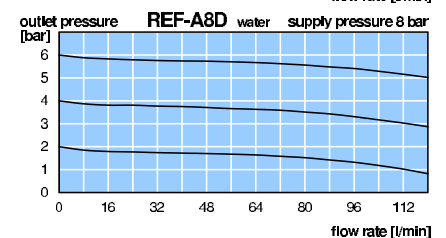
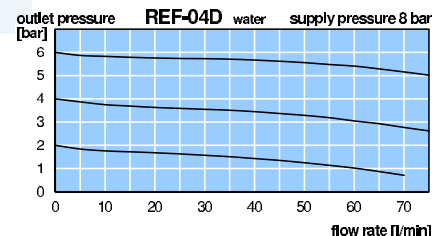
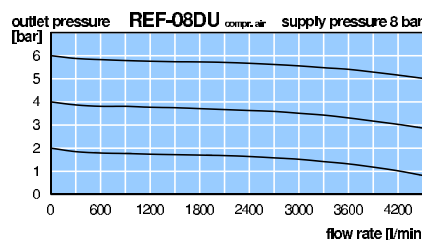
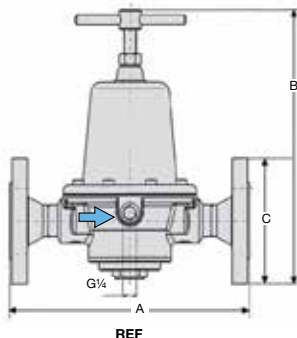


Special Options, add the appropriate letter

gaseous media	non-relieving, height +43 mm	RE U
EPDM diaphragm	FDA approved	RE E
PTFE diaphragm	FKM with PTFE coating and FKM o-ring	RE I
free of oil and grease	suitable for oxygen	RE L
flange connection*3	DIN 3239 / DIN 11850-2 / ISO 4200, DN8 to DN25, instead of connection thread	RE A
milk pipe connection		RE M

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for DN 8 to DN 15 (04)	MS5002-...*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for DN 15 (A4) to DN 50	MS6302-...*2



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 version has to be indicate in clear words

Gauges: see chapter for measuring devices

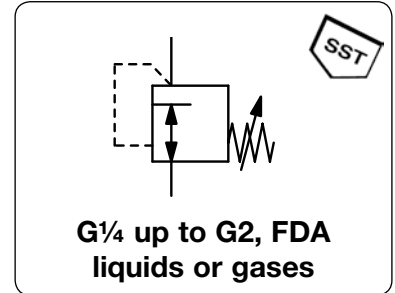
PDF CAD
www.aircom.net

Order example:
REF-04B

PRESSURE REGULATOR MADE OF SPECIAL STEEL CASTING

REA

Description	Diaphragm-operated pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 25 bar
Adjustment	by T-handle, with locknut
Relieving function	non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 120 °C / 32 °F to 248 °F for FKM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F
Material	Body: stainless steel 316L, mat. no. 1.4408 Diaphragm: FKM, optionally EPDM or PTFE



Dimensions			K _v -value	Flow rate air	Flow rate water	Supply pressure	Nom. size	Connection thread	Pressure range	Order number
A	B	C	(m ³ /h)	l/min*1	l/min*1	max. bar	DN	G	bar	

Regulator made of Special Steel Casting										for liquids, P ₁ : max. 8/25 bar, non-relieving, FKM	REA											
92	190	42	1.0	1100	17	8	DN 8	G $\frac{1}{4}$	0.2...3.0	REA-02B												
						25			2.0... 10	REA-02D												
						25			6.0... 16	REA-02E												
						122	240	49	4.0	4200	66	8	DN 10	G $\frac{3}{8}$	0.2...3.0	REA-03B						
												25			2.0... 10	REA-03D						
												25			6.0... 16	REA-03E						
												150	250	53	7.5	8000	125	8	DN 15	G $\frac{1}{2}$	0.2...3.0	REA-04B
																		25			2.0... 10	REA-04D
																		25			6.0... 16	REA-04E
222	250	53	7.5	8000	125													8	DN 20	G $\frac{3}{4}$	0.2...3.0	REA-06B
																		25			2.0... 10	REA-06D
																		25			6.0... 16	REA-06E
						222	250	53	7.5	8000	125							8	DN 25	G1	0.2...3.0	REA-08B
																		25			2.0... 10	REA-08D
																		25			6.0... 16	REA-08E
												222	250	53	7.5	8000	125	8	DN 32	G1 $\frac{1}{4}$	0.2...3.0	REA-10B
																		25			2.0... 10	REA-10D
																		25			6.0... 16	REA-10E
235	250	53	7.5	8000	125													8	DN 40	G1 $\frac{1}{2}$	0.2...3.0	REA-12B
																		25			2.0... 10	REA-12D
																		25			6.0... 16	REA-12E
						235	250	53	7.5	8000	125							8	DN 50	G2	0.2...3.0	REA-16B
																		25			2.0... 10	REA-16D
																		25			6.0... 16	REA-16E

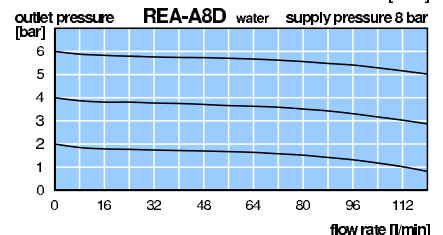
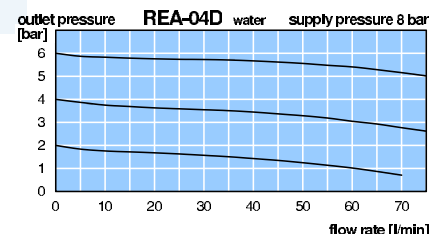
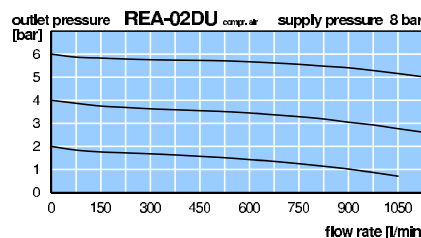
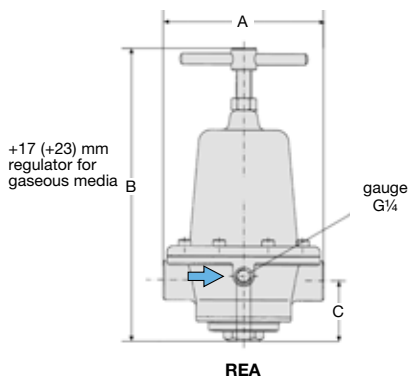


REA-02B, accessory: gauge



REA-A4D, accessory: gauge

Special options and Accessories, see page 15.10. REF



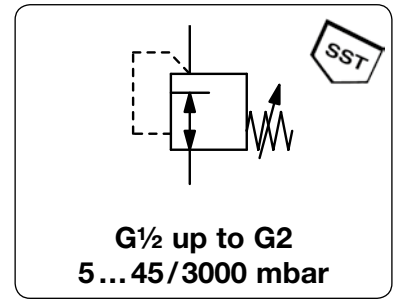
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop



LOW PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

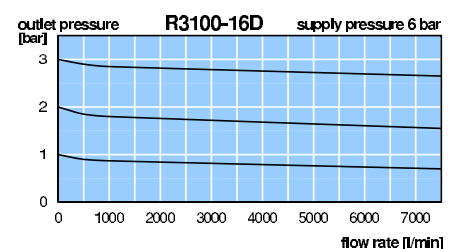
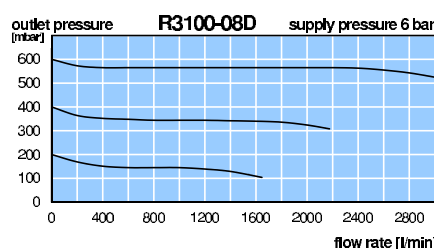
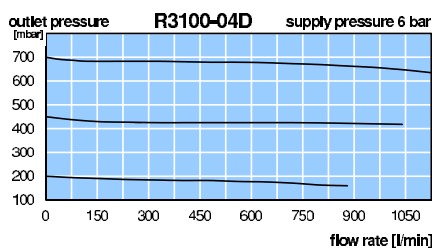
R3100

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.	
Media	compressed air or gases	
Supply pressure	max. 7 bar, min. 1 bar	
Air consumption	without constant bleed	
Adjustment	by adjusting screw at R3100-04, -06 to -1A (A,B,C), - 12 and -16 by T-handle at R3100-06 to --1A (D,E), with locknut	
Relieving function	non-relieving	
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied	
Mounting position	any	
Temperature range	0 °C bis 80 °C / 32 °C to 176 °F, FKM or EPDM 0 °C bis 130 °C / 32 °C to 266 °F, high temperature version, for appropriately conditioned compr. air down to -20 °C / - 4 °F, or low temperature down to -40 °C/-40°F	
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating	O-rings: FKM Inner valve: stainless steel 316L / 1.4404



Dimensions			K _v -value	Flow rate	Supply pressure	Connection- thread	Pressure range	Order number
A	B	C						
mm	mm	mm	(m ³ /h)	m ³ /h*1	l/min*1	max. bar	G	mbar

Low pressure regulator								made of SST, supply pressure max. 7 bar, non-relieving diaphragm NBR/Buna-N with PTFE coating, FKM o-ring		R3100
80	177	37	0.4	60	1000	6	G $\frac{1}{2}$ *2	5 ... 45		R3100-04A
								20 ... 200		R3100-04C
								150 ... 700		R3100-04D
161	217	68	1.8	180	3000	7	G $\frac{3}{4}$	5 ... 45		R3100-06A
								10 ... 120		R3100-06B
								10 ... 400		R3100-06C
161	296	53						15 ... 700		R3100-06D
								200 ... 1200		R3100-06E
161	217	68	1.8	180	3000	7	G1	5 ... 45		R3100-08A
								10 ... 120		R3100-08B
								10 ... 400		R3100-08C
161	296	53						15 ... 700		R3100-08D
								200 ... 1200		R3100-08E
265	217	68	1.8	180	3000	7	G1 $\frac{1}{4}$	5 ... 45		R3100-10A
								10 ... 120		R3100-10B
								10 ... 400		R3100-10C
265	296	53						15 ... 700		R3100-10D
								200 ... 1200		R3100-10E
265	217	68	1.8	180	3000	7	G1 $\frac{1}{2}$	5 ... 45		R3100-1AA
								10 ... 120		R3100-1AB
								10 ... 400		R3100-1AC
265	296	53						15 ... 700		R3100-1AD
								200 ... 1200		R3100-1AE
171	431	97	5.7	480	8000	6	G1 $\frac{1}{2}$	20 ... 50		R3100-12A
171	467	97						50 ... 150		R3100-12B
171	430	97						150 ... 300		R3100-12D
								300 ... 3000		R3100-12G
171	431	97	5.7	480	8000	6	G2	20 ... 50		R3100-16A
171	467	97						50 ... 150		R3100-16B
171	430	97						150 ... 300		R3100-16D
								300 ... 3000		R3100-16G



*1 at 6 bar supply pressure and 1 bar / 0.7 bar (-04) outlet pressure

*2 G $\frac{3}{4}$ thread at outlet

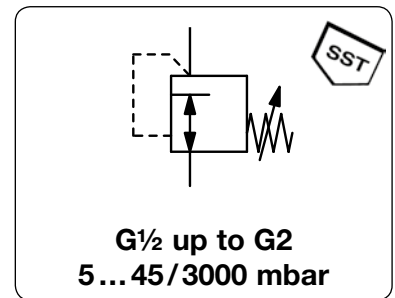
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R3100-04A

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.		
Media	compressed air or gases		
Supply pressure	max. 7 bar, min. 1 bar		
Air consumption	without constant bleed		
Adjustment	by adjusting screw at R3100-04, -06 to -1A (A,B,C), - 12 and -16 by T-handle at R3100-06 to --1A (D,E), with locknut		
Relieving function	non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C bis 80 °C / 32 °C to 176 °F, FKM or EPDM 0 °C bis 130 °C / 32 °C to 266 °F, high temperature version, for appropriately conditioned compr. air down to -20 °C / - 4 °F, or low temperature down to -40 °C/-40°F		
Material	Body: stainless steel 316L, material no. 1.4404	O-rings: FKM	Inner valve: stainless steel 316L / 1.4404
	Diaphragm: NBR/Buna-N with PTFE coating		



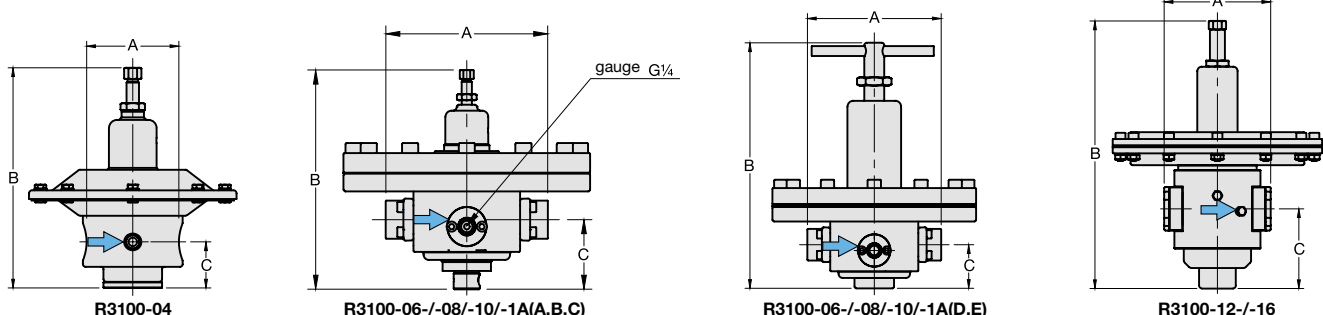
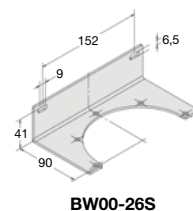
Dimensions			K _v -value	Flow rate	Supply pressure	Connection- thread	Pressure range	Order number
A	B	C	(m ³ /h)	m ³ /h*1	l/min*1	max. bar	G	mbar
mm	mm	mm	(m ³ /h)	m ³ /h*1	l/min*1	max. bar	G	mbar

Special options, add the appropriate letter

NPT	connection thread	R3100- ... N
EPDM o-ring		R3100- ... E
EPDM o-ring	FDA-approval	R3100- ... TD
down to -40 °C/-40 °F	low temperature version	from G $\frac{1}{4}$ (02) on R3100- ... X51
up to 130 °C/266 °F	high temperature version	from G $\frac{1}{4}$ (02) on R3100- ... X54
ammonia	NH ₃	R3100- ... 02
carbon dioxide	CO ₂	R3100- ... 03
argon	Ar	R3100- ... 05
nitrogen	N ₂	R3100- ... 07
helium	He	R3100- ... 09
hydrogen	H ₂	R3100- ... 11
methane	CH ₄	R3100- ... 13
natural gas *3		R3100- ... 14
oxygen	O ₂	R3100- ... 15
propane	C ₃ H ₈	R3100- ... 16
nitrous oxide	N ₂ O	R3100- ... 17
flange connection	see end of the chapter / flanges	R3100- ... F .

Accessories, enclosed

pressure gauge	Ø 63 mm, 0... ^{*4} mbar, G $\frac{1}{4}$, capsule type	up to 600 mbar	MS6302- ... *4
	Ø 63 mm, 0... ^{*5} bar, G $\frac{1}{4}$, Bourdon tube	from 1 bar on	MS6302- ... *5
connect. parts gauge		for G $\frac{1}{2}$	AM-03S
mounting bracket		for G $\frac{1}{2}$	BW00-26S



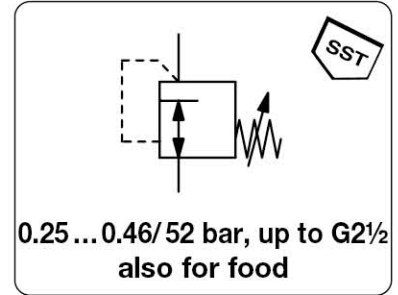
*1 at 6 bar supply pressure and 1 bar / 0.7 bar (-04) outlet pressure
 *2 without DVGW-approval
 *3 without DVGW-approval
 *4 B6 = 0...60 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, C6 = 0...600 mbar
 *5 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar



PRESSURE REGULATOR MADE OF STAINLESS STEEL, SUITABLE FOR PHARMACY

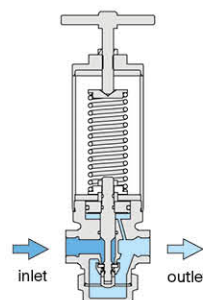
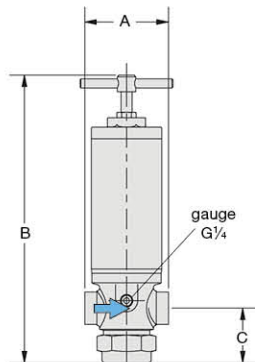
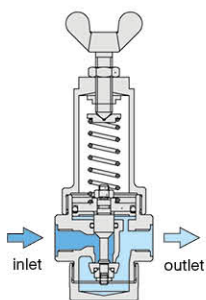
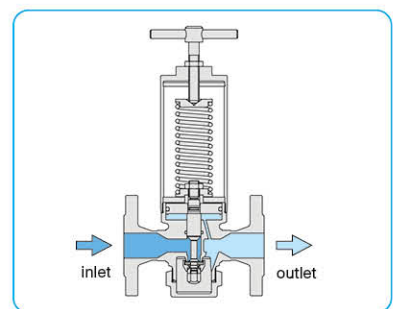
R70

Description	Piston-operated pressure regulator made of stainless steel up to pressure range of 52 bar, independent to inlet pressure.	
Note	It is recommended to select an outlet diameter at least one time larger than the main valve's diameter.	
Media	compressed air, gases, liquids or steam (R70-02 not suitable for steam)	
Supply pressure	max. 16 bar at R70-02,	max. 40 bar at R70-16/-20,
Adjustment	max. 63 bar at R70-03/-06 to -12,	max. 100 bar at R70-04
Relieving function	by wing screw at R70-02,	with locknut
Gauge port	by T-handle at R70-03 to -20,	with locknut
Temperature range	non-relieving	
Material	G $\frac{1}{4}$ on both sides of the body	Mounting position any
	0 °C to 140 °C / 32 °F to 284 °F, EPDM, steamable,	
	0 °C to 150 °C / 32 °F to 302 °F, PTFE/EPDM for steam	
	0 °C to 200 °C / 32 °F to 302 °F, PTFE/AF100/EPDM, for steam	
	Body: stainless steel 1.4301 or 1.4571 (R70-02), optionally 1.4435	
	Spring cage: stainless steel 1.4301	Diaphragm: EPDM
	Seals: EPDM, optionally PTFE	O-rings: EPDM



Dimensions			Nominal size	K _v -value	Flow rate air	Flow rate water	Connection thread	P ₁ max.	Pressure range	Order number
A	B	C	DN	(m ³ /h)	l/min*1	l/min*2	G	bar	bar	

SST pressure regulator											supply pressure max. 16/63/100 bar, non-relieving, for compressed air, gas, water, steam*3	R70
58	185	36	8	0.63	24	3	G $\frac{1}{4}$	16	1.0 ... 2.0	R70-02A		
									2.0 ... 4.0	R70-02B		
									2.5 ... 5.0	R70-02C		
									3.5 ... 7.0	R70-02D		
70	253	48	10	2.0	55	6	G $\frac{3}{8}$	*4	0.5 ... 1.2	R70-03A		
									0.9 ... 1.8	R70-03B		
									1.6 ... 3.2	R70-03C		
									3.3 ... 6.5	R70-03D		
									5.0 ... 10.0	R70-03E		
									10.0 ... 17.0	R70-03F		
90	333	58	15	3.0	120	15	G $\frac{1}{2}$	*4	0.6 ... 1.2	R70-040		
									1.0 ... 2.0	R70-04A		
									1.5 ... 3.0	R70-04B		
									2.7 ... 5.0	R70-04C		
									4.3 ... 8.5	R70-04D		
									8.5 ... 17.0	R70-04E		
									15.0 ... 25.0	R70-04F		
									25.0 ... 38.0	R70-04G		
									38.0 ... 53.0	R70-04H		
90	333	58	20	3.2	200	25	G $\frac{3}{4}$	*4	0.6 ... 1.2	R70-060		
									1.0 ... 2.0	R70-06A		
									1.5 ... 3.0	R70-06B		
									2.7 ... 5.0	R70-06C		
									4.3 ... 8.5	R70-06D		
									8.5 ... 17.0	R70-06E		
									15.0 ... 25.0	R70-06F		
									25.0 ... 38.0	R70-06G		
									38.0 ... 53.0	R70-06H		
105	368	68	25	6.3	350	45	G1	*4	0.5 ... 1.1	R70-08A		
									1.2 ... 2.4	R70-08B		
									2.0 ... 4.2	R70-08C		
									4.0 ... 8.0	R70-08D		
									8.0 ... 11.5	R70-08E		
									11.0 ... 14.2	R70-08F		
									14.0 ... 17.5	R70-08G		
									17.0 ... 23.0	R70-08H		

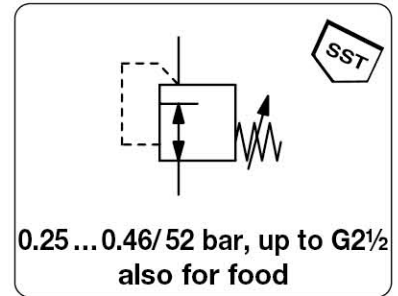


*1 at flow velocity 10 m/s
*2 at 2.5 m/s

*3 not for R70-02
*4 P₁ max. = P₂ max. + 25 bar

Pharmacy and food-safe version

Description	The pharmacy version (option P) standard design is completely made of stainless steel, independent of inlet pressure, sealed at zero consumption, with EPDM and steamable up to 140 °C / 284 °F. Media contact parts have roughness of $R_a < 2.6 \mu\text{m}$.				
Special options	Add the appropriate letter to the order number:				
Outer surface	Valve body: electropolished	FA	glass bead shot-peened	FC	
	Complete valve: electropolished	FB	glass bead shot-peened	FD	ground/polished $R_a 1.2 \mu\text{m}$
Inner surface	Valve body: $R_a < 2.0 \mu\text{m}$		glass bead shot-peened	GA	
	Media contact parts: $R_a < 1.6 \mu\text{m}$	GB	$R_a < 0.8 \mu\text{m}$	GC	$R_a < 0.5 \mu\text{m}$
Connection	Aseptic flange as per DIN 11864-2	F(AS)	as per APV	F(APV)	
	Flange as per DIN 2633 (PN16)	F	as per ANSI B16.5 150 lbs	F150lbs	
	Threaded connection as per DIN 11851	GA			
	Clamp fittings as per DIN 32676	CL			

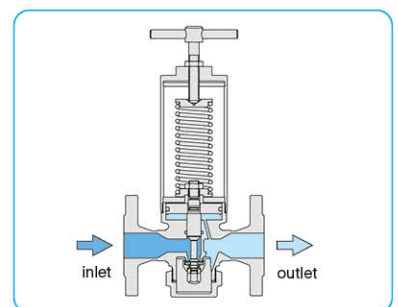


Dimensions	Nominal size	K_v -value	Flow rate	Connection	P_1 max.	Pressure range	Order number
A B C	DN	(m^3/h)	air water	thread	bar	bar	
mm mm mm			l/min^{*1} l/min^{*2}	G			

SST pressure regulator

supply pressure max. 16/63/100 bar, non-relieving, for compressed air, gas, water, steam*3

A	B	C	DN	K_v	air	water	thread	P_1	Pressure range	Order number
145	410	85	40	12.5	900	120	G1½	*4	1.0 ... 2.2 1.9 ... 3.5 3.5 ... 4.3 4.0 ... 6.7 6.0 ... 8.8 8.0 ... 12.3 11.0 ... 17.0	R70-12A R70-12B R70-12C R70-12D R70-12E R70-12F R70-12G
145	410	85	50	13.0	1300	160	G2	*4	1.0 ... 2.2 1.9 ... 3.5 3.5 ... 4.3 4.0 ... 6.7 6.0 ... 8.8 8.0 ... 12.3 11.0 ... 17.0	R70-16A R70-16B R70-16C R70-16D R70-16E R70-16F R70-16G
220	685	145	65	28.0	3200	420	G2½	*4	0.25 ... 0.46 0.5 ... 1.1 1.2 ... 2.4 2.5 ... 5.5 4.5 ... 9.1 6.0 ... 12.0	R70-20A R70-20B R70-20C R70-20D R70-20E R70-20F

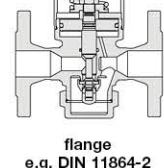
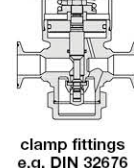
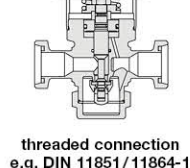
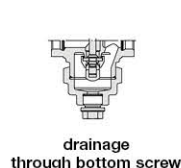


Special options, add the appropriate letter

NPT	connection thread	R70-...N
stainless steel 1.4435	housing 1.4435, spring cage 1.4301 for G¾ up to G1	R70-...S
up to 150 °C / 302 °F	PTFE seals	R70-...X55
up to 200 °C / 392 °F	PTFE / AF100 seals	R70-...X56
tamper-proof cap	adjustment by spanner, height 35 mm lower	R70-...T
drainage	through bottom screw	R70-...U
volume booster	pneumatic pressure setting	R70-...J
other connections	DIN or ANSI flange, threaded connection or clamp fittings	R70-...F.
for pharmacy	forged stainless steel, $R_a < 2.6 \mu\text{m}$, steamable, EPDM	R70-...P
for food industry	EPDM elastomer with FDA approval	R70-...

Accessories, enclosed

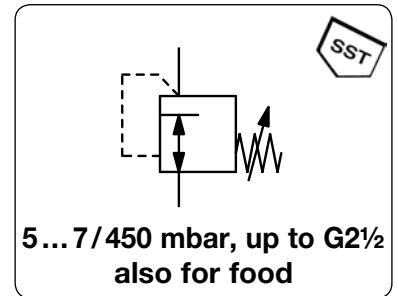
pressure gauge	Ø 63 mm, 0...*3 bar, G¼	MS6302-...*3
	for other requirements on request	



*1 at flow velocity 10 m/s
*2 at 2.5 m/s

*3 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar, 60 = 0...60 bar
*4 P_1 max. = P_2 max. + 25 bar

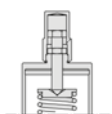
Description	Diaphragm-operated pressure regulator completely made of stainless steel for very low outlet pressure, independent of inlet pressure.		
Note	It is recommended to select an outlet diameter at least one time larger than the main valve's diameter. Mounting position with spring cage downward at pressure range < 100 mbar.		
Media	compressed air or gases		
Supply pressure	max. 25 bar at R74-02 to -A8,	max. 16 bar at R74-08/16	
Adjustment	by T-handle with locknut		
Relieving function	non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body	Mounting position	spring cage downward
Temperature range	0 °C to 140 °C / 32 °F to 284 °F for EPDM, steamable		
Material	Body: stainless steel 1.4301, optionally 1.4435	Spring cage: stainless steel 1.4301	
	Diaphragm: EPDM	Seals: EPDM	O-rings: EPDM



Dimensions			Nominal K _v -	Flow rate		Connection	Diaphr.	P ₁	Pressure	Order
A	B	C	size	air	water	thread	Ø mm	< bar	range	number
mm	mm	mm	DN	(m ³ /h)	l/min*1	G			mbar	

Low pressure regulator supply pressure max. 16 / 25 bar, non-relieving, without constant bleed **R74**

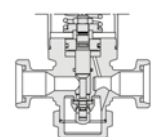
70	368	48	8	1.2	30	1.8	G $\frac{1}{4}$	405	0.5	5 ... 9	R74-02A
									0.5	8 ... 15	R74-02B
									0.5	14 ... 28	R74-02C
							R74-03	310	0.8	25 ... 33	R74-02D
							for G $\frac{3}{8}$		1.2	28 ... 56	R74-02E
							R74-A4	235	1.5	50 ... 74	R74-02F
							for G $\frac{1}{2}$		2.0	60 ... 120	R74-02G
								190	4.0	100 ... 150	R74-02H
									25	130 ... 266	R74-02I
									25	230 ... 450	R74-02K
70	368	48	10	2.0	30	1.8	G $\frac{3}{8}$	...	...	...	R74-03.
70	368	48	15	2.2	30	1.8	G $\frac{1}{2}$	...	...	...	R74-A4.
90	368	58	15	3.0	120	7.2	G $\frac{1}{2}$	405	0.5	5 ... 8	R74-04A
									0.5	8 ... 15	R74-04B
									0.5	13 ... 27	R74-04C
							R74-06	310	0.8	25 ... 32	R74-04D
							for G $\frac{3}{4}$		1.2	27 ... 54	R74-04E
							R74-A8	235	1.5	50 ... 70	R74-04F
							for G1		2.0	60 ... 100	R74-04G
								190	4.0	100 ... 140	R74-04H
									25	130 ... 250	R74-04I
									25	220 ... 400	R74-04K
90	368	58	20	3.2	120	7.2	G $\frac{3}{4}$	...	...	...	R74-06.
90	368	58	25	3.5	120	7.2	G1	...	...	...	R74-A8.
105	388	68	25	6.3	370	22	G1	405	0.5	5 ... 8	R74-08A
									0.5	7 ... 14	R74-08B
									0.5	13 ... 25	R74-08C
							R74-12	310	0.8	25 ... 30	R74-08D
							for G1 $\frac{1}{2}$		1.2	28 ... 50	R74-08E
								235	1.4	50 ... 65	R74-08F
									2.0	60 ... 110	R74-08G
								190	5.0	100 ... 140	R74-08H
									16	120 ... 230	R74-08I
									16	210 ... 400	R74-08K
105	388	68	32	6.5	370	22	G1 $\frac{1}{4}$	...	...	...	R74-10.
105	388	68	40	6.7	370	22	G1 $\frac{1}{2}$	...	...	...	R74-12.



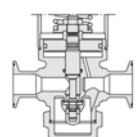
tamper-proof cap for pressure adjustment



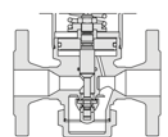
drainage through bottom screw



threaded connection e.g. DIN 11851/11864-1



clamp fittings e.g. DIN 32676



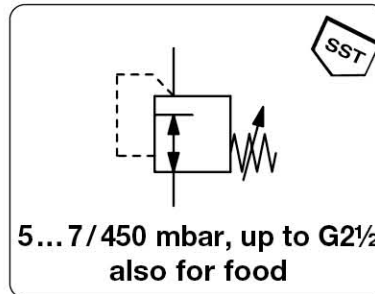
flange e.g. DIN 11864-2

*1 at 10 m/s flow velocity
*2 at 1.5 m/s flow velocity



Pharmacy and food-safe version

Description	The pharmacy version (option P) standard design is completely made of stainless steel, independent of inlet pressure, sealed at zero consumption, with EPDM and steamable up to 140 °C / 284 °F. Media contact parts have roughness of $R_a < 2.6 \mu\text{m}$.					
Special options	Add the appropriate letter to the order number:					
Outer surface	Valve body: electropolished	FA	glass bead shot-peened	FC		
	Complete valve: electropolished	FB	glass bead shot-peened	FD	ground/polished $R_a 1.2 \mu\text{m}$	FE
Inner surface	Valve body: $R_a < 2.0 \mu\text{m}$		glass bead shot-peened	GA		
	Media contact parts: $R_a < 1.6 \mu\text{m}$	GB	$R_a < 0.8 \mu\text{m}$	GC	$R_a < 0.5 \mu\text{m}$	GD
Connection	Aseptic flange as per DIN 11864-2	F(AS)	as per APV	F(APV)		
	Flange as per DIN 2633 (PN16)	F	as per ANSI B16.5 150 lbs	F150lbs		
	Threaded connection as per DIN 11851	GA				
	Clamp fittings as per DIN 32676	CL				



Dimensions			Nominal K_v -size	Flow rate	Connection	Diaphr.	P_1	Pressure	Order
A	B	C	DN	air (m³/h)	water (l/min*1)	thread	Ø mm	recommended range (mbar)	number

Low pressure regulator

supply pressure max. 16 / 25 bar, non-relieving, without constant bleed

R74

145	435	85	50	13.0	1350	81	G2*	405	0.5	5... 7	R74-16A
									0.5	7... 14	R74-16B
									0.5	12... 24	R74-16C
									0.8	21... 26	R74-16D
								310	1.2	25... 28	R74-16E
									2.0	27... 45	R74-16F
									3.0	42... 50	R74-16G
								235	4.0	50... 63	R74-16H
									16	60... 110	R74-16I
									16	100... 180	R74-16K
									16	160... 300	R74-16L
145	435	85	40	12.5	1350	81	G1½	...	...	...	R74-B2.
145	435	85	65	13.5	1350	81	G2½	...	...	...	R74-20.



R74-08IF



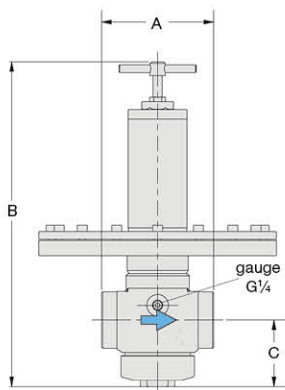
R74-16A

Special options, add the appropriate letter

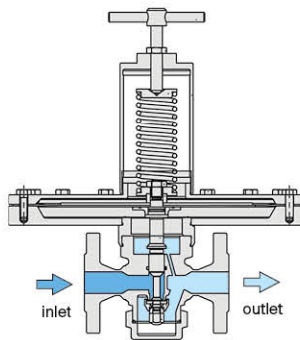
NPT	connection thread	R74-...N
stainless steel 1.4435	housing 1.4435, spring cage 1.4301 for G¾ up to G1	R74-...S
tamper-proof cap	adjustment by spanner, height 40 mm lower	R74-...T
drainage	through bottom screw	R74-...U
volume booster	pneumatic pressure setting	R74-...J
other connections	DIN or ANSI flange, threaded connection or clamp fittings	R74-...F.
for pharmacy	forged stainless steel, $R_a < 2.6 \mu\text{m}$, steamable, EPDM	R74-...P
for food industry	EPDM elastomer with FDA approval	R74-...

Accessories, enclosed

pressure gauge Ø 63 mm, 0...*3 mbar, G¼, capsule type, 0...100 °C/32...212 °F **MS6302-..*3**
for other requirements on request



R74



cross-section

*1 at 10 m/s flow velocity

*2 at 1.5 m/s flow velocity

*3 B2 = 0...25 mbar, B6 = 0...60 mbar, C1 = 0...100 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, C6 = 0...600 mbar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R74-16A

Description Hand-operated, spring-loaded high pressure regulator for maximum supply pressure of 220 bar and maximum outlet pressure of 200 bar. For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.

Media compressed air or non-corrosive gases

Supply pressure max. 220 bar

Adjustment by hexagon head screw at RH3000-02 to -A3; T-handle at RH3000-06 to -10, with locknut

Gauge port All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.

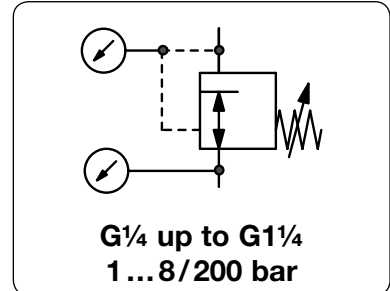
Safety relief valve prevents from overpressure, see chart

Compensation All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.

Temperature range -20 °C to 60 °C / -4 °F to 140 °F

Material
 Body: stainless steel 316
 Diaphragm: stainless steel 316
 O-ring: FKM / PTFE

Mounting position any
 Filter: stainless steel 316
 Valve seat: FKM
 Piston: stainless steel 316



Dimensions			Safety	K _v -	Flow	Connection	Pressure	Order
A	B	C	relief valve	value	rate	thread	range	number
mm	mm	mm	S: with valve	(m ³ /h)	m ³ /h*1	inlet/outlet	bar	

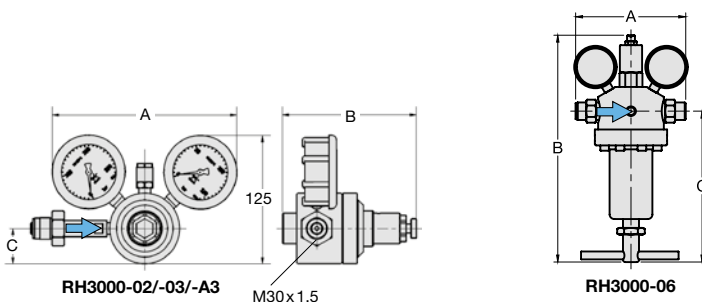
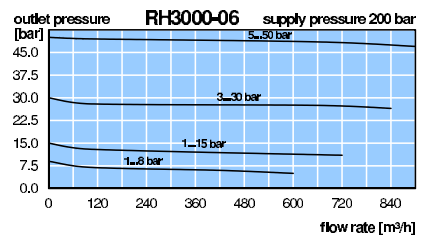
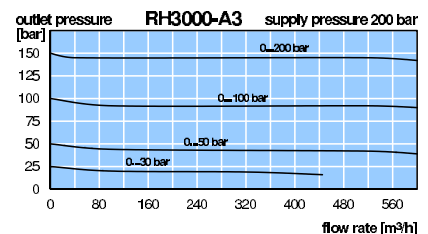
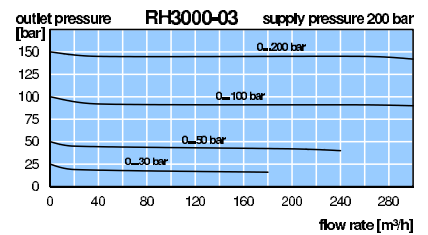
High pressure regulator 220 bar							non-relieving, for compressed air with supply and outlet pressure gauges	RH3000	
177	159	32	S	0.05	30	500	DIN 477 / G 1/4	1 ... 8	RH3000-02A
			S		45	750		1 ... 15	RH3000-02B
177	173	32	S	60	1000			3 ... 30	RH3000-02C
			S	60	1000			5 ... 50	RH3000-02D
			S	60	1000			10 ... 100	RH3000-02E
			-	60	1000			20 ... 200	RH3000-02F
190	169	40	S	0.15	70	1150	DIN 477 / G 3/8m	1 ... 8	RH3000-03A
			S		155	2580		1,5 ... 15	RH3000-03B
			S	210	3500		DIN 477 / G 3/8	3 ... 30	RH3000-03C
190	174	40	S	250	4100			5 ... 50	RH3000-03D
				350	5800			10 ... 100	RH3000-03E
			-	390	6500			20 ... 200	RH3000-03F
190	194	40	-	0.25	370	6170	DIN 477 / G 1/2m	1 ... 15	RH3000-A3B
182	239	40	S	460	7700		DIN 477 / G 3/8	3 ... 30	RH3000-A3C
	182	243	40	S	650	10830		5 ... 50	RH3000-A3D
			S	680	11300			10 ... 100	RH3000-A3E
			-	700	11670			20 ... 200	RH3000-A3F
182	194	40	-	1.5	600	10000	G 3/4 m / G 3/4 m	1 ... 8	RH3000-06A
			S	720	12000			1 ... 15	RH3000-06B
171	342	227	S	850	14170			3 ... 30	RH3000-06C
			S	1000	16670			5 ... 50	RH3000-06D
			S	1050	17500			10 ... 100	RH3000-06E



RH3000-02



RH3000-03

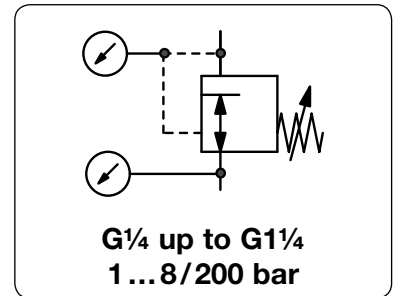


*1 at 200 bar supply pressure and max. outlet pressure

STAINLESS STEEL HIGH PRESSURE REGULATOR, P1: UP TO 200 BAR

RH3000

Description	Hand-operated, spring-loaded high pressure regulator for maximum supply pressure of 220 bar and maximum outlet pressure of 200 bar. For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 220 bar		
Adjustment	by hexagon head screw at RH3000-02 to -A3; T-handle at RH3000-06 to -10, with locknut		
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.		
Safety relief valve	prevents from overpressure, see chart		
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.		
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F		
Material	Body: stainless steel 316	Filter: stainless steel 316	Mounting position any
	Diaphragm: stainless steel 316	Valve seat: FKM	
	O-ring: FKM / PTFE	Piston: stainless steel 316	



Dimensions			Safety relief valve	K _v -value	Flow rate	Connection thread	Pressure range	Order number
A	B	C	S: with valve	(m ³ /h)	m ³ /h* ¹	inlet/outlet	bar	

High pressure regulator 220 bar								non-relieving, for compressed air with supply and outlet pressure gauges	RH3000
250	371	243	S	2.5	1100	18330	G1 m/G1 m	1 ... 8	RH3000-08A
			S			1300		1 ... 15	RH3000-08B
250	410	282	S	1500	25000			3 ... 30	RH3000-08C
			S	1650	27500			5 ... 50	RH3000-08D
250	390	262	-	1850	30830			20 ... 200	RH3000-08F
246	388	272	S	3.5	3850	65830	G1 m/G1 1/4	1 ... 15	RH3000-10B
246	429	313	S	3500	58330			10 ... 100	RH3000-10E



RH3000-08



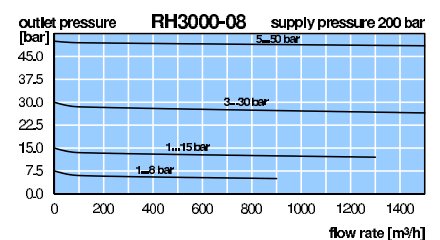
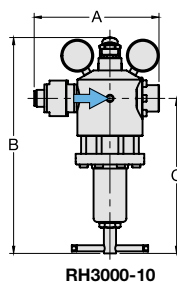
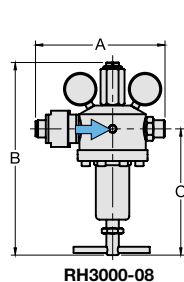
RH3000-10

Special options, add the appropriate letter

diaphragm relieving		RH3000-... R
piston relieving		RH3000-... R
EPDM elastomer		RH3000-... E
for panel mounting	for RH3000-02 to -A3	RH3000-... P
carbon dioxide* ²	CO ₂	RH3000-... 03
argon	Ar	RH3000-... 05
nitrogen	N ₂	RH3000-... 07
helium	He	RH3000-... 09
hydrogen	H ₂	RH3000-... 11
methane	CH ₄	RH3000-... 13
natural gas * ³		RH3000-... 14
propane	C ₃ H ₈	RH3000-... 16
nitrous oxide	N ₂ O	RH3000-... 17

Accessories, enclosed

mounting bracket	for RH3000-02	BW45-03S
mounting nut	for RH3000-02	M45x1,5S
mounting bracket	for RH3000-03 and -A3	BW50-01S
mounting nut	for RH3000-03 and -A3	M50x1,5S
mounting bracket	for RH3000-06	BW00-31S
mounting bracket	for RH3000-08	BW00-35S



*¹ at 200 bar supply pressure and max. outlet pressure *² max. 80 bar *³ without DVGW-approval

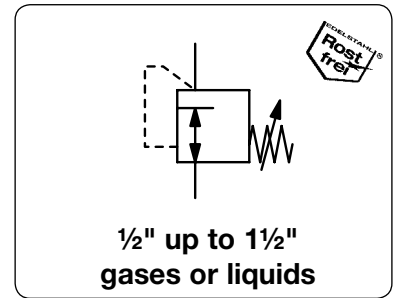
PDF CAD
www.aircom.net

Order example:
RH3000-08A

STAINLESS STEEL TRI CLAMP PRESSURE REGULATOR

RTC

Description	Pressure regulator with flange, piston operated, made of stainless steel		
Media	compressed air, gases or liquids		
Supply pressure	max. 25 bar		
Surface	Electropolished body with roughness Ra < 4 µm on inside wetted surfaces. All metallic parts are machined from the solid bar. No threaded connections exposed to the fluid. The regulator is virtually pocket and sterilizable with steam.		
Adjustment	by adjusting screw RTC-04 and -06, by T-handle RTC-08 and -12		
Relieving function	non-relieving		
Gauge port	locked in standard		
Temperature range	-40°C to 175°C / -40°F to 347°F		
Material	Body, bonnet, piston and inner parts: AISI 316L, AISI 302,	gasket: EPDM or FKM corresponding to FDA Adjusting spring: C85, nickel plated NiP/Fe 15 µm	
	All springs are not in contact with fluid.		



Dimensions				K _v - value	Flow rate	Connection ASME- BPE	Pressure range bar	Order number
A	B	C	ØD					
mm	mm	mm	mm	m³/h ¹	l/min ¹			

Tri Clamp Pressure Regulator							supply pressure max. 25 bar, EPDM for compressed air, gases, liquids and steam	RTC
139	182	57	25	1,2	2200	1/2"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-04A RTC-04B RTC-04D
142	182	57	25	1,2	2200	3/4"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-06A RTC-06B RTC-06D
180	326	75	50,5	11	22000	1"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-08A RTC-08B RTC-08D
182	326	75	50,5	11	22000	1 1/2"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-12A RTC-12B RTC-12D



RTC-04/-06



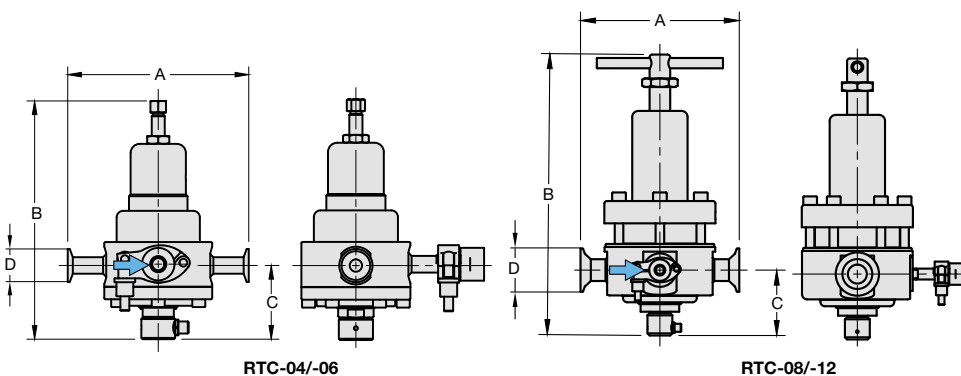
RTC-08/-12

Special Options, add the appropriate letter

to 200°C	high temperature version	RTC-... X68
FKM o-ring		RTC-... T
EPDM o-ring	FDA approval	RTC-... TD
ammonia	NH ₃	RTC-... 02
nitrogen	N ₂	RTC-... 07
oxygen	O ₂	RTC-... 15
water	H ₂ O	RTC-... W
neutral gas	CO ₂ , Ar, He, H ₂ , CH ₄ , C ₃ H ₆ , N ₂ O	RTC-... XX

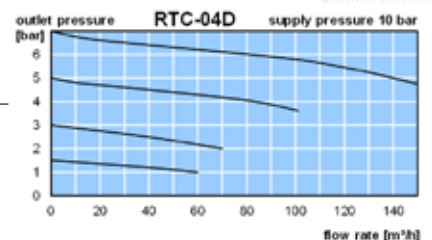
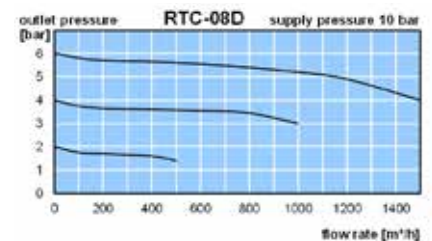
Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*2} bar	G1/4	for 1/2" u. 3/4"	MS5002-... ^{*2}
	Ø 63 mm, 0... ^{*2} bar	G1/4	for 1" u. 1 1/2"	MS6302-... ^{*2}
mounting bracket			for 1/2" u. 3/4"	BW45-03S
mounting nut			for 1/2" u. 3/4"	M45x1,5S
mounting bracket			for 1" u. 1 1/2"	BW00-27S



RTC-04/-06

RTC-08/-12



*1 at 10 bar supply pressure, 7 bar outlet pressure and 2 bar pressure drop
*2 02 = 0...2,5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Gauges: see chapter for measuring devices

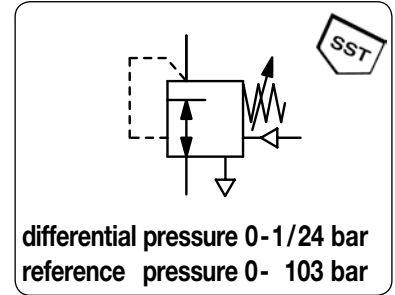
PDF CAD
www.aircom.net



Order example:
RTC-04A

DIFFERENTIAL PRESSURE REGULATOR P1: MAX. 414 BAR, P2: 0-103 BAR RH44-S

Description	The dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.		
Media	compressed air or gases (depending on selected materials)		
Supply pressure	max. 414 bar	Outlet pressure	max. 103 bar
Exhaust	tapped exhaust 1/4" NPT	Control port	1/8" NPT
Adjustment	hexagonal screw for spring tension	Leakage	bubble-tight
Gauge port	not available	Mounting position	any
Temperature range	-26 °C to 74 °C / -14 °F to 165 °F		
Material	Body: stainless steel 302		
	Valve seat and gasket: CTFE, Vespel		
	O-Rings: NBR/Buna-N		



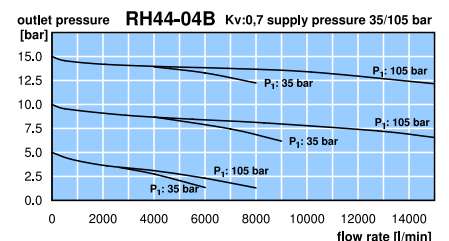
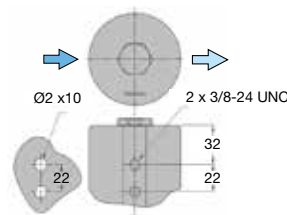
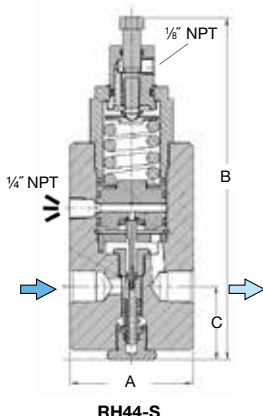
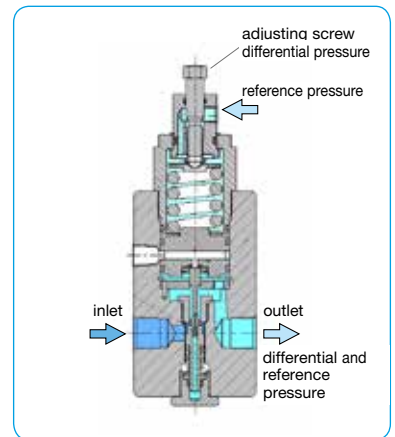
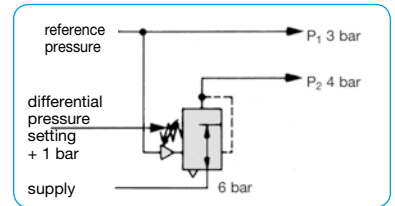
Dimensions			K _v -value (m³/h)	Flow rate l/min*1	Connection thread NPT	Differential pressure range bar	Order number
A mm	B mm	C mm					

Differential pressure regulator						P ₁ max: 414 bar, P ₁ max: 103 bar, SST 302 relieving, P ₂ : 0 ... 103 bar, Viton / CTFE	RH44
76	212	46	0.7	10000	1/2" NPT	0... 1 0... 7 0... 14 0... 24	RH44-04AS RH44-04BS RH44-04CS RH44-04DS
76	212	46	2.0	21000	3/4" NPT	0... 1 0... 7 0... 14 0... 24	RH44-06AS RH44-06BS RH44-06CS RH44-06DS



Special options, add the appropriate letter

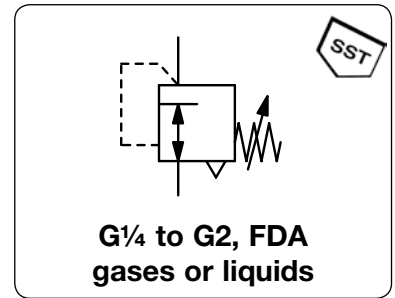
brass body (s. page 4.22) RH44-0.



*1 at P₁ = 105 bar, P₂ = 15 bar and Δp = 1 bar

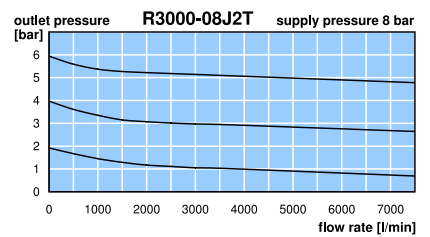
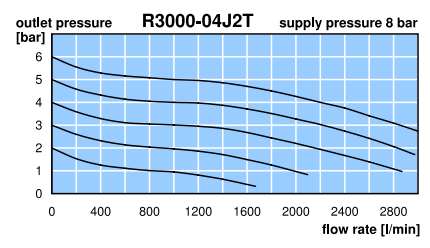
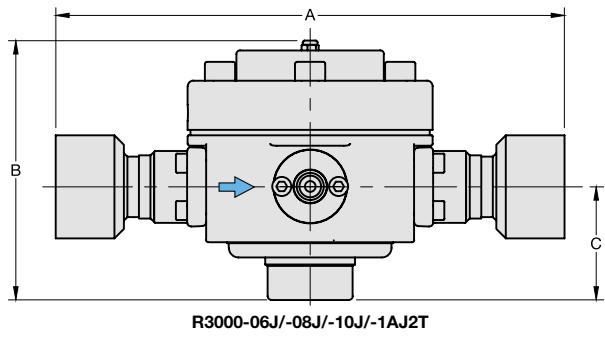
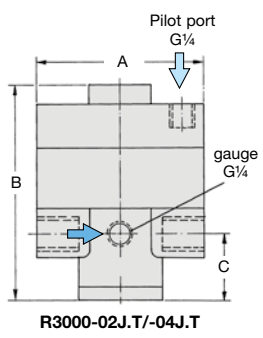
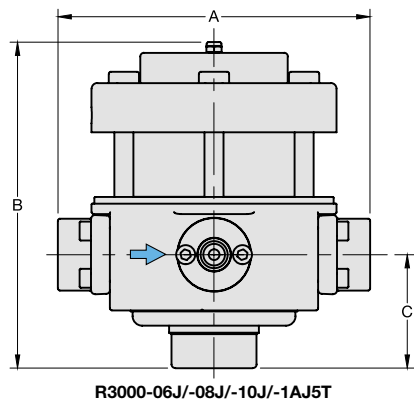
VOLUME BOOSTER MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR R3000-J

Description	Volume booster made of stainless steel throughout, without constant bleed, transmission ratio 1:1.	
Media	compressed air, gases or liquids	
Supply pressure	max. 60 bar for R3000-06J/-1A, max. 30 bar for -16J, all others 50 bar, for liquids $\Delta p_{max} = 25$ bar	
Pilot pressure	max. 15 bar for R3000-...J2, max. 50 bar for R3000-...J5, pilot port G $\frac{1}{4}$	
Relieving function	non-relieving, optionally relieving	
Exhaust	DN 2, optionally DN 4	
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied	Mounting position any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F	
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally SST	O-rings: FKM, optionally EPDM Inner valve: SST 316L, W.-Nr. 1.4404



Dimensions			Regulating System	K _v -value	Flow rate	Connection thread	Pilot pressure	Pressure range	Order number
A	B	C	D: Diaphragm P: Piston	(m ³ /h)	m ³ /h*1	G	max. bar	bar	

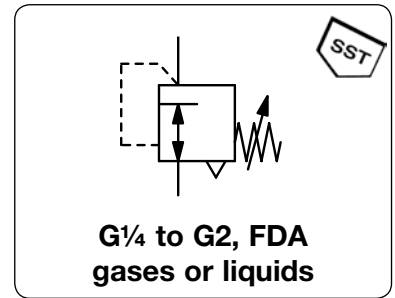
Stainless steel booster										supply pressure max. 60 bar, non-relieving, ratio 1:1, PTFE-diaphragm and FKM-o-ring	R3000-J
64	79	38	D	0.5	30	500	G $\frac{1}{4}$	15	1...15	R3000-02J2T	
64	92	38	P					50	1...50	R3000-02J5T	
80	86	38	D	1.0	72	1200	G $\frac{1}{2}$	15	1...15	R3000-04J2T	
80	107	38	P					50	1...50	R3000-04J5T	
165	138	60	D	6.0	390	6500	G $\frac{3}{4}$	15	1...15	R3000-06J2T	
165	173	60	P					60	1...60	R3000-06J5T	
165	138	60	D	6.0	390	6500	G1	15	1...15	R3000-08J2T	
165	173	60	P					60	1...60	R3000-08J5T	
269	138	60	D	6.0	390	6500	G1 $\frac{1}{4}$	15	1...15	R3000-10J2T	
269	173	60	P					60	1...60	R3000-10J5T	
269	138	60	D	6.0	390	6500	G1 $\frac{1}{2}$	15	1...15	R3000-1AJ2T	
269	173	60	P					60	1...60	R3000-1AJ5T	
171	237	128	P	12.0	840	14000	G1 $\frac{1}{2}$	50	1...50	R3000-12J5T	
171	237	128	P	12.6	900	15000	G2	50	1...50	R3000-B6J5T	
171	268	128	P	21.0	1500	25000	G2	15	1...15	R3000-16J2T	



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

VOLUME BOOSTER MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR R3000-J

Description	Volume booster made of stainless steel throughout, without constant bleed, transmission ratio 1:1.		
Media	compressed air, gases or liquids		
Supply pressure	max. 60 bar for R3000-06J/-08J, all others 50 bar,	for liquids $\Delta p_{max} = 25$ bar	
Pilot pressure	max. 15 bar for R3000-...J2, max. 50 bar for R3000-...J5,	Steueranschluss G $\frac{1}{4}$	
Relieving function	non-relieving, optionally relieving		
Exhaust	DN 2, optionally DN 4		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied	Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F		
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally SST	O-rings: FKM, optionally EPDM Inner valve: SST 316L, W.-Nr. 1.4404	



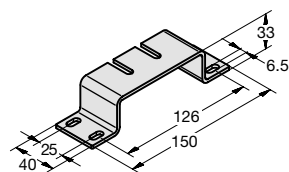
Dimensions	Regulating System	K _v -value	Flow rate	Connection thread	Pilot pressure	Pressure range	Order number
A B C	D: Diaphragm	P: Piston	(m ³ /h) m ³ /h*1 l/min*1	G	max. bar	bar	
mm mm mm							

Special options, add the appropriate letter

diaphragm relieving		for R3000-02J2 to -08J2	R3000-...J2.R
piston relieving		for R3000-...J5	R3000-...J...R
down to -40 °C/ -40°F	low temperature version		R3000-...J...X51
up to 130 °C/266 °F	high temperature version		R3000-...J...X54
FKM -o-ring	for piston regulator or PTFE diaphragm		R3000-...J...T
EPDM-o-ring			R3000-...J...TE
EPDM-o-ring	FDA-approval		R3000-...J...TD
SST diaphragm	FKM -o-ring		R3000-...J...S
	EPDM-o-ring		R3000-...J...SE
tapped exhaust			R3000-...J...X12
ammonia	NH ₃		R3000-...J...02
carobon dioxide	CO ₂		R3000-...J...03
argon	Ar		R3000-...J...05
nitrogen	N ₂		R3000-...J...07
helium	He		R3000-...J...09
hydrogen	H ₂		R3000-...J...11
methane	CH ₄		R3000-...J...13
natural gas *3			R3000-...J...14
oxygen	O ₂		R3000-...J...15
propane	C ₃ H ₆		R3000-...J...16
nitrous oxide	N ₂ O		R3000-...J...17
water	H ₂ O		R3000-...J...W
flange connection	see end of the chapter / flanges		R3000-...J...F.

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$	MS5002-...*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ to G2	MS6302-...*2
mounting bracket		for G $\frac{3}{4}$ and G1	BW00-59S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *3 without DVGW-approval
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

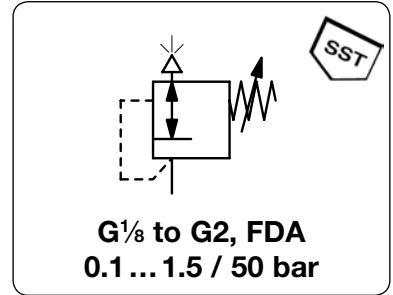
Order example:
MS5002-02

SST
15

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible. compressed air, gases or liquids
Media	compressed air, gases or liquids
System pressure	see chart, max. 65 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G $\frac{1}{8}$ on both sides of the body at D3000-01, all others G $\frac{1}{4}$, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

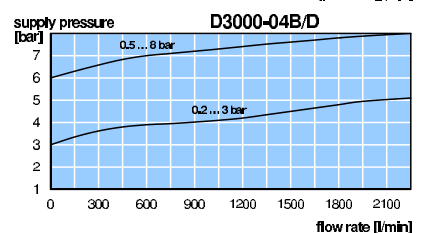
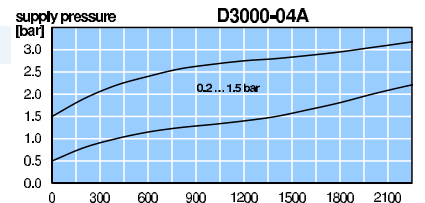
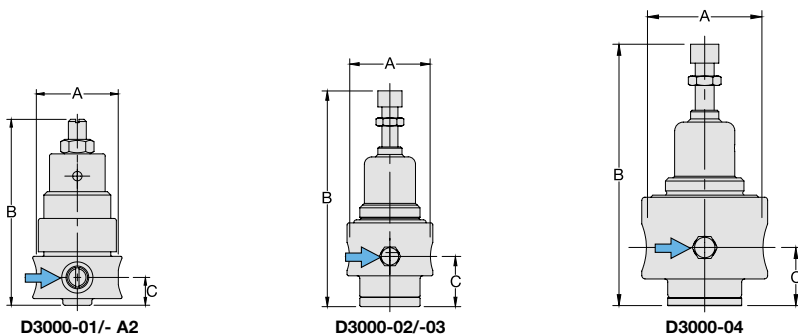


Dimensions			Regul. system	Exhaust	Over-	Connection	Adjustment	Order
A	B	C	D: Diaphragm	rate	pressure	thread	range	number
mm	mm	mm	P: Piston	l/min*1	max. bar	G	bar	

Back pressure regulator								overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring	D3000
40	83	13	D	400	30	G $\frac{1}{8}$	0.1 ... 1.5	D3000-01AT	
							0.2 ... 3.0	D3000-01BT	
							0.5 ... 8.0	D3000-01DT	
							1.0 ... 15	D3000-01ET	
40	83	13	D	400	30	G $\frac{1}{4}$	0.1 ... 1.5	D3000-A2AT	
							0.2 ... 3.0	D3000-A2BT	
							0.5 ... 8.0	D3000-A2DT	
							1.0 ... 15	D3000-A2ET	
64	161	38	D	800	30	G $\frac{1}{4}$	0.1 ... 1.5	D3000-02AT	
							0.2 ... 3.0	D3000-02BT	
							0.5 ... 8.0	D3000-02DT	
							1.0 ... 15	D3000-02ET	
64	175	38	P	800	65		2.0 ... 30	D3000-02FT	
							3.0 ... 50	D3000-02GT	
64	161	38	D	800	30	G $\frac{3}{8}$	0.1 ... 1.5	D3000-03AT	
							0.2 ... 3.0	D3000-03BT	
							0.5 ... 8.0	D3000-03DT	
							1.0 ... 15	D3000-03ET	
64	175	38	P	800	65		2.0 ... 30	D3000-03FT	
							3.0 ... 50	D3000-03GT	
80	166	37	D	2500	30	G $\frac{1}{2}$	0.1 ... 1.5	D3000-04AT	
							0.2 ... 3.0	D3000-04BT	
							0.5 ... 8.0	D3000-04DT	
							1.0 ... 15	D3000-04ET	
80	166	37	P	2500	65		2.0 ... 30	D3000-04FT	
							3.0 ... 50	D3000-04GT	



Accessories, see next pages



*1 at 7 bar overpressure and open outlet

Gauges: see chapter for measuring devices

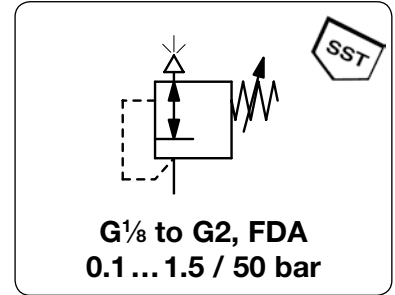
PDF CAD
www.aircom.net

Order example:
D3000-01AT

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible. compressed air, gases or liquids
Media	compressed air, gases or liquids
System pressure	see chart, max. 65 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G $\frac{1}{8}$ on both sides of the body at D3000-01, all others G $\frac{1}{4}$, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

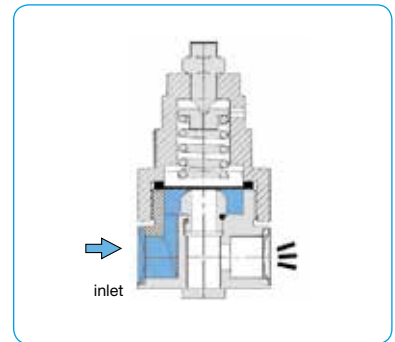


Dimensions			Regul. system	Exhaust	Over-	Connection	Adjustment	Order
A	B	C	D: Diaphragm	rate	pressure	thread	range	number
mm	mm	mm	P: Piston	l/min*1	max. bar	G	bar	

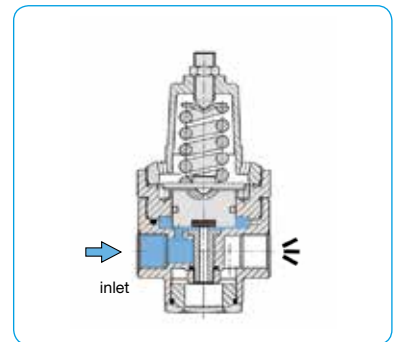
Back pressure regulator				overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring	D3000			
165	257	21	D	8000	30	G $\frac{3}{4}$	0.1 ... 1.5	D3000-06AT
							0.2 ... 3.0	D3000-06BT
							0.5 ... 8.0	D3000-06DT
							1.0 ... 15	D3000-06ET
165	271	21	P	8000	65		2.0 ... 30	D3000-06FT
							3.0 ... 50	D3000-06GT
165	257	21	D	8000	30	G1	0.1 ... 1.5	D3000-08AT
							0.2 ... 3.0	D3000-08BT
							0.5 ... 8.0	D3000-08DT
							1.0 ... 15	D3000-08ET
165	271	21	P	8000	65		2.0 ... 30	D3000-08FT
							3.0 ... 50	D3000-08GT
269	257	21	D	8000	30	G1 $\frac{1}{4}$	0.1 ... 1.5	D3000-10AT
							0.2 ... 3.0	D3000-10BT
							0.5 ... 8.0	D3000-10DT
							1.0 ... 15	D3000-10ET
269	271	21	P	8000	65		2.0 ... 30	D3000-10FT
							3.0 ... 50	D3000-10GT
269	257	21	D	8000	30	G1 $\frac{1}{2}$	0.1 ... 1.5	D3000-1AAT
							0.2 ... 3.0	D3000-1ABT
							0.5 ... 8.0	D3000-1ADT
							1.0 ... 15	D3000-1AET
269	271	21	P	8000	65		2.0 ... 30	D3000-1AFT
							3.0 ... 50	D3000-1AGT



D3000-06/-08/-10/-1A



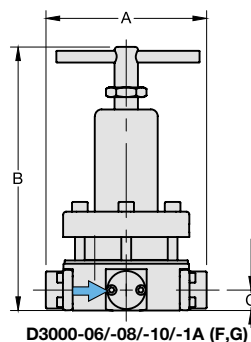
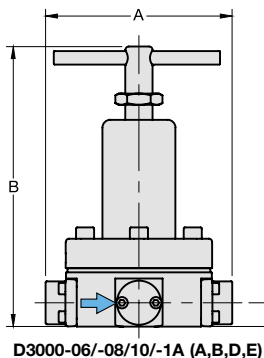
with diaphragm



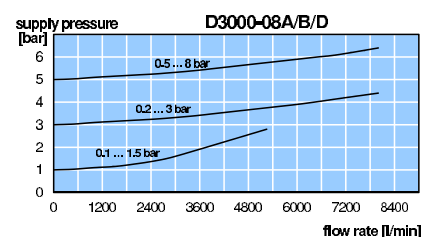
with piston



Accessories, see next pages



*1 at 7 bar overpressure and open outlet



Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

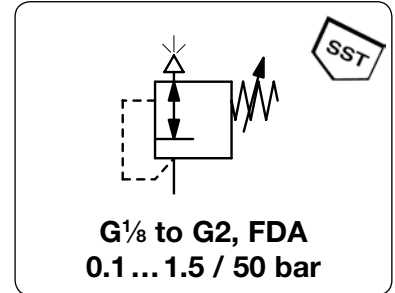


Order example:
D3000-06AT

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT

D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible. compressed air, gases or liquids
Media	compressed air, gases or liquids
System pressure	see chart, max. 65 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G $\frac{1}{8}$ on both sides of the body at D3000-01, all others G $\frac{1}{4}$, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

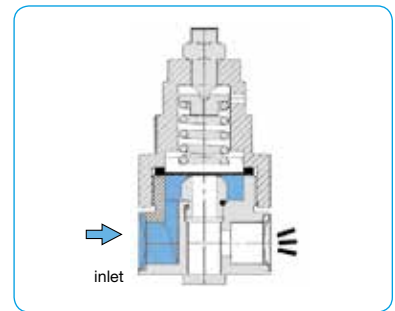


Dimensions			Regul. system	Exhaust	Over-	Connection	Adjustment	Order
A	B	C	D: Diaphragm	rate	pressure	thread	range	number
mm	mm	mm	P: Piston	l/min*1	max. bar	G	bar	

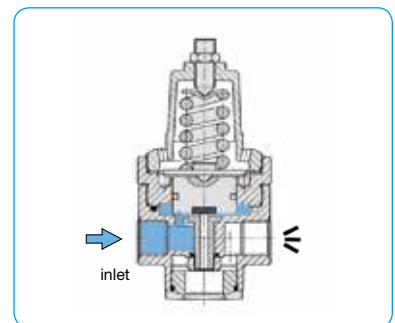
Back pressure regulator								overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring	D3000
171	377	128	P	25 000	30	G $\frac{1}{2}$	0.1 ... 1.5	D3000-12AT	
							0.2 ... 3.0	D3000-12BT	
							0.5 ... 8.0	D3000-12DT	
							1.0 ... 15	D3000-12ET	
171	387	128	P	25 000	65		2.0 ... 30	D3000-12FT	
							3.0 ... 50	D3000-12GT	
171	377	128	P	25 000	30	G2	0.1 ... 1.5	D3000-16AT	
							0.2 ... 3.0	D3000-16BT	
							0.5 ... 8.0	D3000-16DT	
							1.0 ... 15	D3000-16ET	
171	387	128	P	25 000	65		2.0 ... 30	D3000-16FT	
							3.0 ... 50	D3000-16GT	



D3000-12/-16

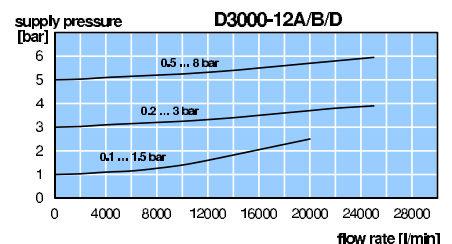
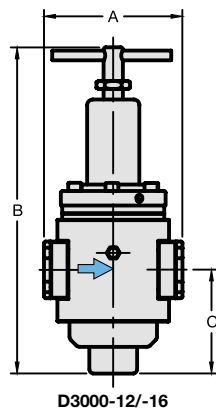


with diaphragm



with piston

Accessories, see next page



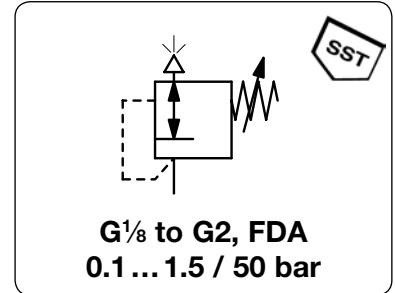
*1 at 7 bar overpressure and open outlet

PDF CAD
www.aircom.net



Order example:
D3000-12AT

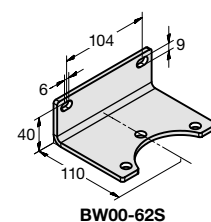
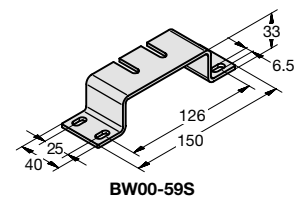
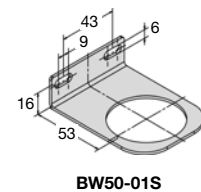
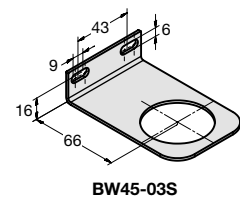
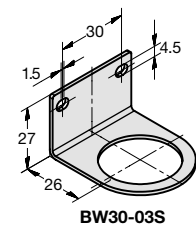
Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 65 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G $\frac{1}{8}$ on both sides of the body at D3000-01, all others G $\frac{1}{4}$, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404



Dimensions			Regul. system	Exhaust	Over-	Connection	Adjustment	Order
A	B	C	D: Diaphragm	rate	pressure	thread	range	number
mm	mm	mm	P: Piston	l/min*1	max. bar	G	bar	

Special options, add the appropriate letter

NPT	connection thread	for G $\frac{1}{8}$ to G $\frac{1}{2}$, G1 $\frac{1}{2}$ (12) and G2	D3000-N
NPT	connection thread	for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	D3000-N
down to -40 °C / -40 °F	low temperature version	from G $\frac{1}{4}$ (02) on	D3000-X51
up to 130 °C / 266 °F	high temperature version	from G $\frac{1}{4}$ (02) on	D3000-X54
FKM -o-ring	for piston regulator or PTFE diaphragm		D3000-T
EPDM-o-ring			D3000-TE
EPDM-o-ring	FDA-approval		D3000-TD
SST diaphragm	FKM -o-ring	for G $\frac{1}{4}$ (02) to G1	D3000-S
	NBR -o-ring	for G $\frac{1}{4}$ (02) to G1	D3000-SB
	EPDM-o-ring	for G $\frac{1}{4}$ (02) to G1	D3000-SE
	EPDM-o-ring, FDA-approval	for G $\frac{1}{4}$ (02)	D3000-02 .SD
ammonia	NH $_3$		D3000-02
carbon dioxide	CO $_2$		D3000-03
argon	Ar		D3000-05
nitrogen	N $_2$		D3000-07
helium	He		D3000-09
hydrogen	H $_2$		D3000-11
methane	CH $_4$		D3000-13
natural gas *3			D3000-14
oxygen	O $_2$		D3000-15
propane	C $_3$ H $_6$		D3000-16
nitrous oxide	N $_2$ O		D3000-17
water	H $_2$ O		D3000-W
flange connection	see end of the chapter / flanges		D3000-F.



Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	MS4001-..*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ (02) to G $\frac{1}{2}$	MS5002-..*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ (06) to G2	MS6302-..*2
mounting bracket		for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	BW30-03S
mounting nut			M30x1,5S
mounting bracket		for G $\frac{1}{4}$ (02) and G $\frac{3}{8}$	BW45-03S
mounting nut			M45x1,5S
mounting bracket		for G $\frac{1}{2}$	BW50-01S
mounting nut			M50x1,5S
mounting bracket		for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	BW00-59S
		for G1 $\frac{1}{2}$ (12) and G2	BW00-62S

*1 at 7 bar overpressure and open outlet

*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

*3 without DVGW-approval

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

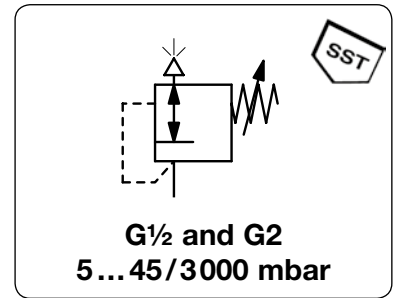


Order example:
MS4001-02

STAINLESS STEEL LOW BACK PRESSURE REGULATOR

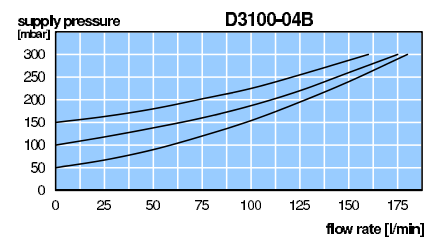
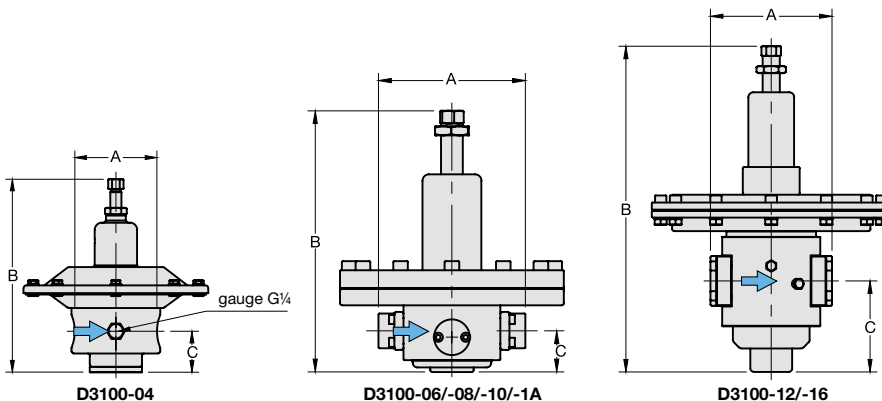
D3100

Description	The diaphragm back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.	
Media	compressed air, gases	System pressure max. 6 bar
Adjustment	by adjusting screw for D3100-04 to -1A, with locknut by T-handle for D3100-12 and -16, with locknut	
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Mounting position any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F, high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F	
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L, material no. 1.4404	O-rings: FKM, optionally EPDM



Dimensions			Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number
A	B	C					

Back pressure regulator			overpressure max. 6 bar, PTFE-diaphragm and FKM-o-ring		D3100		
80	174	37	300	6	G $\frac{1}{2}$	5... 45	D3100-04AT
			500			20... 200	D3100-04BT
			1000			150... 700	D3100-04CT
161	289	45	1500	6	G $\frac{3}{4}$	0... 300	D3100-06BT
			2300			0... 700	D3100-06CT
			3000			0... 1200	D3100-06DT
161	289	45	1500	6	G1	0... 300	D3100-08BT
			2300			0... 700	D3100-08CT
			3000			0... 1200	D3100-08DT
265	289	45	2000	6	G1 $\frac{1}{4}$	0... 300	D3100-10BT
			4100			0... 700	D3100-10CT
			5000			0... 1200	D3100-10DT
265	289	45	2000	6	G1 $\frac{1}{2}$	0... 300	D3100-1ABT
			4100			0... 700	D3100-1ACT
			5000			0... 1200	D3100-1ADT
171	460	128	2500	6	G1 $\frac{1}{2}$	20... 50	D3100-12AT
			5000			50... 150	D3100-12BT
			7500			150... 300	D3100-12CT
171	420	128	10000	6	G2	300... 3000	D3100-12DT
			2500			20... 50	D3100-16AT
			5000			50... 150	D3100-16BT
171	460	128	7500	6	G2	150... 300	D3100-16CT
			10000			300... 3000	D3100-16DT



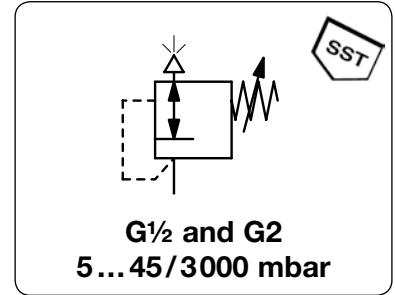
*1 at 6 bar overpressure and open outlet
*2 B6 = 0...60 mbar, C3 = 0...250 mbar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
D3100-04AT

Description	The diaphragm back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.		
Media	compressed air, gases	System pressure	max. 6 bar
Adjustment	by adjusting screw for D3100-04 to -1A, with locknut by T-handle for D3100-12 and -16, with locknut		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied	Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F, high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F		
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L, material no. 1.4404	O-rings:	FKM, optionally EPDM



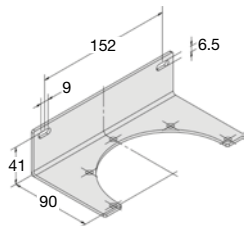
Dimensions			Exhaust rate	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	l/min*1	max. bar	G	mbar	
mm	mm	mm					

Special options, add the appropriate letter

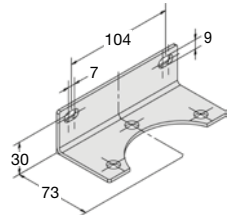
NPT	connection thread	D3100-...N
FKM -o-ring		D3100-...T
EPDM-o-ring		D3100-...TE
EPDM-o-ring	FDA-approval	D3100-...TD
down to -40 °C/ -40°F	low temperature version	from G $\frac{1}{4}$ (02) on D3100-...X51
up to 130 °C/266 °F	high temperature version	from G $\frac{1}{4}$ (02) on D3100-...X54
ammonia	NH ₃	D3100-...02
carbon dioxide	CO ₂	D3100-...03
argon	Ar	D3100-...05
nitrogen	N ₂	D3100-...07
helium	He	D3100-...09
hydrogen	H ₂	D3100-...11
methane	CH ₄	D3100-...13
natural gas *3		D3100-...14
Sauerstoff	O ₂	D3100-...15
propane	C ₃ H ₆	D3100-...16
nitrous oxide	N ₂ O	D3100-...17
flange connection	see end of the chapter / flanges	D3100-...F.

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$, capsule type	up to 600 mbar	MS6302-...*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube	from 1 bar on	MS6302-01
gauge connection parts		for G $\frac{1}{2}$	AM-03S
mounting bracket		for G $\frac{1}{2}$	BW00-26S
		for G1	BW00-27S



BW00-26S



BW00-27S

*1 at 6 bar overpressure and open outlet
*2 B6 = 0...60 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, C6 = 0...600 mbar, 01 = 0...1 bar, 02 = 0...2 bar, 04 = 0...4 bar
*3 without DVGW-approval

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G $\frac{1}{4}$ on piston-operated.

Media compressed air, gases or liquids

Supply pressure max. 30 bar, 50 bar or 80 bar (with drain plug only)

Adjustment by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar

Relieving function relieving, optionally non-relieving

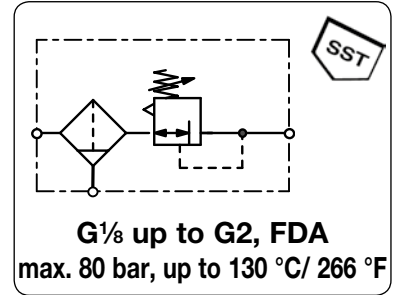
Gauge port G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ for B3000-01/-A2, one screw plug supplied

Filter element 50 μ m and 5 μ m, made of stainless steel **Bowl** stainless steel version without sight glass

Drain manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version automatic drain (max. 16 bar) for G $\frac{1}{4}$ (02) up to G1

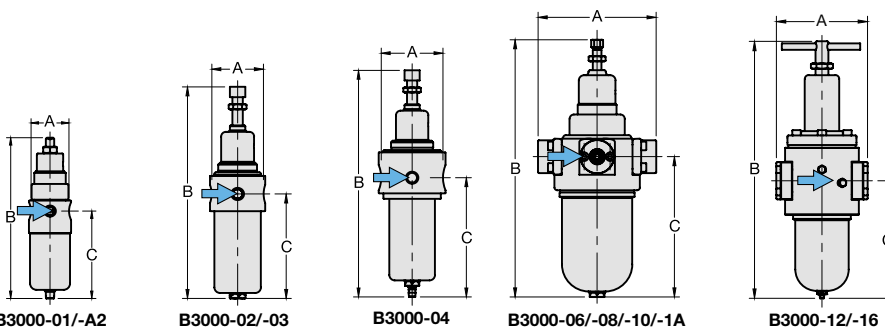
Temperature range -20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM
-20 °C to 130 °C / -4 °F to 266 °F for high temperature version
or low temperature version down to -40 °C / -40 °F

Werkstoffe Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404
O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



Dimensions			Bowl capacity l	Flow rate l/min*1	Filter element μ m	Connection thread G	Pressure range bar	Order number
A	B	C						

Filter pressure regulator					with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar,			B3000	
40	155	85	0.03	200	5	G $\frac{1}{8}$	0.8 ... 8	8	B3000-01GH
				280	50		1.5 ... 15		B3000-01GDH
							0.8 ... 8		B3000-01H
							1.5 ... 15		B3000-01DH
40	155	85	0.03	200	5	G $\frac{1}{4}$	0.8 ... 8	8	B3000-A2GH
				280	50		1.5 ... 15		B3000-A2GDH
							0.8 ... 8		B3000-A2H
							1.5 ... 15		B3000-A2DH
64	246	124	0.14	600	5	G $\frac{1}{4}$	0.8 ... 8	8	B3000-02G
				800	50		1.5 ... 15		B3000-02GD
							0.8 ... 8		B3000-02
							1.5 ... 15		B3000-02D
64	246	124	0.14	600	5	G $\frac{3}{8}$	0.8 ... 8	8	B3000-03G
				800	50		1.5 ... 15		B3000-03GD
							0.8 ... 8		B3000-03
							1.5 ... 15		B3000-03D
79	255	128	0.2	2200	5	G $\frac{1}{2}$	0.8 ... 8	8	B3000-04G
				3000	50		1.5 ... 15		B3000-04GD
							0.8 ... 8		B3000-04
							1.5 ... 15		B3000-04D
137	304	168	0.5	4500	5	G1	0.8 ... 8	8	B3000-08G
				6000	50	B3000-06 for G $\frac{3}{4}$	1.5 ... 15		B3000-08GD
							0.8 ... 8		B3000-08
							1.5 ... 15		B3000-08D
241	304	168	0.5	4500	5	G1 $\frac{1}{2}$	0.8 ... 8	8	B3000-1AG
				6000	50	B3000-10 for G1 $\frac{1}{4}$	1.5 ... 15		B3000-1AGD
							0.8 ... 8		B3000-1A
							1.5 ... 15		B3000-1AD
171	482	213	1.0	15500	5	G1 $\frac{1}{2}$	0.8 ... 8	8	B3000-12G
				20000	50		1.5 ... 15		B3000-12GD
							0.8 ... 8		B3000-12
							1.5 ... 15		B3000-12D
171	482	213	1.0	15500	5	G2	0.8 ... 8	8	B3000-16G
				20000	50		1.5 ... 15		B3000-16GD
							0.8 ... 8		B3000-16
							1.5 ... 15		B3000-16D



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure

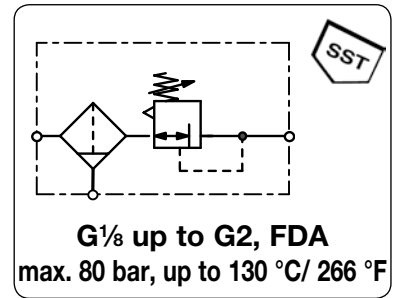
PDF CAD
www.aircom.net



Order example:
B3000-01GH

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

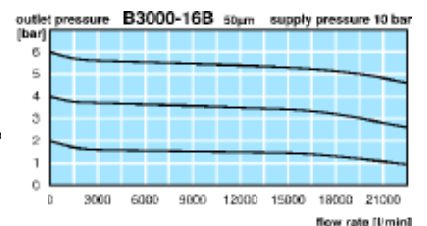
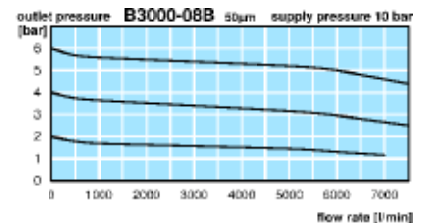
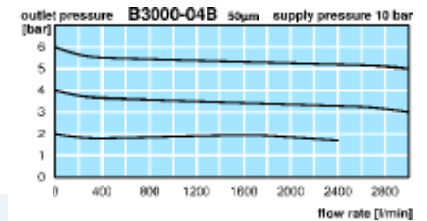
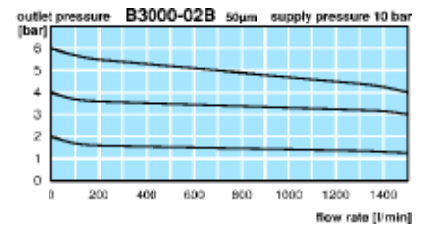
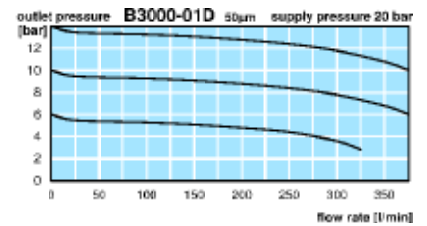
Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G $\frac{1}{4}$ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 30 bar, 50 bar or 80 bar (with drain plug only)
Adjustment	by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar relieving, optionally non-relieving
Relieving function	G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ for B3000-01/-A2, one screw plug supplied
Gauge port	50 μ m and 5 μ m, made of stainless steel Bowl stainless steel version without sight glass
Filter element	manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version
Drain	automatic drain (max. 16 bar) for G $\frac{1}{4}$ (02) up to G1
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version or low temperature version down to -40 °C / -40 °F
Werkstoffe	Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



Dimensions			Bowl capacity	Flow rate	Filter element	Connection thread	Pressure range	Order number
A	B	C	l	l/min*1	μ m	G	bar	
mm	mm	mm						

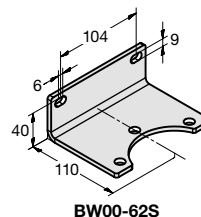
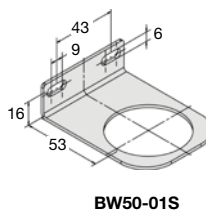
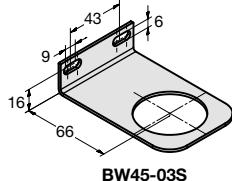
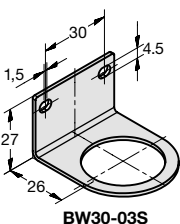
Special options, add the appropriate letter

NPT	connection thread	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	B3000-... N
NPT	connection thread	for G $\frac{1}{4}$ (02) to G2	B3000-... N
02 ... 3 bar regulating range		for G $\frac{1}{8}$ to G1 $\frac{1}{2}$ (1A)	B3000-... B
manual drain max. 30 bar		for G $\frac{1}{4}$ (02) to G2	B3000-... H
automatic drain	max. 16 bar	for G $\frac{1}{4}$ (02) to G2	B3000-... R
non-relieving	without relieving function		B3000-... K
P1: max. 80 bar		for G $\frac{1}{4}$ (02) to G1 $\frac{1}{2}$ (1A)	B3000-... X48
down to -40 °C/ -40°F	low temperature version	from G $\frac{1}{4}$ (02) on	B3000-... X51
up to 130 °C/ 266 °F	high temperature version		B3000-... X54
EPDM-o-ring			B3000-... E
EPDM-o-ring	FDA-Zulassung		B3000-... TD
SST diaphragm	not suitable for water	for G $\frac{1}{4}$ (02) to G $\frac{1}{2}$	B3000-... S
ammonia *3 NH ₃			B3000-... 02
carbon dioxide CO ₂			B3000-... 03
argon Ar			B3000-... 05
nitrogen N ₂			B3000-... 07
helium He			B3000-... 09
hydrogen H ₂			B3000-... 11
Methan CH ₄			B3000-... 13
natural gas *3			B3000-... 14
oxygen O ₂			B3000-... 15
propane C ₃ H ₈			B3000-... 16
nitrous oxide N ₂ O			B3000-... 17
flange connection	see end of the chapter / flanges		B3000-... F.



Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	MS4001-..*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ to G $\frac{1}{2}$	MS5002-..*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ to G2	MS6302-..*2
mounting bracket		for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	BW30-03S
mounting nut			M30x1,5S
mounting bracket		for G $\frac{1}{4}$ (02), G $\frac{3}{8}$ u. G $\frac{1}{2}$ to G1 $\frac{1}{2}$ (1A)	BW45-03S
mounting nut			M45x1,5S
mounting bracket		for G $\frac{1}{2}$	BW50-01S
mounting nut			M50x1,5S
mounting bracket		for G1 $\frac{1}{2}$ (12) and G2	BW00-62S

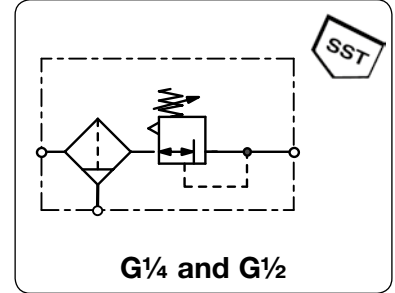


*2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 without DVGW-approval



Description	Regulator of small, compact design, ideal for limited space conditions. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Media	compressed air, gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock, optionally by T-handle at B558
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Filter element	20 μ m at B548, 40 μ m at B11, made of polypropylene
Bowl	stainless steel version without sight glass
Drainage	manual drain as standard for max. 21 bar, optionally automatic drain for max. 12 bar
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, max. 50 °C / 122 °F at automatic drain version
Material	Body: stainless steel 316, material no. 1.4401 Spring cage: glass fibre-reinforced plastic at B11 and B548, stainless steel 316 / 1.4401 at B558 Elastomer: FKM Inner valve: stainless steel 316, material no. 1.4401 and plastic



Dimensions			Bowl capacity	Flow rate	Supply Connection max.	Pressure range	Order number	
A	B	C						
mm	mm	mm	l	m 3 /h*1	l/min*1	bar	G	bar

Miniature filter pressure regulator							manual drain, relieving, w/o gauge, 20 μ m filter element	B548-S
40	156	95	0.04	27	450	21	G $\frac{1}{4}$	0.2...1.8 B548-02DHAS 0.2...4.0 B548-02DHBS 0.3...9.0 B548-02DHCS

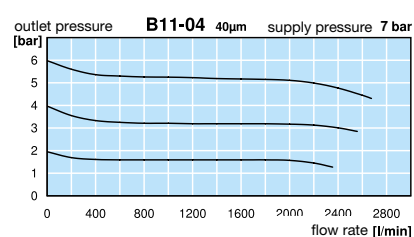
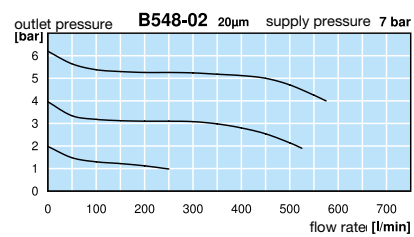
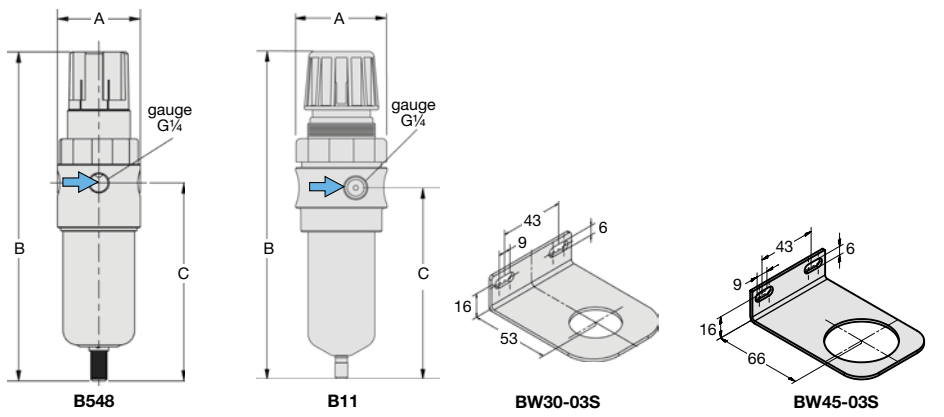


"Midi" filter pressure regulator							manual drain, relieving, w/o gauge, 40 μ m filter element	B11-S
62	216	125	0.12	138	2300	21	G $\frac{1}{2}$	0.2...1.8 B11-04DJAS 0.2...4.0 B11-04DJBS 0.3...9.0 B11-04DJCS 0.5...17 B11-04DJDS



Special options, add the appropriate letter		
5 μ m filter element		B...-0...G...
NPT connection thread		B...-0...N
automatic drain made of SST, SA10MDSS, max. 12 bar	for B11	B11-04...R
non-relieving without relieving function		B...-0...K
SST spring cage incl. SST adjusting screw, height B =141 mm	for B548	B558-02D...
incl. SST adjusting screw, height B =246 mm	for B11	B12-04D...

Accessories, enclosed		
pressure gauge	\varnothing 40 mm, 0...*2 bar, G $\frac{1}{4}$ \varnothing 50 mm, 0...*2 bar, G $\frac{1}{4}$	for B548 MS4002-..*2 for B11 MS5002-..*2
mounting bracket		for B548 BW30-03S
mounting nut		for B548 M30x1,5S
mounting bracket		for B11 BW45-03S
mounting nut		for B11 M45x1,5S

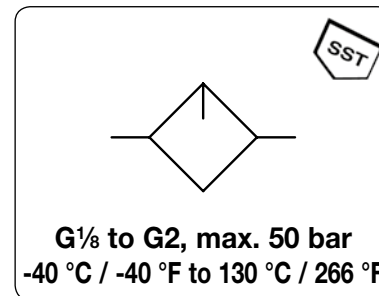


*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

LUBRICATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR

L3000

Description	Lubricator for compressed air with bowl without sight glass, extremely robust, with manual adjustment of oil drip rate.
Bowl	stainless steel version without sight glass
Operating pressure	max. 50 bar
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for NBR/Buna-N, 0 °C to 130 °C / 32 °F to 266 °F for high temperature version for appropriately conditioned air down to -20 °C / -4 °F, or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Bowl: stainless steel 316L, material no. 1.4404 Elastomer: FKM Inner valve: stainless steel 316L, material no. 1.4404



Dimensions			Bowl capacity l	Flow rate		Operating pressure max. bar	Connection thread G	Order number
A	B	C		m³/h*1	l/min*1			

Lubricator			operating pressure max. 50 bar					L3000	
40	124	80	0.04	45	750	50	G1/8	L3000-01	
64	174	130	0.14	54	900	50	G1/4	L3000-02	
				60	1000		G3/8	L3000-03	
79	177	130	0.20	144	2400	50	G1/2	L3000-04	
137	202	168	0.50	480	8000	50	G3/4	L3000-06	
				480	8000		G1	L3000-08	
241	202	168	0.50	480	8000	50	G1 1/4	L3000-10	
				480	8000		G1 1/2	L3000-1A	
171	278	218	1.00	720	12000	50	G1 1/2	L3000-12	
				780	13000		G2	L3000-16	



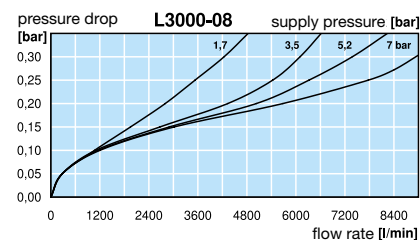
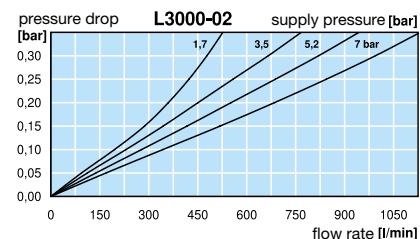
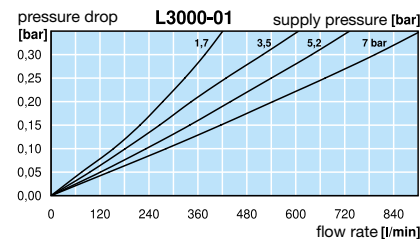
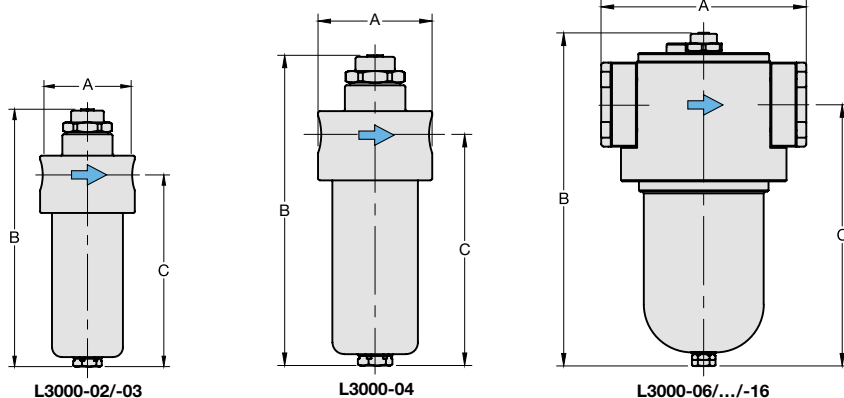
L3000-02/-03



L3000-06/-08/-10/-1A

Special options, add the appropriate letter

NPT	connection thread	for G1/8 to G1/2	L3000-.. N
NPT	connection thread	for G3/8 to G1 1/2 (1A)	L3000-.. N
down to -40 °C / -40 °F	low temperature version	from G1/4 on	L3000-.. X51
up to 130 °C / 266 °F	high temperature version	from G1/4 on	L3000-.. X54
EPDM-O-Ring			L3000-.. E
flange connection	see end of the chapter / flanges		L3000-.. F.



*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
L3000-01

STAINLESS STEEL COMPRESSED AIR FILTER, UP TO 80 BAR

F3000

Description Filter with bowl without sight glass completely made of stainless steel, extremely robust, suitable for compressed air, gases or liquids. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.

Filter element 50 µm, optionally 5 µm, made of stainless steel, coalescing filter 0.1 µm at 99,99% stainless steel version without sight glass

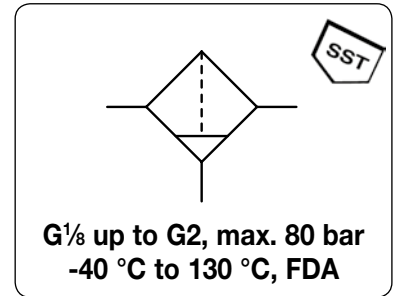
Bowl screw plug as standard, optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)

Drainage max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)

Operating pressure 0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM

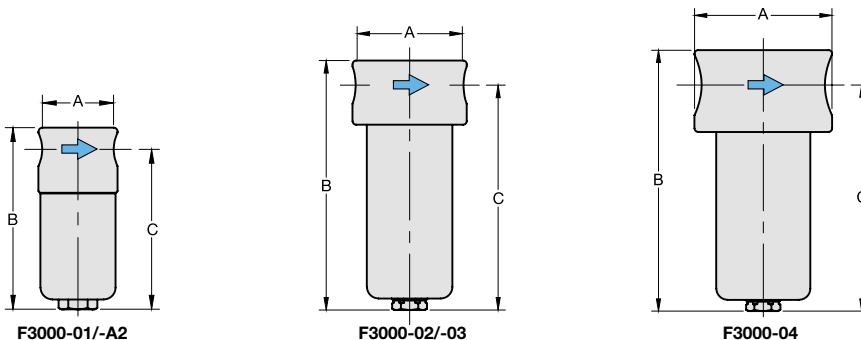
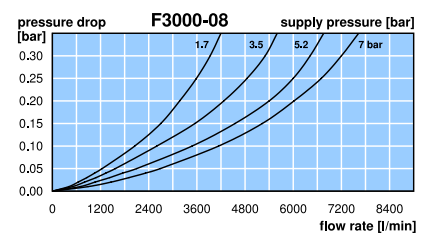
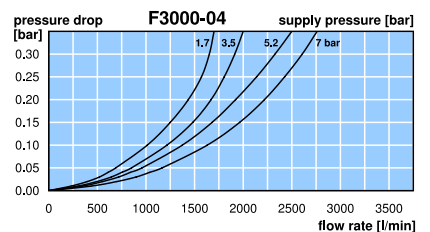
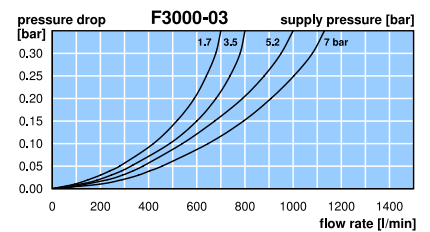
Temperature range 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F

Material Body: stainless steel 316L, material no. 1.4404
Bowl: stainless steel 316L, material no. 1.4404
Elastomer: FKM, optionally EPDM
Inner valve: stainless steel 316L, material no. 1.4404



Dimensions			Bowl capacity l	Flow rate m ³ /h*1 l/min*1	P ₁ max. bar	Filter element µm	Connection thread G	Order number
A	B	C						

Stainless steel filter, up to 50 bar with screw plug								F3000	
40	92	81	0.03	45	750	50	50	G ^{1/8}	F3000-01 F3000-01G
40	92	81	0.03	45	750	50	50	G ^{1/4}	F3000-A2 F3000-A2G
64	140	125	0.14	54	900	50	50	G ^{1/4}	F3000-02 F3000-02G F3000-02I
64	140	125	0.14	60	1000	50	50	G ^{3/8}	F3000-03 F3000-03G F3000-03I
79	150	130	0.20	150	2500	50	50	G ^{1/2}	F3000-04 F3000-04G F3000-04I
137	194	167	0.50	432	7200	50	50	G ^{3/4}	F3000-06 F3000-06G F3000-06I
137	194	167	0.50	432	7200	50	50	G ₁	F3000-08 F3000-08G F3000-08I
241	194	167	0.50	432	7200	50	50	G ^{1 1/4}	F3000-10 F3000-10G F3000-10I
241	194	167	0.50	432	7200	50	50	G ^{1 1/2}	F3000-1A F3000-1AG F3000-1AI
171	254	218	1.00	900	15000	50	50	G ^{1 1/2}	F3000-12 F3000-12G
171	254	218	1.00	960	16000	50	50	G ₂	F3000-16 F3000-16G



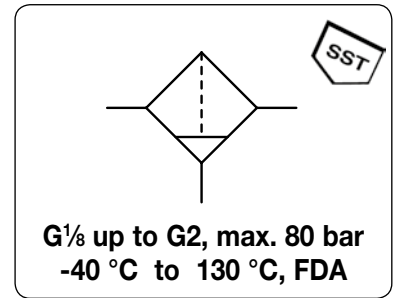
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
F3000-01

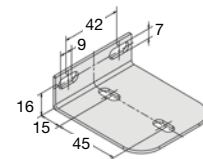
Description	Filter with bowl without sight glass completely made of stainless steel, extremely robust, suitable for compressed air, gases or liquids. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Filter element	50 µm, optionally 5 µm, made of stainless steel, coalescing filter 0.1 µm at 99,99%
Bowl	stainless steel version without sight glass
Drainage	screw plug as standard, optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Bowl: stainless steel 316L, material no. 1.4404 Elastomer: FKM, optionally EPDM Inner valve: stainless steel 316L, material no. 1.4404



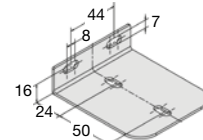
Dimensions			Bowl capacity l	Flow rate m ³ /h*1 l/min*1	P ₁ max. bar	Filter element µm	Connection thread G	Order number
A	B	C						
mm	mm	mm						

Special options, add the appropriate letter

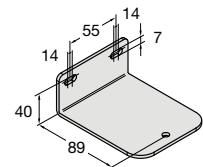
NPT	connection thread	for G ¹ / ₈ and G ¹ / ₄ (A2)	F3000-..N
NPT	connection thread	for G ¹ / ₄ (02) to G ₂	F3000-..N
P₁: max. 80 bar		for G ¹ / ₄ (02) to G ₂	F3000-..X48
down to -40 °C / -40 °F	low temperature version		F3000-..X51
up to 130 °C / 266 °F	high temperature version		F3000-..X54
manual drain	max. 30 bar		F3000-..H
automatic drain	max. 16 bar	for G ¹ / ₄ (02) to G ₂	F3000-..R
EPDM-elastomer			F3000-..E
EPDM-elastomer	FDA-approval		F3000-..TD
ammonia	NH ₃		F3000-... 02
carbon dioxide	CO ₂		F3000-... 03
argon	Ar		F3000-... 05
nitrogen	N ₂		F3000-... 07
helium	He		F3000-... 09
hydrogen	H ₂		F3000-... 11
methane	CH ₄		F3000-... 13
natural gas *2			F3000-... 14
oxygen	O ₂		F3000-... 15
propane	C ₃ H ₈		F3000-... 16
nitrous oxide	N ₂ O		F3000-... 17
flange connection	see end of the chapter / flanges		F3000-... F.



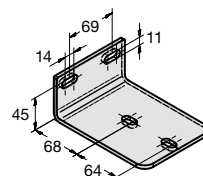
BW00-17S



BW00-18S



BW00-28S

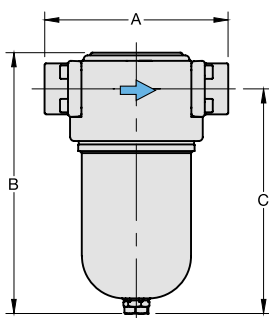


BW00-63S

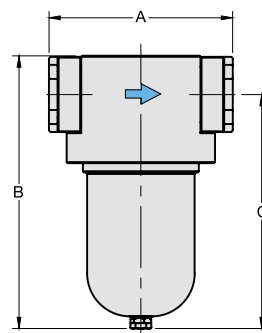


Accessories, enclosed

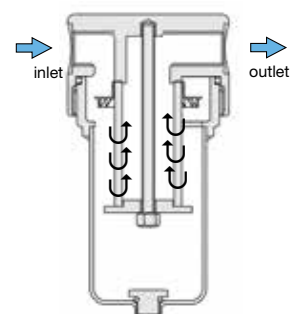
mounting bracket	for G ¹ / ₄ (02) and G ³ / ₈	BW00-17S
	for G ¹ / ₂	BW00-18S
	for G ³ / ₄ (06) to G ¹ / ₂ (1A)	BW00-19S
	for G ¹ / ₂ (12) and G ₂	BW00-63S



F3000-06/-08/-10/1A



F3000-12/-16



cross-section

*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 without DVWG-approval

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

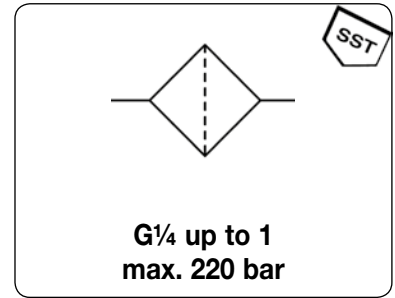


Order example:
BW00-17S

STAINLESS STEEL COMPRESSED AIR FILTER, UP TO 220 BAR

FH3

Description	Stainless steel filter, without sight glass, very robust design, for compressed air, gases or liquids. Application areas: Chemical industry, petroleum processing, food industry and medical technology.		
Filter element	50 µm, optionally 5 µm, made of SST or Coalescing 0.01 µm / 99,99 %		
Bowl	made of stainless steel, without sight glass		
Operating pressure	max. 220 bar		
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F		
Material	Body: SST 316L, material-no. 1.4404, Bowl: SST 316L, material-no. 1.4404 Inner valve: SST 316L, material-no. 1.4404	optionally brass Filter elements 5/50 µm: SST 316L Elastomer: FKM, optionally EPDM	



Dimensions			Bowl capacity l	Flow rate		Filter element µm	Connection thread G	Order number
A	B	C		m³/h*1	l/min*1			

SST Filter, up to 220 bar				50 µm / 5 µm		FH3		
70	123	99	0.04	120	2000	5	G¼	FH3-02G
				160	2670	50	G¼	FH3-02
167	123	99	0.04	120	2000	5	G¾	FH3-03G
				160	2670	50	G¾	FH3-03
196	145	125	0.08	240	4000	5	G½	FH3-04G
				320	5530	50	G½	FH3-04
204	145	125	0.08	240	4000	5	G¾	FH3-06G
				320	5530	50	G¾	FH3-06
				240	4000	5	G1	FH3-08G
				320	5530	50	G1	FH3-08



FH3-02/-03/-04



FH3-06/-08

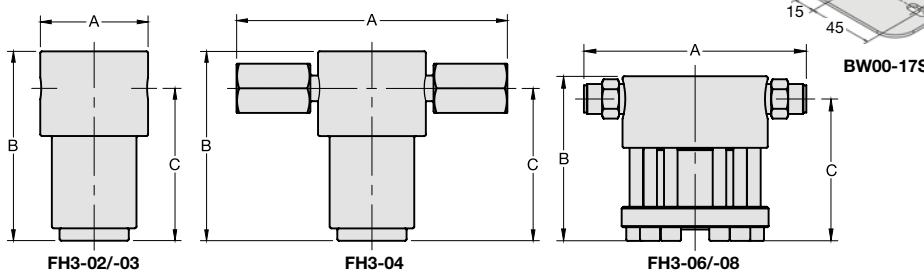
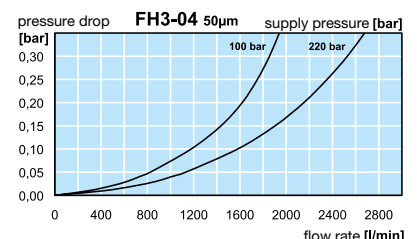
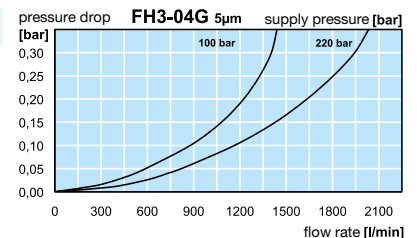
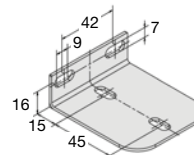
Special options, add the appropriate letter

Coalescing filter	0.01 µm / 99.99 %, brass version	for G¼ to G½	FH3- .. IMS
	0.01 µm / 99.99 %, SST version	for G¼ to G½	FH3- .. I
	0.01 µm / 99.99 %, SST and brass version	for G¾ to G1	FH3- .. I
NPT	connection thread		FH3- .. N
EPDM-elastomer			FH3- .. E
brass body			FH3- .. MS
ammonia	NH ₃		FH3- ... 02
carbon dioxide	CO ₂		FH3- ... 03
argon	Ar		FH3- ... 05
nitrogen	N ₂		FH3- ... 07
helium	He		FH3- ... 09
hydrogen	H ₂		FH3- ... 11
methane	CH ₄		FH3- ... 13
oxygen	O ₂		FH3- ... 15
propane	C ₃ H ₆		FH3- ... 16
nitrous oxide	N ₂ O		FH3- ... 17
water	H ₂ O		FH3- ... W

Accessories, enclosed

mouting bracket with screws

BW00-17S



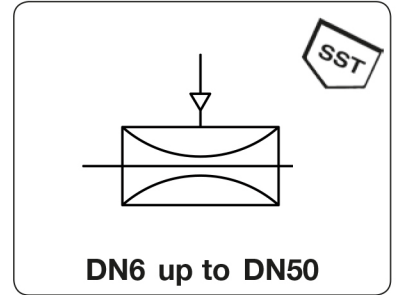
*1 at max. operating pressure

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
FH3-02G

Description	The flow control valve functions as a pinch valve in a new design of housing with full flow cross-section. Since the straight valve passage has neither constrictions nor back-points, there is no danger of clogging or blockage. Frictional loss is at a minimum.
Media	compressed air, gases, liquids or other paste-like or powdery media Solids are enclosed by the flexible sleeve at shut-off.
Sleeve	Highly flexible with double woven reinforcement in eight different grades. Sleeve simple to change.
Pressures	Operating pressure: max. 4.0 bar Pilot pressure: max. 6.5 Differential pressure: max. 2.5 bar Closing pressure: $P_1 + 2.5$ bar from DN32, $P_1 + 2$ bar from DN40 on
Vacuum	If vacuum is greater than -100 mbar, vacuum compensation should be provided on the control side.
Accuracy	In the flow range of 0 to 70% the linearity of pilot pressure to flow is about 10% accurate.
Mounting position	any, at horizontal mounting pilot port preferably at the top
Temperature range	0 °C to max. 100 °C / 32 °F to max. 212 °F, subject to sleeve material
Material	Body: stainless steel 316L, material no. 1.4435 Sleeve: depending on selected version



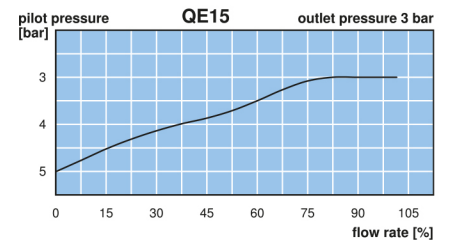
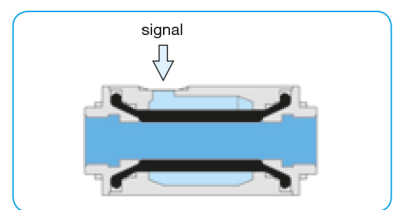
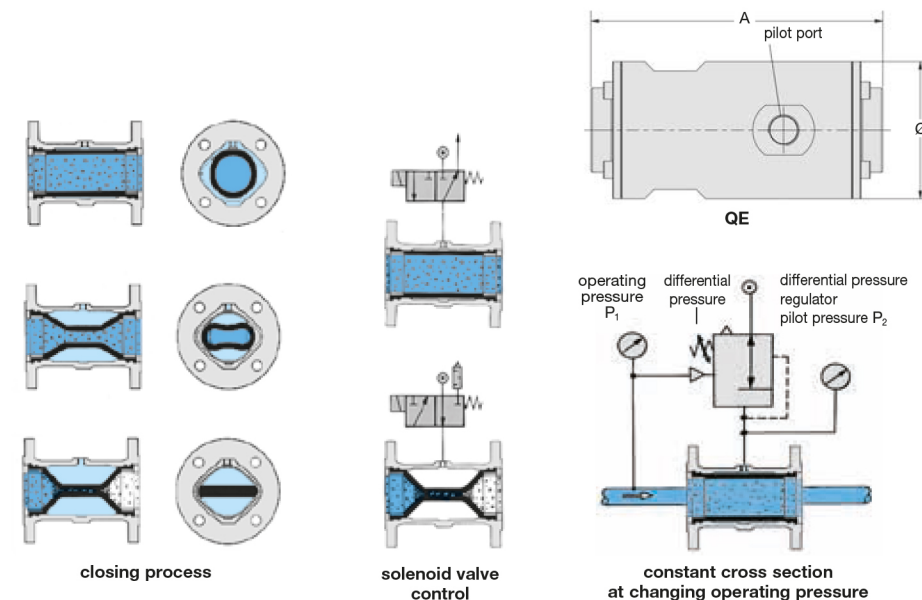
Dimensions	Nominal	Chamber	Control	Operating	Connection	Order
A	Ø	size	port	pressure	thread	number
mm	mm	DN	l	max. bar	G	

Flow control valve							operating pressure max. 4 bar, pilot pressure max. 2.5 bar above operating pressure	QE
70	26	6	0.01	M5	4	G¼		QE06-02NR
80	38	10	0.03	M5	4	G¾		QE10-03NR
95	44	15	0.04	G½	4	G½		QE15-04NR
110	55	20	0.05	G½	4	G¾		QE20-06NR
125	60	25	0.07	G½	4	G1		QE25-08NR
140	73	32	0.10	G½	4	G1¼		QE32-10NR
150	83	40	0.13	G½	4	G1½		QE40-12NR
185	99	50	0.28	G¼	4	G2		QE50-16NR



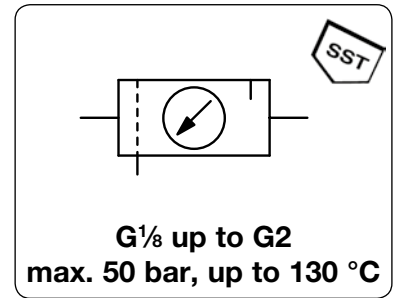
Special options, add the appropriate letter

sleeve NR	natural rubber, black	80°C/176 °F	QE..-.NR
sleeve NRL	rubber, suitable for food, black	70°C/158 °F	QE..-.NL
sleeve NRLH	rubber, suitable for food, light	70°C/158 °F	QE..-.NH
sleeve NBR	nitrile rubber/Buna-N, suitable for food	80°C/176 °F	QE..-.NB
sleeve EPDM	ethylene-propylene rubber, suitable for food, black	100°C/212 °F	QE..-.EP
sleeve FKM	fluorine rubber, black	not QE06 100°C/212 °F	QE..-.FK
sleeve CR	chloroprene rubber/neoprene, black	not QE06 80°C/176 °F	QE..-.CR
sleeve CSM	natural rubber, chlorosulphonyl polyethylene	not QE06 80°C/176 °F	QE..-.CS



FRL SERVICE UNITS, 2-PART, COMPLETELY MADE OF STAINLESS STEEL, UP TO 50 BAR C3002

Description	FRL service unit completely made of stainless steel, very robust. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Media	compressed air, gases or liquids
Supply pressure	max. 50 bar (without drain), optionally max. 30 bar (manual drain), max. 30 bar for C3002-01H
Adjustment	by hexagon socket screw Relieving function relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ at C3002-01, one screw plug supplied
Filter element	50 μ m, optionally 5 μ m, made of stainless steel Bowl stainless steel version without sight glass
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for FKM or EPDM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version, or low temperature version down to -40 °C / -40 °F
Material	Body / Bowl: stainless steel 316L, material no. 1.4404 Inner valve: stainless steel 316L / 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally EPDM or FKM O-rings: FKM, optionally EPDM



Dimensions			Combination existing of	Flow rate m ³ /h*1	l/min*1	Connection thread G	Order number
A	B	C					

FRL unit, 2-part			P ₁ : max. 50 bar, screw plug,	P ₂ : 0.5...8 bar, relieving,	50 μ m, with gauge	C3002	
90	155	85	B+L3000	17	280	G $\frac{1}{8}$	C3002-01H
138	246	124		48	800	G $\frac{1}{4}$	C3002-02
138	246	124		48	800	G $\frac{3}{8}$	C3002-03
168	255	128		180	3000	G $\frac{1}{2}$	C3002-04
282	304	168		360	6000	G $\frac{3}{4}$	C3002-06
282	304	168		360	6000	G1	C3002-08
393	304	168		360	6000	G1 $\frac{1}{4}$	C3002-10
393	304	168		360	6000	G1 $\frac{1}{2}$	C3002-1A
362	482	213		1200	20000	G1 $\frac{1}{2}$	C3002-12
362	482	213		1200	20000	G2	C3002-16



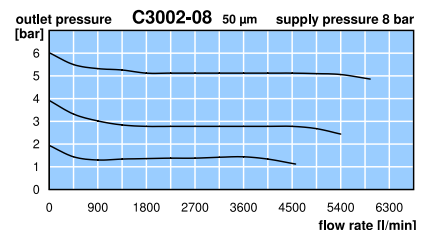
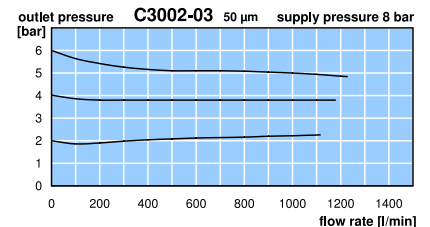
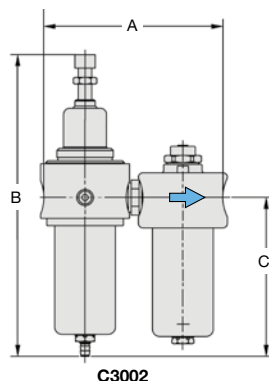
Special options, add the appropriate letter

5 μm filter element		for G $\frac{1}{4}$ and G $\frac{1}{2}$	C3002-..G
		for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	C3002-..G
		for G1 $\frac{1}{2}$ (12) and G2	C3002-..G
NPT connection thread		for G $\frac{1}{4}$ to G2	C3002-..N
pressure range 0.2... 3 bar			C3002-..B
pressure range 1 ...15 bar	P ₁ max. 50 bar		C3002-..D
manual drain	max. 30 bar		C3002-..H
automatic drain	max. 16 bar	for G $\frac{1}{4}$ to G1	C3002-..R
down to -40 °C / -40 °F	low temperature version		C3002-..X51
up to 130 °C / 266 °F	high temperature version		C3002-..X54
EPDM-elastomer			C3002-..E
flange connection	see end of the chapter / flanges		C3002-..F.



Accessories, enclosed

mounting bracket		for G $\frac{1}{8}$	BW30-03S
mounting nut			M30x1,5S
mounting bracket		for G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	BW45-03S
mounting nut			M45x1,5S
mounting bracket		for G $\frac{1}{2}$	BW50-01S
mounting nut			M50x1,5S
mounting bracket		for G1 $\frac{1}{2}$ (12) and G2	BW00-62S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

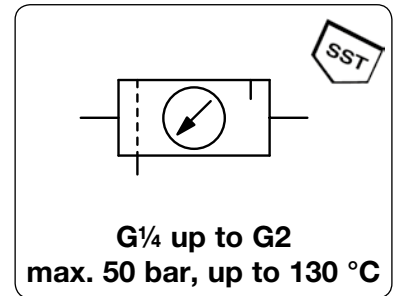
PDF CAD
www.aircom.net



Order example:
C3002-01H

FRL SERVICE UNITS, 3-PART, COMPLETELY MADE OF STAINLESS STEEL, UP TO 50 BAR C3003

Description	FRL service unit completely made of stainless steel, very robust. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Media	compressed air, gases or liquids
Supply pressure	max. 30 bar, optionally max. 50 bar (for pressure range up to 15 bar)
Adjustment	by hexagon socket screw Relieving function relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Filter element	50 μ m, optionally 5 μ m, made of stainless steel Bowl stainless steel version without sight glass
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for FKM or EPDM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version, or low temperature version down to -40 °C / -40 °F
Material	Body / Bowl: stainless steel 316L, material no. 1.4404 Inner valve: stainless steel 316L / 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally EPDM or FKM O-rings: FKM, optionally EPDM



Dimensions			Combination existing of	Flow rate m ³ /h*1	l/min*1	Connection thread G	Order number
A	B	C					

FRL unit, 3-part				P ₁ : max. 50 bar, screw plug,	P ₂ : 0.5...8 bar, relieving,	50 μ m, with gauge	C3003
212	168	130	F+R+L3000	42	700	G $\frac{1}{4}$	C3003-02
257	167	130		132	2200	G $\frac{1}{2}$	C3003-04
427	219	168		231	3850	G $\frac{3}{4}$	C3003-06
455	286	226		432	7200	G1	C3003-08
531	286	226		432	7200	G1 $\frac{1}{4}$	C3003-10
531	286	226		432	7200	G1 $\frac{1}{2}$	C3003-1A
553	390	262		720	12000	G1 $\frac{1}{2}$	C3003-12
553	390	262		780	13000	G2	C3003-16



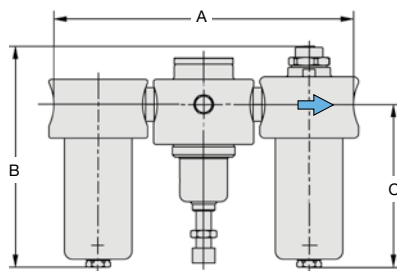
C3003-04

Special options, add the appropriate letter

5 μm filter element		for G $\frac{1}{4}$ and G $\frac{1}{2}$	C3003-..G
		for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	C3003-..G
		for G1 $\frac{1}{2}$ (12) and G2	C3003-..G
NPT connection thread		for G $\frac{1}{4}$ to G2	C3003-..N
pressure range 0.2... 3 bar			C3003-..B
pressure range 1 ...15 bar	P ₁ max. 50 bar		C3003-..D
manual drain	max. 30 bar		C3003-..H
automatic drain	max. 16 bar	for G $\frac{1}{4}$ to G1	C3003-..R
down to -40 °C / -40 °F	low temperature version		C3003-..X51
up to 130 °C / 266 °F	high temperature version		C3003-..X54
EPDM-elastomer			C3003-..E
flange connection	see end of the chapter / flanges		C3003-..F.

Accessories, enclosed

mounting bracket	for G $\frac{1}{4}$	BW45-03S
mounting nut		M45x1,5S
mounting bracket	for G $\frac{1}{2}$	BW50-01S
mounting nut		M50x1,5S
mounting bracket	for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)	BW00-59S
mounting bracket	for G1 $\frac{1}{2}$ (12) and G2	BW00-62S



C3003

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

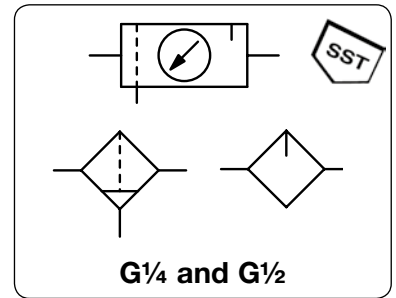


Order example:
C3003-02

STAINLESS STEEL FRL SERVICE UNIT, FILTER AND LUBRICATOR

C10-S/F10-S/L10-S

Description	Compact FRL service unit, filter and lubricator made of stainless steel with high volume flow.		
Media	compressed air or gases		
Supply pressure	max. 21 bar		
Adjustment	by plastic knob with snap-lock		
Relieving function	relieving, optionally non-relieving		
Gauge port	G $\frac{1}{4}$ on both sides of the body of (filter) pressure regulator, screw plugs supplied		
Filter element	40 μ m of polypropylene at C1., 40 μ m, 20 μ m and 5 μ m of polypropylene and 0.3 μ m of borosilicate stainless steel version without sight glass, optionally with sight glass		
Bowl	manual drain as standard for max. 21 bar, optionally automatic drain for max. 12 bar		
Drainage	0 °C to 50 °C / 32 °F to 122 °F for automatic drain version		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F for stainless steel bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for stainless steel bowl without sight glass		
Material	Body:	stainless steel 316, material no. 1.4401	Elastomer: FKM
	Spring cage:	glass fibre-reinforced plastic	Inner valve: stainless steel and plastic
	Bowl:	stainless steel 316, material no. 1.4401	



Dimensions			Description	Flow rate	Filter element	Connection thread	Order number
A	B	C					
mm	mm	mm		m 3 /h*1	l/min*1	G	

FRL service unit				supply pressure max. 21 bar, outlet 0.3...9 bar, 40 μ m, manual drain, relieving, with pressure gauge			C10-S/C11-S	
140	218	127	B11+L10	48	800	40	G $\frac{1}{2}$	C11-04CJS
220	162	127	F10+R10+L10	108	1800			C10-04CJS

Filter				supply pressure max. 21 bar, manual drain, bowl capacity 0.11 l			F504-S/F10-S	
40	108	94	Polypropylen	23	380	20	G $\frac{1}{4}$	F504-02DHS
			Polypropylen	20	340	5		F504-02DGS
			Coalescing	15	250	0.3		F501-02DHS
60	132	127	Polypropylen	114	1900	40	G $\frac{1}{2}$	F10-04DJS
			Polypropylen	102	1700	5		F10-04DGS
			Coalescing	58	960	0.3		F11-04DJS

Lubricator				supply pressure max. 21 bar, bowl capacity 0.11 l			L10-S
60	173	127		180	3000	G $\frac{1}{2}$	L10-04DS

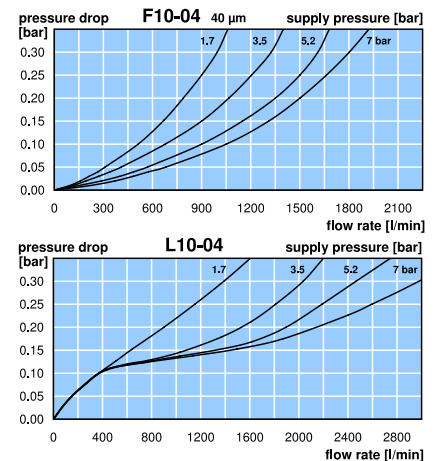
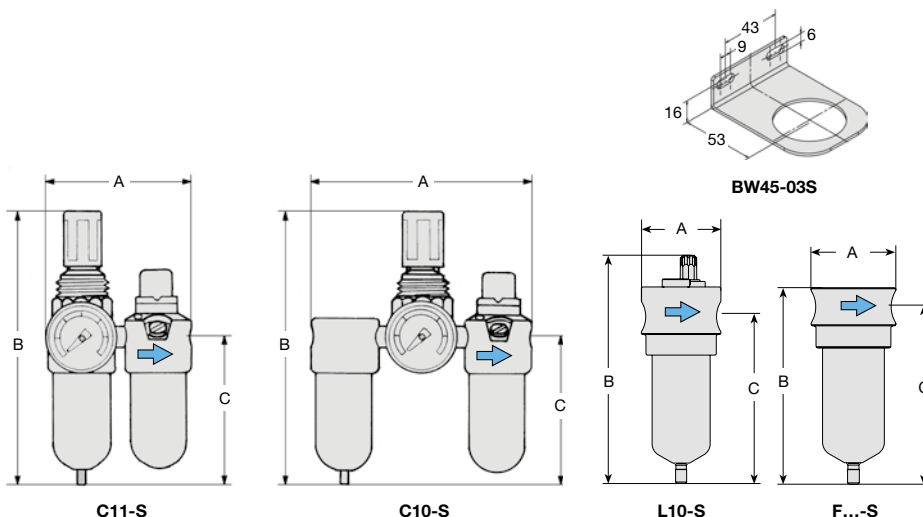


Special options, add the appropriate letter

bowl with sight glass	max. 17 bar, up to 70 °C / 158 °C	for C1. and F1.	.1 .-04 ... W
NPT	connection thread		... .. N
automatic drain	SA10MDSS, max. 12 bar	for C1. and F1.	.1 .-04 ... R

Accessories, enclosed

mounting bracket	for C1.	BW45-03S
mounting nut	for C1.	M45x1,5S



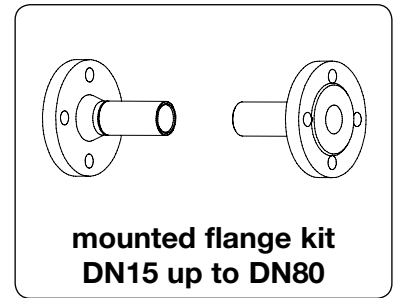
*1 at 7 bar supply pressure, 6 bar outlet pressure and 0.33 bar pressure drop or 1 bar pressure drop at C10/C11

Further details: see chapter for single devices
Spare parts: see separate spare parts list

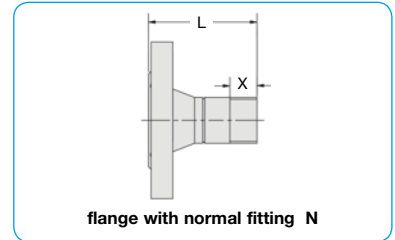
PDF CAD
www.aircom.net

Order example:
C11-04CJS

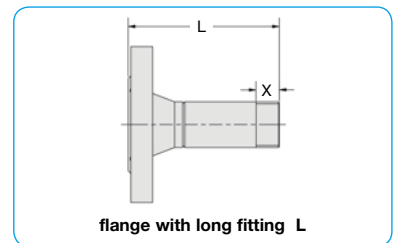
Total device width	device width between inlet and outlet, see catalogue page, dimension A	
	+ 2x total length of flange fitting, dimension L	
	- 2x screw-in depth of the device (on request)	
	= total device width including flange	
DIN-flange	according to DIN EN 1092-1	according to DIN 2637 at PN100
ANSI flange	optionally according to ASME B16.5 (150 lbs),	according to ASME B16.5 (300 lbs) on request
Material	stainless steel, material-no. 1.4571	



Nominal pressure max.	for Devices	Nominal size DN	Screw-In thread G	Order number affic
------------------------------	--------------------	------------------------	--------------------------	---------------------------



Flange kit, DIN, completely assembled			F		
PN40	BD + BM/40	F602 R119	15	G½	F1
	CM/40	F3000/40 R3000	20	G¾	F1
	C3000/40	L606 R3100/L	25	G1	F1
	D3100/L	LM/40 RZ/L	32	G1¼	F1
	DBC/L	L3000/40 R160/L	40	G1½	F1
	R120/40	FM/40	50	G2	F1
			65	G2½	F1
		80	G3	F1	
PN100	BM/100	FM LM/100	15	G½	F1
	CM/100	F3000/100 L3000/100	20	G¾	F1
	C3000/100	R120/100 R3000/100	25	G1	F1
			32	G1¼	F1
			40	G1½	F1
			50	G2	F1
			65	G2½	F1



thread	fitting N		fitting L		thread
	PN40	PN100	PN40	PN100	
	L mm		L mm		X mm
G½	75	82	90	97	15
G¾	82	94	112	124	17
G1	82	100	112	130	20
G1¼	94	112	114	132	22
G1½	97	114	117	134	22
G2	100	120	120	140	26
G2½	114	138	124	148	32

Special options

ANSI-flange	150 lbs	F2
	300 lbs	F3
	600 lbs	F4

Filter regulator	PN	fitting*
BD	40	N
BM	40/100	N

Lubricator	PN	fitting*
L606	40	N
LM	40/100	N
L3000	40/100	N

Regulator	PN	fitting*
R119	40	N
R120	40/100	N
R3000	40/100	N

Filter	PN	fitting*
F602	40	N
FM	40/100	N
F3000	40/100	N

Booster	PN	fitting*
R119-J	40	N
R120-J	40/100	N
R3000-J	40/100	N

low pressure regulator	PN	fitting*
R3100	40	L
D3100	40	L
RZ	40	L
R160	40	L
DBC	40	L

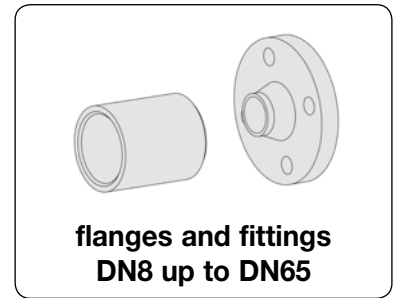
FRL service unit	PN	fitting*
CM2	40/100	N
C3002	40/100	N

FRL service unit	PN	fitting*
C630	40	N
CM3	40/100	N
C3003	40/100	N

* N = normal fitting L = long fitting



Threaded flange	according to DIN EN 1092-1 ANSI / ASME B16.5 (150 lbs), ASME B16.5 (300 lbs), ASME B16.5 (600 lbs)
Material	1.4571 (316Ti)
Weld-on fitting	with conical Whitworth-thread, according to DIN EN 10241
Material	1.4571

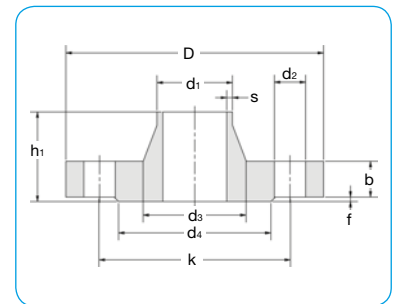


d1/s	Dimensions								Screws	Connection thread Rp	Nominal size DN	Order number
	D	h ₁	b	d ₄	f	k	d ₂	d ₃				

Welding neck flange, as per DIN EN 1092-1 (PN40)

VSV

21.3 x 2.0	95	36	16	45	2	65	14	32	4 x M12	-	15	VSV-1540
26.9 x 2.3	105	40	18	58	2	75	14	40	4 x M12	-	20	VSV-2040
33.7 x 2.6	115	40	18	68	2	85	14	46	4 x M12	-	25	VSV-2540
42.4 x 2.6	140	42	18	78	2	100	18	56	4 x M16	-	32	VSV-3240
48.3 x 2.6	150	45	18	88	3	110	18	64	4 x M16	-	40	VSV-4040
60.3 x 2.9	165	48	20	102	3	125	18	75	4 x M16	-	50	VSV-5040
76.1 x 2.9	185	52	22	122	3	145	18	90	4 x M16	-	65	VSV-6540
88.9 x 3.2	200	58	24	138	3	160	18	105	8 x M16	-	80	VSV-8040



VSV welding neck flange

Special options, add the appropriate letter or number

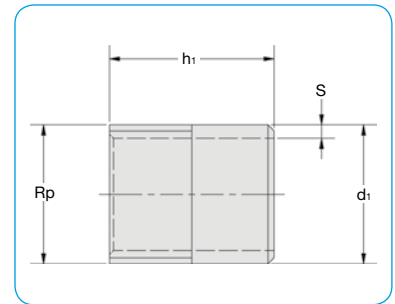
PN100	according to DIN 2637	100	VSV-...100
ANSI/ASME-flange	B16.5 150 lbs	150 lbs	VSV-...150 lbs
ANSI/ASME-flange	B16.5 300 lbs	300 lbs	VSV-...300 lbs
ANSI/ASME-flange	B16.5 600 lbs up to DN25	600 lbs	VSV-...600 lbs

Weld-on fitting

as per DIN 2999 with conical Whitworth thread (BSPT)

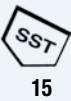
VSA

13.5 x 2.35	30	PN50	1/4"	8	VSA-02
21.3 x 2.65	35	PN50	1/2"	15	VSA-04
26.9 x 2.65	40	PN50	3/4"	20	VSA-06
33.7 x 3.25	40	PN50	1"	25	VSA-08
42.4 x 3.25	50	PN40	1 1/4"	32	VSA-10
48.3 x 3.25	50	PN40	1 1/2"	40	VSA-12
60.3 x 3.65	50	PN40	2"	50	VSA-16
76.1 x 3.65	60	PN25	2 1/2"	65	VSA-20



VSA weld-on fitting

SST



15



COMPRESSED AIR FILTERS

DESCRIPTION	PRESSURE RANGE	CONNECTION	SERIES	PAGE
	bar	thread		
bronze In-Line-Filter	21	G $\frac{1}{4}$ - G $\frac{1}{2}$	137	16.02
In-Line-Filter 0,3 μ m	9	nipple \varnothing 4. 6 mm	F400	16.02
„Miniature“-Series	21	G $\frac{1}{8}$ and G $\frac{1}{4}$	F504	16.03
made of plastic	16	G $\frac{1}{8}$ - G1	F035 ... F095	16.04
made of plastic, with FDA-approval	10	G $\frac{1}{8}$ - G $\frac{3}{4}$	FH	16.06
„Maxi“-Series, robust, block design	17	G $\frac{1}{4}$ - G1	F20	16.07
made of brass, many variations	50	G $\frac{1}{8}$ - G2	FM	16.08
„Standard“-Series, robust	21	G $\frac{1}{4}$ - G2	F602	16.10
Series „D“, made of aluminium/die-cast zinc	30	G $\frac{1}{8}$ - G2	FD	16.12
3 μ m pre-filter	16	G $\frac{1}{4}$ - G3	FG.V	16.14
1 μ m fine filter	16	G $\frac{1}{4}$ - G3	FG.Z	16.14
0.01 μ m fine filter	16	G $\frac{1}{4}$ - G3	FG.X	16.15
activated carbon filter	16	G $\frac{1}{4}$ - G3	FG.A	16.15
high pressure filter, also for oxygen	60	G $\frac{3}{8}$ - G2	F445, F465	16.16
filter silencer	16	G $\frac{1}{4}$ - G2	SFE	16.17
condensate / tank drain	18	G $\frac{1}{2}$	D11, D608	16.18



16

Description Micro in-line filters are widely used in medical and process technology for cleaning compressed air for use in instruments and pneumatic logic systems. The micro in-line filter removes particles, oil and mist from compressed air. Also suitable for vacuum.

Filter element The borosilicate micro-filter is manufactured in a special vacuum process which reduces the adhesive properties of the borosilicate fibres down to a minimum in order to achieve outstanding filtering capability. When saturated with oil, the filter turns red to indicate that replacement is required.

Filtration efficiency 99.999% based on 0.03 µm particle size

Connection Fitted with nipples able to take up hoses of 4.3 mm (11/16") or 6.3 mm (¼") internal diameter. Flow direction from INside to OUTside to be noted.

Operating pressure max. 9 bar

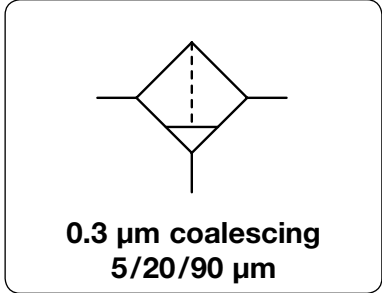
Micro in-line filter 137

Description Bronze in-line filter for compressed air with coarse impurities.

Filter element 90 µm, 20 µm or optionally 5 µm, made of sintered bronze

Operating pressure max. 21 bar

Drainage with or without manual drain

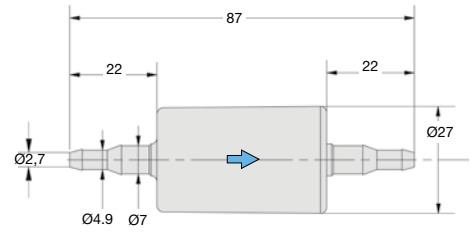


Dimensions			Description	Flow rate		P ₁ max. bar	Filter element µm	Connection thread	Order number
A	B	C		m ³ /h*1	l/min*1				

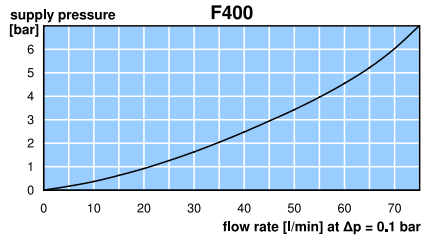
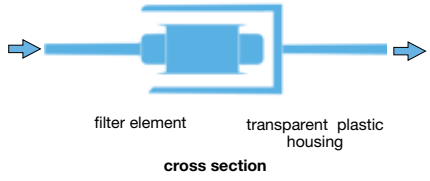
Micro in-line filter				99.999% at 0.3 µm, discolouration at saturation, max. 9 bar		F400			
87	43	Ø 27	borosilicate-micro filter	4.2	70	9	0.3	Ø 4 and Ø 6	F400



F400



F400



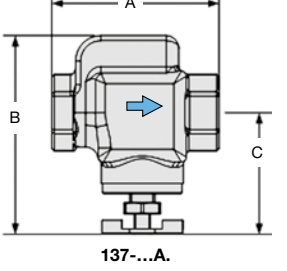
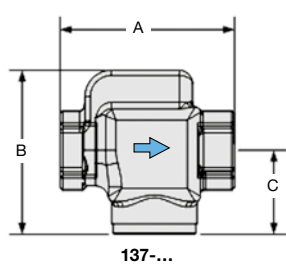
Bronze in-line filter			operating pressure max. 21 bar				137		
67	63	32	without manual drain	39	650	21	90	G¼	137-02
				42	700			G¾	137-03
				44	740			G½	137-04
			with manual drain	39	650	21	20	G¼	137-02H
				42	700			G¾	137-03H
				44	740			G½	137-04H
67	79	48	without manual drain	19	320	21	5	G¼	137-02V
				21	350			G¾	137-03V
				22	370			G½	137-04V
			with manual drain	39	650	21	90	G¼	137-02A
				42	700			G¾	137-03A
				44	740			G½	137-04A
with manual drain	39	650	21	20	G¼	137-02AH			
	42	700			G¾	137-03AH			
	44	740			G½	137-04AH			
with manual drain	19	320	21	5	G¼	137-02AV			
	21	350			G¾	137-03AV			
	22	370			G½	137-04AV			



137-04



137-04A



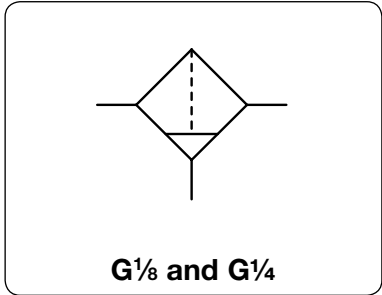
*1 at 7 bar operating pressure and 0.1 bar pressure drop

Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
F400

Description	Miniature compressed air filter of small, compact design. Ideal for limited space conditions.
Filter element	20 µm, optionally 5 µm, made of propylene
Bowl	plastic or metal version
Drainage	manual drain as standard, for max. 21 bar optionally semiautomatic drain, for max. 12 bar
Operating pressure	max. 11 bar for plastic bowl max. 21 bar for metal bowl
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and semiautomatic drain version 0 °C to 80 °C / 32 °F to 176 °F for metal bowl for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: aluminium Bowl: polyurethane or zinc die-cast Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of	l	m ³ /h*1	µm	G	

Miniature compressed air filter								with manual drain	F504	
40	106	96	plastic	0.04	36	600	11	20	G ¹ / ₈	F504-01AH
			metal				21			F504-01DH
			plastic		29	480	11	5		F504-01AG
			metal				21			F504-01DG
40	106	96	plastic	0.04	38	640	11	20	G ¹ / ₄	F504-02AH
			metal				21			F504-02DH
			plastic		31	510	11	5		F504-02AG
			metal				21			F504-02DG

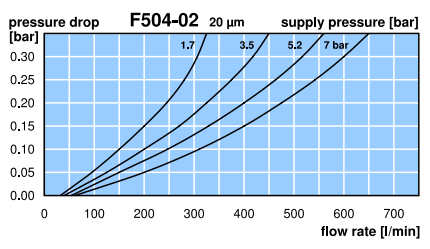
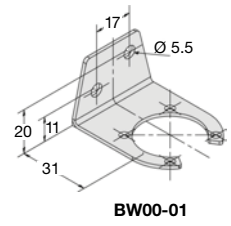
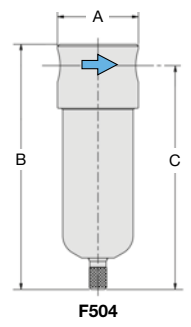


Special options, add the appropriate letter

NPT	connection thread	F504-... N
semiautomatic drain	RK500SY, max. 12 bar	F504-... M
automatic drain	RK504SY, max. 12 bar	F504-... R

Accessories, enclosed

mounting bracket	made of steel	BW00-01
-------------------------	---------------	----------------

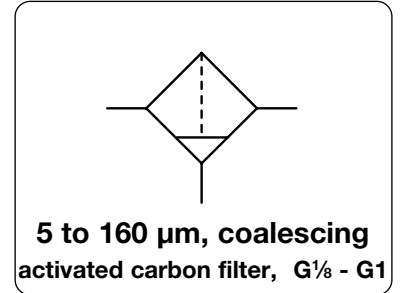


*1 at 7 bar operating pressure and 0.33 bar pressure drop

COMPRESSED AIR FILTER MADE OF PLASTIC

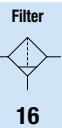
F035 ... F095

Description	Filter of modular design which can be interlocked with all other instruments of the same series without need for double nipples. The flow on standard filters is from outside to inside; on coalescing filters 0.1 µm from inside to outside.	
Filter element	5 µm, 20 µm, 80 µm made of sintered polyethylene, 160 µm made of stainless steel, 0.01 µm coalescing filter made of borosilicate and activated carbon filter	
Filtration efficiency	coalescing filter: 99.99% at 0.01 µm particle size,	residual oil content < 5 mg/m ³
Bowl	plastic version with bayonet catch,	type 042 with connection thread
Drainage	manual drain in conjunction with semiautomatic drain,	optionally automatic drain, no drain for water
Operating pressure	max. 7 bar at series 035, max. 16 bar at series 042, max. 12.5 bar at series 050 to 095	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	
Material	Body: nylon, POM at types 035 and 042 Bowl: polyamide	Elastomer: NBR/Buna-N Inner valve: brass

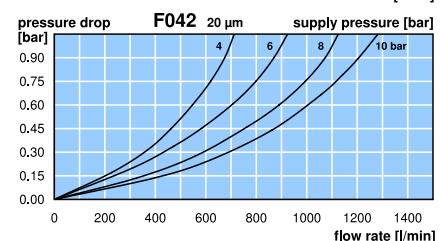
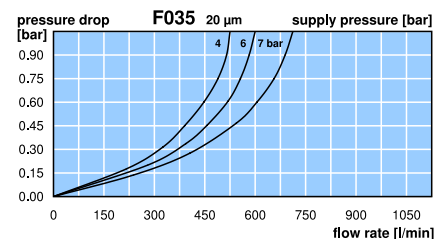
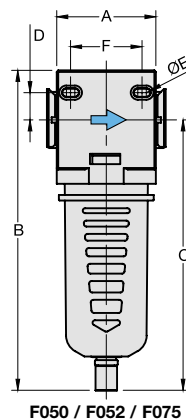
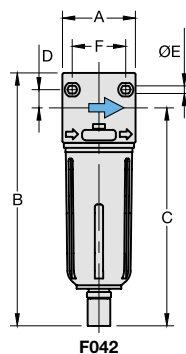
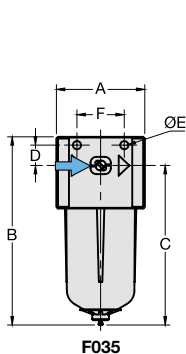
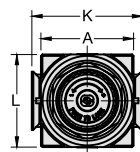


Dimensions			Bowl	Flow	P ₁	Filter	Connection	Order
A	B	C	Design	Capacity	rate	max.	element	thread
mm	mm	mm		l	m ³ /h*1	l/min*1	µm	G

Compressed air filter			manual drain with semiautomatic drain, 99.99% at 0.01 µm				F0			
38	79	67	plastic	0.008	45	750	7	20	G ¹ / ₈	F035-01H
			plastic		40	670		5		F035-01G
			for water w/o drain		50	830		80		F035-01J
			coalescing		7	115		0.01		F035-01C
42	146	126	plastic	0.02	75	1250	16	20	G ¹ / ₄	F042-02H
			plastic		63	1050		5		F042-02G
			for water w/o drain		79	1320		80		F042-02J
			for water w/o drain		87	1450		160		F042-02K
			coalescing		11	180		0.01		F042-02C
			plastic		87	1450		activated carbon		F042-02A
52	174	148	bowl guard	0.04	150	2500	12.5	20	G ³ / ₈	F050-03H
					126	2100		5		F050-03G
					16	500		0.01		F050-03C
					150	2500		activated carbon		F050-03A



Series	D	ØE	F	K	L
F035	8.5	3.5	20	-	36
F042	10.5	4.5	31	-	42
F050	16.0	5.5	41	63	52



*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

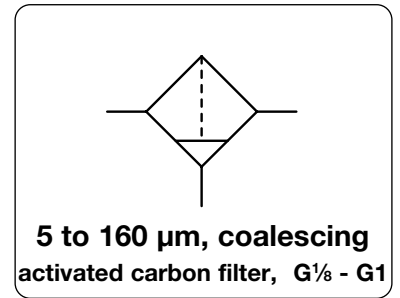


Order example:
F035-01H

COMPRESSED AIR FILTER MADE OF PLASTIC

F035 ... F095

Description	Filter of modular design which can be interlocked with all other instruments of the same series without need for double nipples. The flow on standard filters is from outside to inside; on coalescing filters 0.1 µm from inside to outside.	
Filter element	5 µm, 20 µm, 80 µm made of sintered polyethylene, 160 µm made of stainless steel, 0.01 µm coalescing filter made of borosilicate and activated carbon filter	
Filtration efficiency	coalescing filter: 99.99% at 0.01 µm particle size,	residual oil content < 5 mg/m³
Bowl	plastic version with bayonet catch,	type 042 with connection thread
Drainage	manual drain in conjunction with semiautomatic drain, optionally automatic drain, no drain for water	
Operating pressure	max. 7 bar at series 035, max. 16 bar at series 042, max. 12.5 bar at series 050 to 095	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	
Material	Body: nylon, POM at types 035 and 042 Bowl: polyamide	Elastomer: NBR/Buna-N Inner valve: brass



Dimensions			Bowl	Flow	P ₁	Filter	Connection	Order
A	B	C	Design	Capacity	rate	max.	element	thread
mm	mm	mm		l	m³/h*1	l/min*1	µm	G

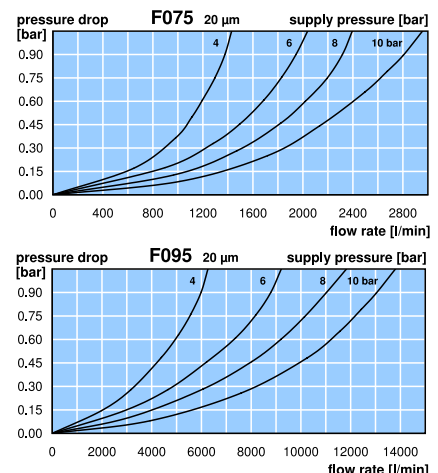
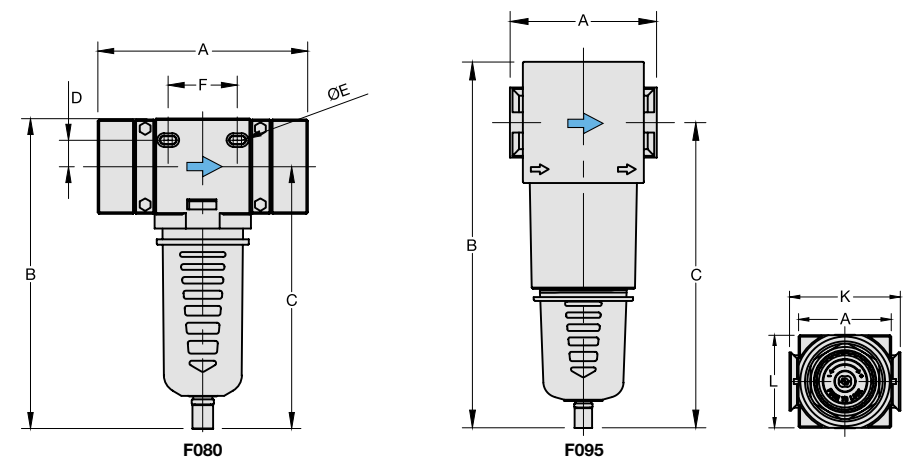
Compressed air filter			manual drain with semiautomatic drain, 99.99% at 0.01 µm				F0				
52	174	148	bowl guard	0.04	156	2600	12.5	20	G ¹ / ₂	F052-04H	
					132	2200		5		F052-04G	
					17	500		0.01		F052-04C	
					156	2600		activated carbon		F052-04A	
63	204	173	bowl guard	0.10	186	3100	12.5	20	G ¹ / ₂	F075-04H	
					165	2750		5		F075-04G	
					18	800		0.01		F075-04C	
					186	3100		activated carbon		F075-04A	
137	204	173	bowl guard	0.10	192	3200	12.5	20	G ³ / ₄	F080-06H	
						168	2800		5		F080-06G
						18	800		0.01		F080-06C
95	284	237	bowl guard	0.20	828	13800	12.5	20	G ¹	F095-08H	
						750	12500		5		F095-08G



Special options, add the appropriate letter
 automatic drain C400200130 for F042 to F095 F0. . - 0 . . R

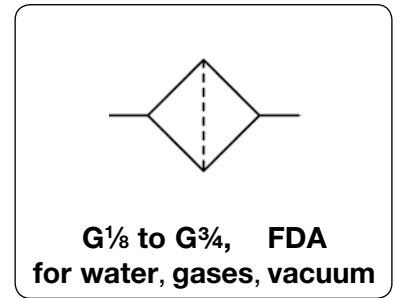
Accessories, enclosed
 mounting bracket set made of steel for F095 **BW00-02**

Series	D	Ø E	F	K	L
F052	16.0	5.5	41	63	52
F075	17.5	5.5	45	75	63
F080	17.5	5.5	45	-	63
F095	-	-	-	115	95



*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

Description	Filter made of plastic for compressed air, vacuum, non-corrosive gases or liquids. The flow on the filter elements passes from outside to inside. They are largely corrosion-resistant and feature excellent chemical stability. Exposure of the filters to direct sunlight must be avoided. Optionally available with EPDM elastomers approved by the FDA.		
Filter element	5 µm, 35 µm and 80 µm made of PE, 50 µm, 100 µm and 300 µm made of stainless steel		
Bowl	made of transparent Grilamid TR55, three different sizes, screwable, without drain		
Drainage	without drain, as no water separation occurs with compressed air		
Operating pressure	max. 10 bar at 24 °C / 75 °F	Differential pressure	max. 0.7 bar
Temperature range	5 °C to 52 °C / 41 °F to 125 °F		
Cleaning	with lukewarm water and standard rinsing agent		
Material	Body: polypropylene GFV 20% Bowl: Grilamid TR55, transparent	Filter element: polyethylene, optionally stainless steel Elastomer: NBR/Buna-N, optionally FKM or EPDM (FDA)	



Dimensions			Bowl Capacity	Flow rate		Filter element	Connection thread	Order number
A	B	C	l	Water l/min*1	Air l/min*1	µm	G	

Plastic filter			operating pressure differential pressure max. 10 bar max. 0.7 bar	max. 10 bar max. 0.7 bar		NBR/Buna-N o-ring polyamide, polypropylene	FH
58	93	83	0.06	6	140	5	G ¹ / ₈ FH1-01G FH1-01J FH1-01L
					180	35	
					200	80	
74	95	85	0.06	8	180	5	G ¹ / ₄ FH1-02G FH1-02J FH1-02L
					230	35	
					300	80	
74	99	87	0.06	10	220	5	G ³ / ₈ FH1-03G FH1-03J FH1-03L
					280	35	
					300	80	
75	103	89	0.06	12	260	5	G ¹ / ₂ FH1-04G FH1-04J FH1-04L
					330	35	
					350	80	
90	124	112	0.17	14	400	5	G ³ / ₈ FH2-03G FH2-03J FH2-03L
					500	35	
					520	80	
90	128	113	0.17	16	480	5	G ¹ / ₂ FH2-04G FH2-04J FH2-04L
					600	35	
					620	80	
90	133	116	0.17	18	560	5	G ³ / ₄ FH2-06G FH2-06J FH2-06L
					700	35	
					720	80	



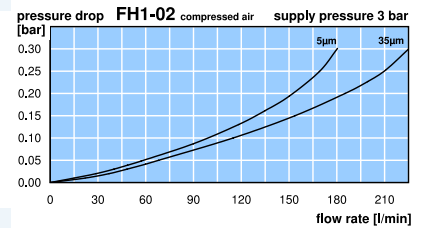
FH1



FH2

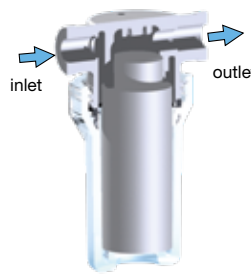
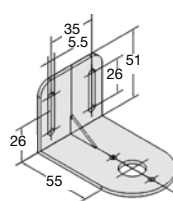
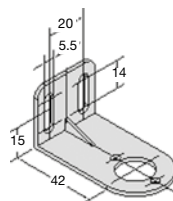
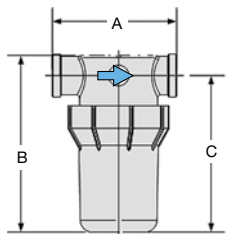
Special options, add the appropriate letter

with short bowl *2	shorter filter element,	4 l/min water	FH1 only	FH0-...
SST filter element	metallic tissue 50 µm S;	100 µm T;	300 µm	FH0-...U FH1-...U FH2-...U FH...E FH...V
EPDM elastomer	FDA approved			
FKM elastomer				

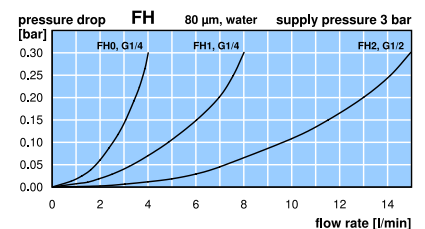
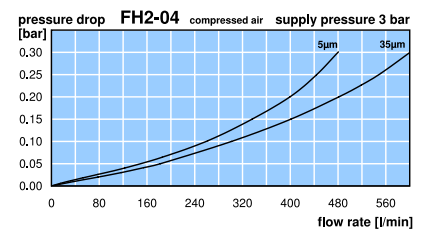


Accessories, enclosed

mounting bracket	made of plastic	for FH0 and FH1 for FH2	BW17-01 BW17-02
-------------------------	-----------------	----------------------------	----------------------------------



cross-section



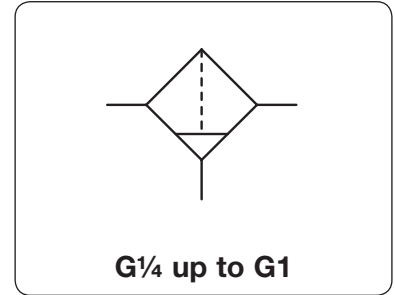
*1 at 3 bar operating pressure and 0.3 bar pressure drop
*2 flow reduced by 35%, height shortened by 35 mm, bowl capacity 0.014 l

Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

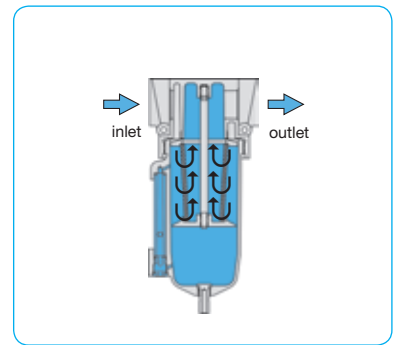
Order example:
FH1-01G

Description	Compressed air filter of modular design with exchangeable inserts. Can be interlocked with regulator or lubricator without need for double nipples. Each "maxi" device may be taken from a fixed line in seconds by simply removing the mounting bolts.
Filter element	40 µm, optionally 5 µm, made of polypropylene
Bowl	metal version with sight glass
Drainage	manual drain as standard, optionally automatic or semiautomatic drain, for max. 12 bar
Operating pressure	max. 17 bar
Temperature range	0 °C to 70 °C / 32 °F to 158 °F 0 °C to 50 °C / 32 °F to 122 °F for automatic or semiautomatic drain version
Material	Body: zinc die-cast Sight glass: polyurethane Bowl: zinc die-cast Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of / with	l	m³/h*1	l/min*1	bar	µm

"Maxi" compressed air filter									with manual drain supply pressure max. 17 bar	F20
89	191	171	metal/sight glass	0.3	132	2200	17	40	G¼	F20-02WJ
					90	1500				F20-02WG
					186	3100				F20-03WJ
					138	2300				F20-03WG
					288	4800				F20-04WJ
111	191	171	metal/sight glass	0.3	408	6800	17	40	G¾	F20-06WJ
					294	4900				F20-06WG
					420	7000				F20-08WJ
					300	5000				F20-08WG

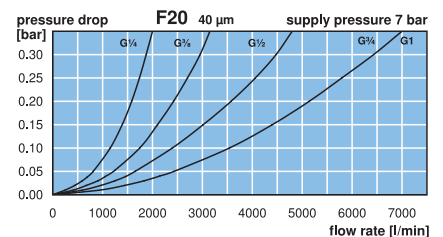
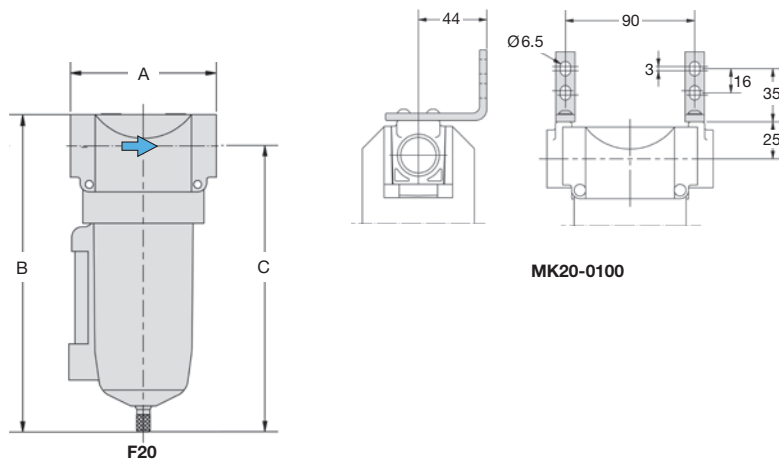


Special options, add the appropriate letter

NPT	connection thread	F20-0 .W .N
semiautomatic drain	RK500SY, max. 12 bar	F20-0 .W .M
automatic drain	SA605MD, max. 12 bar	F20-0 .W .R

Accessories, enclosed

mounting bracket set	made of steel	MK20-0100
-----------------------------	---------------	------------------



*1 at 7 bar supply pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

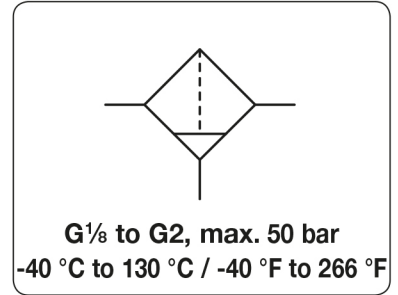
PDF CAD
www.aircom.net

Order example:
F20-02WJ

COMPRESSED AIR FILTER MADE OF BRASS, UP TO 50 BAR

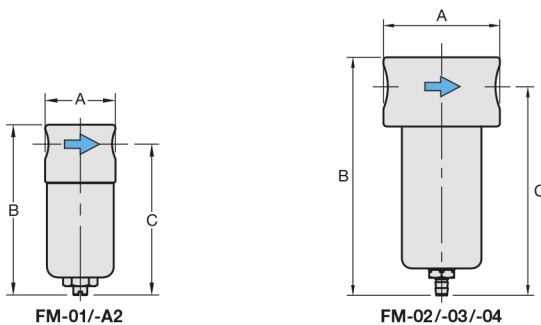
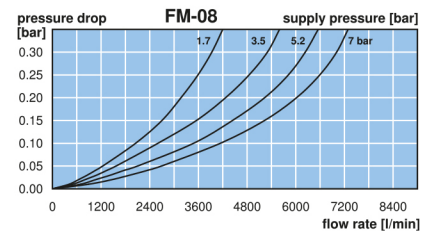
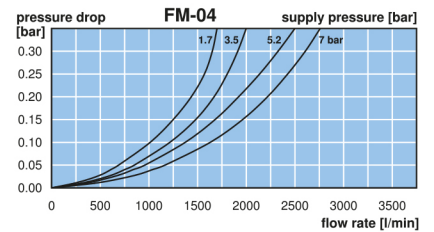
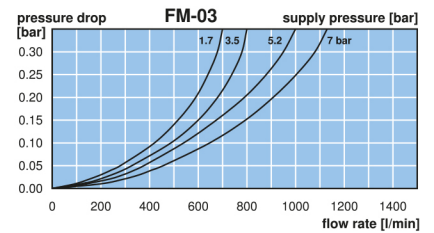
FM

Description	Filter with bowl without sight glass, extremely robust, for compressed air, non-corrosive gases or liquids.	
Filter element	50 µm, optionally 5 µm, made of stainless steel	Bowl stainless steel version without sight glass
Drainage	screw plug as standard optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)	
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)	
Temperature range	0 °C to 80 °C / 32 °F to 140 °F, for FKM or EPDM, 0 °C to 130 °C / 32 °F to 266 °F, for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F	
Material	Body: brass Bowl: stainless steel 316L, material no 1.4404, brass at FM-01/-A2 Elastomer: FKM, optionally EPDM Inner valve: brass and plastic (not at high temperature version)	



Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	max.	element	number
mm	mm	mm	made of	l	m ³ /h*1	l/min*1	µm	G

Brass filter			with screw plug, operating pressure max. 50 bar, 50 µm						FM	
40	92	81	brass	0.03	45	750	50	50	G ¹ / ₈	FM-01 FM-01G
40	92	81	brass	0.03	45	750	50	5	G ¹ / ₄	FM-A2 FM-A2G
64	140	125	stainless steel	0.14	54	900	50	50	G ¹ / ₄	FM-02 FM-02G FM-02I
64	140	125	stainless steel	0.14	60	1000	50	5	G ³ / ₈	FM-03 FM-03G FM-03I
79	150	130	stainless steel	0.20	150	2500	50	5	G ¹ / ₂	FM-04 FM-04G FM-04I
137	189	168	stainless steel	0.50	432	7200	50	5	G ³ / ₄	FM-06 FM-06G FM-06I
137	189	168	stainless steel	0.50	432	7200	50	5	G1	FM-08 FM-08G FM-08I
241	189	168	stainless steel	0.50	432	7200	50	5	G ¹ / ₄	FM-10 FM-10G FM-10I
241	189	168	stainless steel	0.50	432	7200	50	5	G ¹ / ₂	FM-1A FM-1AG FM-1AI
180	297	215	stainless steel	1.00	900	15000	50	5	G ¹ / ₂	FM-12 FM-12G
180	297	215	stainless steel	1.00	960	16000	50	5	G2	FM-16 FM-16G



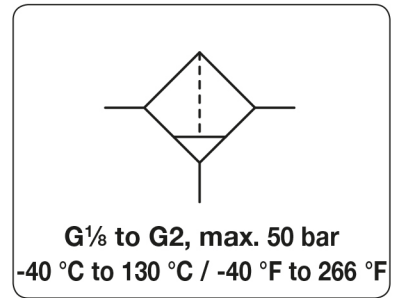
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
FM-01

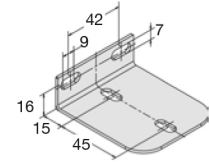
Description	Filter with bowl without sight glass, extremely robust, for compressed air, non-corrosive gases or liquids.	
Filter element	50 µm, optionally 5 µm, made of stainless steel	Bowl stainless steel version without sight glass
Drainage	screw plug as standard optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)	
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)	
Temperature range	0 °C to 80 °C / 32 °F to 140 °F, for FKM or EPDM, 0 °C to 130 °C / 32 °F to 266 °F, for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F	
Material	Body: brass Bowl: stainless steel 316L, material no 1.4404, brass at FM-01/-A2 Elastomer: FKM, optionally EPDM Inner valve: brass and plastic (not at high temperature version)	



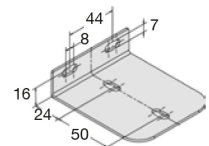
Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of	l	m ³ /h*1	l/min*1	µm	G

Special options, add the appropriate letter

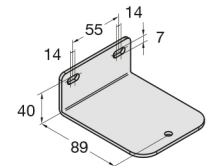
NPT	connection thread	for G $\frac{1}{8}$ to G $\frac{3}{4}$	to G $\frac{1}{2}$, G1 $\frac{1}{2}$ (12) and G2 to G1 $\frac{1}{2}$ (1A)	FM-..N FM-..N FM-..X48 FM-..X51 FM-..X54
P1: max. 80 bar down to -40 °C up to 130 °C	low temperature version			FM-..H FM-..R FM-..E
manual drain	max. 30 bar			FM-..H
automatic drain	made of SST, max. 16 bar	for G $\frac{1}{4}$ (02)		FM-..R
EPDM-elastomer				FM-..E
carbon dioxide	CO ₂			FM-..03
argon	Ar			FM-..05
nitrogen	N ₂			FM-..07
helium	He			FM-..09
hydrogen	H ₂			FM-..11
methane	CH ₄			FM-..13
oxygen	O ₂			FM-..15
propane	C ₃ H ₈			FM-..16
nitrous oxide	N ₂ O			FM-..17
for water	50 µm only	for G $\frac{1}{4}$ (02) to G2		FM-..W
flange connection	see chapter for stainless steel devices / flanges			FM-..F.



BW00-17S



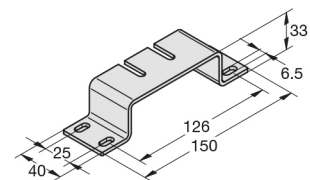
BW00-18S



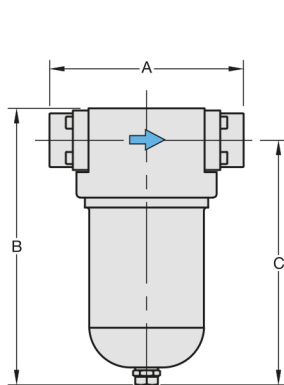
BW00-28S

Accessories, enclosed

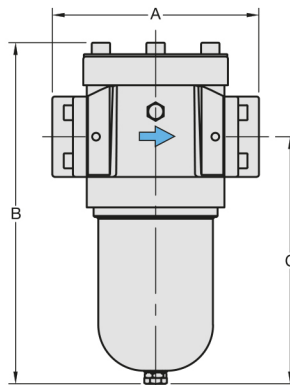
mounting bracket	made of stainless steel	for G $\frac{1}{4}$ (02) and G $\frac{3}{8}$ for G $\frac{1}{2}$	BW00-17S BW00-18S BW00-19S
set of brackets	made of steel	for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A) for G1 $\frac{1}{2}$ (12) and G2	BW00-61



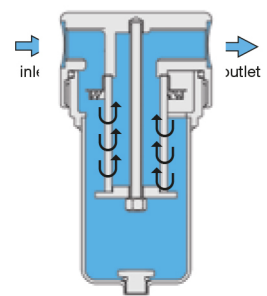
BW00-61



FM-06/-08/-10/-1A



FM-12/-16



cross-section

*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

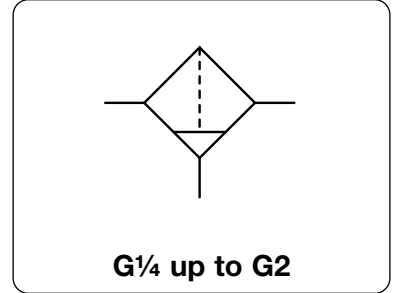


Order example:
BW00-17S

STANDARD COMPRESSED AIR FILTER

F602

Description	Compressed air filter with high flow. Made of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.		
Filter element	40 µm, optionally 5 µm, made of polypropylene		
Bowl	plastic version with or without bowl guard up to size G½, metal version with or without bowl guard		
Drainage	manual drain as standard, for max. 21 bar or external automatic drain, for max. 18 bar		
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and automatic drain version 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F		
Material	Body: zinc die-cast	Bowl: polyurethane, zinc die-cast or steel	Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	rate	max.	element	thread	number
mm	mm	mm	made of / with	m³/h*1	l/min*1	µm	G	

Standard compressed air filter									F602	
									with manual drain	
71	158	145	plastic / bowl guard	0.15	84	1400	11	40	G¼	F602-02BJ F602-02WJ
71	158	145	plastic / bowl guard	0.15	66	1100	11	5	G¼	F602-02BG F602-02WG
71	158	145	plastic / bowl guard	0.15	126	2100	11	40	G½	F602-03BJ F602-03WJ
71	158	145	plastic / bowl guard	0.15	102	1700	11	5	G¼	F602-03BG F602-03WG
71	158	145	plastic / bowl guard	0.15	144	2400	11	40	G½	F602-04BJ F602-04WJ
71	158	145	plastic / bowl guard	0.15	108	1800	11	5	G½	F602-04BG F602-04WG
116	223	200	metal / sight glass	0.50	426	7100	17	40	G¾	F602-06WJ F602-06EJ
116	295	272	steel	1.00			21			
116	223	200	metal / sight glass	0.50	318	5300	17	5	G¾	F602-06WG F602-06EG
116	295	272	steel	1.00			21			
116	223	200	metal / sight glass	0.50	588	9800	17	40	G1	F602-08WJ F602-08EJ
116	295	272	steel	1.00			21			
116	223	200	metal / sight glass	0.50	438	7300	17	5	G1	F602-08WG F602-08EG
116	295	272	steel	1.00			21			
132	242	210	metal / sight glass	0.5	660	11000	17	40	G1¼*2	F602-10WJ F602-10EJ
132	315	283	steel	1.0			21			
132	242	210	metal / sight glass	0.5	492	8200	17	5	G1¼*2	F602-10WG F602-10EG
132	315	283	steel	1.0			21			



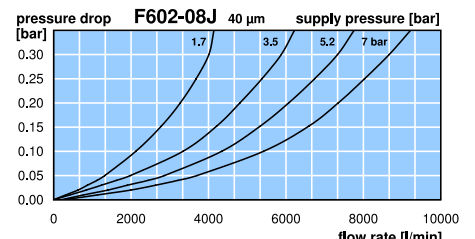
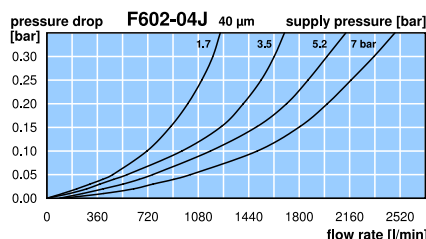
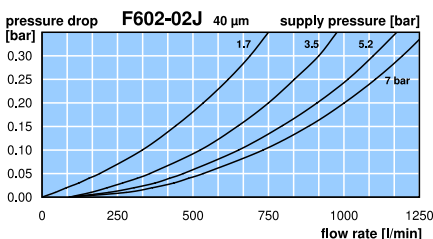
F602-04WJ
metal bowl with sight glass



F602-08WJ
metal bowl with sight glass



F602-10WJ
metal bowl with sight glass



*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 reduced by the next larger filter

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

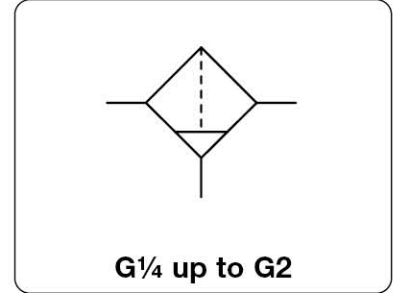


Order example:
F602-02BJ

STANDARD COMPRESSED AIR FILTER

F602

Description	Compressed air filter with high flow. Made of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.		
Filter element	40 µm, optionally 5 µm, made of polypropylene		
Bowl	plastic version with or without bowl guard up to size G½, metal version with or without bowl guard		
Drainage	manual drain as standard, for max. 21 bar optionally internal automatic drain, for max. 12 / 16 bar or external automatic drain, for max. 18 bar		
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and automatic drain version 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F		
Material	Body: zinc die-cast	Bowl: polyurethane, zinc die-cast or steel	Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	rate	max.	element	thread	number
mm	mm	mm	made of / with	m³/h*1	l/min*1	µm	G	

Standard compressed air filter									F602	
									with manual drain	
132	242	210	metal / sight glass	0.5	660	11 000	17	40	G1½	F602-12WJ
132	315	283	steel	1.0			21			F602-12EJ
132	242	210	metal / sight glass	0.5	492	8 200	17	5	G1½	F602-12WG
132	315	283	steel	1.0			21			F602-12EG
157	332	284	metal / sight glass	0.5	1 740	29 000	17	40	G2	F602-16WJ
157	405	357	steel	1.0			21			F602-16EJ
157	332	284	metal / sight glass	0.5	1 800	30 000	17	40	G2½	F602-20WJ
157	405	357	steel	1.0			21			F602-20EJ



F602-12FJ
steel bowl with sight glass



F602-12WJF
with connecting flange

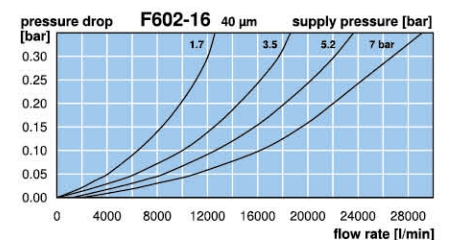
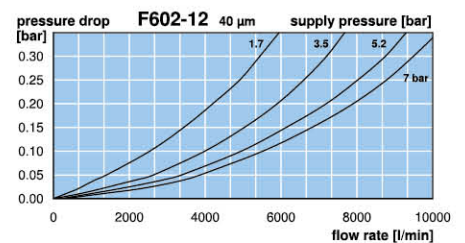
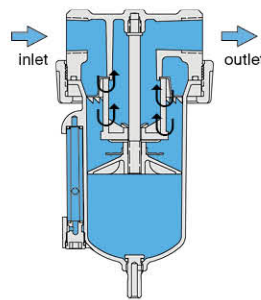
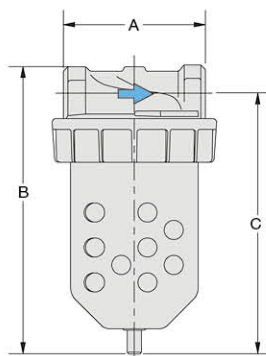
Special options, add the appropriate letter

NPT	connection thread		for G¾ to G2½	F602-....N
automatic drain	SA605MD, SA602D, SA603D for steel bowl, SA702MD,	max. 12 bar	for G¾ to G2½	F602-....R
		max. 18 bar	for G¾ to G2½	F602-....Q
		max. 16 bar	for G¾ to G2½	F602-....W
flange connection	see chapter for stainless steel devices / flanges			F602-....F.



RK602SY

SA605MD



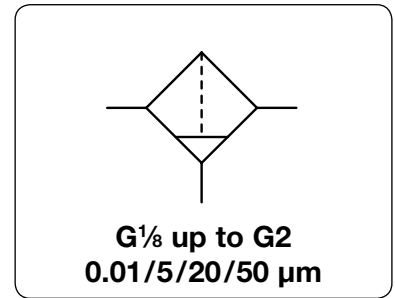
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

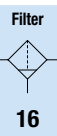
Order example:
F602-12WJ

Description	Good value zinc die-cast regulator of solid design.
Filter element	0.01 µm coalescing filter, 5 µm, 20 µm und 50 µm
Filtration efficiency	coalescing filter: 99.99% based on 0.01 µm particle size
Bowl	metal version with and without sight glass
Drainage	semiautomatic drain as standard, for max. 16 bar optionally manual drain, for max. 30 bar or automatic drain, for max. 16 bar
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass (-01 bis -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 / -1A) -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: zinc die-cast at sizes G½ and G¾, aluminium at sizes G¾ to G2 Bowl: zinc die-cast Elastomer: NBR/Buna-N

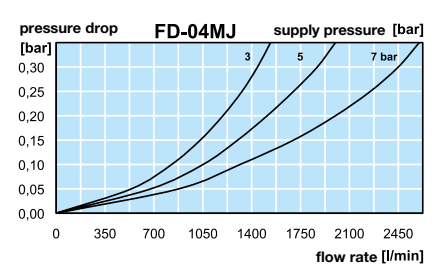
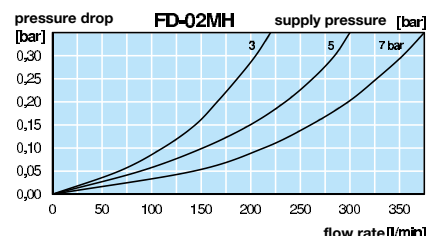
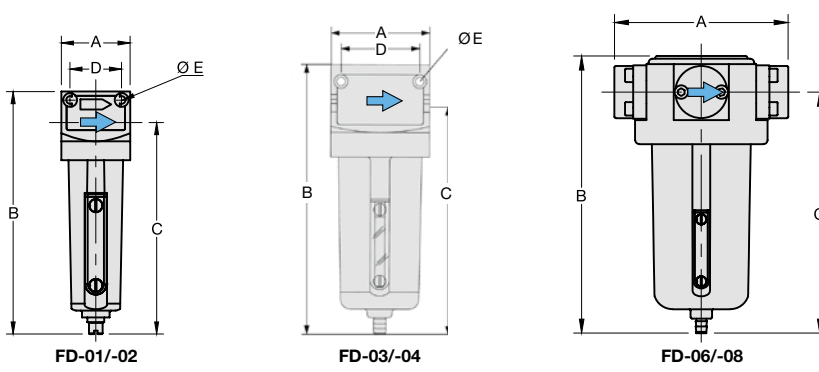


Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of/with	l	m³/h*1	µm	G	

Compressed air filter series "D"							with semiautomatic drain, 99.99 % at 0.01 µm		FD			
40	146	128	metal/sight glass	0.05	21	350	16	50	G½	FD-01MJ		
					16	270				FD-01MG		
				metal/sight glass	0.05	4				70	16	0.01	FD-01MI
40	146	128	metal/sight glass	0.05	24	400	16	50	G¾	FD-02MJ		
					18	300				16	5	FD-02MG
				metal/sight glass	0.05	4				70	16	0.01	FD-02MI
64	176	148	metal/sight glass	0.18	144	2400	16	50	G¾	FD-03MJ		
					108	1800				16	5	FD-03MG
				metal/sight glass	0.18	27				450	16	0.01	FD-03MI
64	176	148	metal/sight glass	0.18	156	2600	16	50	G½	FD-04MJ		
					120	2000				16	5	FD-04MG
				metal/sight glass	0.18	30				500	16	0.01	FD-04MI
130	206	179	metal/sight glass	0.50	420	7000	16	50	G¾	FD-06MJ		
					318	5300				16	5	FD-06MG
				metal/sight glass	0.50	84				1400	16	0.01	FD-06MI
130	206	179	metal/sight glass	0.50	510	8500	16	50	G1	FD-08MJ		
					384	6400				16	5	FD-08MG
				metal/sight glass	0.50	102				1700	16	0.01	FD-08MI



Type	D	Ø E
FD-01/02	30	4.5
FD-03/04	51	5.5

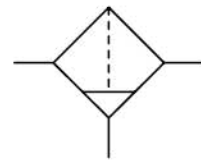


*1 at 7 bar operating pressure and 0.33 bar pressure drop

COMPRESSED AIR FILTER SERIES "D", UP TO 30 BAR

FD

Description	Good value zinc die-cast regulator of solid design.
Filter element	0.01 µm coalescing filter, 5 µm, 20 µm und 50 µm
Filtration efficiency	coalescing filter: 99.99% based on 0.01 µm particle size
Bowl	metal version with and without sight glass
Drainage	semiautomatic drain as standard, for max. 16 bar optionally manual drain, for max. 30 bar or automatic drain, for max. 16 bar
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass (-01 bis -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 / -1A) -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: zinc die-cast at sizes G $\frac{3}{4}$ and G $\frac{1}{2}$, aluminium at sizes G $\frac{3}{8}$ to G2 Bowl: zinc die-cast Elastomer: NBR/Buna-N



G $\frac{1}{8}$ up to G2
0.01/5/20/50 µm

Dimensions			Bowl	Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of/with	l	m 3 /h*1	µm	G	

Compressed air filter series "D"									with semiautomatic drain, 99.99 % at 0.01 µm	FD
241	206	179	metal/sight glass	0.5	570	9500	16	50	G $\frac{1}{4}$	FD-10MJ
					432	7200	16	5		FD-10MG
			metal/sight glass	0.5	114	1900	16	0.01		FD-10MI
241	206	179	metal/sight glass	0.5	600	10000	16	50	G $\frac{1}{2}$	FD-1AMJ
					450	7500	16	5		FD-1AMG
			metal/sight glass	0.5	120	2000	16	0.01		FD-1AMI
215	273	231	metal/sight glass	1.2	1800	30000	16	50	G $\frac{1}{2}$	FD-12MJ
				1.2	1380	23000	16	5		FD-12MG
215	273	231	metal/sight glass	1.2	1800	30000	16	50	G2	FD-16MJ
				1.2	1380	23000	16	5		FD-16MG



FD-06/-08



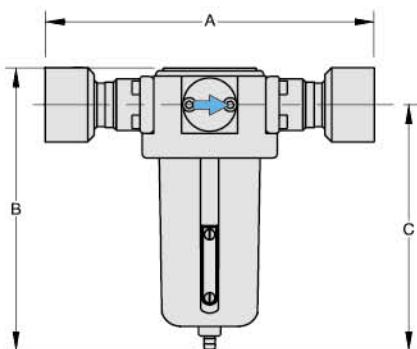
FD-12/-16

Special options, add the appropriate letter

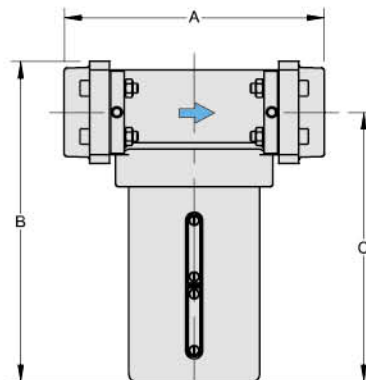
operating pressure 30 bar	metal bowl w/o sight glass, with manual drain	FD-...N.H
manual drain	max. 16 bar	FD-...H
automatic drain	draining through float valve, max. 16 bar for G $\frac{3}{8}$ to G2	FD-...R

Accessories, enclosed

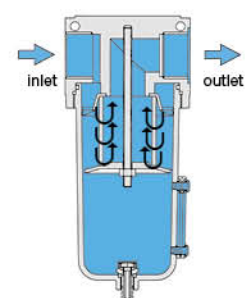
mounting bracket	made of stainless steel	for G $\frac{3}{8}$ to G $\frac{1}{2}$ (1A)	BW00-59S
	made of steel	for G $\frac{1}{2}$ (12) and G2	BW00-61



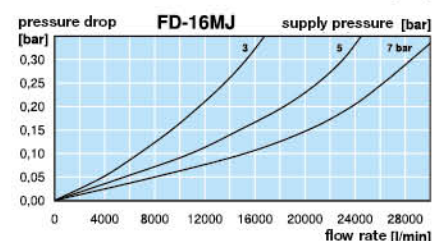
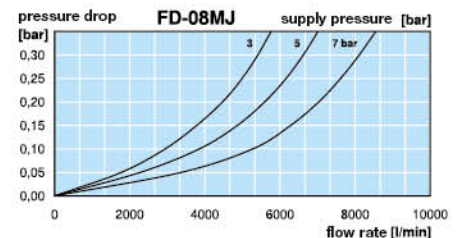
FD-10 /-1A



FD-12/-16



cross-section



*1 at 7 bar operating pressure and 0.33 bar pressure drop

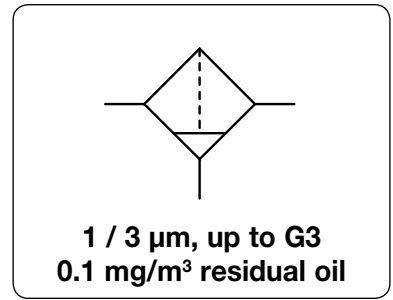
Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
FD-10MJ

	pre-filter V	Fine filter Z
Description	Coarse filter for removing water and solid impurities.	Filters out oil, water and solid impurities. Resistant to mineral and synthetic oils.
Filter element	3 µm incoming flow from inside to outside.	1 µm incoming flow from inside to outside.
Filtration efficiency	99.99% based on 3 µm particle size	99.9999% at 1 µm particle size, residual oil content ≤ 0.5 mg/m ³
Filter change	Cleaning required as from 0.35 bar differential pressure. Solid impurities removed by blowing from inside to outside. Oil to be cleaned in soap suds.	The filter must be changed as from 0.35 bar differential pressure or after one year at the latest.
Drainage	automatic drain as standard, optionally manual drain	
Temperature range	1 °C to 65 °C / 34 °F to 149 °F	
Operating pressure	max. 16 bar	
Material	Body/Bowl: chromated and powder-coated cast aluminium	

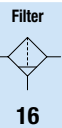


Dimensions			Bowl		Flow rate		Filter element	Connection thread	Order number
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	µm	G	

Micro pre-filter 3 µm			with automatic drain, 99,99% filtration efficiency, max. 16 bar					FG. V	
69	194	173	aluminium /	0.2	30	500	3	G¼	FG-02V
89	293	269	automatic drain	0.8	60	1 000		G¾	FG-03V
89	293	269		0.8	108	1 800		G½	FG-04V
89	293	269		0.8	132	2 200		G¾	FG-A6V
109	393	359		1.8	180	3 000		G¾	FG-06V
109	393	359		1.8	270	4 500		G1	FG-08V
109	540	506		2.7	372	6 200		G1¼	FG-10V
109	540	506		2.7	432	7 200		G1½	FG-1AV
150	576	535		4.9	732	12 200		G1½	FG-12V
150	954	913		8.0	1 050	17 500		G2	FG-16V
188	759	703		10.3	1 800	30 000		G2½	FG-20V
188	939	903		12.7	2 220	37 000		G3	FG-24V



Micro fine filter 1 µm			with automatic drain, 99,9999% filtration efficiency residual oil ≤ 0.1 mg/m ³ , max. 16 bar					FG. Z	
69	194	173	aluminium /	0.2	30	500	1	G¼	FG-02Z
89	293	269	automatic drain	0.8	60	1 000		G¾	FG-03Z
89	293	269		0.8	108	1 800		G½	FG-04Z
89	293	269		0.8	132	2 200		G¾	FG-A6Z
109	393	359		1.8	180	3 000		G¾	FG-06Z
109	393	359		1.8	270	4 500		G1	FG-08Z
109	540	506		2.7	372	6 200		G1¼	FG-10Z
109	540	506		2.7	432	7 200		G1½	FG-1AZ
150	576	535		4.9	732	12 200		G1½	FG-12Z
150	954	913		8.0	1 050	17 500		G2	FG-16Z
188	759	703		10.3	1 800	30 000		G2½	FG-20Z
188	939	903		12.7	2 220	37 000		G3	FG-24Z



Special options, add the appropriate letter

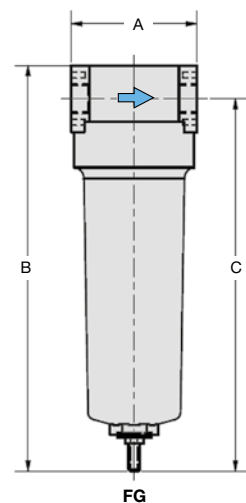
differential pressure gauge	FG-... D
replacement indicator	FG-... E
further sizes	

Accessories, enclosed

set of mounting brackets made of steel	for G¼	BW00-52
	for G¾ to G¾ (A6)	BW00-53
	for G¾ (06) to G1½	BW00-54
	for G1½ (12) and G2	BW00-55
	for G2½ and G3	BW00-56

Flow rate conversion factor for other operating pressures																
operating pressure bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

*1 at 7 bar operating pressure and open outlet. Pressure drop in new condition: **20 mbar** on pre-filter and **30 mbar** on universal filter. The maximum permissible flow rate is 10% higher than the indicated value.



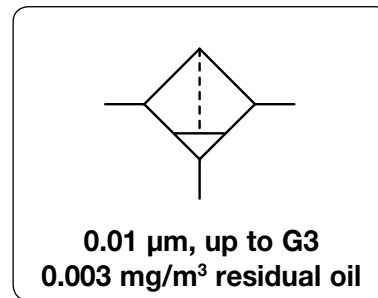
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
FG-02V

	Super fine filter X	Activated Carbon Filter A
Description	The filter separates oil, water and solid impurities from compressed air or non-corrosive gases. It is resistant to mineral and synthetic oils.	Air filtered with this combination is virtually free from oil and odours.
Filter element	0.01 µm incoming flow from inside to outside	0.01 µm incoming flow from inside to outside
Filtration efficiency	99.99999% based on 0.01 µm particle size residual oil content ≤ 0.01 mg/m ³ at 7 bar and 20 °C/68 °F	residual oil content ≤ 0.03 mg/m ³ bei 7 bar and 20 °C/68 °F
Filter change	Cleaning required as from 0.35 bar differential pressure, at the latest after 3 months.	Cleaning required as from 0.35 bar differential pressure, at the latest after 3 months.
Drainage	automatic drain as standard, optionally manual drain	manual drain as standard
Temperature range	1 °C to 65 °C / 34 °F to 149 °F	1 °C to 30 °C / 34 °F to 86 °F
Operating pressure	max. 16 bar	
Material	Body/Bowl: chromated and powder-coated cast aluminium	

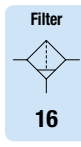


Dimensions			Bowl		Flow rate		Filter element	Connection	Order number
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	µm	thread	G

Super fine filter 0.01 mg/m ³ residual oil							with automatic drain, max. 16 bar 99,99999%, at 0.01 µm	FG. X	
69	194	173	aluminium /	0.2	30	500	0.01	G¼	FG-02X
89	293	269	manual drain	0.8	60	1000		G¾	FG-03X
89	293	269		0.8	108	1800		G½	FG-04X
89	293	269		0.8	132	2200		G¾	FG-A6X
109	393	359		1.8	180	3000		G¾	FG-06X
109	393	359		1.8	270	4500		G1	FG-08X
109	540	506		2.7	372	6200		G1¼	FG-10X
109	540	506		2.7	432	7200		G1½	FG-1AX
150	576	535		4.9	732	12200		G1½	FG-12X
150	954	913		8.0	1050	17500		G2	FG-16X
188	759	703		10.3	1800	30000		G2½	FG-20X
188	939	903		12.7	2220	37000		G3	FG-24X



Activated carbon filter 0.003 mg/m ³ residual oil							with manual drain, max. 16 bar	FG. A	
69	185	164	aluminium /	0.2	30	500	activated carbon	G¼	FG-02A
89	284	260	manual drain	0.8	60	1000		G¾	FG-03A
89	284	260		0.8	108	1800		G½	FG-04A
89	284	260		0.8	132	2200		G¾	FG-A6A
109	384	350		1.8	180	3000		G¾	FG-06A
109	384	350		1.8	270	4500		G1	FG-08A
109	531	497		2.7	372	6200		G1¼	FG-10A
109	531	497		2.7	432	7200		G1½	FG-1AA
150	567	526		4.9	732	12200		G1½	FG-12A
150	945	904		8.0	1050	17500		G2	FG-16A
188	748	694		10.3	1800	30000		G2½	FG-20A
188	930	894		12.7	2220	37000		G3	FG-24A



Special options, add the appropriate letter

differential pressure gauge **FG-. . . D**

replacement indicator **FG-. . . E**

further sizes

Accessories, enclosed

set of mounting brackets made of steel

for G¼ **BW00-52**

for G¾ to G¾ (A6) **BW00-53**

for G¾ (06) to G1½ **BW00-54**

for G1½ (12) and G2 **BW00-55**

for G2½ and G3 **BW00-56**

Flow rate conversion factor for other operating pressures																
operating pressure bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

*1 at 7 bar operating pressure and open outlet. Pressure drop in new condition: **50 mbar** on fine filter and **90 mbar** on super fine filter. The maximum permissible flow rate is 10% higher than the indicated value.

Spare parts: see separate spare parts list

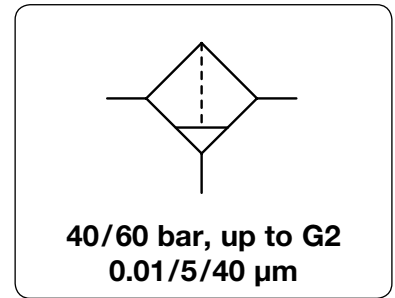
PDF CAD www.aircom.net

Order example:
FG-02X

HIGH PRESSURE FILTER UP TO 60 BAR

F445 / F465

Description	Compressed air filter for up to 60 bar operating pressure with various filter elements. Mounting in horizontal position, flow direction indicated by arrow.
Filter element	5 µm and 40 µm made of sintered bronze, 0.01 µm coalescing filter made of borosilicate fibres with stainless steel jacket and foam protection
Filtration efficiency	coalescing filter: 99.999% based on 0.01 µm particle size
Bowl	metal version without sight glass
Drainage	manual drain as standard
Supply pressure	max. 60 bar
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: black, anodized aluminium Bowl: brass at G $\frac{3}{8}$ to G1, aluminium at G1 $\frac{1}{2}$ and G2 Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow rate	Filter element	Connection thread	Order number
A	B	C	Design	Capacity	rate		
mm	mm	mm	made of	l	m ³ /h*1	l/min*1	µm

High pressure filter up to 40 bar								with manual drain, 99.999% at 0.01 µm	F445
72	200	168	metal	0.08	162	2700	40	G $\frac{3}{8}$ " ²	F445-03EL
65	200	168			168	2800		G $\frac{1}{2}$ "	F445-04EL
92	210	170	metal	0.10	198	3300		G $\frac{3}{4}$ " ²	F445-06EL
80	210	170			210	3500		G1"	F445-08EL
150	285	243	metal	0.30	1200	20000		G1 $\frac{1}{2}$ " ²	F445-12EL
140	285	243			1320	22000		G2"	F445-16EL
72	200	168	metal	0.08	126	2100	5	G $\frac{3}{8}$ " ²	F445-03GL
65	200	168			138	2300		G $\frac{1}{2}$ "	F445-04GL
92	210	170	metal	0.10	156	2600		G $\frac{3}{4}$ " ²	F445-06GL
80	210	170			168	2800		G1"	F445-08GL
150	285	243	metal	0.30	900	15000		G1 $\frac{1}{2}$ " ²	F445-12GL
140	285	243			1080	18000		G2"	F445-16GL
72	200	168	metal	0.08	150	2500	0.01	G $\frac{3}{8}$ " ²	F445-03IL
65	200	168			162	2700		G $\frac{1}{2}$ "	F445-04IL
92	210	170	metal	0.10	192	3200		G $\frac{3}{4}$ " ²	F445-06IL
80	210	170			204	3400		G1"	F445-08IL
150	285	243	metal	0.30	1140	19000		G1 $\frac{1}{2}$ " ²	F445-12IL
140	285	243			1260	21000		G2"	F445-16IL



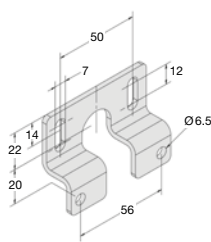
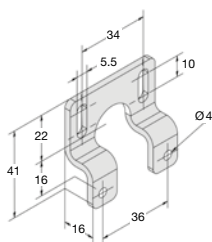
High pressure filter up to 60 bar								with manual drain, 99.999% at 0.01 µm	F465
72	185	160	metal	0.08	162	2700	40	G $\frac{3}{8}$ " ²	F465-03EL
65	185	160			168	2800		G $\frac{1}{2}$ "	F465-04EL
92	200	170	metal	0.10	198	3300		G $\frac{3}{4}$ " ²	F465-06EL
80	185	160			210	3500		G1"	F465-08EL
72	185	160	metal	0.08	126	2100	5	G $\frac{3}{8}$ " ²	F465-03GL
65	185	160			135	2300		G $\frac{1}{2}$ "	F465-04GL
92	200	170	metal	0.10	156	2600		G $\frac{3}{4}$ " ²	F465-06GL
80	200	170			168	2800		G1"	F465-08GL
72	185	160	metal	0.08	150	2500	0.01	G $\frac{3}{8}$ " ²	F465-03IL
65	185	160			162	2700		G $\frac{1}{2}$ "	F465-04IL
92	200	170	metal	0.10	192	3200		G $\frac{3}{4}$ " ²	F465-06IL
80	200	170			204	3400		G1"	F465-08IL

Special options, add the appropriate letter

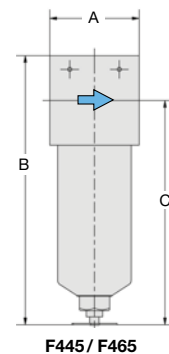
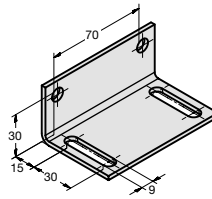
for oxygen specially cleaned F4.5-...15

Accessories, enclosed

mounting bracket made of steel



for G $\frac{3}{8}$ " and G $\frac{1}{2}$ " **BW00-15**
for G $\frac{3}{4}$ " and G1" **BW00-16**
for G1 $\frac{1}{2}$ " and G2" **BW00-60**



*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 reduced from the next bigger filter size

Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
F445-03EL

Description The exhaust filter/sound silencer treats all exhaust air issued by pneumatic devices:
 1) Removing environmentally harmful oil particles from oily exhaust air
 2) Silencing exhaust air noise

Filtration efficiency > 99.99%, residual oil content < 0.01 mg/m³

Noise reduction > 40 dB (A) at 1 m

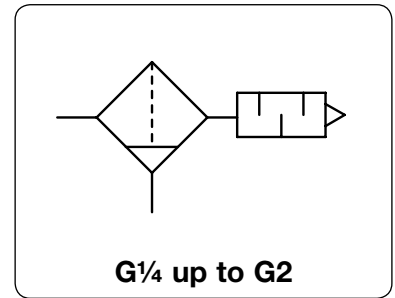
Service life approx. 2500 operating hours, depending on contamination

Drainage The bowl is emptied by means of an overflow valve or by opening the manual drain.

Operating pressure max. 16 bar

Temperature range 2 °C to 100 °C / 36 °F to 212 °F

Material Housing: polypropylene at G¼ and G¾, aluminium at G½ to G2
 Filter: micro fibreglass and polyurethane



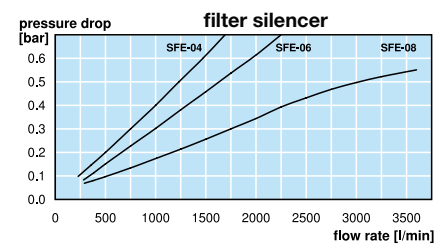
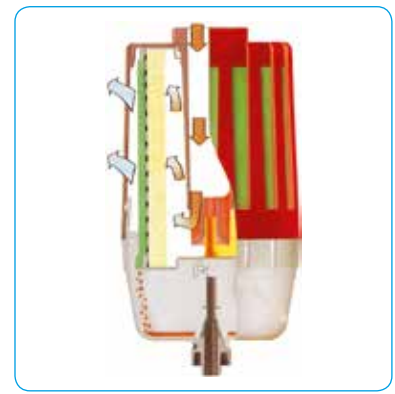
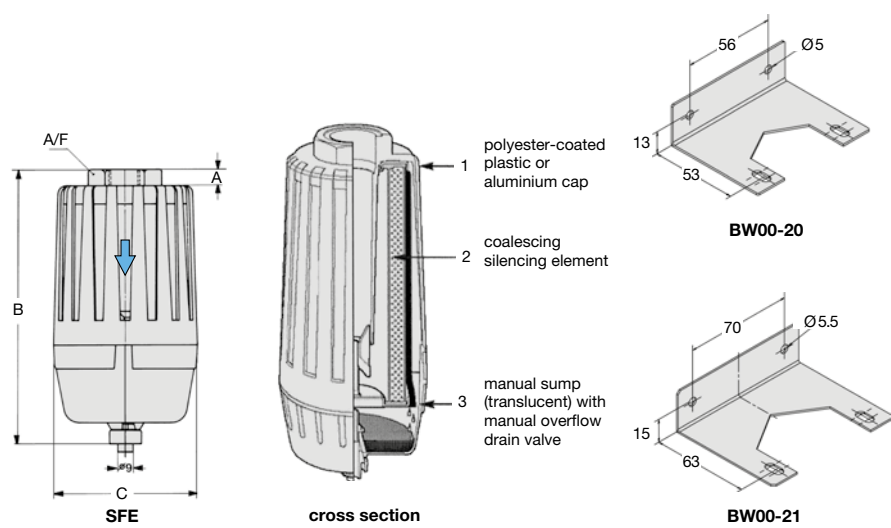
Dimensions				Flow rate	Connection thread	Order number
A	B	ØC	A/F			
mm	mm	mm	mm	m ³ /h*1	G	

Filter silencer				operating pressure max. 16 bar		SFE	
8	131	77	28	30	500	G¼	SFE-02
8	131	77	28	35	580	G¾	SFE-03
12	181	90	36	75	1250	G½	SFE-04
12	181	90	36	100	1670	G¾	SFE-06
15	254	110	50	175	2920	G1	SFE-08
70	287	110	50	200	3330	G1¼	SFE-10
70	312	110	50	200	3330	G1½	SFE-12
70	312	110	50	200	3330	G2	SFE-16



Accessories, enclosed

mounting bracket	made of steel	for G¼ to G¾	BW00-20
		for G1 to G2	BW00-21



*1 at 6 bar operating pressure to atmosphere

Spare parts: see separate spare parts list

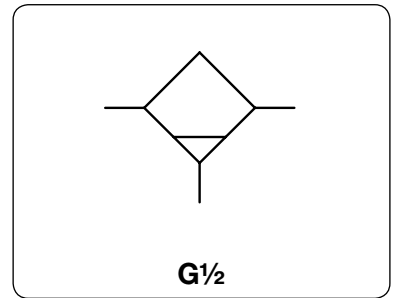
PDF CAD
www.aircom.net

Order example:
SFE-02

CONDENSATE DRAIN / TANK DRAIN

D11 / D608

Description	The condensate drain collects any liquid which has accumulated in the compressed air circuit. It is to be installed at the lowest point in the compressed air plant.
Bowl	plastic version with bowl guard at D608
Drain	metal version with or without sight glass at D11, with sight glass at D608 D11: internal automatic drain as standard for max. 12 bar, optionally manual drain D608: external automatic drain as standard for max. 18 bar, optionally internal drain for max. 16 bar without manual drain
Operating pressure	max. 12 bar at plastic bowl max. 12 bar or 16 bar at metal bowl with internal automatic drain max. 18 bar at metal bowl with external automatic drain
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass
Material	Body: zinc die-cast Sight glass: polyurethane Bowl: polyurethane or zinc die-cast



Dimensions		Bowl	Automatic	Operating	Connection	Order
A	B	design	drain	pressure	thread	number
mm	mm	of/with	capacity	max. bar	G	

Condensate / tank drain						with automatic drain		D11 / D608	
54	134	metal	0.12	SA605MD	12	G1/2	D11-04		
		metal / sight glass					D11-04W		
95	159	plastic / bowl guard	0.25	SA603D	12	G1/2	D608-04D		
		metal / sight glass			18		D608-04DW		



D11-04W

D11-04

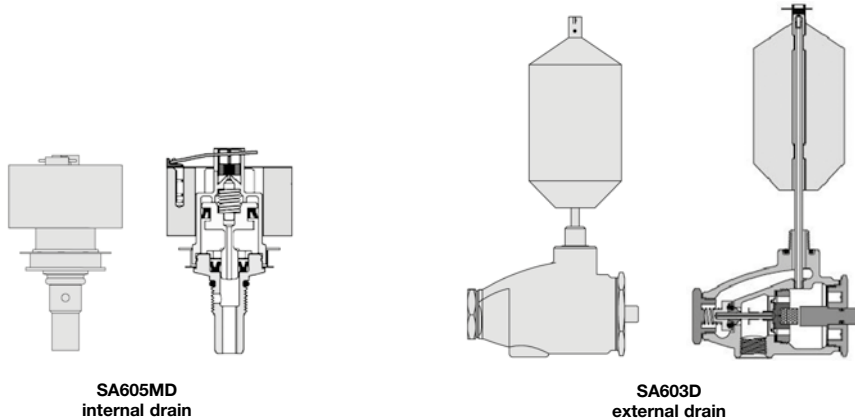
Special options, add the appropriate letter

NPT	connection thread	D . . . -04 . N
manual drain	instead of automatic drain	for D11 D11 -04 . H
manual drain	instead of automatic drain	for D608 D608-04 . H
automatic drain	internal, SA702MD, max. 16 bar	for D608 D608-04 . R



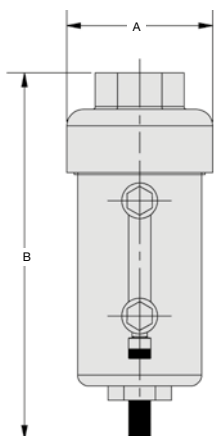
D608-04DW

Filter
16

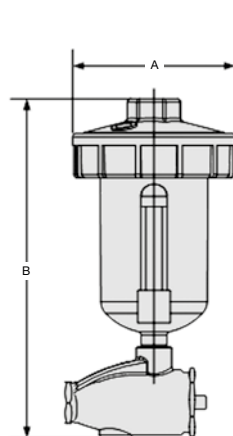


SA605MD
internal drain

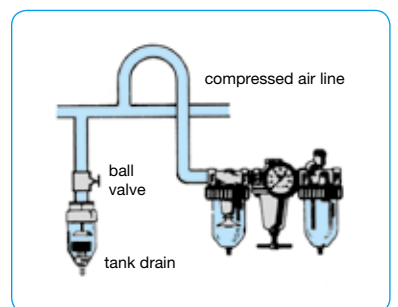
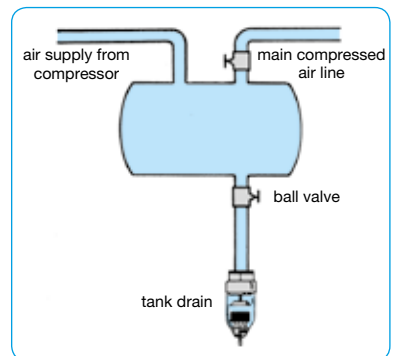
SA603D
external drain



D11-04W



D608



examples of use

PDF CAD
www.aircom.net



Order example:
D11-04

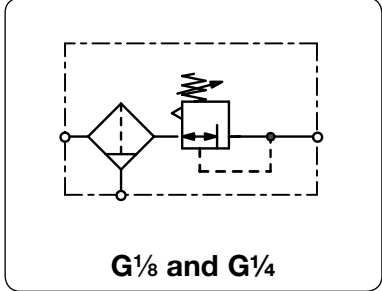
FILTER PRESSURE REGULATORS

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
„Miniature“-Series	0.2 ... 1,8 / 9	G $\frac{1}{8}$ and G $\frac{1}{4}$	B548	17.02
„Midi“-Series made of metal	0.2 ... 1,8 / 17	G $\frac{1}{4}$ - G $\frac{1}{2}$	B11, B12	17.03
made of plastic	0 ... 4 / 12	G $\frac{1}{4}$ - G1	B042 ... B095	17.04
„Maxi“-Series, robust, modular	0.2 ... 4 / 17	G $\frac{1}{4}$ - G1	B20, B21	17.05
Series „D“, made of aluminium / die-cast zinc	0.3 ... 3 / 15	G $\frac{1}{8}$ - G2	BD	17.06
down to -40 °C / -40 °F	0 ... 0.7 / 8	$\frac{1}{4}$ " NPT	B300	17.08



17

Description	Regulator of small and compact design, ideal for limited space conditions.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 11 bar for plastic bowl, max. 21 bar for metal bowl		
Adjustment	by plastic knob with snap-lock		
Relieving function	relieving		
Gauge port	G $\frac{1}{8}$ on both sides of the body, screw plugs supplied		
Filter element	20 μ m, optionally 5 μ m, made of polypropylene		
Bowl	plastic or metal version		
Drainage	manual drain as standard, for max. 21 bar semiautomatic drain as option, for max. 12 bar		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and semiautomatic drain version 0 °C to 80 °C / 32 °F to 176 °F for metal bowl		
Material	Body: aluminium	Elastomer: NBR/Buna-N	Inner valve: brass
	Spring cage: glass fibre-reinforced plastic		
	Bowl: polyurethane or zinc die-cast		



Dimensions			Bowl	Flow	P ₁	Connection	Pressure	Order
A	B	C	design	rate	max.	thread	range	number
mm	mm	mm	made of	l m ³ /h*1	l/min*1	bar	bar	

Miniature filter regulator			with manual drain, relieving, without gauge, filter element 20 μ m					B548		
40	152	86	plastic	0.04	27	450	11	G $\frac{1}{8}$	0.2...1.8	B548-01AHA
									0.2...4.0	B548-01AHB
									0.3...9.0	B548-01AHC
			metal		21	0.2...1.8	B548-01DHA			
				0.2...4.0	B548-01DHB					
				0.3...9.0	B548-01DHC					
40	152	86	plastic	0.04	27	450	11	G $\frac{1}{4}$	0.2...1.8	B548-02AHA
									0.2...4.0	B548-02AHB
									0.3...9.0	B548-02AHC
			metal		21	0.2...1.8	B548-02DHA			
				0.2...4.0	B548-02DHB					
				0.3...9.0	B548-02DHC					

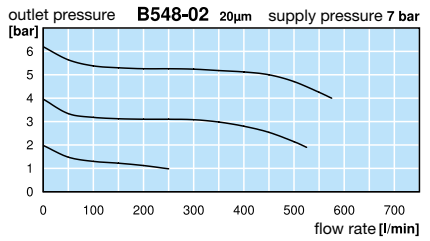
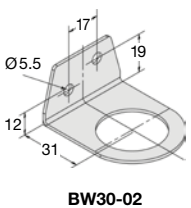
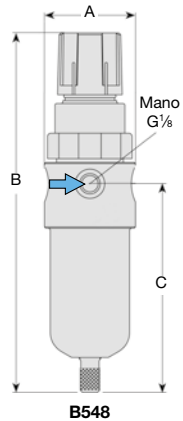


Special options, add the appropriate letter

5 μ m filter element	B548-0..G.
NPT connection thread	B548-0...N
non-relieving without relieving function	B548-0...K
semiautomatic drain RK500SY, max. 12 bar	B548-0...M

Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	MA4001-...*2
mounting bracket	made of steel	BW30-02
mounting nut	made of plastic	M30x1,5K
	made of aluminium	M30x1,5A



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

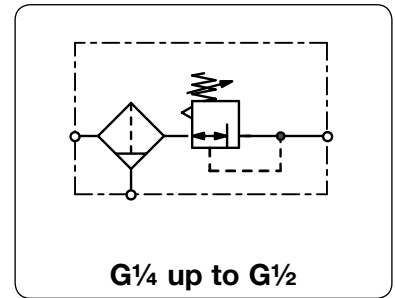
Order example:
B548-01AHA

Filter regulator
17

"MIDI" FILTER PRESSURE REGULATOR

B11 / B12

Description	Filter pressure regulator with high flow and of small design.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 17 bar for metal bowl with sight glass, max. 21 bar for metal bowl without sight glass		
Adjustment	by plastic knob with snap-lock at B11, by T-handle with locknut at B12		
Relieving function	relieving	Gauge port	G $\frac{3}{4}$ on both sides of the body, screw plugs supplied
Filter element	40 μ m, optionally 5 μ m, made of polypropylene		
Bowl	metal version with sight glass, optionally without		
Drain	manual drain as standard, for max. 21 bar, semiautomatic or automatic drain as option, for max. 12 bar		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass 0 °C to 50 °C / 32 °F to 122 °F for semiautomatic or automatic drain for appropriately conditioned compressed air down to -30 °C / -22 °F at B12		
Material	Body: zinc die-cast	Bowl: zinc die-cast	
	Inner valve: brass, optionally stainless steel	Elastomer: NBR/Buna-N, optionally FKM	
	Spring cage: glass fibre-reinforced plastic at B11, zinc die-cast at B12		



Dimensions			Bowl	Flow	Supply	Connection	Pressure	Order
A	B	C	Design	Capacity	rate	max.	range	number
mm	mm	mm	made of/with	l	m ³ /h*1	l/min*1	bar	

"Midi" filter regulator			manual drain, relieving, max. 17 bar without pressure gauge, 40 μ m filter element					B11		
60	210	120	metal / sight glass	0.12	120	2000	17	G $\frac{3}{4}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B11-02WJA B11-02WJB B11-02WJC B11-02WJD
60	210	120	metal / sight glass	0.12	132	2200	17	G $\frac{3}{8}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B11-03WJA B11-03WJB B11-03WJC B11-03WJD
60	210	120	metal / sight glass	0.12	138	2300	17	G $\frac{1}{2}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B11-04WJA B11-04WJB B11-04WJC B11-04WJD

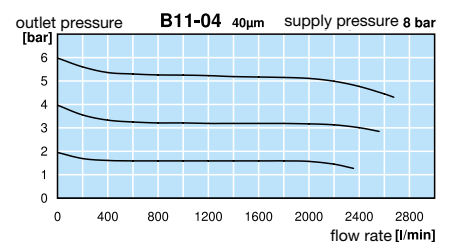
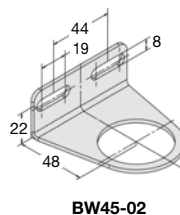
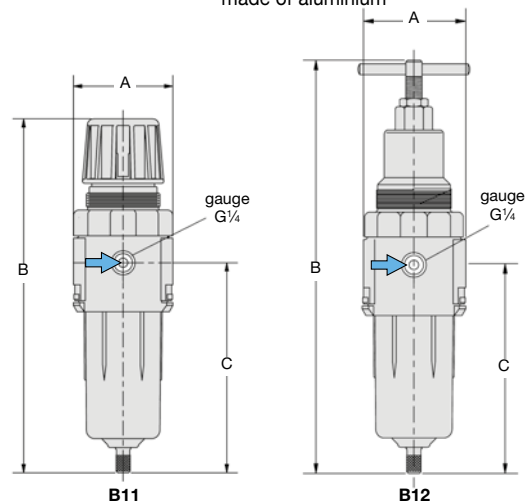


Special options, add the appropriate letter

T-handle	locknut included, height = 215 mm	B12-0
5 μm filter element		B11-0 . . . G.
bowl w/o sight glass	max. 21 bar, 0 °C to 80 °C / 32 °F to 176 °F for appropriately conditioned compressed air down to -30 °C / -22 °F	B12-0 . D . .
NPT	connection thread	B11-0 N
non-relieving	without relieving function	B11-0 K
semiautomatic drain	RK500SY, max. 12 bar	B11-0 M
automatic drain	SA605MD, max. 12 bar	B11-0 R
FKM elastomer	inner parts made of brass	B11-0 X64

Accessories, enclosed

pressure gauge	Ø 50 mm, 0 ... *2 bar, G $\frac{3}{4}$	MA5002- . . *2
mounting bracket	made of steel	BW45-02
mounting nut	made of plastic	M45x1,5K
	made of aluminium	M45x1,5A



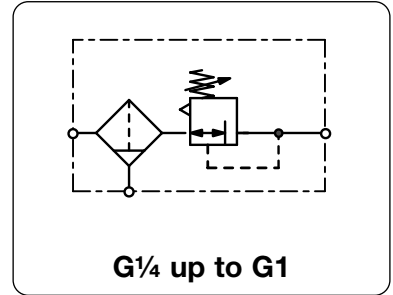
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
B11-02WJA

Description	Modular pressure filter regulator which can be interlocked with all other instruments of the same series.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 12,5 bar, max. 16 bar for Series 042		
Adjustment	by knob with snap-lock		
Relieving function	relieving		
Gauge port	G $\frac{1}{8}$ or G $\frac{1}{4}$ at series 095, on both sides of the body, screw plugs supplied		
Filter element	20 μ m, optionally 5 μ m, made of sintered polyethylene		
Bowl	plastic version with bayonet catch, threaded connection at series 042		
Drainage	manual drain with semiautomatic drain, optionally automatic drain		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: nylon, POM at series 042	Inner valve: brass	
	Bowl: polyamide	Thread insert: brass	
	Elastomer: NBR/Buna-N		



Dimensions			Bowl		Flow rate	Supply max.	Connection thread	Order number
A	B	C	Design	Capacity				
mm	mm	mm	made of/with	l	m 3 /h*1	l/min*1	bar	G

Plastic filter regulator					manual drain with semiautomatic drain, relieving, max. 12,5/16 bar w/o gauge, pressure range 0...8 bar, 20 μ m filter element			B0	
42	207	126	plastic/	0.02	72	1200	16	G $\frac{1}{4}$	B042-02HC
52	239	148	bowl guard	0.04	120	2000	12.5	G $\frac{3}{8}$	B050-03HC
52	239	148		0.04	126	2100	12.5	G $\frac{1}{2}$	B052-04HC
63	276	173		0.10	168	2800	12.5	G $\frac{1}{2}$	B075-04HC
137	276	173		0.10	174	2900	12.5	G $\frac{3}{4}$	B080-06HC
195	411	237		0.20	828	13800	12.5	G1	B095-08HC



Special options, add the appropriate letter		
5 μm filter element		for B042 to B080 for B095
non-relieving	without relieving function	for all
0... 4 bar pressure range		for B042 to B080 for B095
0...12 bar pressure range		for B042 to B080 for B095
automatic drain		

Accessories, enclosed		
pressure gauge	\varnothing 40 mm, 0...*2 bar, G $\frac{1}{8}$ \varnothing 50 mm, 0...*2 bar, G $\frac{1}{8}$ \varnothing 63 mm, 0...*2 bar, G $\frac{1}{4}$	for B042 for B050 to B080 for B095
mounting bracket	made of steel, mounting nut at the device	for B042 for B050 to B080 for B095

BW30-01

BW42-01

B042

B050

B075

B095

Series	D	\varnothing E	F	K	L
B042	10.5	4.5	31	-	42
B050/52	16	5.5	41	63	52
B075	17.5	5.5	45	75	63
B080	17.5	5.5	45	-	63
B095	-	-	-	115	95

*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

Extensions: see chapter for FRL service units
 Gauges: see chapter for measuring devices
 Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
B042-02HC

"MAXI" FILTER PRESSURE REGULATOR

B20/B21

Description

High-capacity filter regulator of modular design with exchangeable inserts. Can be interlocked with lubricator without needs for double nipples. Each "maxi" device may be taken from a fixed line in seconds by simply removing the mounting bolts.

Media

compressed air or non-corrosive gases

Supply pressure

max. 17 bar

Adjustment

by plastic knob with snap-lock at B20, by T-handle with locknut at B21

Relieving function

relieving

Gauge port

G $\frac{1}{4}$ on both sides of the body, screw plugs supplied

Bowl

metal version with sight glass

Filter element

40 μ m, optionally 5 μ m, made of polypropylene

Drainage

manual drain as standard, optionally semiautomatic or automatic drain for max. 12 bar

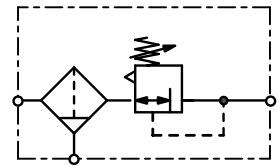
Temperature range

0 °C to 70 °C / 32 °F to 158 °F
up to 50 °C / 122 °F for semiautomatic or automatic drain version

Material

Body: zinc die-cast
Knob (B20): glass fibre-reinforced plastic
Bowl: zinc die-cast
Elastomer: NBR/Buna-N

Spring cage: zinc die-cast
T-handle (B21): steel
Sight glass: polyurethane
Inner valve: brass and plastic



G $\frac{1}{4}$ up to G1

Dimensions			Bowl		Flow	Connection	Pressure	Order
A	B	C	Design	Capacity	rate	thread	range	number
mm	mm	mm	made of / with	l	m ³ /h*1	G	bar	

"Maxi" filter regulator					with manual drain, relieving, without gauge, 40 μ m filter element, max. 17 bar			B20	
89	289	175	metal/sight glass	0.3	132	2200	G $\frac{1}{4}$	0.2... 4.0	B20-02WJB
								0.3... 9.0	B20-02WJC
								0.5... 17	B20-02WJD
					186	3100	G $\frac{3}{8}$	0.2... 4.0	B20-03WJB
								0.3... 9.0	B20-03WJC
								0.5... 17	B20-03WJD
					288	4800	G $\frac{1}{2}$	0.2... 4.0	B20-04WJB
								0.3... 9.0	B20-04WJC
								0.5... 17	B20-04WJD
111	289	175	metal/sight glass	0.3	408	6800	G $\frac{3}{4}$	0.2... 4.0	B20-06WJB
								0.3... 9.0	B20-06WJC
								0.5... 17	B20-06WJD
					420	7000	G1	0.2... 4.0	B20-08WJB
								0.3... 9.0	B20-08WJC
								0.5... 17	B20-08WJD

Special options, add the appropriate letter

T-handle	including locknut, total height 329 mm	B21-0 . W . .
filter element 5 μ m		B20-0 . W.G.
NPT	connection thread	B20-0 . W . .N
non-relieving	without relieving function	B20-0K
semiautomatic drain	RK500SY, max. 12 bar	B20-0 . W . .M
automatic drain	SA605MD, max. 12 bar	B20-0 . W . .R

Accessories, enclosed

pressure gauge	\varnothing 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
mounting bracket	mounting at the spring cage	BW45-02
mounting nut	made of plastic	M45x1,5K
	made of aluminium	M45x1,5A
mounting bracket set	made of steel	MK20-0100



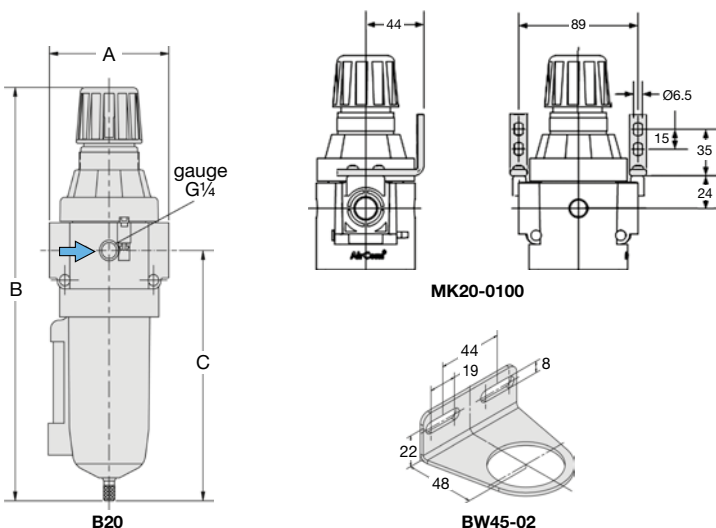
B20 with adjusting knob
accessory: gauge



B21 with T-handle
accessory: gauge

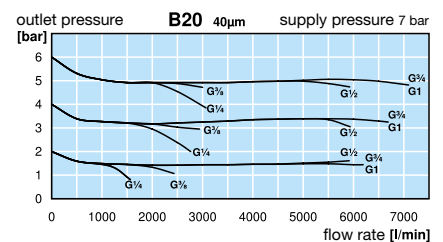
Filter
regulator

17



RK500SY

SA605MD



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
B20-02WJB

Description Low-cost zinc die-cast regulator of solid design and diaphragm operating system up to G $\frac{1}{2}$. From G $\frac{3}{4}$ on with piston operating system. Suitable for compressed air or non-corrosive gases.

Supply pressure max. 16 bar for metal bowl with sight glass

Adjustment by knob with snap-lock up to G $\frac{1}{2}$, by hexagon head screw from G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ (BD-1A), by T-handle from G1 $\frac{1}{2}$ (BD-12.) up to G2

Gauge port G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ on both sides of the body at BD-01/02, one screw plug supplied

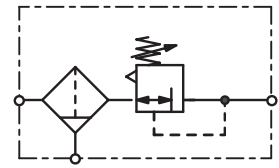
Filter element 50 μ m, optionally 5 μ m, made of propylene

Bowl plastic version, standard or short, metal version with or without sight glass

Drainage semiautomatic drain as standard for max. 16 bar, respectively manual drain max. 30 bar, automatic drain max. 16 bar as option

Temperature range -10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass, for G $\frac{1}{8}$ up to G $\frac{1}{2}$
 -20 °C to 80 °C / -4 °F to 140 °F for metal bowl with sight glass, for G $\frac{3}{4}$ up to G2
 -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass, for all sizes

Material
 Body: zinc die-cast at G $\frac{1}{8}$ and G $\frac{1}{4}$, aluminium at G $\frac{3}{8}$ to G2
 Elastomer: NBR/Buna-N
 Bowl: zinc die-cast



G $\frac{1}{8}$ up to G2
5/50 μ m, up to 30 bar

Dimensions			Bowl	Flow	P ₁	Filter	Connection	Order
A	B	C	Design	rate	max.	element	thread	number
mm	mm	mm	made of/ with	l m ³ /h*1	l/min*1	μ m	G	

Filter pressure regulator										
with semiautomatic drain, relieving, without pressure gauge, pressure range 0.5...8 bar										
									BD	
40	201	128	metal/sight glass	0.05	27	450	16	50	G $\frac{1}{8}$	BD-01M
			metal	0.05			30			BD-01NH
40	201	128	metal/sight glass	0.05	30	500	16	50	G $\frac{1}{4}$	BD-02M
			metal	0.05			30			BD-02NH
64	248	148	metal/sight glass	0.18	108	1800	16	50	G $\frac{3}{8}$	BD-03M
			metal	0.18			30			BD-03NH
64	248	148	metal/sight glass	0.18			16		G $\frac{1}{2}$	BD-04M
			metal	0.18			30			BD-04NH
130	314	179	metal/sight glass	0.50	300	5000	16	50	G $\frac{3}{4}$	BD-06M
			metal	0.50			30			BD-06NH
130	314	179	metal/sight glass	0.50			16		G1	BD-08M
			metal	0.50			30			BD-08NH
241	314	179	metal/sight glass	0.50	390	6500	16	50	G1 $\frac{1}{4}$	BD-10M
			metal	0.50			30			BD-10NH
241	314	179	metal/sight glass	0.50			16		G1 $\frac{1}{2}$	BD-1AM
			metal	0.50			30			BD-1ANH



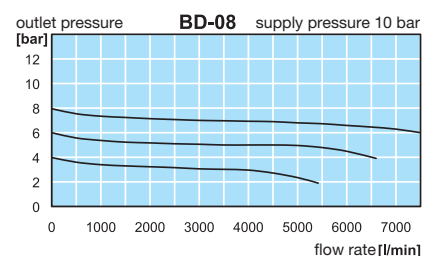
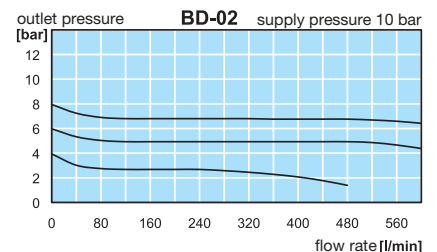
BD-01/-02
Accessory: gauge



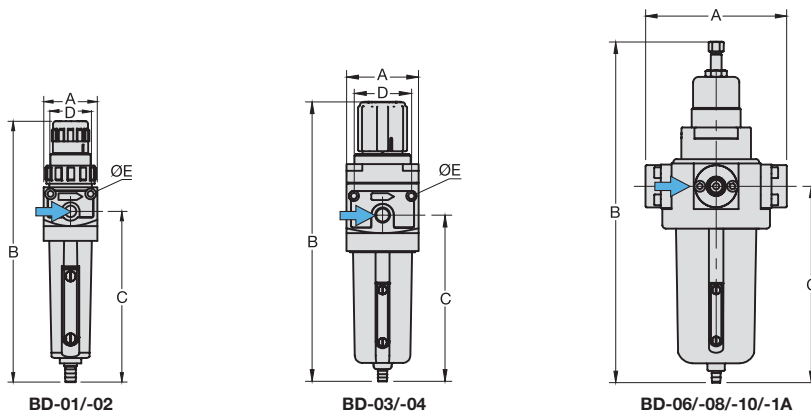
BD-03/-04
Accessory: gauge



BD-06/-08/-10/-1A
Accessory: gauge



Type	M	D	Ø E
BD-01/02	M30x1,5	30	4.5
BD-03/04	M50x1,5	51	5.5



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 Ø4 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

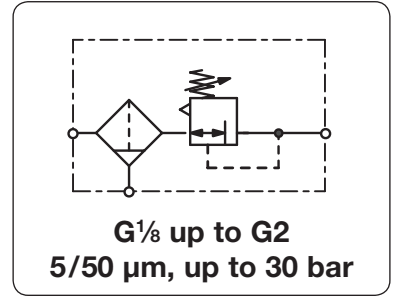
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
BD-01M



Description Low-cost zinc die-cast regulator of solid design and diaphragm operating system up to G $\frac{1}{2}$.
Supply pressure From G $\frac{3}{4}$ on with piston operating system. Suitable for compressed air or non-corrosive gases.
Adjustment max. 16 bar for metal bowl with sight glass
 by knob with snap-lock up to G $\frac{1}{2}$,
 by hexagon head screw from G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ (BD-1A),
 by T-handle from G1 $\frac{1}{2}$ (BD-12.) up to G2
Gauge port G $\frac{1}{4}$ on both sides of the body, G $\frac{1}{8}$ on both sides of the body at BD-01/02, one screw plug supplied
Filter element 50 μ m, optionally 5 μ m, made of propylene
Bowl plastic version, standard or short, metal version with or without sight glass
Drainage semiautomatic drain as standard for max. 16 bar, respectively manual drain max. 30 bar, automatic drain max. 16 bar as option
Temperature range -10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass, for G $\frac{1}{8}$ up to G $\frac{1}{2}$
 -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass, for G $\frac{3}{4}$ up to G2
 -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass, for all sizes
Material
 Body: zinc die-cast at G $\frac{1}{8}$ and G $\frac{1}{4}$, aluminium at G $\frac{3}{8}$ to G2
 Elastomer: NBR/Buna-N
 Bowl: zinc die-cast



Dimensions			Bowl	Flow	P ₁	Filter	Connection	Order
A	B	C	Design	Capacity	rate	element	thread	number
mm	mm	mm	made of/ with	l	m ³ /h*1 l/min*1	μ m	G	

Filter pressure regulator									with semiautomatic drain, relieving, without pressure gauge, pressure range 0.5...8 bar	BD
192	429	220	metal/sight glass	1.20	960	16000	16	50	G1 $\frac{1}{2}$	BD-12M
			metal	1.20			30			BD-12NH
192	429	220	metal/sight glass	1.20	1020	17000	16		G2	BD-16M
			metal	1.20			30			BD-16NH



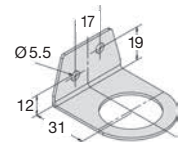
BD-12/-16

Special options, add the appropriate letter

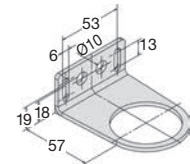
- 5 μ m filter element for G $\frac{1}{8}$ to G $\frac{1}{2}$ BD-... G
- for G $\frac{3}{4}$ to G1 BD-... G
- for G1 $\frac{1}{4}$ to G2 BD-... G
- 0.3 ... 3 bar regulating range BD-... B
- 1 ... 15 bar regulating range BD-... E
- manual drain max. 16 bar for metal bowls with sight glass BD-... H
- automatic drain max. 16 bar, drainage through float valve for G $\frac{3}{8}$ to G2 BD-... R
- flange connection see chapter for stainless steel devices / flanges BD-... F.

Accessories, enclosed

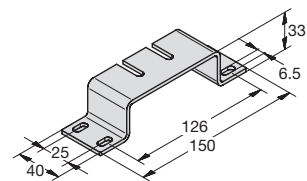
- pressure gauge Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$ for G $\frac{1}{8}$ and G $\frac{1}{4}$ MA4001-...*2
- Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$ for G $\frac{3}{8}$ and G $\frac{1}{2}$ MA5002-...*2
- Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$ for G $\frac{3}{4}$ up to G2 MA6302-...*2
- mouting bracket made of steel for G $\frac{1}{8}$ and G $\frac{1}{4}$ BW30-02
- mouting nut made of plastic for G $\frac{1}{8}$ and G $\frac{1}{4}$ M30x1,5K
- mouting bracket made of steel for G $\frac{3}{8}$ and G $\frac{1}{2}$ BW50-03
- mouting nut made of plastic for G $\frac{3}{8}$ and G $\frac{1}{2}$ M50x1,5K
- mouting bracket made of stainless steel for G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ (1A) BW00-59S
- set of brackets made of steel for G1 $\frac{1}{2}$ (12) and G2 BW00-61



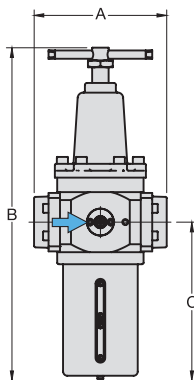
BW30-02



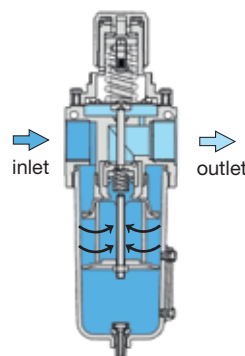
BW50-03



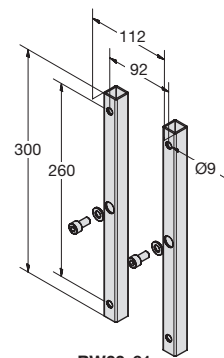
BW00-59S



BD-12/-16



cross-section



BW00-61

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

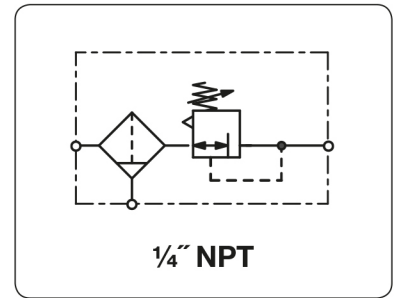
*2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

Extensions: see chapter for FRL service units
 Gauges: see chapter for measuring devices
 Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
BD-12M

Description	Filter pressure regulator especially for low temperatures as well as supply of instruments.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Supply sensitivity	10 mbar outlet pressure deviation at supply pressure variation of 1 bar
Air consumption	max 2 l/min subject to outlet pressure
Adjustment	by square-headed spindle (spanner size 8 mm) with locknut
Relieving function	relieving, optionally non-relieving
Gauge port	1/4" NPT on one side of the body, one screw plug supplied
Filter element	40 µm, optionally 5 µm, made of impregnated cellulose
Drainage	manual drain
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Spring cage: aluminium die-cast Elastomer: nylon-reinforced NBR/Buna-N, optionally FKM Inner valve: brass, acetal, galvanised steel



Dimensions			Bowl	Flow	P ₁	Connection	Pressure	Order
A	B	C	Design	Capacity	rate	max. thread	range	number
mm	mm	mm	made of	l	m ³ /h*1	l/min*1	bar	

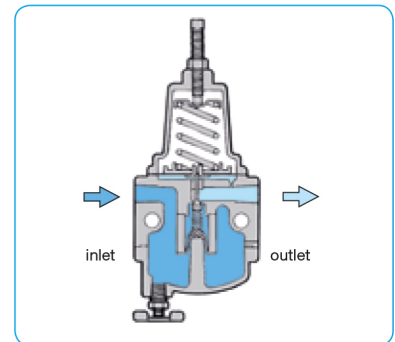
Filter pressure regulator									with manual drain, relieving, without gauge, 40 µm filter element	B300
197	80	83	metal	0.1	33	550	17	1/4" NPT	0...0.7	B300-020
									0...2.0	B300-02A
									0...4.0	B300-02B
									0...8.0	B300-02C



B300

Special options, add the appropriate letter

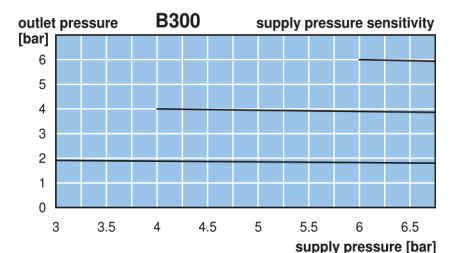
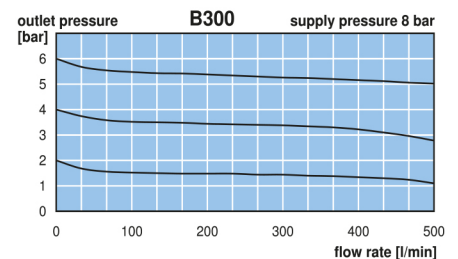
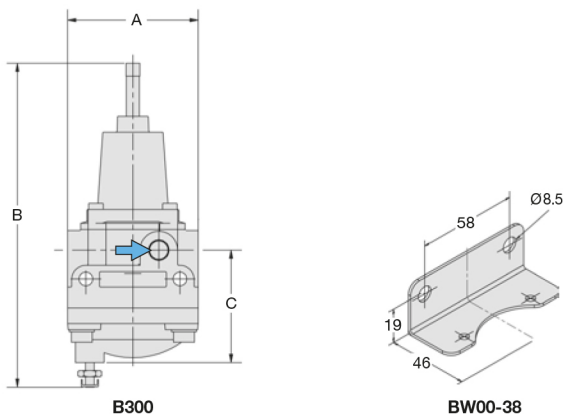
5 µm filter element		B300-02 . G
non-relieving	without relieving function	B300-02 . K
tapped exhaust	1/4" NPT	B300-02 . X12
tamper-proof cap		B300-02 . T
FKM-elastomer		B300-02 . V



Accessories, enclosed

mounting bracket	mounting at spring cage, made of steel	BW00-38
-------------------------	--	----------------

Filter regulator
17



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
B300-020

COMPRESSED AIR LUBRICATORS

DESCRIPTION	PRESSURE RANGE max. bar	CONNECTION thread	DEVICE	PAGE
made of plastic	16	G $\frac{1}{4}$ - G1	L042 ... L095	18.02
„Maxi“-Series, robust, block design	17	G $\frac{1}{4}$ - G1	L20	18.03
„Standard“-Series, robust	21	G $\frac{1}{4}$ - G2	L606	18.04
Series „D“, made of aluminium/zinc die-cast	30	G $\frac{1}{8}$ - G2	LD	18.06



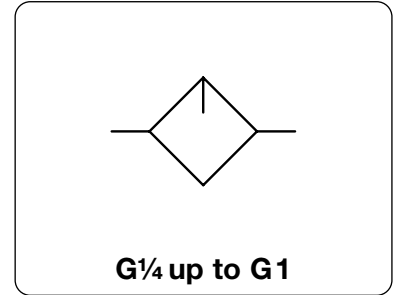
18

Lubricator



18

Description	Standard type mist lubricator which lubricates in proportion to flow rate. The modular lubricator can be interlocked with other instruments of the same series. Wall mounting through two drilled holes in the body, except for L095.	
Bowl	plastic version with bowl guard	
Operating pressure	max. 12,5 bar, max. 16 bar for Series 042	max. 7 bar for lubricator with oil level indicator
Oil refilling	with semiautomatic oil refilling the oil is drawn into the bowl by a vacuum at the push of a button without need to interrupt operation.	
Oil level indicator	if the oil level falls below the limit value, a float will close a signal contact. Contact: NO Voltage: max. 115 V	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	
Material	Body: nylon, POM at Series 042 Bowl: polyamide	Elastomer: NBR/Buna-N Inner valve: brass



Dimensions			Bowl	Flow	Operating	Connection	Order
A	B	C	Design	rate	pressure	thread	number
mm	mm	mm	made of / with	m ³ /h*1	l/min*1	max. bar	G

Lubricator, made of plastic			operating pressure max. 12.5 / 16 bar				L0		
42	157	105	plastic	0.04	120	2 000	16.0	G $\frac{1}{4}$	L042-02
52	185	127	bowl guard	0.07	120	2 000	12.5	G $\frac{3}{8}$	L050-03
52	185	127		0.07	126	2 100	12.5	G $\frac{1}{2}$	L052-04
63	227	159		0.14	210	3 500	12.5	G $\frac{1}{2}$	L075-04
137	227	159		0.14	216	3 600	12.5	G $\frac{3}{4}$	L080-06
95	300	220		0.44	900	15 000	12.5	G1	L095-08



L042 L052
semiautomatic oil refilling

Special options, add the appropriate letter

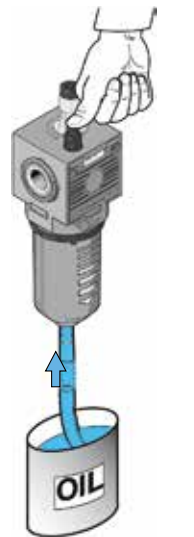
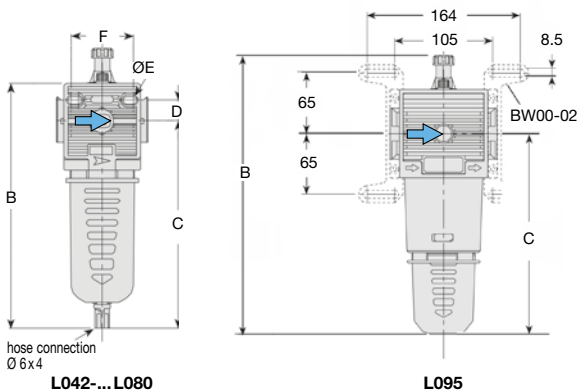
semiautomatic oil refilling	P _{min.} 3 bar		for L042 to L080	L0...0.X65
oil level indicator	P _{max.} 7 bar	115 V/NO	for L050 to L095	L0...0.X66



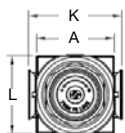
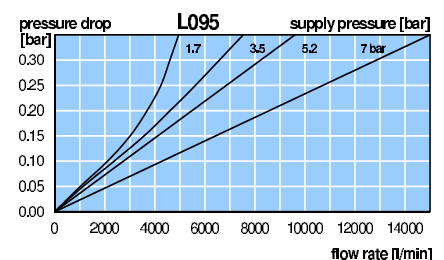
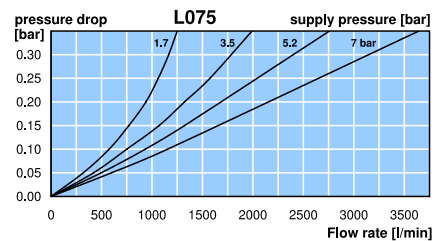
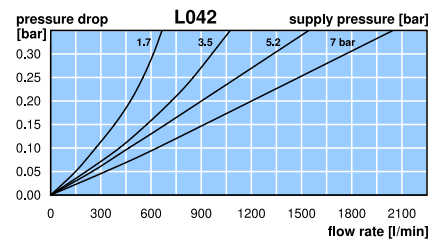
L080 L095

Accessories, enclosed

set of brackets	made of steel	for L095	BW00-02
-----------------	---------------	----------	----------------



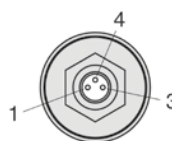
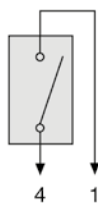
semiautomatic oil refilling



Series	D	Ø E	F	K	L
L042	10.5	4.5	31	-	42
L050/52	16	5.5	41	63	52
L075	17.5	5.5	45	75	63
L080	17.5	5.5	45	-	63
L095	-	-	-	115	95



oil level indicator



oil level indicator

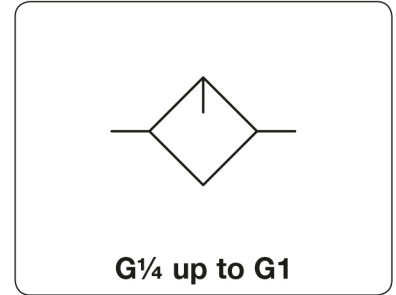
*1 at 10 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
L042-02

Description	Standard type mist lubricator of modular design with exchangeable insert kits. Can be interlocked with a filter or regulator without need for double nipples. A bypass valve and venturi nozzle guarantee low pressure drop and uniform lubrication of the compressed air. All "maxi" instruments are easy to take out of fixed piping by simply removing the two fastening bolts on the insert kits.		
Bowl	metal bowl with sight glass		
Operating pressure	max. 17 bar		
Oil refilling	oil refilling under pressure possible		
Oil level indicator	red ball inside the sight glass indicates oil level		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F		
Material	Body: Bowl:	zinc die-cast zinc die-cast	Sight glass: Elastomer: polyurethane NBR/Buna-N



Dimensions			Bowl	Flow	Operating	Connection	Order
A	B	C	Design	rate	pressure	thread	number
mm	mm	mm	made of/with	m ³ /h*1	l/min*1	max. bar	G

"Maxi" lubricator				operating pressure max. 17 bar			L20		
89	229	170	metal/sight glass	0.3	108	1800	17	G ¹ / ₄	L20-02W
					186	3100		G ³ / ₈	L20-03W
					336	5600		G ¹ / ₂	L20-04W
111	229	170	metal/sight glass	0.3	420	7000	17	G ³ / ₄	L20-06W
					438	7300		G1	L20-08W



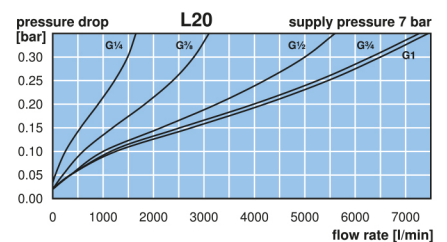
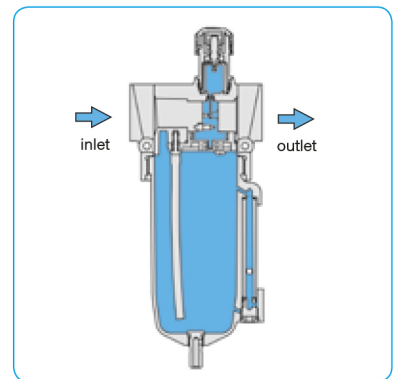
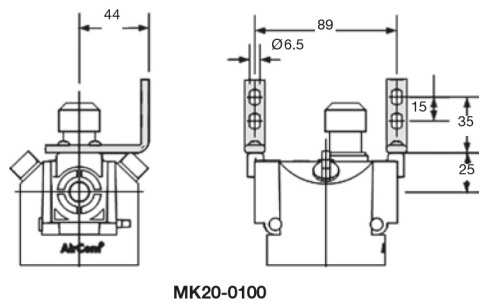
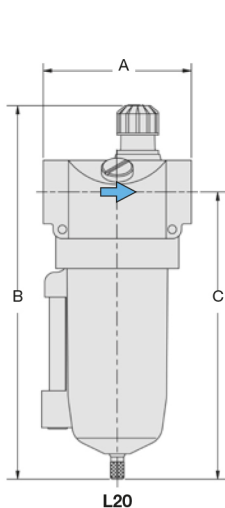
L20

Special options, add the appropriate letter

NPT	connection thread	L20-0.WN
-----	-------------------	----------

Accessories, enclosed

set of brackets	made of steel	MK20-0100
-----------------	---------------	-----------



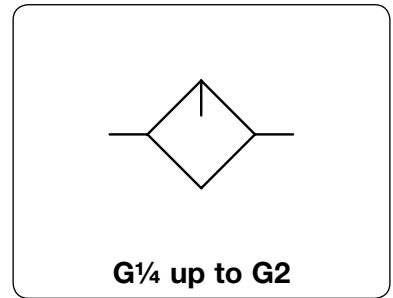
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
L20-02W

Description	Compressed air lubricator of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Bowl	plastic version with bowl guard metal version with or without sight glass
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass, from G $\frac{3}{4}$ on 0 °C to 80 °C / 32 °F to 176 °F for metal bowl with/without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Operating	Connection	Order
A	B	C	design	rate	pressure	thread	number
mm	mm	mm	made of/ with	l m 3 /h*1	l/min*1	max. bar	G

„Standard“ lubricator										L606
71	202	145	plastic/bowl guard	0.08	66	1100	11	G $\frac{1}{4}$	L606-02B	
71	202	145	metal/sight glass	0.08			17		L606-02W	
71	202	145	plastic/bowl guard	0.08	108	1800	11	G $\frac{3}{8}$	L606-03B	
71	202	145	metal/sight glass	0.08			17		L606-03W	
71	202	145	plastic/bowl guard	0.08	151	2500	11	G $\frac{1}{2}$	L606-04B	
71	202	145	metal/sight glass	0.08			17		L606-04W	
103	251	184	metal/sight glass	0.50	492	8200	17	G $\frac{3}{4}$	L606-06W	
103	340	273	steel	1.00			21		L606-06E	
103	340	273	steel/sight glass	1.00			17		L606-06F	
103	306	239	steel/sight glass	2.00			17		L606-06G	
103	251	184	metal/sight glass	0.50	540	9000	17	G1	L606-08W	
103	340	273	steel	1.00			21		L606-08E	
103	340	273	steel/sight glass	1.00			17		L606-08F	
103	306	239	steel/sight glass	2.00			17		L606-08G	



L606-02B



L606-08E
1 I-bowl

L606-08G
2 I-bowl

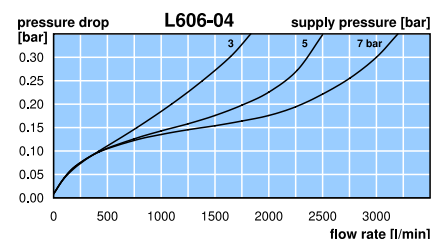
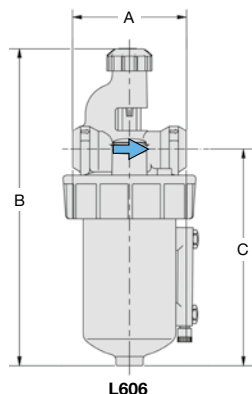
Special options, add the appropriate letter

NPT	connection thread	L606-... N
flange connection	see chapter for stainless steel devices / flanges	L606-... F.

Lubricator



18



*1 at 7 bar operating pressure and 0.33 bar pressure drop

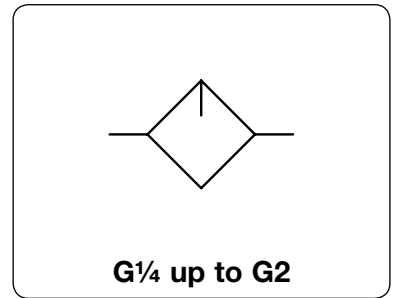
Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
L606-02B

Description	Compressed air lubricator of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Bowl	plastic version with bowl guard metal version with or without sight glass
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass, from G¾ on 0 °C to 80 °C / 32 °F to 176 °F for metal bowl with/without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



Dimensions			Bowl	Flow	Operating	Connection	Order
A	B	C	design	rate	pressure	thread	number
mm	mm	mm	made of/ with	l m³/h*1	l/min*1	max. bar	G

„Standard“ lubricator								L606	
122	266	194	metal/sight glass	0.50	1020	17000	17	G1¼*2	L606-10W
122	355	283	steel	1.00			21		L606-10E
122	355	283	steel/sight glass	1.00			17		L606-10F
122	300	228	steel/sight glass	2.00			17		L606-10G
122	266	194	metal/sight glass	0.50	1020	17000	17	G1½	L606-12W
122	355	283	steel	1.00			21		L606-12E
122	355	283	steel/sight glass	1.00			17		L606-12F
122	300	228	steel/sight glass	2.00			17		L606-12G
133	385	265	steel/sight glass	1.00	1680	28000	17	G2	L606-16F
134	490	370	steel/sight glass	3.00			17		L606-16K3L



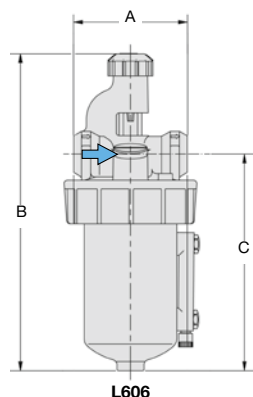
flange connection



L606-..G, 2l-bowl

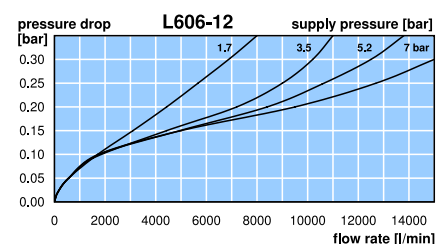
Special options, add the appropriate letter

NPT	connection thread	L606-... N
flange connection	see chapter for stainless steel devices / flanges	L606-... F.



L606

*1 at 7 bar operating pressure and 0.33 bar pressure drop
*2 reduced by the next larger oiler



Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
L606-10W



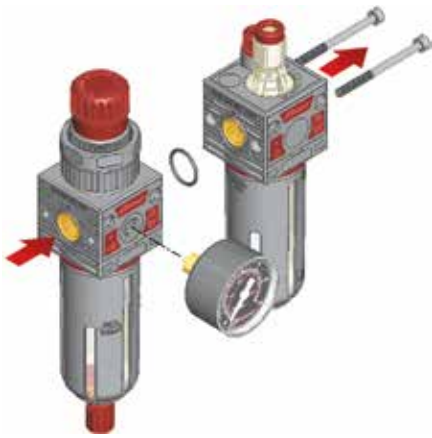
FRL SERVICE UNITS

DESCRIPTION		PRESSURE RANGE max. bar	CONNECTION thread	DEVICE	PAGE
made of plastic, 2- and 3-part	C2, C3	0 ... 8 / 12	G $\frac{1}{4}$ - G1	C2, C3	19.03
assembly diagrams	C2, C3			C2, C3	19.04
switch-on and soft start valve	C2, C3		G $\frac{1}{4}$ - G $\frac{3}{4}$	A0, S0, V0	19.05
„Midi“-Series made of metal, 2- and 3-part		0.2 ... 4 / 17	G $\frac{1}{4}$ - G $\frac{1}{2}$	C10, C11	19.06
„Maxi“-Series, made of metal, robust, 2- and 3-part		0.2 ... 4 / 17	G $\frac{1}{4}$ - G1	C20, C21	19.07
Series „D“, made of alu/zinc die-cast, 2-part		0.3 ... 3 / 15	G $\frac{1}{8}$ - G2	CD2	19.08
Series „D“, made of alu/zinc die-cast, 3-part		0.3 ... 3 / 15	G $\frac{1}{8}$ - G2	CD3	19.09
„Standard“-Series, robust		0.2 ... 4 / 17	G $\frac{3}{4}$ - G2	C630	19.10
drain valves		max. 21		SA, RK	19.11
hose rupture valves, aluminium/stainless steel		max. 18	G $\frac{1}{4}$ - G2	281	19.12



19

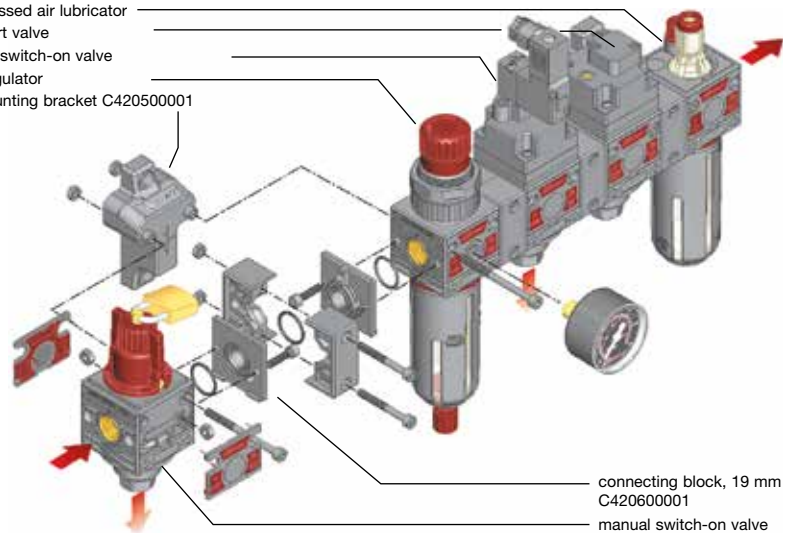
ASSEMBLY DIAGRAMS FOR PLASTIC FRL SERVICE UNITS C2/C3



screw connection of standard FRL service unit with screws, nuts and o-ring C400500001

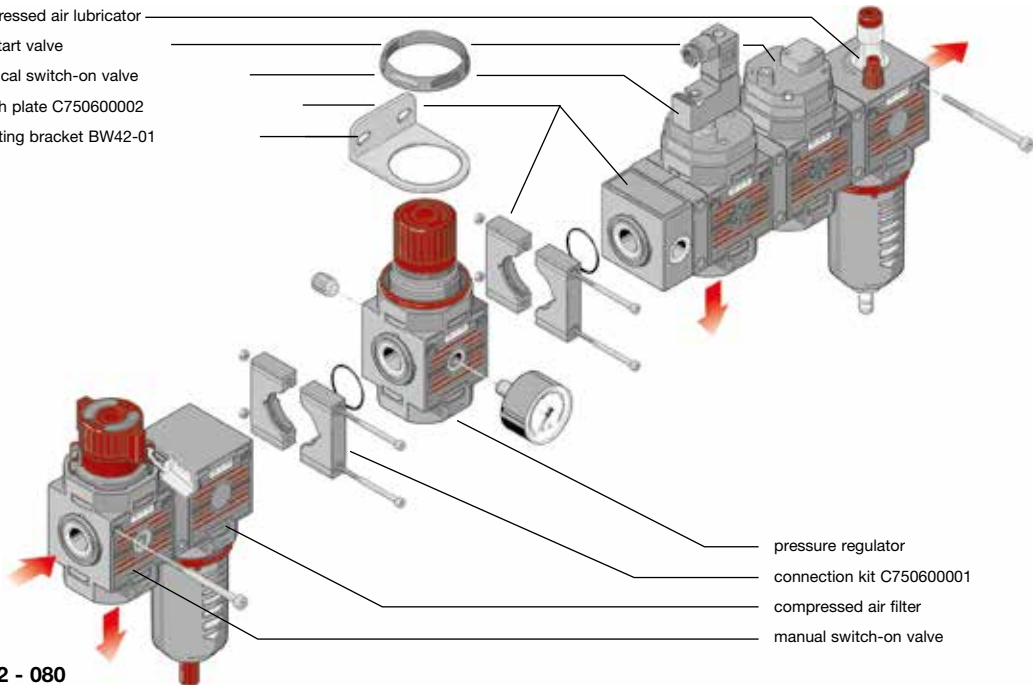
Series 042

compressed air lubricator
soft start valve
electric switch-on valve
filter regulator
"T" mounting bracket C420500001



connecting block, 19 mm C420600001
manual switch-on valve

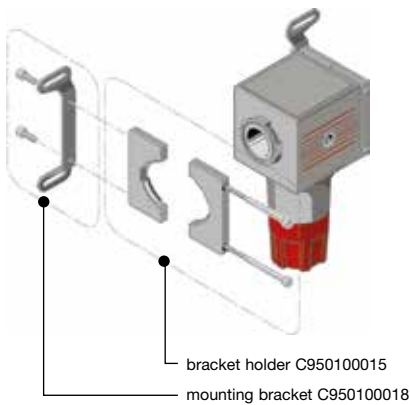
compressed air lubricator
soft start valve
electrical switch-on valve
branch plate C750600002
mounting bracket BW42-01



pressure regulator
connection kit C750600001
compressed air filter
manual switch-on valve

Series 075

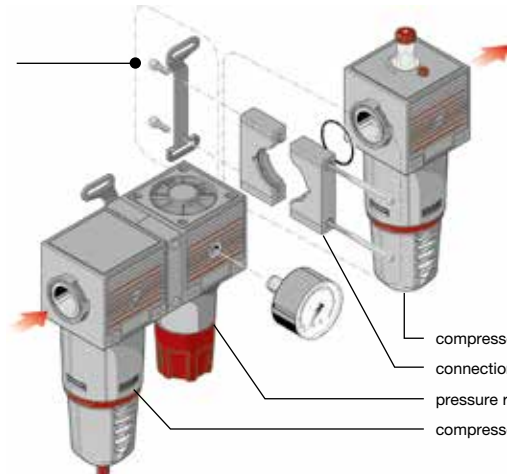
similar to Series 050 - 052 - 080



bracket holder C950100015
mounting bracket C950100018

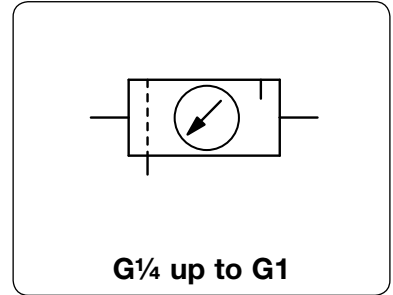
Series 095

mounting bracket C950100018



compressed air lubricator
connection kit C950600001
pressure regulator
compressed air filter

Description	Made up of modular components which can be combined to form compact units. Switch-on and soft start valves available as additional modules.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 12.5 bar, max. 7 bar at lubricator with oil level indicator, max. 16 bar for Series 042		
Gauge port	G $\frac{1}{2}$ or G $\frac{1}{4}$ at series 095, on both sides of the body, one screw plug supplied		
Filter element	20 μ m, optionally 5 μ m, made of sintered polyethylene		
Bowl	plastic version with bayonet catch, series 042 with connection thread		
Drain	manual drain with semiautomatic drain, optionally automatic drain		
Oil refilling	optionally with semiautomatic oil refilling without need to interrupt operation		
Oil level indicator	If the oil level falls below the limit value, a float will close a signal contact.		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	Contact: NO	Voltage: max. 115 V
Material	Body: nylon, POM at series 042	Inner valve: brass	Thread insert: brass
	Bowl: polyamide		
	Elastomer: NBR/Buna-N		



Dimensions				Combination	Bowl	Flow	Connection	Order
A	B	C	K	consist	design	rate	thread	number
mm	mm	mm	mm	of	made of / with	m ³ /h*1	l/min*1	G

FRL unit, 2-part					P ₁ : max. 12.5 / 16 bar, P ₂ : 0...8 bar, 20 μ m, semiautomatic drain, with pressure gauge			C2	
84	208	126	-	B+L042	plastic/	59	980	G $\frac{1}{4}$	C242-02HC
115	239	148	126	B+L050	bowl guard	84	1400	G $\frac{3}{8}$	C250-03HC
115	239	148	126	B+L052		90	1500	G $\frac{1}{2}$	C252-04HC
139	276	173	151	B+L075		132	2200	G $\frac{1}{2}$	C275-04HC
212	276	173	-	B+L080		138	2300	G $\frac{3}{4}$	C280-06HC
210	415	237	230	B+L095		480	8000	G1	C295-08HC

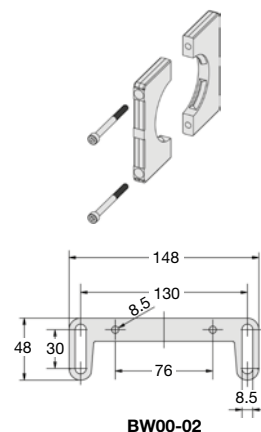
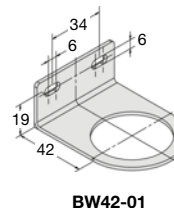
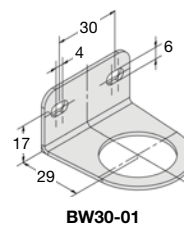
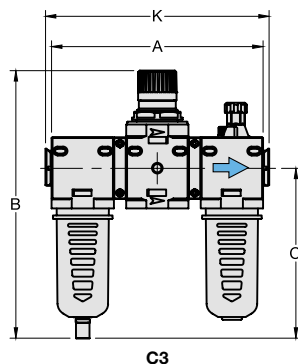
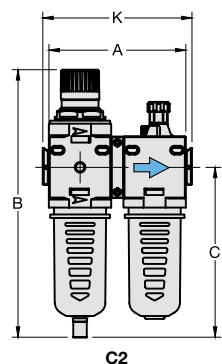


FRL unit, 3-part					P ₁ : max. 12.5 / 16 bar, P ₂ : 0...8 bar, 20 μ m, semiautomatic drain, with pressure gauge			C3	
126	208	126	-	F+R+L042	plastic/	59	980	G $\frac{1}{4}$	C342-02HC
178	239	148	189	F+R+L050	bowl guard	84	1100	G $\frac{3}{8}$	C350-03HC
178	239	148	189	F+R+L052		90	1500	G $\frac{1}{2}$	C352-04HC
215	276	173	227	F+R+L075		132	2200	G $\frac{1}{2}$	C375-04HC
288	276	173	-	F+R+L080		138	2300	G $\frac{3}{4}$	C380-06HC
325	411	237	345	F+R+L095		480	8000	G1	C395-08HC



Special options, add the appropriate letter		
5 μ m filter element		for C.42 to C.80 for C.95
0...12 bar regulating range		for C.42 to C.80 for C.95
automatic drain	C400200130	for all devices
semiautomatic oil refilling	P _{min.} 3 bar	for C.42 to C.80
oil level indicator	P _{max.} 7 bar max. 115 V / NO	for C.50 to C.95
		C...-0.G. C.95-0.G. C...-0.D C.95-0.D C...-0.R C...-0.X65 C...-0.X66

Accessories, enclosed		
mounting bracket	made of steel, mounting nut at the device	for C.42 for C.50 to C.80
set of brackets	made of steel, mounting nut at the device	for C.95
		BW30-01 BW42-01 BW00-02



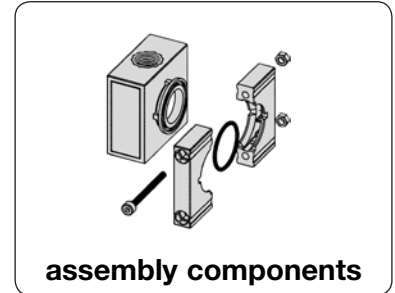
*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

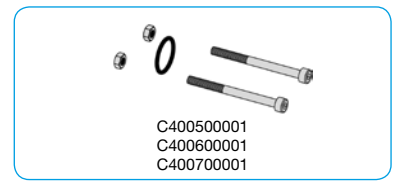
Order example:
C242-02HC

Connection kit	With this interlocking kit, two compressed air instruments can be connected to one another without need for double nipples. This makes possible very compact layouts.
C35 :	<ul style="list-style-type: none"> Mounting using rotary clip and two o-rings. These allow regulators to be connected to other regulators or filters.
C40 :	<ul style="list-style-type: none"> Instruments are connected to each other using screws, nuts and o-ring; alternatively, a segmented connecting block can be used for instrument connection.
C50 :	<ul style="list-style-type: none"> Instrument connection by means of a two-part connecting block.
Branch plate	
C40 :	<ul style="list-style-type: none"> Branch plate with compressed air connection port G$\frac{1}{8}$ or G$\frac{1}{4}$ or both outlet plates. Supply plate for two pressure regulators through port G$\frac{1}{4}$.
C50 :	<ul style="list-style-type: none"> Branch plate with compressed air connection G$\frac{1}{4}$. Port installation of the branch plate is only possible using connecting blocks.

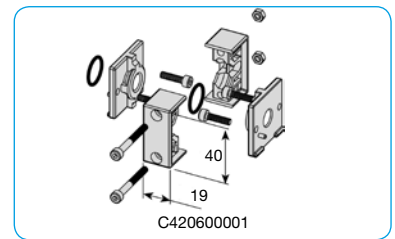


Description	Connection of instruments	for series	Order number
-------------	---------------------------	------------	--------------

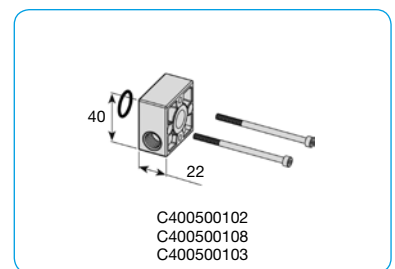
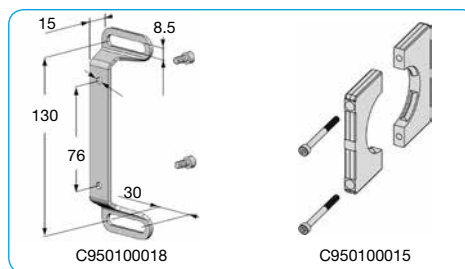
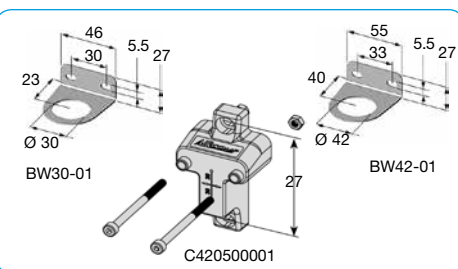
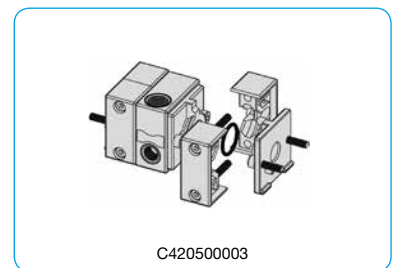
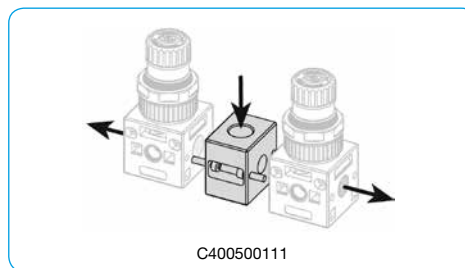
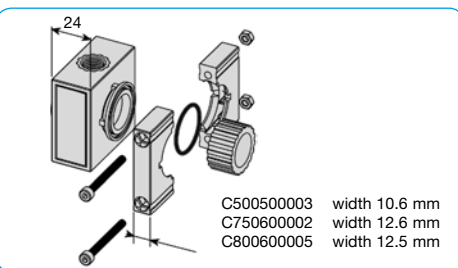
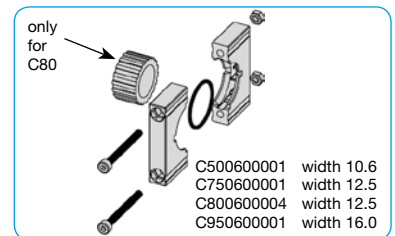
Connection kit	for connecting separate instruments	C...	
rotary clips with two o-rings screws, nuts and o-ring	R+F or R+R or F+F	35	C350100018
	F+R+L or P+B+L	42	C400500001
	B+L	42	C400600001
	F+L or F+F	42	C400700001
connection kit	for any two instruments	42	C420600001
		50 / 52	C500600001
		75	C750600001
		80	C800600004
		95	C950600001



Branch plate	with compressed air connection port	C...	
outlet G $\frac{1}{8}$		42	C400500102
outlet G $\frac{1}{4}$		42	C400500108
outlet G $\frac{1}{8}$ and G $\frac{1}{4}$		42	C400500103
outlet G $\frac{1}{8}$ and G $\frac{1}{4}$	with connection kit	42	C420500003
supply G $\frac{1}{4}$ for two regulators		42	C400500111
outlet G $\frac{1}{4}$		50 / 52	C500500003
outlet G $\frac{1}{4}$		75	C750600002
outlet G $\frac{1}{4}$		80	C800600005



Mounting material			C...
mounting bracket		for G $\frac{1}{4}$	BW30-01
mounting bracket		for G $\frac{3}{8}$ to G $\frac{1}{2}$	BW42-01
wall mounting		for G $\frac{1}{4}$	C420500001
wall mounting		for G1	C950100018
branch holder	required in absence of C9506	for G1	C950100015



Manual switch-on

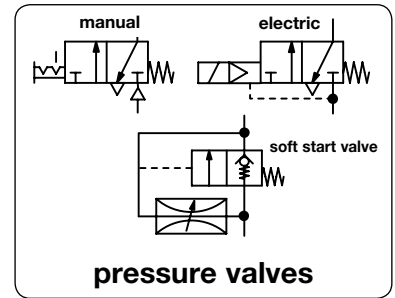
Manual switch-on/off valve which relieves at switch-off. Tapped exhaust with connection thread G $\frac{1}{8}$ or valve G $\frac{1}{4}$. Valve can be protected from unauthorised tampering by provided padlock. Wall mounting is possible through two drilled holes in the body. Maximum supply pressure is 15 bar.

Electric switch-on valve

The electrically-operated 3-port/2-way valve switches the air flow on or off. As standard, it is supplied with a miniature valve or alternatively with a CNOMO valve and can be operated purely in a pneumatic way as option. Wall mounting is possible through two drilled holes in the body. Tapped exhaust with connection thread G $\frac{1}{8}$ or G $\frac{1}{4}$. Maximum supply pressure is 3 to 10 bar.

Soft start valve

The soft start valve slowly pressurizes the system and switches over to full scale operation when 60% of the nominal pressure is reached. The pressure raising period can be set by an adjusting screw on top of the valve. Wall mounting is possible through two drilled holes in the body. Maximum supply pressure is 3 to 10 bar.



pressure valves

Dimensions			Description	Exhaust port	Flow rate		Connection thread	Order number
A	B	C			m ³ /h*1	l/min*1		

Manual 3-port/2-way valve				supply pressure max. 15 bar, including padlock			V0	
42	110	45	manual switch-on	G $\frac{1}{8}$	96	1600	G $\frac{1}{4}$	V042-02
63	121	36	and switch-off of the	G $\frac{1}{4}$	156	2600	G $\frac{3}{8}$	V050-03
63	121	36	compressed air circuit	G $\frac{1}{4}$	162	2700	G $\frac{1}{2}$	V052-04
75	138	42		G $\frac{1}{4}$	186	3100	G $\frac{1}{2}$	V075-04
137	138	42		G $\frac{1}{4}$	192	3200	G $\frac{3}{4}$	V080-06



V0 manual switch-on valve

Electric 3-port/2-way valve				24 V DC, 2 W, supply pressure 3...10 bar			S0	
42	143	42	electric switch-on	G $\frac{1}{8}$	96	1600	G $\frac{1}{4}$	S042-02
63	145	52	and switch-off of the	G $\frac{1}{4}$	156	2600	G $\frac{3}{8}$	S050-03
63	145	52	compressed air circuit	G $\frac{1}{4}$	162	2700	G $\frac{1}{2}$	S052-04
75	154	63		G $\frac{1}{4}$	186	3100	G $\frac{1}{2}$	S075-04
137	154	63		G $\frac{1}{4}$	192	3200	G $\frac{3}{4}$	S080-06



S0 electric switch-on valve

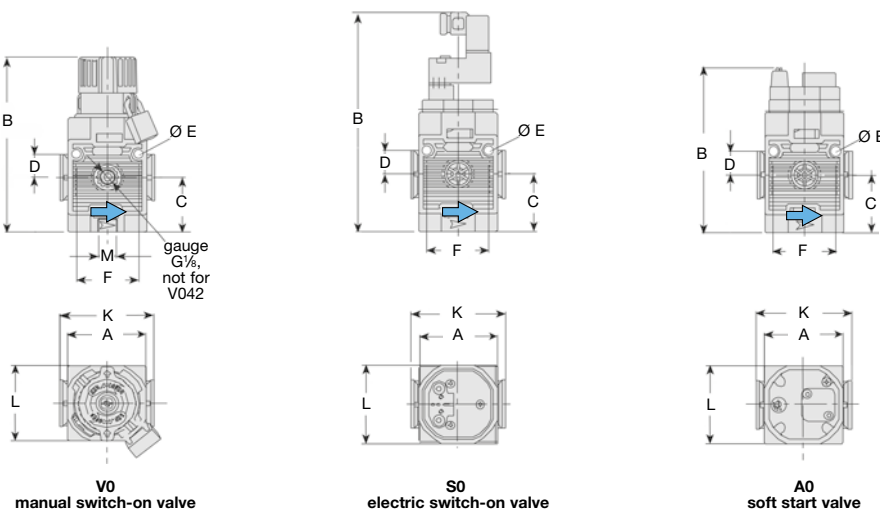
Soft start valve				supply pressure 3...10 bar			A0	
42	105	42	slow pressurizing of the		96	1600	G $\frac{1}{4}$	A042-02
63	108	52	pneumatic plant,		156	2600	G $\frac{3}{8}$	A050-03
63	108	52	delay time adjustable		162	2700	G $\frac{1}{2}$	A052-04
75	117	63			186	3100	G $\frac{1}{2}$	A075-04
137	117	63			192	3200	G $\frac{3}{4}$	A080-06



A0 soft start valve

Special options, add the appropriate letter

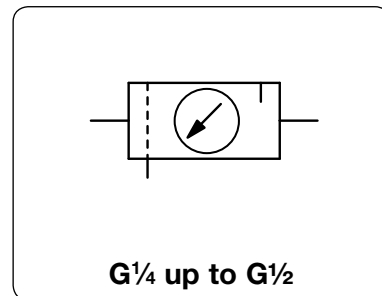
24 V AC, 2 W	input supply voltage	for S0	S0...-0.X
115 V AC, 1 W	input supply voltage	for S0	S0...-0.Y
230 V AC, 1 W	input supply voltage	for S0	S0...-0.Z
pneumatic control	C402600014, instead of electrical operation	for S0	S0...-0.P



*1 at 10 bar supply pressure and 1 bar pressure drop

Series	D	Ø E	F	K	L
042	10.5	4.5	31	-	42
050/052	16	5.5	41	63	52
075	17.5	5.5	45	75	63
080	-	-	-	-	137

Description	FRL service unit of small design and high flow. Equipped with pressure gauge.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass		
Adjustment	by plastic knob with snap-lock at C10, by T-handle with locknut at C11		
Relieving function	relieving, optionally non-relieving		
Gauge port	G¼ on both sides of the body, one screw plug supplied		
Filter element	40 µm, optionally 5 µm, made of polypropylene		
Bowl	plastic version with or without bowl guard,	metal version with sight glass, optionally without	
Drainage	manual drain as standard for max. 21 bar,	automatic or semiautomatic drain as option for max. 12 bar	
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and automatic or semiautomatic drain version 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass		
Material	Body: zinc die-cast	Elastomer:	NBR/Buna-N
	Spring cage: glass fibre-reinforced plastic at C10, zinc die-cast at C11	Inner valve:	brass
	Bowl: zinc die-cast or plastic		



Dimensions			Combination consisting of	Bowl design made of / with	Flow rate		Connection thread	Order number
A	B	C			m³/h*1	l/min*1		

FRL unit, 2-part				P₁: max. 17 bar, P₂: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C10	
176	235	146	B11+L606	metal/sight glass	66	1100	G¼	C10-02BL-W
					114	1900	G¾	C10-03BL-W
					132	2200	G½	C10-04BL-W

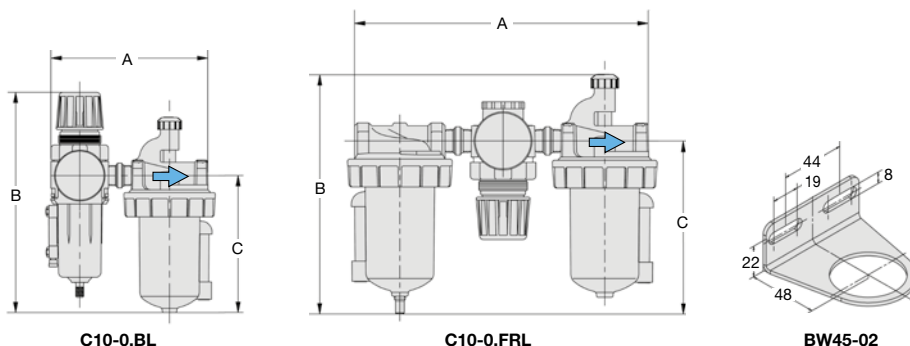


FRL unit, 3-part				P₁: max. 11/17 bar, P₂: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C10	
206	185	146	F602+R10+L606	plastic	66	1100	G¼	C10-02FRL-A
				plastic/bowl guard				C10-02FRL-B
				metal/sight glass				C10-02FRL-W
206	185	146	F602+R10+L606	plastic	102	1700	G¾	C10-03FRL-A
				plastic/bowl guard				C10-03FRL-B
				metal/sight glass				C10-03FRL-W
206	185	146	F602+R10+L606	plastic	138	2300	G½	C10-04FRL-A
				plastic/bowl guard				C10-04FRL-B
				metal/sight glass				C10-04FRL-W



Special options, add the appropriate letter		
T-handle	including locknut	C11-0
5 µm filter element		C10-0 G
NPT	connection thread	C10-0 N
0.2... 4 bar pressure range		C10-0 B
0.5...17 bar pressure range		C10-0 D
semiautomatic drain	RK500SY, max. 12 bar	C10-0 M
automatic drain	SA605MD, max. 12 bar	C10-0 R

Accessories, enclosed		
mounting bracket	made of steel	BW45-02
mounting nut	made of plastic	M45x1,5K
	made of aluminium	M45x1,5A



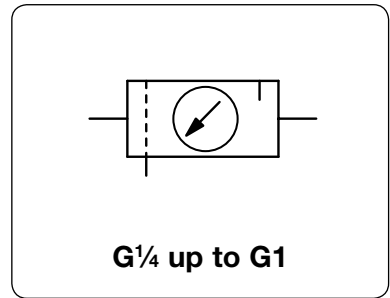
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
C10-02BL-W

Description	"Maxi" FRL service units with pressure gauge are of modular design with exchangeable insert kits and have a high flow rate. All "maxi" instruments are easy to take out of fixed piping by simply removing the two fastening bolts on the insert kits.	
Media	compressed air or non-corrosive gases	
Supply pressure	max. 17 bar	
Adjustment	by plastic knob with snap-lock at C20,	by T-handle with locknut at C21
Relieving function	relieving, optionally non-relieving	Filter element 40 µm, optionally 5 µm, made of polypropylene
Gauge port	G $\frac{1}{4}$ on both sides of the body	Bowl metal version with sight glass
Drainage	manual drain as standard,	optionally automatic drain or semiautomatic drain for max. 12 bar
Temperature range	0 °C to 70 °C / 32 °F to 158 °F	
	0 °C to 50 °C / 32 °F to 122 °F for automatic	or semiautomatic drain version
Material	Body: zinc die-cast	Spring cage: zinc die-cast
	Knob (C20): glass fibre-reinforced plastic	T-handle (C21): steel
	Bowl: zinc die-cast	Sight glass: polyurethane
	Elastomer: NBR/Buna-N	Inner valve: brass and plastic



Dimensions			Combination consisting of	Bowl design made of / with	Flow rate m ³ /h*1	l/min*1	Connection thread G	Order number
A	B	C						

FRL unit, 2-part				P: max. 17 bar, P ₂ : 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C20	
178	289	175	B+L20	metal / sight glass	102	1700	G $\frac{1}{4}$	C20-02BL-W
					174	2900	G $\frac{3}{8}$	C20-03BL-W
					276	4600	G $\frac{1}{2}$	C20-04BL-W
203	289	175	B+L20	metal / sight glass	390	6500	G $\frac{3}{4}$	C20-06BL-W
					402	6700	G1	C20-08BL-W

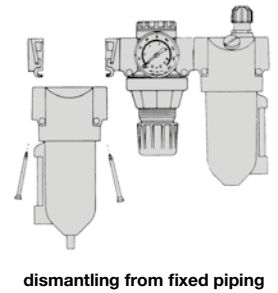
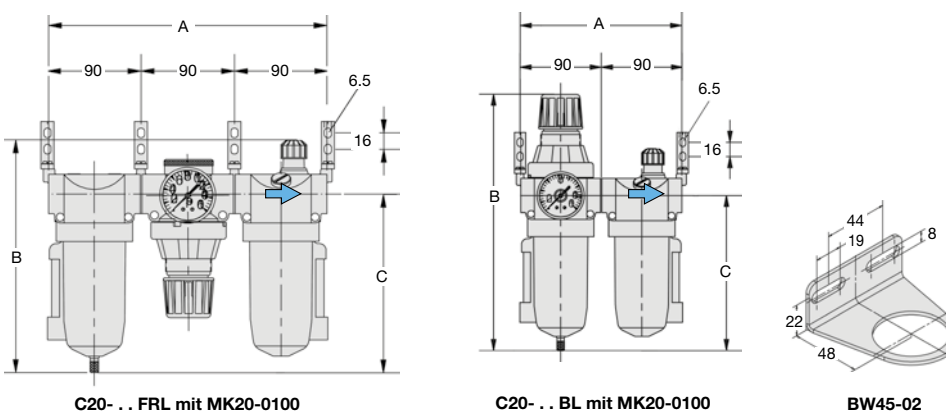


FRL unit, 3-part				P: max. 17 bar, P ₂ : 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C20	
270	226	171	F+R+L20	metal / sight glass	102	1700	G $\frac{1}{4}$	C20-02FRL-W
					174	2900	G $\frac{3}{8}$	C20-03FRL-W
					276	4600	G $\frac{1}{2}$	C20-04FRL-W
292	226	171	F+R+L20	metal / sight glass	390	6500	G $\frac{3}{4}$	C20-06FRL-W
					402	6700	G1	C20-08FRL-W



Special options, add the appropriate letter		
T-handle	including locknut	C21-0 . . . -W
5 µm filter element		C20-0 . . . -WG
NPT	connection thread	C20-0 . . . -WN
0.2... 4 bar pressure range		C20-0 . . . -WB
0.5...17 bar pressure range		C20-0 . . . -WD
semiautomatic drain	RK500SY, max. 12 bar	C20-0 . . . -WM
automatic drain	SA605MD, max. 12 bar	C20-0 . . . -WR

Accessories, enclosed		
mounting bracket	mounting at the spring cage	BW45-02
mounting nut	made of aluminium	M45x1,5A
mounting bracket set	made of steel, consisting of two mounting brackets	MK20-0100
porting block	tap G $\frac{1}{4}$, for unlubricated compressed air	IK20CP



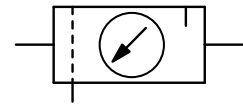
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
C20-02BL-W

Description Solid, low-cost FRL service unit made of zinc die-cast equipped with pressure gauge.
Media compressed air or non-corrosive gases
Supply pressure max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment by plastic knob with snap-lock up to G $\frac{1}{2}$
 by hexagon head screw from G $\frac{3}{8}$ up to G1 $\frac{1}{2}$ on (CD.-1A.)
 by T-handle from G1 $\frac{1}{2}$ (CD.-12.) up to G2 on
Relieving function relieving, optionally non-relieving
Gauge port G $\frac{1}{4}$ or G $\frac{1}{2}$ at CD.-01/-02, on both sides of the body, one screw plug supplied
Filter element 20 μ m or 50 μ m, optionally 5 μ m or 50 μ m, made of propylene **Bowl** metal version with or without sight glass
Drainage semiautomatic drain as standard, optionally automatic (max. 16 bar) or manual drain for max. 30 bar
Temperature range -10 °C to 50 °C / 14 °F to 122 °F metal bowl with sight glass, for G $\frac{1}{2}$ to G $\frac{3}{2}$
 -20 °C to 60 °C / -4 °F to 140 °F metal bowl with sight glass, for G $\frac{3}{8}$ to G2
 -30 °C to 80 °C / -22 °F to 176 °F metal bowl without sight glass, for all sizes
Material
 Body: zinc die-cast at G $\frac{1}{2}$ and G $\frac{3}{4}$, aluminium at G $\frac{3}{8}$ up to G2
 Elastomer: NBR/Buna-N
 Bowl: zinc die-cast



G $\frac{1}{8}$ up to G2

Dimensions			Combination consisting of	Bowl design made of / with	Filter element	Flow rate		Connection thread G	Order number
A	B	C				m ³ /h*1	l/min*1		

FRL unit, 2-part				P ₁ : max. 16 bar, P ₂ : 0.8...8 bar, 20 / 50 μ m, semiautomatic drain, relieving, with gauge				CD2	
80	201	128	BD+LD	metal/sight glass	20	27	450	G $\frac{1}{8}$ G $\frac{1}{4}$	CD2-01 CD2-02
128	248	148		metal/sight glass	50	108	1 800	G $\frac{3}{8}$ G $\frac{1}{2}$	CD2-03 CD2-04
275	314	179		metal/sight glass	50	300	5 000	G $\frac{3}{4}$ G1	CD2-06 CD2-08
386	314	179		metal/sight glass	50	300	5 000	G1 $\frac{1}{4}$ G1 $\frac{1}{2}$	CD2-10 CD2-1A
355	483	223		metal/sight glass	50	960	16 000	G1 $\frac{1}{2}$ G2	CD2-12 CD2-16



CD2-01-02



CD2-03-04



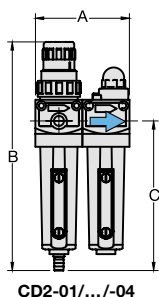
CD2-10/-1A

Special options, add the appropriate letter

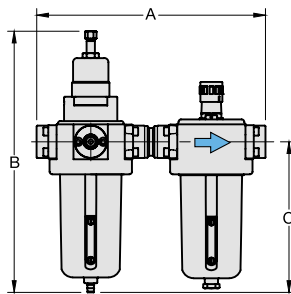
5 μm filter element		for G $\frac{1}{8}$ up to G $\frac{1}{2}$	CD2-...G
		for G $\frac{3}{4}$ up to G1	CD2-...G
		for G1 $\frac{1}{4}$ up to G2	CD2-...G
0.3...3 bar regulation range			CD2-...B
1...15 bar			CD2-...E
operating press. 30 bar	only for metal bowl (without sight glass) with manual drain		CD2-...NH
manual drain	max. 16 bar		CD2-...H
automatic drain	drainage by float valve, max. 16 bar	for G $\frac{3}{8}$ up to G2	CD2-...R

Accessories, enclosed

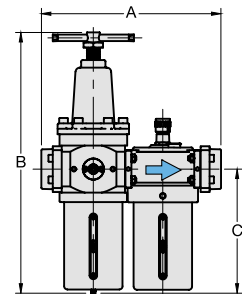
mounting bracket	made of steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$	BW30-02
mounting nut	made of plastic	for G $\frac{1}{8}$ and G $\frac{1}{4}$	M30x1,5K
mounting bracket	made of steel	for G $\frac{3}{8}$ and G $\frac{1}{2}$	BW50-03
mounting nut	made of plastic	for G $\frac{3}{8}$ and G $\frac{1}{2}$	M50x1,5K
mounting bracket	made of stainless steel	for G $\frac{3}{4}$ up to G1 $\frac{1}{2}$ (1A)	BW00-59S
set of brackets	made of steel	for G1 $\frac{1}{2}$ (12) and G2	BW00-61



CD2-01/.../-04



CD2-06/-08/-10/-1A



CD2-12/-16

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

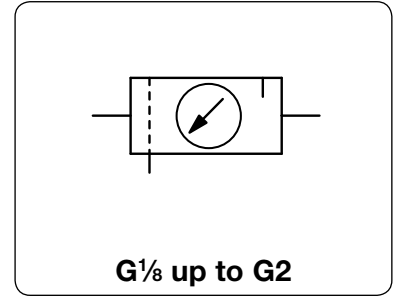
Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
 www.aircom.net



Order example:
 CD2-01

Description	Solid, low-cost FRL service unit made of zinc die-cast equipped with pressure gauge.
Media	compressed air or non-corrosive gases
Supply pressure	max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment	by plastic knob with snap-lock up to G $\frac{1}{2}$ by hexagon head screw from G $\frac{3}{8}$ up to G $1\frac{1}{2}$ on (CD.-1A.) by T-handle from G $1\frac{1}{2}$ (CD.-12.) up to G2 on
Relieving function	relieving, optionally non-relieving
Gauge port	G $\frac{1}{4}$ or G $\frac{1}{2}$ at CD.-01/-02, on both sides of the body, one screw plug supplied
Filter element	20 μ m or 50 μ m, optionally 5 μ m or 50 μ m, made of propylene Bowl metal version with or without sight glass
Drainage	semiautomatic drain as standard, optionally automatic (max. 16 bar) or manual drain for max. 30 bar
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F metal bowl with sight glass, for G $\frac{1}{2}$ to G $\frac{3}{2}$ -20 °C to 60 °C / -4 °F to 140 °F metal bowl with sight glass, for G $\frac{3}{8}$ to G2 -30 °C to 80 °C / -22 °F to 176 °F metal bowl without sight glass, for all sizes
Material	Body: zinc die-cast at G $\frac{1}{2}$ and G $\frac{3}{4}$, aluminium at G $\frac{1}{2}$ up to G2 Elastomer: NBR/Buna-N Bowl: zinc die-cast



Dimensions			Combination	Bowl	Filter	Flow	Connection	Order
A	B	C	consisting	design	element	rate	thread	number
mm	mm	mm	of	made of / with		m ³ /h*1	G	

FRL unit, 3-part				P ₁ : max. 16 bar, P ₂ : 0.8...8 bar, 20 / 50 μ m, semiautomatic drain, relieving, with gauge				CD3	
120	201	128	FD+RD+LD	metal/sight glass	20	24	400	G $\frac{1}{8}$	CD3-01
								G $\frac{1}{4}$	CD3-02
192	251	148		metal/sight glass	50	108	1800	G $\frac{3}{8}$	CD3-03
								G $\frac{1}{2}$	CD3-04
427	312	179		metal/sight glass	50	228	3800	G $\frac{3}{4}$	CD3-06
								G1	CD3-08
531	312	179		metal/sight glass	50	228	3800	G $1\frac{1}{4}$	CD3-10
								G $1\frac{1}{2}$	CD3-1A
495	486	231		metal/sight glass	50	1320	22000	G $1\frac{1}{2}$	CD3-12
								G2	CD3-16

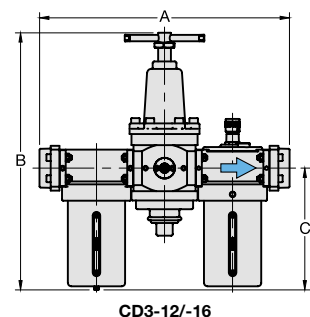
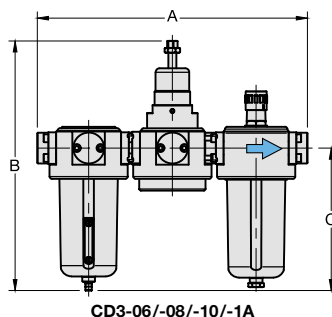
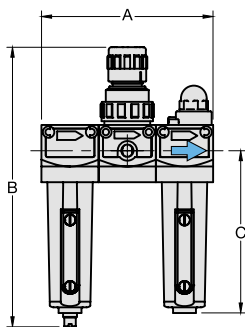


Special options, add the appropriate letter

5 μm filter element		for G $\frac{1}{8}$ up to G $\frac{1}{2}$	CD3-...G
		for G $\frac{3}{4}$ up to G1	CD3-...G
		for G $1\frac{1}{4}$ up to G2	CD3-...G
0.3...3 bar regulation range			CD3-...B
1 ...15 bar			CD3-...E
operating press. 30 bar	only for metal bowl (without sight glass) with manual drain		CD3-...NH
manual drain	max. 16 bar		CD3-...H
automatic drain	drainage by float valve, max. 16 bar	for G $\frac{3}{8}$ up to G2	CD3-...R

Accessories, enclosed

mounting bracket	made of steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$	BW30-02
mounting nut	made of plastic	for G $\frac{1}{8}$ and G $\frac{1}{4}$	M30x1,5K
mounting bracket	made of steel	for G $\frac{3}{8}$ and G $\frac{1}{2}$	BW50-03
mounting nut	made of plastic	for G $\frac{3}{8}$ and G $\frac{1}{2}$	M50x1,5K
mounting bracket	made of stainless steel	for G $\frac{3}{4}$ up to G $1\frac{1}{2}$ (1A)	BW00-59S
set of brackets	made of steel	for G $1\frac{1}{2}$ (12) and G2	BW00-61



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

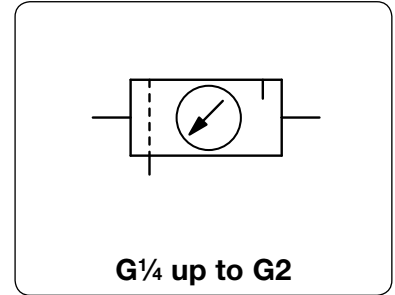
Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
CD3-01

Description	FRL service unit of small size and with high flow. Solid design, proven in operation.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 17 bar for metal bowl with sight glass		
Adjustment	by T-handle with locknut,	by plastic knob with snap-lock on pilot regulator at size G2	
Relieving function	relieving, optionally non-relieving Air consumption only for pilot pressure at size G2		
Gauge port	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied		
Filter element	40 μ m, optionally 5 μ m, made of polypropylene		
Bowl	metal version with sight glass		
Drainage	manual drain as standard	for max. 21 bar	
	optionally internal automatic drain	for max. 12 / 16 bar	
	or external automatic drain	for max. 18 bar	
Temperature range	0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass		
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N	
	Bowl: polyurethane, zinc die-cast or steel	Inner valve: brass	



Dimensions			Combination consisting of	Bowl design made of/with	Flow rate		Connection thread	Order number
A	B	C			m ³ /h*1	l/min*1		

FRL unit, 3-part				P: max. 17 bar, P ₂ : 0.3...9 bar, 40 μ m, manual drain, relieving, with pressure gauge			C630	
400	267	197	F602 + R119, + L606	metal/sight glass	408	6 800	G $\frac{3}{4}$	C630-06FRL-W
					516	8 600	G1	C630-08FRL-W
419	286	206		metal/sight glass	600	10 000	G1 $\frac{1}{4}$	C630-10FRL-W
					630	10 500	G1 $\frac{1}{2}$	C630-12FRL-W
485	425	356		metal/sight glass	1 590	26 500	G2	C630-16FRL-W



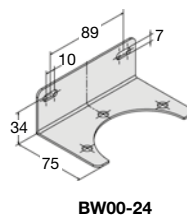
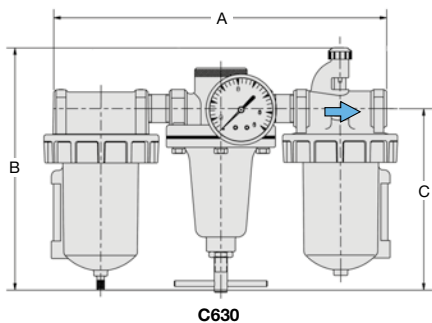
Special options, add the appropriate letter

5 μ m filter element		C630-0 G
NPT connection thread		C630-0 N
0.2... 4 bar pressure range		C630-0 B
0.5...17 bar pressure range		C630-0 D
semiautomatic drain	RK500SY, max. 12 bar	C630-0 M
automatic drain	SA605MD, max. 12 bar	C630-0 R
flange connection	see chapter for stainless steel devices / flanges	C630-0 F



Accessories, enclosed

mounting bracket	made of steel	for G $\frac{3}{4}$ to G1 $\frac{1}{2}$	BW00-24
------------------	---------------	---	----------------



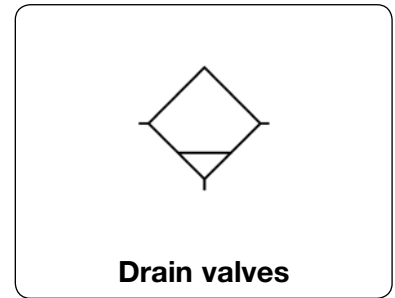
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
C630-06FRL-A

Manual drain	The manual drain can be opened by screwing it into the bowl. Once the collected condensate reaches the drain hole, it is being relieved.
Semiautomatic drain	The semiautomatic drain semiautomatically separates condensates from compressed air or gas systems. After operating pressure switch-off the drain valve opens and the collected condensate is being relieved.
Automatic drain	The automatic drain fully automatically separates condensates from compressed air or gas systems. Once the float lifts from the valve seat caused by the condensate level, the condensate is being relieved. Operating pressure must be 2 bar minimum.
Temperature range	0 °C to 50 °C / 32 °F to 122 °F 0 °C to 80 °C / 32 °F to 176 °F for manual drain made of brass for appropriately conditioned compressed air down to -30 °C / -22 °F



Valve type	Description	For filter/ filter regulator	For bowl type	Operating pressure max. bar	Order number
------------	-------------	---------------------------------	------------------	-----------------------------------	-----------------

Drain valves		1/8"-27 NPSM thread of internal valve			SA/RK
manual drain	made of brass	F20/ F504/F602 / B11/B12/B20/B21/ B548	all	21	SA600Y-71
	made of plastic	F20/ F504/F602/ B11/B12/B20/B21/ B548	all	21	AWF-10
semiautomatic drain	piston drain	F504	all	12	RK504SY
	drainage after pressure switch-off	F602-02/-03	A/B/W	12	RK602SY
		B11/B12	all	12	4210
	spring-loaded	F20/ F20/ F504/F602/ B11/B12/B20/B21/ B548	all all	12 12	4212 RK504SY RK500SY
automatic drain	internal mounting effective from 2 bar on	F20/F602/B11/ B12/B20/B21/ F20/F602/ B20/B21	all	12	SA605MD
		F20/F602/ B20/B21	all	16	SA702MD
	external mounting	F602-04 to -20 F602-04 to -20	A/B/W E/F	18 18	SA602D SA603D



Drain valves made of SST		1/8"-27 NPSM valve thread			SA
automatic drain	internal mounting effective from 2 bar on	F10/F11/B11-S	all	12	SA10MDSS



Description Air supply is immediately shut off when volume flow exceeds a specific value. The maximum admissible flow is factory-set in such a way that a standard application of pneumatic equipment is ensured. Pressure drop amounts to 0.05 to 0.3 bar. In the case of failure, the hose rupture valve blows off through a small nozzle. After repairing the hose break, the hose rupture valve can be set to zero again.

EN ISO 4414-11.2010 According to EN ISO 4414-11.2010 the hose rupture valve protects individuals, systems and machines from injuries or damages caused by lashing hose lines in the event of hose breaks.

Function The air passes the piston and continues through the seat. The air stream is slowed down by means of lengthwise grooves on the piston surface. When the volume flow is too high, the air cannot pass the piston quickly enough, thus the piston will be pressed against the spring. If the maximum admissible flow is exceeded, e.g. when the hose suddenly breaks, the air supply will automatically be shut off.

Supply pressure max. 18 bar
Temperature range -20 °C to 80 °C / -4 °F to 176 °F at G¼ to G½, up to 120 °C / 248 °F at G¾ to G2
Material Body: aluminium, optionally stainless steel Elastomer: NBR/Buna-N
 Inner valve: aluminium and plastic



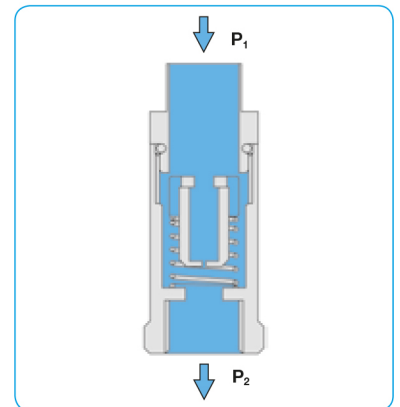
max. 18 bar
G¼ up to G2

Dimensions			max. flow rate		Connection thread	Order number
B	C	A/F	at 8 bar *2			
mm	mm	mm	m³/h	l/min	G	

Hose Rupture Valve "HoseGuard®"						operating pressure max. 18 bar	281
49	-	22	46	760 *1	G¼	281A0211	
49	10	22	46	760 *1	G¼ai	281A0221	
49	-	22	3	52	G¼	281ZL0211	
49	10	22	3	52	G¼ai	281ZL0221	
49	-	22	60	990	G¼	281ZH0211	
49	10	22	60	990	G¼ai	281ZH0221	
58	-	27	65	1080 *1	G¾	281A0311	
58	12	27	65	1080 *1	G¾ai	281A0321	
58	-	27	87	1450	G¾	281ZH0311	
58	12	27	87	1450	G¾ai	281ZH0321	
65	-	30	181	3020 *1	G½	281A0411	
64	15	30	181	3020 *1	G½ai	281A0421	
65	-	30	206	3440	G½	281ZH0411	
64	15	30	206	3440	G½ai	281ZH0421	
76	-	30	244	4070 *1	G¾	281A0511	
76	-	30	315	5250	G¾	281ZH0511	
100	-	41	313	5220 *1	G1	281A0611	
100	-	41	456	7600	G1	281ZH0611	
130	-	70	775	12920 *1	G2	281A0911	



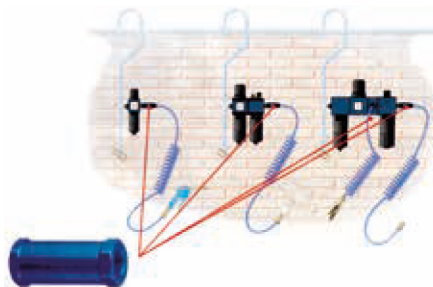
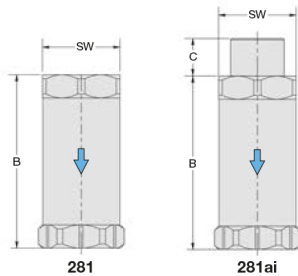
281



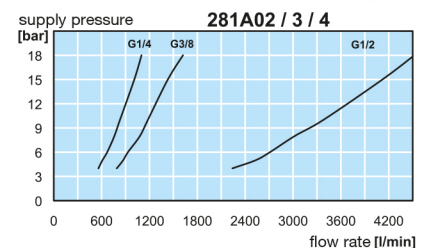
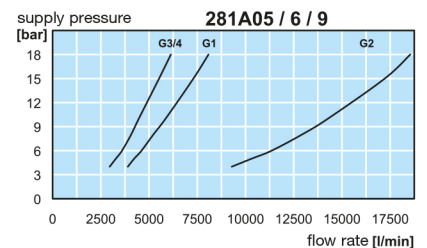
cross-section

Special options, add the appropriate letter

- NPT** connection thread for standard version 281A1 . . .
- connection thread for Low-Flow version 281ZL1 . . .
- connection thread for High-Flow version 281ZH1 . . .
- stainless steel body** 281R . . .



application example



*1 Standard version

*2 volume flow measurement according to DIN EN60534 (± 10% for closing)

MICRO-/ MINIATURE-DEVICES

	DESCRIPTION	DN/Ø	FLOW RATE l/min	CONNECTION thread	SERIES	PAGE
NEEDLE VALVE	made of stainless steel, miniature	Ø 3.0 - 4.5	0 ... 32	nipple	NV30	20.02
PRECISION RESTRICTOR	made of brass, micro	Ø 0.06 - 0.64		nipple, 10-32"	RF	20.03
	made of plastic	Ø 0.08 - 1.02		nipple	R-0	20.04
	with filter	Ø 0.10 - 0.76		nipple	F950	20.04
INLINE-FILTER	micro, up to 8.6 bar	5 ... 73 µm		nipple, 10-32"	F9 . .	20.05
CHECK VALVE	micro, up to 5.2 bar	1,5 / 3,8		nipple	F2804	20.06
	restrictor check valve	0.1/ ... / 1.02		10-32"	F2804	20.06

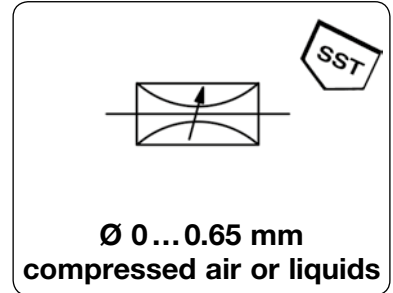


20

PRECISION NEEDLE VALVE, Ø 0 ... 0.65 MM

NV30

Description	The precision needle valve is a manually adjustable flow control valve used in pneumatic and fluid systems. Unique laminar flow design ensures sensitive reproducible control. Ideal for precision gas metering and circuit speed or sequencing control.	
Media	5 µm filtered compressed air, non-corrosive gases or liquids	
Operating pressure	vacuum up to positive pressure of max. 12 bar	
Adjustment	The flow control needle needs 8 screw turns for maximum flow, approximately equal to an 0.65 mm / 0.025" orifice.	
Panel mounting	borehole 8 mm / 0.312", max. panel thickness 3.5 mm / 0.15"	
Temperature range	-40 °C to 95 °C / -40 °F to 203 °F	
Material	Body and needle: stainless steel 303	Elastomer: NBR/Buna-N



Flow adjustment	Operating pressure	Volume flow at 3.5 bar and 6 turns	Nipple diameter	Order number
mit	max. bar	l/min	Ø mm / inch	

Needle valve with knurled screw			operating pressure max. 12 bar, stainless steel, Ø 0...0.65 mm		NV30-K
knurled-head	12	0...32	3.0	1/16"	NV30-2K
			4.5	1/8"	NV30-4K

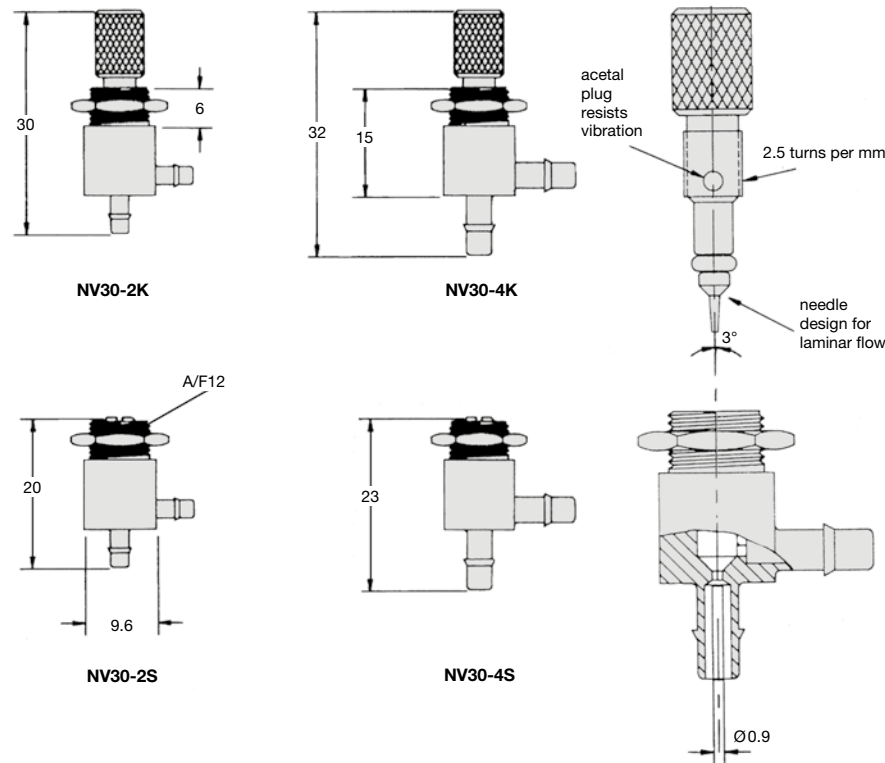


NV30-2K
with knurled-head

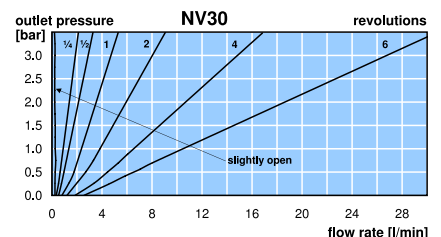
Needle valve with slotted screw			operating pressure max. 12 bar, stainless steel, Ø 0...0.65 mm		NV30-S
slotted screw	12	0...32	3.0	1/16"	NV30-2S
			4.5	1/8"	NV30-4S



NV30-4S
with slotted screw



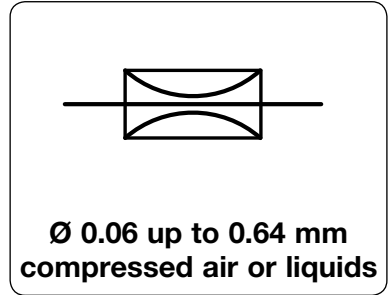
NV30-2K



PRECISION RESTRICTOR IN BRASS BODY

RF

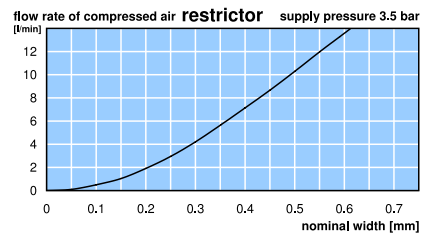
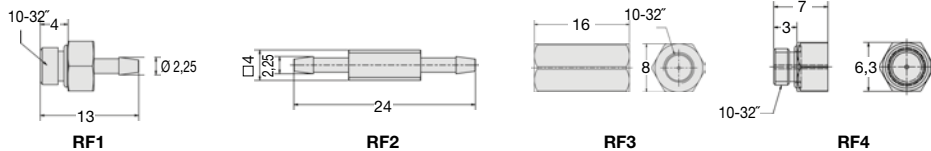
Description	Precision sapphire restrictor for reducing the flow of air or gas. Fixed flow restrictors are used in back pressure and air jet sensing circuits.		
Media	5 µm filtered compressed air, non-corrosive gases or liquids		
Diameter tolerances	-3% to +10% of nominal diameter		
Operating pressure	vacuum up to positive pressure of max. 12 bar		
Temperature range	5 °C to 50 °C / 41 °F to 122 °F		
Material	Body: brass	Restrictor: sapphire	



Nominal size Ø mm	Order number			
	10-32" / nipple Ø 2 RF1	nipple Ø 2.2 RF2	10-32" RF3	10-32" / open orifice RF4



Restrictor	operating pressure max. 12 bar				RF
0.06	RF106	RF206	RF306	RF406	
0.07	RF107*	RF207	RF307	RF407	
0.08	RF108*	RF208*	RF308*	RF408*	
0.09	RF109	RF209	RF309	RF409	
0.10	RF110*	RF210*	RF310*	RF410*	
0.11	RF111	RF211	RF311	RF411	
0.12	RF112	RF212	RF312	RF412	
0.13	RF113	RF213	RF313	RF413	
0.14	RF114	RF214	RF314	RF414	
0.15	RF115*	RF215*	RF315*	RF415*	
0.16	RF116	RF216	RF316	RF416	
0.17	RF117	RF217	RF317	RF417	
0.18	RF118	RF218	RF318	RF418	
0.20	RF120	RF220	RF320	RF420	
0.22	RF122*	RF222*	RF322*	RF422*	
0.24	RF124	RF224	RF324	RF424	
0.26	RF126	RF226	RF326	RF426	
0.28	RF128	RF228	RF328	RF428	
0.30	RF130	RF230	RF330	RF430	
0.32	RF132*	RF232*	RF332*	RF432*	
0.34	RF134	RF234	RF334	RF434	
0.36	RF136	RF236	RF336	RF436	
0.40	RF140	RF240	RF340	RF440	
0.44	RF144*	RF244*	RF344*	RF444*	
0.48	RF148	RF248	RF348	RF448	
0.52	RF152	RF252	RF352	RF452	
0.54	RF154	RF254	RF354	RF454	
0.58	RF158	RF258	RF358	RF458	
0.64	RF164*	RF264*	RF364*	RF464*	



* preferred stock items

PDF CAD
www.aircom.net



Order example:
RF106

Micro-/
Miniature

20

PRECISION RESTRICTOR IN PLASTIC BODY

R-0 / F950

Precision Restrictor R-0

Description Precision sapphire restrictor for reducing the flow of compressed air or non-corrosive gases

Medium compressed air or non-corrosive gases

Filter element 5 µm for DN0.08 up to DN0.23, from DN0.25 on 100 µm

Operating pressure vacuum up to max. 7 bar

Material Body: polycarbonate, FDA-approved Restrictor: sapphire Filter element: stainless steel fabric

Temperature range 5 °C to 50 °C / 41 °F to 122 °F

Ø-Tolerance ± 0.005 mm respectively ± 3% of volume flow

Restrictor with Filter F950

Description Disposable in-line-filter with Dutch weave screen of 304 stainless steel. Flow direction and filter size in µm are clearly marked. The colour indicates the nominal size.

Diameter tolerance -3% to +10% of nominal diameter

Filter element 5 µm at DN 0.10 to DN 0.15, 43 µm at DN 0.18 to DN 0.41, 73 µm at DN 0.51 to DN 0.76

Operating pressure max. 7 bar

Material Body: polysulphone Restrictor: sapphire Filter element: stainless steel fabric

Temperature range 5 °C to 50 °C / 41 °F to 122 °F

R-0 **F950**

0.08 up to 1.02 mm **0.1 up to 0.76 mm**
5 / 43 / 73 µm

Dimensions	Connection	Nominal size	Order	Nominal size	Order
A	inlet / outlet	colour / DN	number	colour / DN	number
mm		Ø mm		Ø mm	

Restrictor, barbed fittings Ø 2.7 operating pressure max 7 bar **R-0...-6**

30 fittings Ø 2.7	gold	0.08	R-003-6	orange	0.36	R-014-6
	purple	0.10	R-004-6*	grey	0.41	R-016-6*
	white	0.13	R-005-6	brown	0.43	R-017-6
	yellow	0.18	R-007-6	red	0.48	R-019-6
	light green	0.20	R-008-6*	dark blue	0.51	R-020-6*
	lavender	0.23	R-009-6	black	0.64	R-025-6
	light blue	0.25	R-010-6	beige	0.76	R-030-6
	green	0.30	R-012-6*	dark grey	0.89	R-035-6*
				cyan	1.02	R-040-6*

R-0...-1 **R-0...-6**
with nipple

Restrictor, barbed fittings Ø 4,7 operating pressure max 7 bar **R-0...-1**

34 fittings Ø 4.7	gold	0.08	R-003-1	orange	0.36	R-014-1
	purple	0.10	R-004-1*	grey	0.41	R-016-1*
	white	0.13	R-005-1	brown	0.43	R-017-1
	yellow	0.18	R-007-1	red	0.48	R-019-1
	light green	0.20	R-008-1*	dark blue	0.51	R-020-1*
	lavender	0.23	R-009-1	black	0.64	R-025-1
	light blue	0.25	R-010-1	beige	0.76	R-030-1
	green	0.30	R-012-1*	dark grey	0.89	R-035-1*
				cyan	1.02	R-040-1*

R-0...-0
with plain fittings

Restrictor with filter operating pressure max. 7 bar nipple Ø 2.7 mm, 5/43/73 µm **F950**

34 fittings Ø 2.7	purple	0.10	5 µm	F950- 5-041-B80*
	light green	0.13	5 µm	F950- 5-050-B80
	red	0.15	5 µm	F950- 5-051-B80
	cyan	0.18	43 µm	F950-43-071-B80*
	yellow	0.25	43 µm	F950-43-101-B80
	black	0.30	43 µm	F950-43-121-B80*
	grey	0.41	43 µm	F950-43-161-B80
	blue	0.51	73 µm	F950-73-201-B80*
	brown	0.64	73 µm	F950-73-251-B80
	beige	0.76	73 µm	F950-73-301-B80*

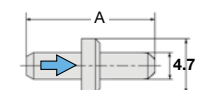
F950...B85/ ...B80
with filter

Supply pressure 3.5 bar

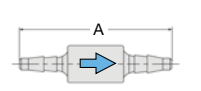
Special options, add the appropriate letter

plain fittings Ø 2.3 A = 9,9 mm for R-0 R-0...-0

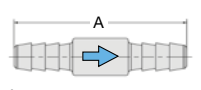
nipple Ø 4.7 A = 34 mm for F950 F950-...-B85



plain fittings
R-0...-0



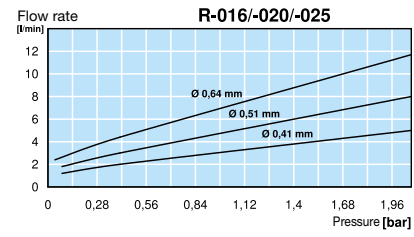
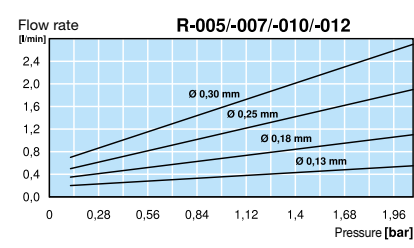
barbed fittings Ø 2.7
R-0...-6
F950-...-B80



barbed fittings Ø 4.7
R-0...-1
F950-...-B85

* preferred stock items

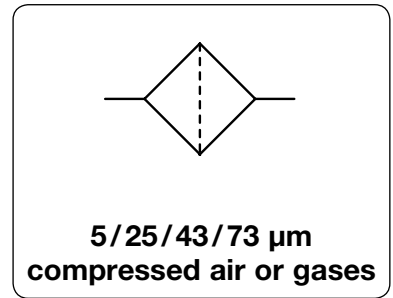
*1 nominal size see RF2



MICRO IN-LINE FILTER

F950 / F960 / F970

Description	Compact in-line filter with fittings or threaded connection. Flow direction and filter size in μm are clearly marked.	
Media	compressed air or non-corrosive gases	
Diameter tolerances	-3% to +10% of nominal diameter	
Filter element	5 μm , 25 μm , 43 μm or 73 μm	
Operating pressure	max. 8.6 bar	
Temperature range	5 °C to 50 °C / 41 °F to 122 °F	
Material	Body: polysulphone	Filter element: Dutch weave stainless steel



Dimensions A mm	Operating pressure max. bar	Connection inlet / outlet	Filter element μm	Order number
-----------------------	-----------------------------------	------------------------------	------------------------------------	-----------------

Micro pressure filter			operating pressure max. 8.6 bar	F900
26	8.6	fittings \varnothing 2.7	5	F950-05B80
			25	F950-25B80
			43	F950-43B80
			73	F950-73B80
30	8.6	fittings \varnothing 4.7	5	F950-05B85
			25	F950-25B85
			43	F950-43B85
			73	F950-73B85
24	8.6	10-32" / fittings \varnothing 2.7	5	F960-05B80
			25	F960-25B80
			43	F960-43B80
			73	F960-73B80
28	8.6	10-32" / fittings \varnothing 4.7	5	F960-05B85
			25	F960-25B85
			43	F960-43B85
			73	F960-73B85
15	8.6	10-32" / 10-32"	5	F970-05
			25	F970-25
			43	F970-43
			73	F970-73



F950 with nipple



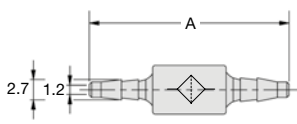
F960 with nipple and thread



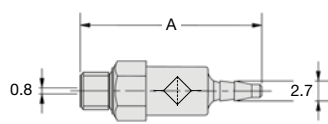
F970 with thread

Accessories, enclosed
 connecting nipple for F960 and F970

10-32" / fitting \varnothing 2.7	F3120-80
\varnothing 4.7	F3120-85
\varnothing 5.6	F3120-86

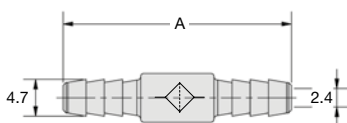


F950...B80

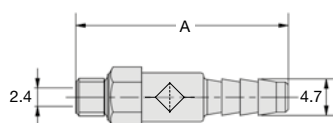


F960...B80

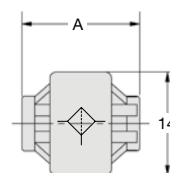
fitting	for tube		
B80	\varnothing 2.7	1/16"	\varnothing 1.6 mm
B85	\varnothing 4.7	1/8"	\varnothing 3.2 mm
B86	\varnothing 5.6	0.17"	\varnothing 4.3 mm



F950...B85



F960...B85



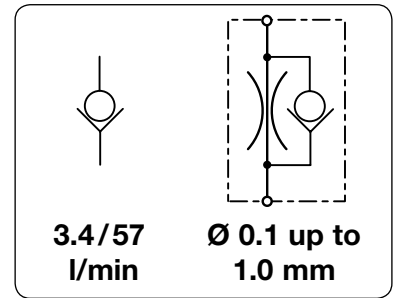
F970

PDF CAD
www.aircom.net






Order example:
F950-05B80

Check valve	The check valve permits flow in one direction only. A small check disc within the housing ensures free flow in one direction and at the same time seals off on the other side.	
Restrictor check valve	The restrictor check valve provides a constant flow in one direction, defined through the orifice size, and a flow of the full nominal size towards the other direction.	
Media	5 µm filtered compressed air or non-corrosive gases	
Diameter tolerance	-3% to +10% of nominal diameter	
Operating pressure	max. 0.7 bar at F2804-400/1/2/3,	max. 5.2 bar at F2804-404
Cracking pressure	< 20 mbar at F2804-400/1/2/3,	< 25 mbar at F2804-404
Temperature range	5 °C to 50 °C / 41 °F to 122 °F	
Material	Body: polysulphone at F2804-400/1/2/3, polypropylene at F2804-404 Check disc: Celcon® at F2804-401/2, silicone at F2804-400/3/4	



Dimensions A	Operating pressure	Check disk	Connection	Leakage rate	Flow rate	Nominal size	Order number
mm	max. bar	made of		< ml/min*3	l/min*2	colour / DN	

Check valve		operating pressure max. 0.7 / 5.2 bar			F2804		
12	0.7	silicone	plain fittings Ø 2.4	3	3.4	red	1.5 F2804-400*1
		Celcon®		51		orange	1.5 F2804-401
		Celcon®		17		green	1.5 F2804-402
		silicone		3		blue	1.5 F2804-403
26	0.7	Celcon®	fittings Ø 2.7	51	3.4	grey	1.5 F2804-401-B80
		Celcon®		17		grey	1.5 F2804-402-B80
		silicone		3		grey	1.5 F2804-403-B80*1
30	0.7	Celcon®	fittings Ø 4.7	51	3.4	grey	1.5 F2804-401-B85
		Celcon®		17		grey	1.5 F2804-402-B85
		silicone		3		grey	1.5 F2804-403-B85*1
15	5.2	silicone	10-32"	1	57	grey	3.8 F2804-404*1
		silicone	fittings Ø 2.7	1		grey	3.8 F2804-404-B80
		silicone	fittings Ø 4.7	1		grey	3.8 F2804-404-B85




F2804-400/1/2/3 check valve



F2804-404-B85/...-B80 check valve



F2804-404-071/-301 restrictor check valve

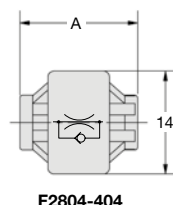
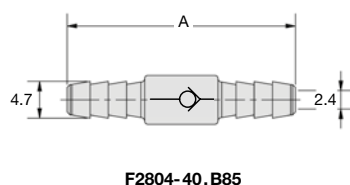
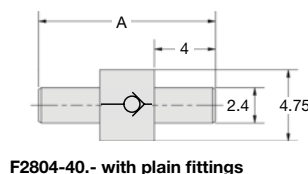
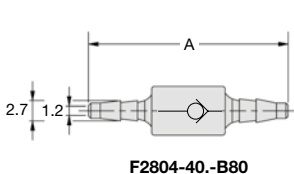
Restrictor check valve		operating pressure max. 5.2 bar			F2804		
15	5.2	silicone	10-32"		0.10		F2804-404-041*1
					0.13		F2804-404-050
					0.15		F2804-404-051
					0.18		F2804-404-071
					0.25		F2804-404-101*1
					0.30		F2804-404-121
					0.41		F2804-404-161
					0.51		F2804-404-201
					0.64		F2804-404-251*1
					0.76		F2804-404-301
					1.02		F2804-404-401*1

Special options, add the appropriate number

increased cracking pressure for check valve, with spring 35 mbar F2804-404-05

Accessories, enclosed

connecting nipple for F2804-404 10-32" / fitting Ø 2.7 F3120-80
Ø 4.7 F3120-85
Ø 5.6 F3120-86



fitting	for tube	
B80	Ø 2.7	1/16" Ø 1.6 mm
B85	Ø 4.7	1/8" Ø 3.2 mm
B86	Ø 5.6	0.17" Ø 4.3 mm

*1 preferred stock items *2 at max. operating pressure *3 at Δp or P₁ = 70 mbar, at type F2804-404: P₁ = 5.2 bar

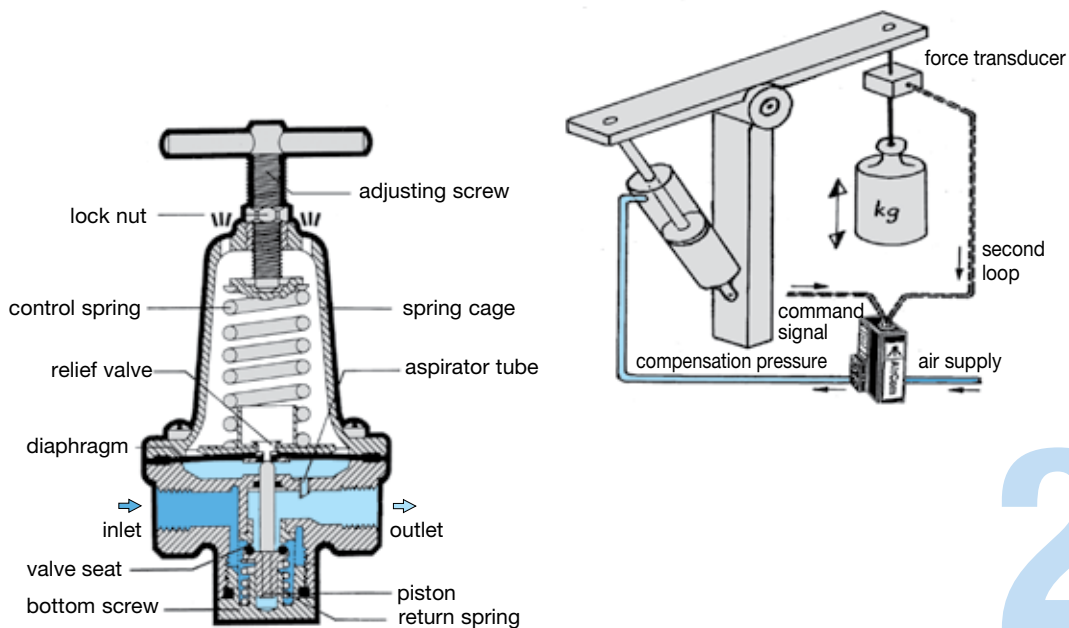
PDF CAD
www.aircom.net



Order example:
F2804-400

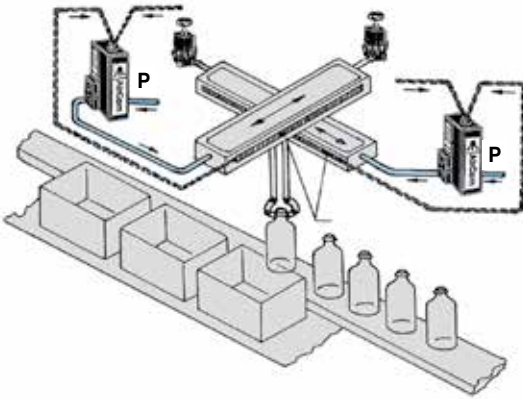
TECHNICAL INFORMATION

	DESCRIPTION	PAGE
APPLICATIONS	Proportional Pressure Regulators	21.02
FUNCTIONAL DESCRIPTION	Compressed Air Filters	21.10
	Pressure Regulators and Volume Booster	21.11
	Filter Regulators	21.12
	Compressed Air Lubricators	21.13
CALCULATIONS	Volume Flow Rate	21.06
	Air Amplifier	21.07
	Conversion Tables	21.09
TECHNICAL INFORMATION	Connections thread for Gas Cylinder	21.08
	Temperature range of Elastomer	21.08
	Influence of filter pore size on flow rate	21.08
	Influence of supply pressure variation on flow rate	21.08
SERVICES	Certificates	21.14
	Test Charts	21.14
	Hourly Wage Rates	21.14
PRODUCT QUICK FINDER	Pressure Regulators	21.15
SEARCH DIRECTORY	Order Number Index	21.26



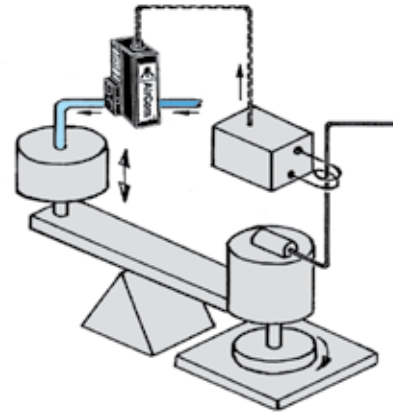
21

APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



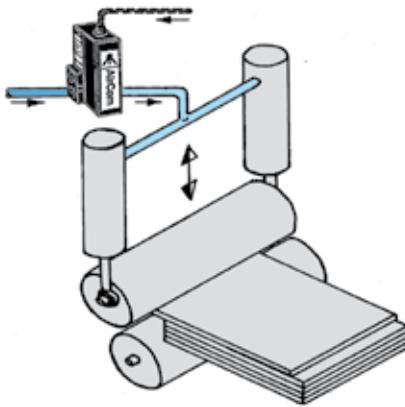
POSITIONING

AirCom proportional pressure regulators control rodless cylinders for operating robotic arms which load bottles into cases.



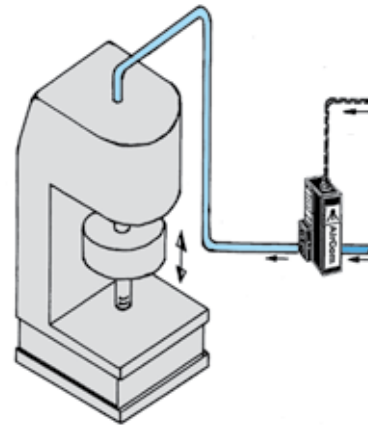
CONSTANT PUSH PRESSURE

AirCom proportional pressure regulators monitor the motor current and adjust the force applied to provide accurate control of the grinding force.



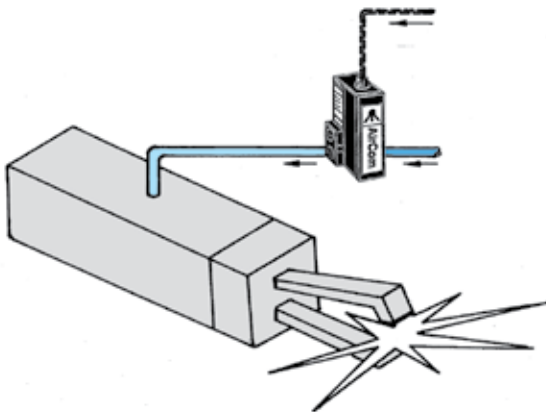
CONSTANT MATERIAL THICKNESS

The AirCom proportional pressure regulator controls the downward force of the calender roller in order to compensate sheet thickness variations on sheet feeding equipment.



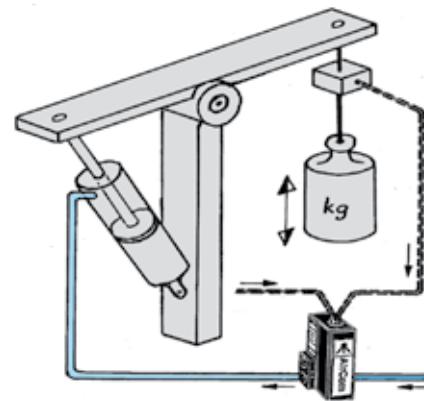
CONTROLLED CONTACT PRESSURE

The AirCom proportional pressure regulator accurately controls the force that a cylinder exerts on its load. Thus, the workpiece's quality can be significantly improved.



WELDING TONGS WITH CONSTANT CONTACT PRESSURE

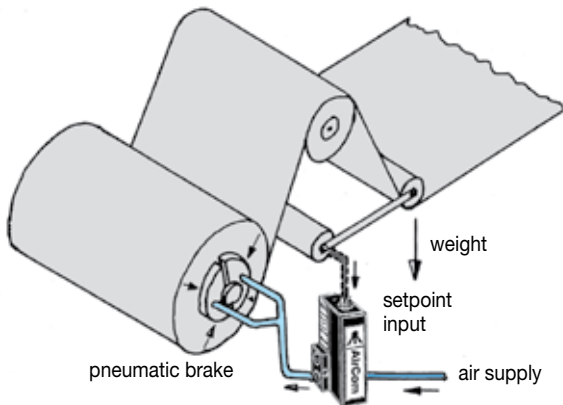
The AirCom proportional pressure regulator quickly and accurately controls the nip pressure required in resistance welding.



BALANCER FOR LOAD MOVING BY HAND

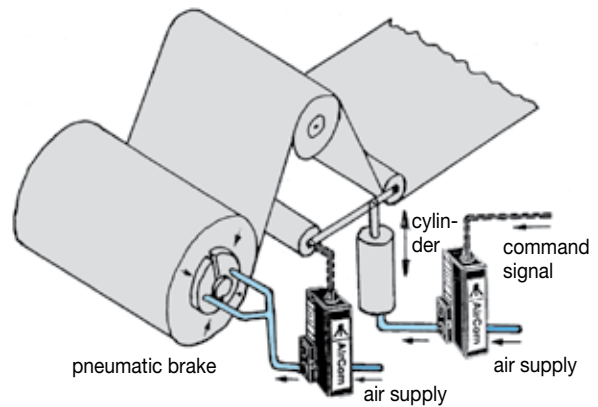
The AirCom proportional pressure regulator keeps the load in balance by cylinder force. Loads weighing tons are easy to raise and lower simply by hand.

APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



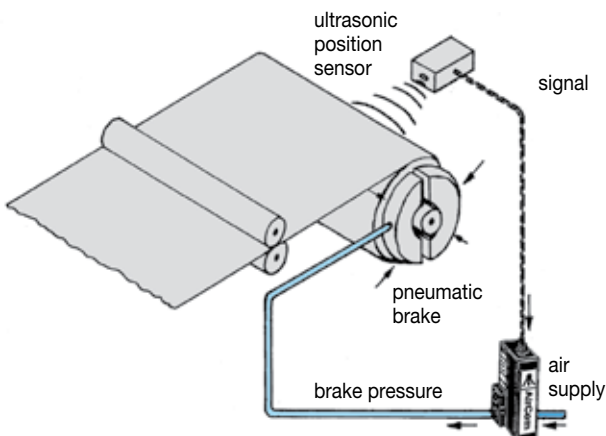
WINDER WITH CONSTANT WEB TENSION

The AirCom proportional pressure regulator accurately senses the position of a dancer arm of known weight and mass to ensure constant web tension by controlling a brake.



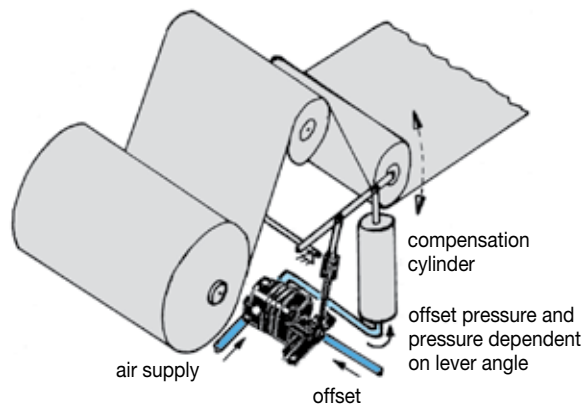
WINDER WITH ADJUSTABLE WEB TENSION

The AirCom proportional pressure regulator adjusts web tension in web tension control systems that employ cylinders instead of deadweights achieving constant material tension.



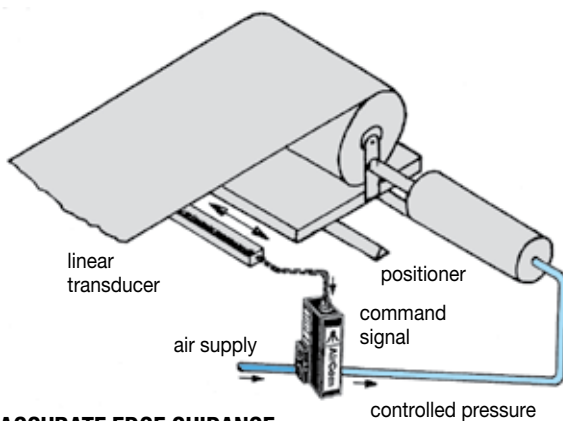
WINDER WITH CONSTANT WEB TENSION

A position sensor commands the AirCom proportional pressure regulator to adjust web tension as the roll size changes. The roll speed is reduced in proportion to the coil size.



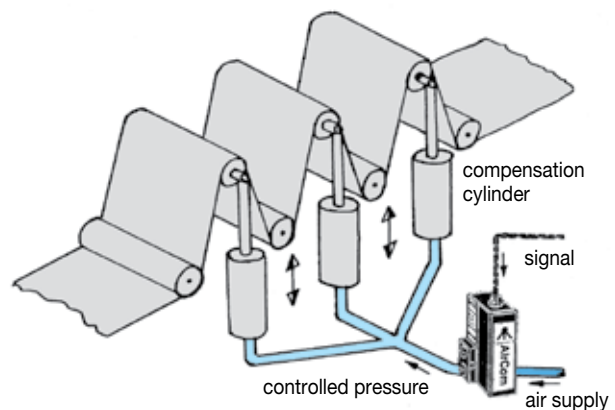
WINDER WITH WEIGHT-COMPENSATED DANCER ROLLER

The lever-operated proportional regulator compensates the changed weight of the winding roll and controls the web tension by cylinder force.



ACCURATE EDGE GUIDANCE

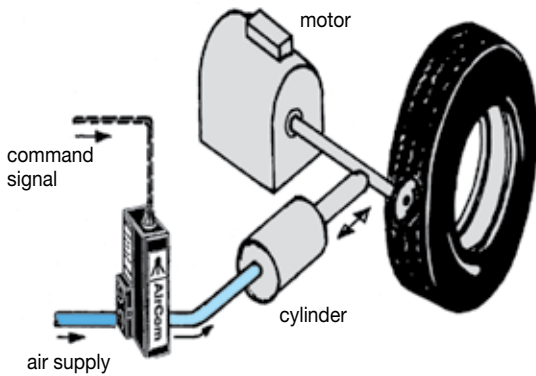
The addition of an AirCom proportional pressure regulator assures accurate edge guidance in web systems. A linear transducer checks the web position and pilots the regulator to readjust the positioner.



LENGTH COMPENSATION ON WINDING SYSTEMS

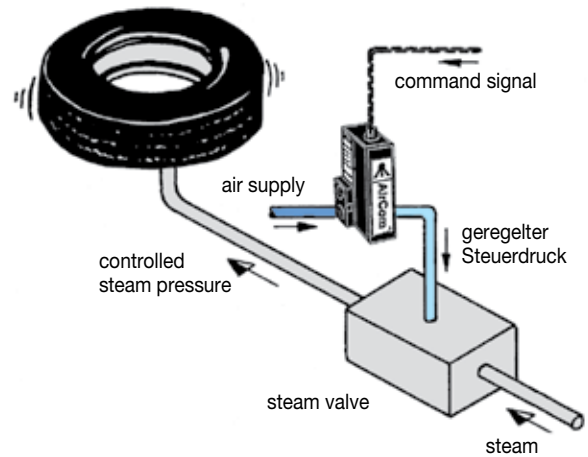
With the assistance of an AirCom proportional pressure regulator and the consequential control of compensation cylinders, webs can be easily "festooned". In addition, the cylinders provide for constant web tension.

APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



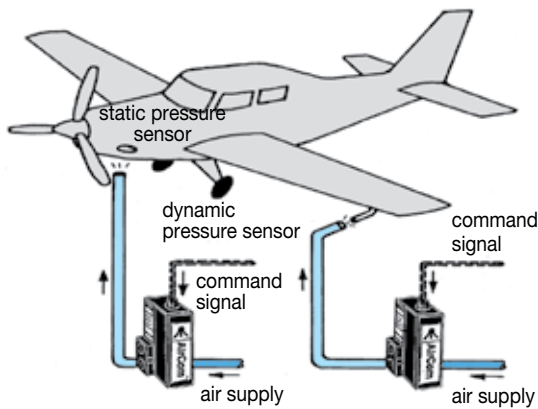
PRECISION TYRE TREATMENT

AirCom proportional pressure regulators control the forces required for maintaining a constant circumference in the balancing of rubber tyres when cutting tyre treads.



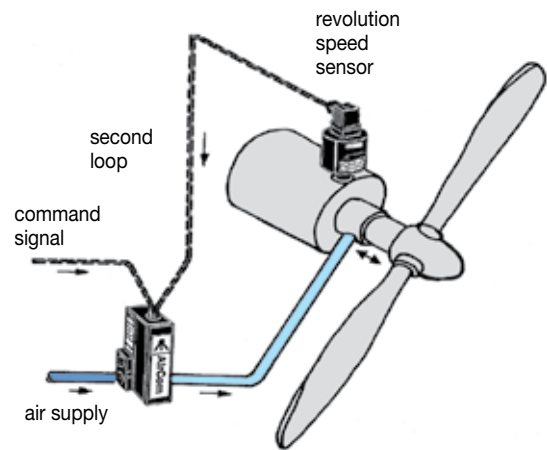
CONTROLLING TYRE ELASTICITY

Incorporated into the steam valve system, AirCom proportional pressure regulators control the elasticity of rubber tyres.



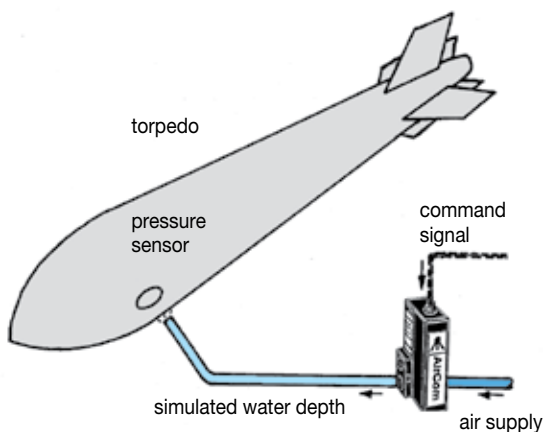
SIMULATION OF WATER DEPTHS

AirCom proportional pressure regulators accurately monitor static and dynamic pressure sensors in aircraft.



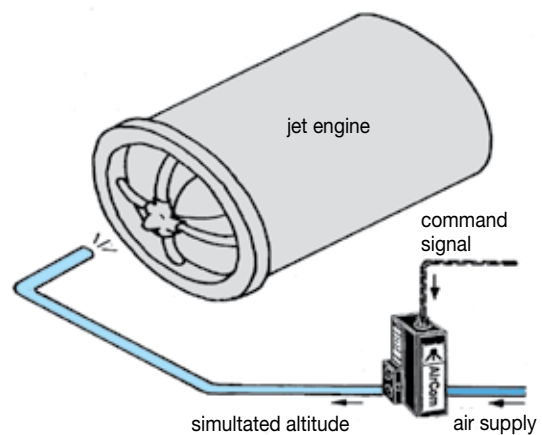
TURBINE PRESSURE REGULATION

AirCom proportional pressure regulators control and adjust the propeller blade angle to regulate the turning of wind turbine generators.



SIMULATION OF WATER DEPTHS

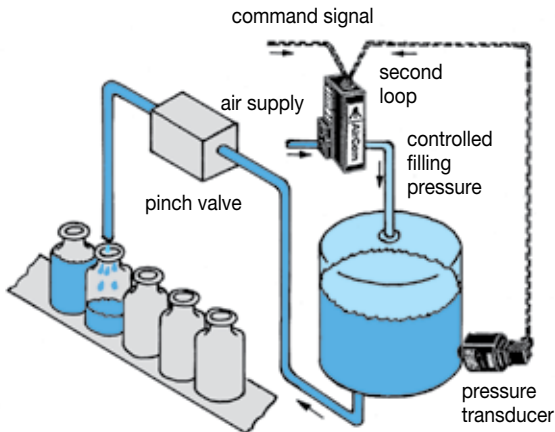
AirCom proportional pressure regulators simulate different water depths for torpedo sensor testing.



SIMULATION OF FLIGHT ALTITUDES

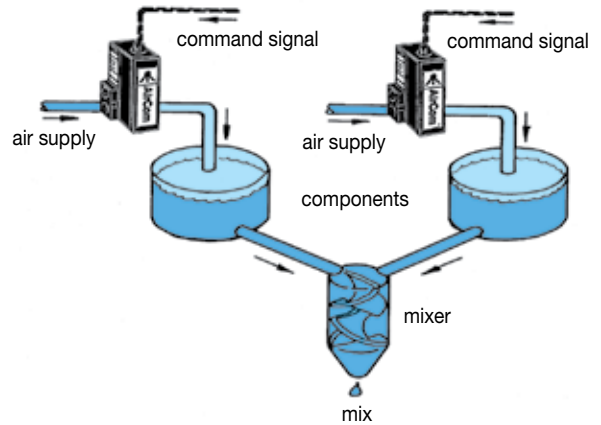
In jet engine testing, AirCom proportional pressure regulators accurately control the air pressure required for simulating various altitudes.

APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



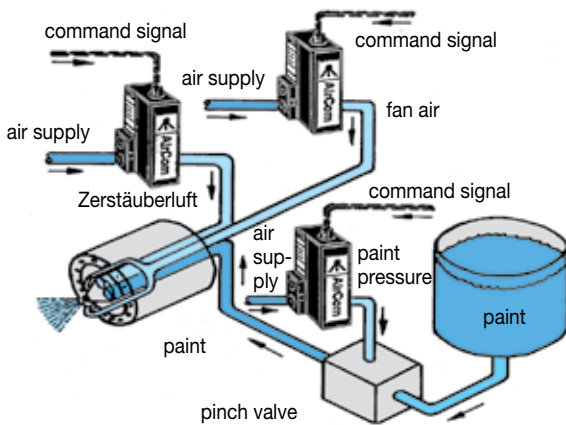
CONSTANT FILLING PRESSURE

AirCom proportional pressure regulators accurately control the liquid flow regardless of tank level for dispensing pharmaceuticals and food products.



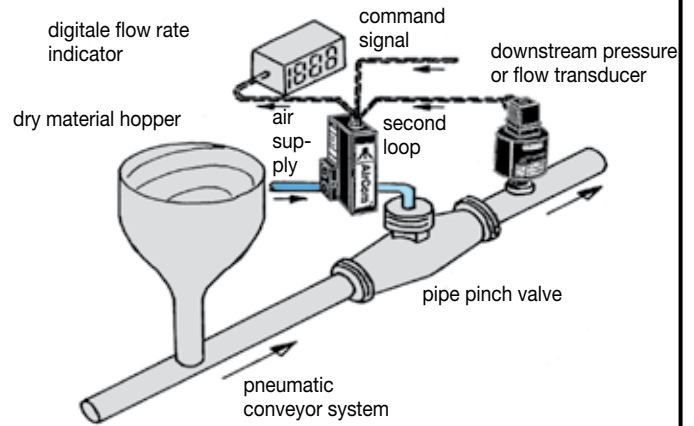
EXACT MIX

AirCom proportional pressure regulators accurately control the flow of ingredients for mixing for, e.g. the precise formulation of resin.



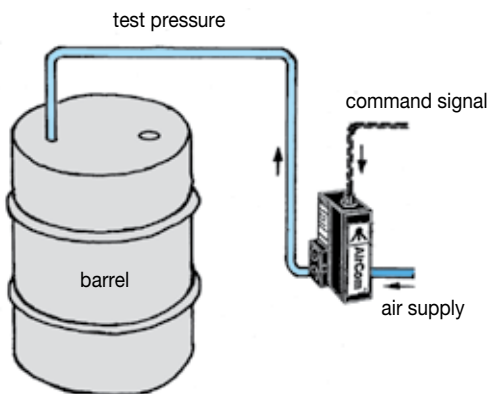
ECONOMIC SPRAY PAINTING

AirCom proportional pressure regulators economically control turbine speed, atomise and shape air and deliver the fluid for spray painting.



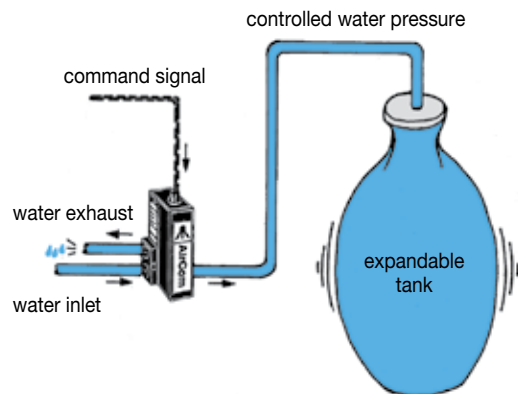
FLOW REGULATION

AirCom proportional pressure regulators regulate and monitor the flow of dry material in pneumatic conveying systems.



LEAK TESTING

AirCom proportional pressure regulators control the pressure required to test for leaks of containers of any size.



REGULATION OF CONSTANT WATER PRESSURE

AirCom proportional pressure regulators control and maintain the pressure of water flowing into expanding tanks, even during receding expansion.

VOLUME FLOW RATE CALCULATION

PHYSICAL PARAMETERS

SHORT SYMBOL	DESCRIPTION	REMARKS	UNIT
Q	Flow rate		l/min
K_v	Flow factor	at $\Delta P = 1$ bar and $\gamma = 1$ or 1,25	m ³ /h
P	Relative pressure		bar
P_{abs}	Absolute pressure	1 + P	bar _{abs}
P_1	Supply pressure		bar
P_2	Outlet pressure		bar
ΔP	Differential pressure	$P_1 - P_2$	bar
T	Absolute Temperature	$\hat{=} 273 + ^\circ\text{C}$, at 20 °C: 293	°K
γ_L	Specific weight of air	air: 1,25 at 20 °C and 760 mm Hg	N/m ³
γ_A	Specific weight of water	water: 1,0	N/dm ³
v_L	Flow velocity of air	for air max. 100 m / s, recommended 50 m / s (50%)	m/s
v_A	Flow velocity of water	for water max. 4.5 m / s, recommended 3 m / s (60%)	m/s
F	Cross-sectional area	area of the open tube	cm ²

MEDIUM / GENERAL FORMULA	SIMPLIFIED FORMULA *	RECOMMEND.	DIMENSION
--------------------------	----------------------	------------	-----------

B	Subcritical $\Delta P < 0,5 \cdot (1 + P_1)$	P_1 bar	2	3	4	5	6	7	8	9	10	11	12	13	14
		$P_2 >$ bar	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5
	Supercritical $\Delta P > 0,5 \cdot (1 + P_1)$	P_1 bar	2	3	4	5	6	7	8	9	10	11	12	13	14
		$P_2 <$ bar	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5

C	Compressed air, supercritical: $\Delta P < 0,5 \cdot (1 + P_1)$ $Q = K_v \cdot 514 \cdot 16,67 \cdot \sqrt{\frac{\Delta P \cdot P_2 \text{ abs}}{\gamma_L \cdot T}}$	$Q = 448 \cdot K_v \cdot \sqrt{\Delta P \cdot (1 + P_2)}$	Q · 0,6	(l/min)
----------	--	---	---------	---------

C	Compressed air, supercritical: $\Delta P > 0,5 \cdot (1 + P_1)$ $Q = K_v \cdot 257 \cdot 16,67 \cdot \frac{P_1 \text{ abs}}{\sqrt{\gamma_L \cdot T}}$	$Q = 224 \cdot K_v \cdot (1 + P_1)$	Q · 0,6	(l/min)
----------	---	-------------------------------------	---------	---------

C	Water: $Q = K_v \cdot 16,67 \cdot \sqrt{\frac{\Delta P}{\gamma_A}}$	$Q = 16,67 \cdot K_v \cdot \sqrt{\Delta P}$	Q · 0,6	(l/min)
----------	--	---	---------	---------

D	Outlet tube for compressed air: check of flow rate with respect to noise $Q = v_L \cdot F \cdot P_2 \text{ abs} \cdot 16,67 \cdot \frac{98,28}{T}$	$Q = 560 \cdot F \cdot (1 + P_2)$	Q · 0,5	(l/min)
----------	--	-----------------------------------	---------	---------

D	Outlet tube for water: check of flow rate with respect to noise $Q = v_A \cdot F \cdot 0,36 \cdot 16,67$	$Q = 27 \cdot F$	Q · 0,6	(l/min)
----------	--	------------------	---------	---------

E	Cross section of orifices	G	1/8	1/4	3/8	1/2	3/4	1	1 1/2	2	2 1/2
		F (cm ²)	0,08	0,31	0,71	1,27	2,85	5,06	11,4	20,2	31,5

EXAMPLE

- Example ①** Determine the compressed air flow of regulator R230-02B ($K_v = 0,7$ m³/h) supply pressure $P_1 = 3$ bar, outlet pressure $P_2 = 2,5$ bar
a) at $P_1 = 3$ bar and $P_2 = 2,5$ bar \rightarrow subcritical pressure ratio
b) $Q = 448 \cdot K_v \cdot \sqrt{\Delta P (1 + P_2)}$ = $448 \cdot 0,7 \cdot \sqrt{0,5 \cdot (1 + 2,5)}$ = 415 l/min
- Example ②** As example ①, but supply pressure $P_1 = 7$ bar
a) at $P_1 = 7$ bar and $P_2 = 2,5$ bar \rightarrow supercritical pressure ratio
b) $Q = 224 \cdot K_v \cdot (1 + P_1)$ = $224 \cdot 0,7 \cdot (1 + 7)$ = 1254 l/min
- Example ③** Determine the water flow of regulator R25-02BK ($K_v = 0,38$ m³/h) supply pressure $P_1 = 4$ bar, outlet pressure $P_2 = 2$ bar, orifice G1/4 (0.31 cm²)
a) $Q = 16,67 \cdot K_v \cdot \sqrt{\Delta P}$ = $16,67 \cdot 0,38 \cdot \sqrt{4 - 2}$ = 8,9 l/min
b) $Q = 27 \cdot F$ = $27 \cdot 0,31$ = 8,4 l/min
Calculation b) only for check. Recommended flow: 8.9 l / min · 0.6 = 5,3 l/min

* simplified formula at 20 °C / 68 °F, specific weight of water $\gamma = 1$ and compressed air = 1.25, at flow velocity of air of 100 m / s and of water 4.5 m / s

BOOSTER / AIR AMPLIFIER CALCULATION

PHYSICAL PARAMETERS

SHORT SYMBOL	DESCRIPTION	REMARKS	DIMENSION
P_1	Existing system pressure	minimum pressure	bar
P_2	required proof pressure	minimum pressure	bar
V_F	Volume of the device under test	including hose volume	l
t_z	Cycle time	period from one test to the next	s
t_F	Inflation time	period until required proof pressure is reached	s
i	Pressure transmission ratio, e.g. 1 : 4	system pressure: proof pressure	
Q_N	Required flow rate	for expanded compressed air (0 bar)	NI/min
	Operation medium	e.g. compressed air or nitrogen	

CALCULATION FORMULAS

Flow rate of expanded compressed air: $Q_N = \frac{P_2 \cdot V_F}{t_F} \cdot 60$ (NI/min)

Pressure transmission ratio: $i = \frac{P_2}{P_1}$

CALCULATION EXAMPLE

11 bar pressure is to be set up in a device under test of 0.2 l volume within 5 seconds. This procedure is repeated every 30 seconds. System pressure is 6 bar.

Specifications: $P_1 = 6 \text{ bar}$ $t_z = 20 \text{ s}$ $V_F = 0,2 \text{ l}$
 $P_2 = 11 \text{ bar}$ $t_F = 5 \text{ s}$

1. Calculation of the required flow rate in NI/min

$Q_N = \frac{P_2 \cdot V_F}{t_F} \cdot 60$ $Q_N = \frac{11 \cdot 0,2}{5} \cdot 60 = 26,4 \text{ NI/min}$

2. Calculation of the required pressure transmission ratio

$i = \frac{P_2}{P_1}$ $i = \frac{11 \text{ bar}}{6 \text{ bar}} = 1,8$ $\Rightarrow 1 : 2$ chosen from catalogue

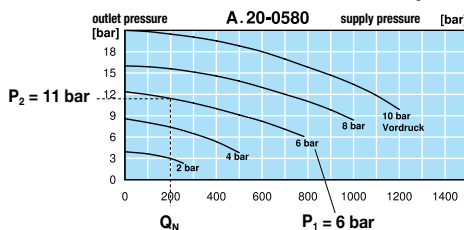
3. Examination of existing operation mode

Full load in continuous operation: max. 12 min/h \Rightarrow ratio 1 : 5

$\frac{t_F}{t_z} = \frac{5 \text{ s}}{20 \text{ s}} = \frac{1}{4} \Rightarrow$ Full load in continuous operation, i.e. maximum 20% of the performance charts values may be realised.

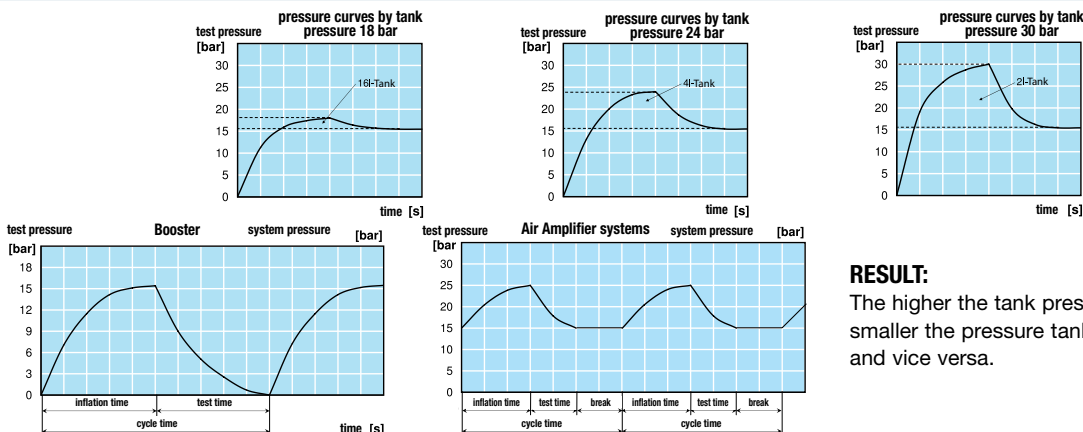
$Q_N \cdot 5 \Rightarrow$ 100% of indications of performance diagrams, $26,4 \text{ NI/min} \cdot 5 = 132 \text{ NI/min}$

4. Booster selection on the basis of performance diagrams



max. performance > required performance
 200 NI/min > 132 NI/min
 \Rightarrow AM20 - 0580

PRESSURE CURVES OF BOOSTERS / AIR AMPLIFIER SYSTEMS



RESULT:
 The higher the tank pressure, the smaller the pressure tank may be and vice versa.

THE AIR AMPLIFIER SYSTEMS ARE INDIVIDUALLY ADAPTED TO YOUR DEMANDS BY AIRCOM.

VOLUME FLOW RATE CALCULATION

FLANGE CONNECTION ACCORDING TO DIN 477

Gas type	Inlet port	Gas type	Inlet port
flammable gases	W21.8x1/14 LH union nut	ammonia	W21.8x1/14 union nut
carbon dioxide	1" LH union nut	testing gas with NH ₃	M19x1.5 LH union nut
nitrous oxide	G $\frac{3}{4}$ union nut	hydrogen sulphide	1" LH union nut
non-flammable gases	W21.8x1/14 union nut	hydrogen chloride	1" LH union nut
testing gas	M19x1.5 LH union nut	sulphur dioxide	G $\frac{3}{4}$ union nut
testing gas with CO	M19x1.5 LH union nut	nitrogen	W24.32x1/14 union nut
synthetic air	G $\frac{3}{4}$ union nut	compressed air	G $\frac{5}{8}$ male
oxygen	G $\frac{3}{4}$ union nut		

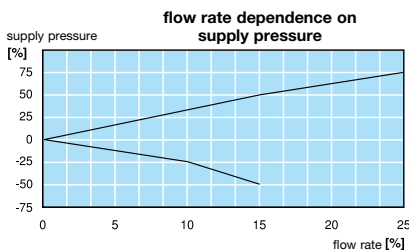
TEMPERATURE RANGES OF ELASTOMERS

NBR/Buna N	Perbunan [®] , nitrile,	-30 °C to 90 °C / - 22 °F to 194 °F	for air, water, hydraulic-machine-fuel oil, turpentine
FPM	FKM, Viton [®]	-20 °C to 130 °C / - 4 °F to 266 °F	for gasoline, hydraulic fluids, HFA, HFB, HFD
EPDM		-40 °C to 120 °C / - 40 °F to 248 °F	for brake fluids, azetylene, ozone, hydrogen
PTFE	Teflon [®]	-200 °C to 200 °C / - 328 °F to 392 °F	
Silicone		-40 °C to 120 °C / - 40 °F to 248 °F	

INFLUENCE OF FILTER PORE SIZE ON FLOW RATE

Filter element	Flow rate	Filter element	Flow rate
70 µm	110%	5.0 µm	75%
40 µm	100%	0.3 µm	60%
20 µm	90%	0.01 µm	35%

INFLUENCE OF SUPPLY PRESSURE VARIATION ON FLOW RATE



THREADS / NOMINAL SIZE

Connection thread	Nominal size
G $\frac{1}{4}$	DN10
G $\frac{1}{2}$	DN15
G $\frac{3}{4}$	DN20
G1	DN25
G1 $\frac{1}{4}$	DN32
G1 $\frac{1}{2}$	DN40
G2	DN50
G3	DN100

CONVERSION TABLES

Pa	bar	mbar	mWS	mmWS	Torr mmHg	at kp / cm ²	atm	Inch H ₂ O	Inch Hg	PSI lbf / in ²
1	10 ⁻⁵	10 ⁻²	0,1020 · 10 ⁻³	0,1020	7,501 · 10 ⁻³	10,20 · 10 ⁻⁶	9,869 · 10 ⁻⁶	4,016 · 10 ⁻³	2,953 · 10 ⁻⁴	145,05 · 10 ⁻⁶
10 ⁵	1	10 ³	10,20	10,20 · 10 ³	750,1	1,020	0,9869	401,6	29,53	14,505
100	10 ⁻³	1	10,20 · 10 ⁻³	10,20	0,7501	1,020 · 10 ⁻³	0,9869 · 10 ⁻³	0,4016	29,53 · 10 ⁻³	14,505 · 10 ⁻³
9807	98,07 · 10 ⁻³	98,07	1	10 ³	73,56	0,1	96,78 · 10 ⁻³	39,37	2,896	1,4224
9,807	98,07 · 10 ⁻⁶	98,08 · 10 ⁻³	10 ⁻³	1	73,56 · 10 ⁻³	10 ⁻⁴	96,78 · 10 ⁻⁶	0,03937	2,896 · 10 ⁻³	1,4224 · 10 ⁻³
133,32	1,333 · 10 ⁻³	1,333	13,59 · 10 ⁻³	13,59	1	1,359 · 10 ⁻³	1,316 · 10 ⁻³	0,5351	3,937 · 10 ⁻²	0,01934
98,07 · 10 ³	0,9807	980,7	10	10 ⁴	735,6	1	0,9678	393,7	28,96	14,224
1,013 · 10 ⁵	1,013	1013	10,33	10,33 · 10 ³	760	1,033	1	406,7	29,92	14,68
249,1	2,491 · 10 ⁻³	2,491	25,4 · 10 ⁻³	25,4	1,8684	2,54 · 10 ⁻³	2,458 · 10 ⁻³	1	7,355 · 10 ⁻²	36,126 · 10 ⁻³
3386	3,386 · 10 ⁻²	33,86	0,3453	345,3	25,4	3,453 · 10 ⁻²	3,342 · 10 ⁻²	13,60	1	0,4912
6894,8	6,8948 · 10 ⁻²	68,948	0,7031	703,1	51,715	70,31 · 10 ⁻³	68,04 · 10 ⁻³	27,68	2,036	1

UMRECHNUNG AMERIKANISCHER UND ENGLISCHER MASSEINHEITEN IN SI-EINHEITEN

LENGHT

UNIT OF MEASUREMENT	US / UK-UNIT	SI-UNIT	CONVERSION FACTOR
1 inch = 40 lines	in	2,54 cm	0,393701
1 mil / thou	mil	25,4 µm	0,03937
1 line		0,635 mm	1,57480
1 foot = 12 in = 3 hands	ft	30,48 cm	0,0328084
1 yard = 3 feet = 4 spans	yd	0,9144 m	1,09361
1 furlong = 220 yd	fur	0,201168 km	4,97097
1 mile (Landmeile)	mi	1,60934 km	0,62137
1 nautical mile (internat.)	n mi, NM	1,852 km	0,539957
1 knot (Knoten)	kn	1,852 km / h	0,539957

AREA

1 square inch	sq in	6,4516 cm ²	0,155000
1 circular inch		5,0671 cm ²	0,197352
1 square foot = 144 sq in	sq ft	929,03 cm ²	1,0764 · 10 ⁻³
1 square yard = 9 sq ft	sq yd	0,83613 m ²	1,19599
1 square mile = 640 acres	sq mi	2,5900 km ²	0,38610

VOLUME

1 cubic inch	cu in	16,387 cm ³	0,061024
1 cubic foot = 1728 cu in	cu ft	28,317 dm ³	0,035315
1 cubic yard = 27 cu ft	cu yd	0,76455 m ³	1,30795
1 fluid ounce (GBr)	fl oz	0,028413 dm ³	35,1950
1 fluid ounce (USA)	fl oz	0,029574 dm ³	33,8138
1 pint = 4 gills (GBr)	(liq) pt	0,56826 dm ³	1,75975
1 pint = 4 gills (USA)	liq pt	0,47318 dm ³	2,11336
1 quart = 2 pints (GBr)	(liq) qt	0,13652 dm ³	0,87988
1 quart = 2 pints (USA)	liq qt	0,94636 dm ³	1,05668
1 quarter = 64 gal		290,950 dm ³	0,0034370
1 gallon = 2 pottles (GBr)	gal	4,54609 dm ³	0,219969
1 gallon (USA)	gal	3,78543 dm ³	0,264170
1 dry barrel		115,628 dm ³	0,0086484

FORCE

EINHEIT	EINHEITEN-ZEICHEN	SI-EINHEITEN	UMRECHNUNGS-FAKTOR
1 pound-weight	lb wt	4,448221 N	0,2248089
1 pound-force	LB lbf	4,448221 N	0,2248089
1 poundal	pdl	0,138255 N	7,23301
1 kilogramme-force	kgf, kgp	9,80665	0,1019716

PRESSURE (FORCE / AREA)

1 pound-weight	lb wt / sq in	6,8948 kN / m ²	0,145038
1 pound-weight	lb wt / sq ft	47,880 N / m ²	0,0208854
1 kilogramme-force / sq in	kgf / sq in	1,52003 N / m ²	0,657880
1 foot of water	ft H ₂ O	0,029891 bar	33,455
1 inch of Hg	in Hg	0,033864 bar	29,530

ENERGY AND POWER

1 foot pound-weight	ft lb wt	1,355821 J	0,737561
1 foot pound-force	ft Lb, ft lbf	1,355817 J	0,737563
1 foot-poundal	ft pdl	0,0421401 J	23,7304
1 horse-power hour	hph, H Phr	2,6845 MJ	0,37251
	h. p. hr.	0,74570 kWh	1,34102

WEIGHT

1 grain	gr	64,7989 mg	0,0154324
1 dram	dr	1,77185 g	0,564383
1 ounce = 16 drams	oz	28,3495 g	0,0352739
1 pound = 16 oz	lb	0,453592 kg	2,204622
1 quarter = 28 lb (lbs)		12,7006 kg	0,078737
1 hundredweight = 112 lb	cwt	50,8024 kg	0,0196841

FUNCTION OF COMPRESSED AIR FILTERS

Filtration

The average 10 HP compressor handles four million cubic inches of air per hour. This air can contain billions of contaminating particles. At high concentration and high speed, these particles can be extremely harmful. They block orifices, erode components, and clog clearances between moving parts. In addition, when ambient air is drawn into a compressor, it can, depending on weather conditions, have relative humidity of 100 percent. As air is compressed and cooled, some water vapour condenses out as free water, but even with a compressor aftercooler, some moisture is swept downstream into the air system. This may result in rusted pneumatic tools and components, contaminated lubricants and frozen air lines during low temperature periods. Other types of foreign matter in air lines include: impurities generated within the air line, such as wear particles, pipe scale and rust; construction and assembly debris; and contaminants introduced into the air system during maintenance or through leakage passages. All these contaminants, which are of a size to cause air system problems, should be removed by a filter.

Filter Construction

Most pneumatic filters consist of two basic elements: a die-cast body, into which the inlet and outlet piping is connected, and a sealed removable bowl which contains collected contaminants. The bowl is fitted with a drain mechanism to remove liquids before they rise to the baffle level. The drain system usually operates while the filter is under pressure, but the unit must be exhausted to remove the bowl for cleaning and element service. The piping need not be disturbed. Generally a transparent bowl is the most convenient because it provides easy visual inspection of the sump level. However, hostile environment, higher pressure, or higher temperature may require a metal bowl for safety. The most common plastic used for bowls is polycarbonate. This material performs satisfactorily for air pressures below 10 bar / 150 psig and temperatures between 4 °C / 40 °F and 50 °C / 120 °F, but polycarbonate can be attacked by several chemicals. AirCom offers both polyethylene and metal bowl guards for added safety. As the pressure or temperature requirement increases, you may have to specify a metal bowl with sight glass. For extreme conditions, it is recommended that the sight glass be eliminated. (Please refer to the individual model descriptions for specifications on bowls.) Thus, the environment determines the choice of bowl. Polycarbonates offer great strength and visibility, but can be attacked by certain chemicals. Metal bowls offer the highest pressure and temperature rating, and provide superior protection when installed in an environment containing chemicals that are incompatible with polycarbonate.

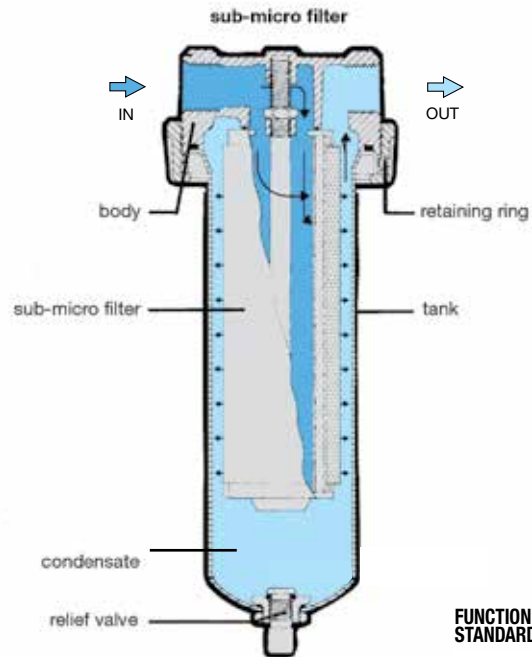
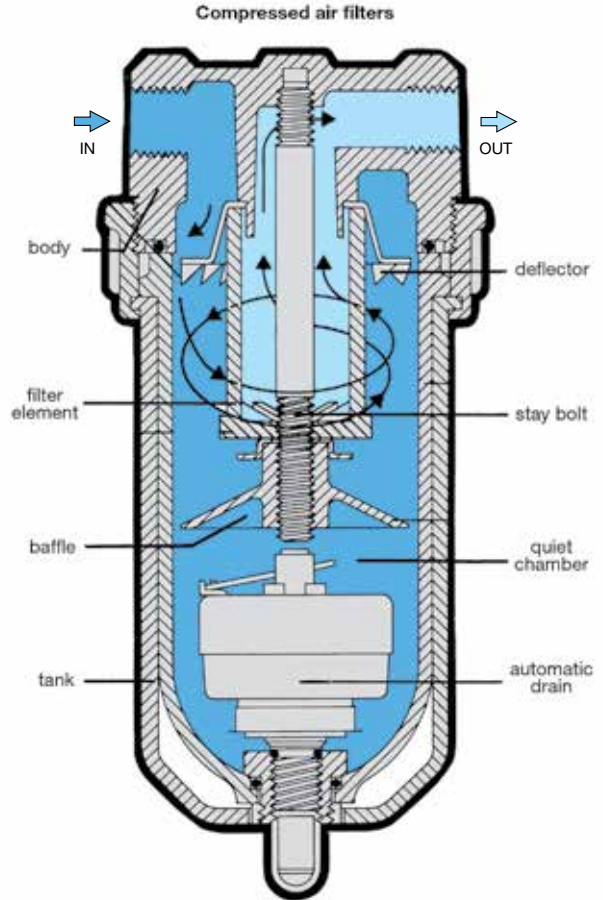
Filter Operation

Air filters:

When pressurized air enters a typical body, the curved inlet and deflector direct the incoming air in a downward whirling pattern. Centrifugal force hurls the larger solid and liquid water particles outward where they collect on the inner surface of the filter bowl. The particles spiral down past a baffle into a quiet chamber. The baffle prevents turbulent air in the upper bowl from reentraining liquid contaminants and carrying them downstream. Then the dry, cleaner air follows a convoluted path through the filter element, where finer solid particles are filtered out. Finally, filtered air passes up the centre of the element and out the discharge port.

Coalescing filters:

These high-efficiency filters operate on a somewhat different principle than air filters. The key difference is in the element, where a fibre network is narrowly spaced to trap smaller contaminants. The special fibres hold any liquid particle which contacts them. Prefiltered air enters the cylindrical element at the centre. As it flows through the element, particles are captured by three different mechanisms: direct interception as particles impinge on the fibres; inertial impactions as particles are thrown against fibres by the turbulent air stream; and diffusion as smaller particles vibrate with Brownian motion to collide with fibres and other particles. As a result, coalescing elements can capture particles smaller than the nominal size of the flow passages through the element. Collected liquid migrates to the crossing points of the fibres, where larger drops form or coalesce. Pressure differential through the element then forces these drops to the downstream surface of the element where they gravitate downward to the sump. The filtered air then exits through the outlet port.



Compressed air filters: see Chapter 16

FUNCTION STANDARD FILTER



FUNCTION OF PRESSURE REGULATORS AND VOLUME BOOSTERS

Regulator Operation

In a typical regulator, a poppet sets the size of an orifice which connects the inlet port to the outlet port. The sensing element, often a diaphragm or piston mechanically linked to the poppet, reacts to downstream pressure and a reference force to position the poppet. The reference can be a spring or an air pilot chamber. The valve is normally open. High pressure air enters and flows through the orifice towards the outlet. Downstream pressure is connected through an aspirator tube to the bottom of the diaphragm. As downstream pressure increases, the diaphragm is forced upwards, compressing the adjustment spring. When the diaphragm moves, the poppet spring pushes the poppet disc upwards to throttle the orifice. If downstream pressure exhausts, the mechanical sequence reverses and the poppet disc opens the orifice until the set pressure is reached again. Downstream-generated high pressure, for example, from high temperatures or heavy vertical loads on cylinders, is reduced by a self-relieving feature built into the regulator. The poppet stem normally blocks a relieving orifice in the centre of the diaphragm: If excessive pressure lifts the diaphragm off the stem, air bleeds through the orifice and out of the bonnet vent until the system returns to the set pressure.

Regulation

An air regulator is a specialised control valve. It reduces the upstream supply pressure level to a specified constant downstream pressure, regardless of variations in the upstream pressure or changes in flow through the regulator.

Pneumatic equipment that is operated at higher-than-recommended pressure wastes the energy for generating that pressure. This creates a potential safety hazard and probably causes premature wear. Operating below specified pressure can cause the machine to fail to meet design performance specifications. Therefore, precise air pressure control is essential for efficient operation or air-powered equipment.

Regulator Construction

Regulators are generally constructed using a die-cast metal body. Other external parts, such as the spring cage and bottom plug, may be either metal or plastic. All-metal construction offers more durability in tough applications where abuse is likely to occur, while plastic constructions are lower in cost. For normal industrial applications, temperature ranges of 4 °C / 40 °F to 50 °F / 120 °F and supply pressure to 20 bar / 300 psi, either construction will serve well. Lightweight diaphragm sensors offer quick response and high sensitivity to air pressure changes. Piston sensors are somewhat slower but may be more durable. Where downstream pressure requirements change rapidly enough to cause regulator chatter, slower response may be an advantage. If the self-relieving feature is not needed for an application, simpler non-relieving regulators are available. For regulators with an adjustment spring, a T-handle, knob or plunger provides the external link to the spring on various models. Locking and tamper-proof arrangements are offered, as well as factory-set regulators with no external adjustment.

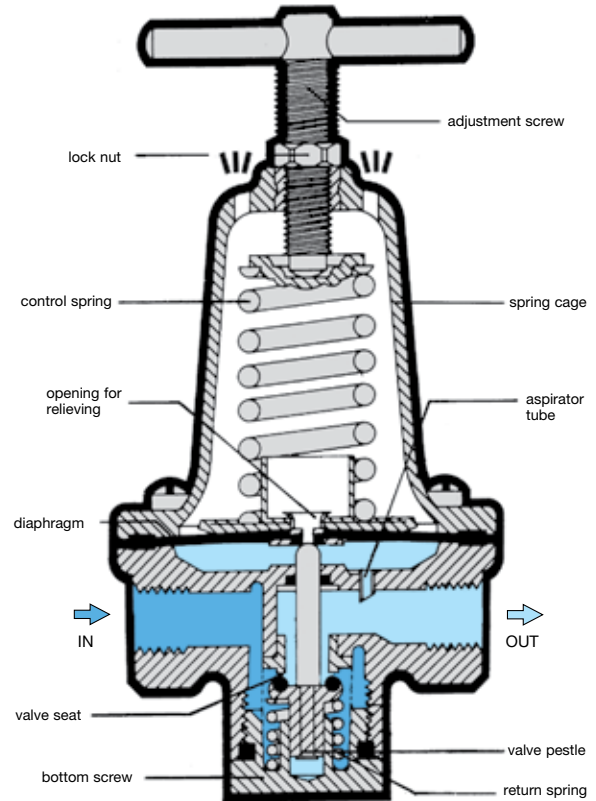
Volume Booster

Pilot-operated regulators substitute air pressure in the chamber above the sensor to provide the reference force. Remote adjustment through a separate pilot regulator is thus possible or the pilot signal can be fed back from a downstream location for precise control.

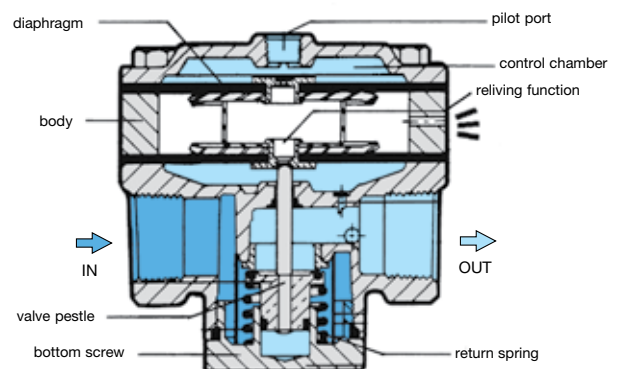
The balanced poppet design exposes both sides of the poppet to essentially the same pressure. This eliminates much of the effect that changes in inlet pressure might have on poppet position and orifice opening.

A small constant bleed passage through the diaphragm or piston prevents the poppet from sitting tightly and improves response.

Pressure regulator with manual adjustment



Remote-controlled pressure regulator, volume booster, pilot pressure minder



Control of a remote-controlled controller with external feedback



FUNCTION VOLUME BOOSTER



pressure regulator: see Chapter 1 to 5
Volume booster: see Chapter 6

FUNCTION OF FILTER REGULATORS

What is a Filter Regulator?

Filter regulators offer economy of space, performance and price. These space-saving designs give you the same basic features as the individual filter and regulator models.

Regulator Operation

In a typical regulator, a poppet sets the size of an orifice which connects the inlet port to the outlet port. The sensing element, often a diaphragm or piston mechanically linked to the poppet, reacts to downstream pressure and a reference force to position the poppet. The reference can be a spring or an air pilot chamber. The valve is normally open. High pressure air enters and flows through the orifice towards the outlet. Downstream pressure is connected through an aspirator tube to the bottom of the diaphragm. As downstream pressure increases, the diaphragm is forced upwards, compressing the adjustment spring. When the diaphragm moves, the poppet spring pushes the poppet disc upwards to throttle the orifice. If downstream pressure exhausts, the mechanical sequence reverses and the poppet disc opens the orifice until the set pressure is reached again. Downstream-generated high pressure, for example, from high temperatures or heavy vertical loads on cylinders, is reduced by a self-relieving feature built into the regulator. The poppet stem normally blocks a relieving orifice in the centre of the diaphragm: If excessive pressure lifts the diaphragm off the stem, air bleeds through the orifice and out of the bonnet vent until the system returns to the set pressure.

Regulation

An air regulator is a specialised control valve. It reduces the upstream supply pressure level to a specified constant downstream pressure, regardless of variations in the upstream pressure or changes in flow through the regulator. Pneumatic equipment that is operated at higher-than-recommended pressure wastes the energy for generating that pressure. This creates a potential safety hazard and probably causes premature wear. Operating below specified pressure can cause the machine to fail to meet design performance specifications. Therefore, precise air pressure control is essential for efficient operation or air-powered equipment.

Regulator Construction

Regulators are generally constructed using a die-cast metal body. Other external parts, such as the spring cage and bottom plug, may be either metal or plastic. All-metal construction offers more durability in tough applications where abuse is likely to occur, while plastic constructions are lower in cost. For normal industrial applications, temperature ranges of 4 °C / 40 °F to 50 °C / 120 °F and supply pressure to 20 bar / 300 psi, will serve well for either construction. Lightweight diaphragm sensors offer quick response and high sensitivity to air pressure changes. Piston sensors are somewhat slower but may be more durable. Where downstream pressure requirements change rapidly enough to cause regulator chatter, slower response may be an advantage. If the self-relieving feature is not needed for an application, simpler non-relieving regulators are available. For regulators with an adjustment spring, a T-handle, knob or plunger provides the external link to the spring on various models. Locking and tamper-proof arrangements are offered, as well as factory-set regulators with no external adjustment.

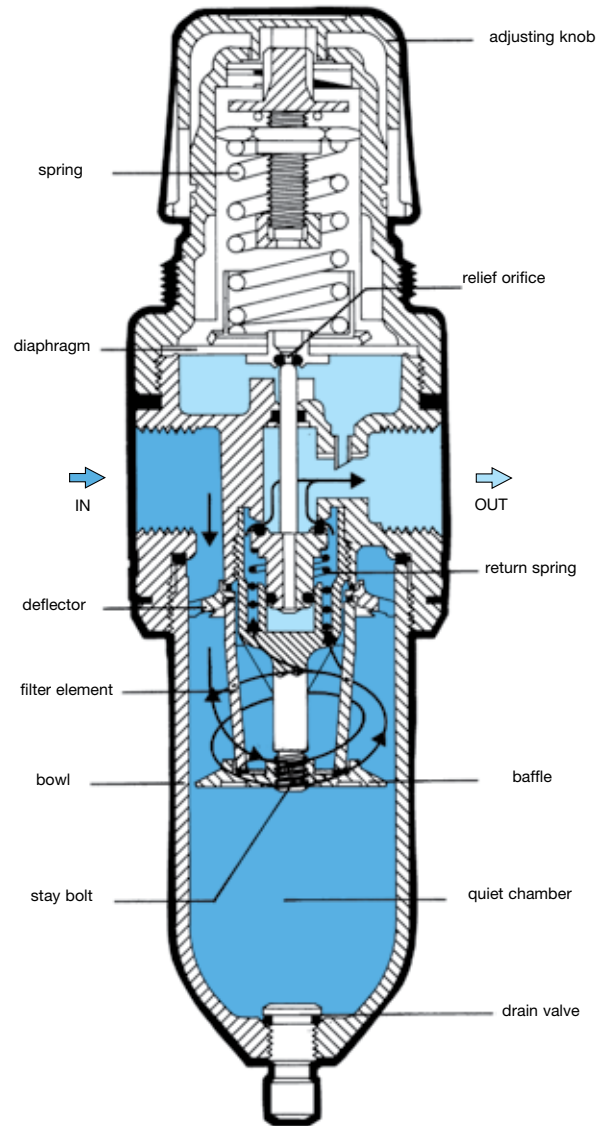
Filtration

The average 10 HP compressor handles four million cubic inches of air per hour. This air can contain billions of contaminating particles. At high concentration and high speed, these particles can be extremely harmful. They block orifices, erode components, and clog clearances between moving parts. In addition, when ambient air is drawn into a compressor, it can, depending on weather conditions, have relative humidity of 100 percent. As air is compressed and cooled, some water vapour condenses out as free water, but even with a compressor aftercooler, some moisture is swept downstream into the air system. This may result in rusted pneumatic tools and components, contaminated lubricants and frozen air lines during low temperature periods. Other types of foreign matter in air lines include: impurities generated within the air line, such as wear particles, pipe scale and rust; construction and assembly debris; and contaminants introduced into the air system during maintenance or through leakage passages. All these contaminants, which are of a size to cause air system problems, should be removed by a filter.

Filter Construction

Most pneumatic filters consist of two basic elements: a die-cast body, into which the inlet and outlet piping is connected, and a sealed removable bowl which contains collected contaminants. The bowl is fitted with a drain mechanism to remove liquids before they rise to the baffle level. The drain system usually operates while the filter is under pressure, but the unit must be exhausted to remove the bowl for cleaning and element service. The piping need not be disturbed. Generally a transparent bowl is the most convenient because it provides easy visual inspection of the sump level. However, hostile environment, higher pressure, or higher temperature may require a metal bowl for safety. The most common plastic used for bowls is polycarbonate. This material performs satisfactorily for air pressures below 10 bar / 150 psig and temperatures between 4 °C / 40 °F and 50 °C / 120 °F, but polycarbonate can be attacked by several chemicals. AirCom offers both polyethylene and metal bowl guards for added safety. As the pressure or temperature requirement increases, you may have to specify a metal bowl with

sight glass. For extreme conditions, it is recommended that the sight glass be eliminated. (Please refer to the individual model descriptions for specifications on bowls.) Thus, the environment determines the choice of bowl. Polycarbonates offer great strength and visibility, but can be attacked by certain chemicals. Metal bowls offer the highest pressure and temperature rating, and provide superior protection when installed in an environment containing chemicals that are incompatible with polycarbonate.



FUNCTION FILTER PRESSURE REGULATOR



Filter regulators: see chapter 17

FUNCTION OF COMPRESSED AIR LUBRICATORS

Lubrication

Many pneumatic system components and most pneumatic tools require oil lubrication for proper operation and long service life. This lubricant is typically carried by air stream. Too little oil can cause excessive wear and premature failure. Too much oil is wasteful and can become a contaminant, particularly when carried over with the air exhaust. Intermittent lubrication may be the worst situation because the oil film can dry out to form sludges and varnishes on internal surfaces.

Air line lubricators meter oil from a reservoir into the moving air stream. In general terminology, the oil droplets are usually termed a fog. For best results, the lubricator should be located as close as possible to the point where lubrication is required.

Lubricator Construction

Bowls are available in polycarbonate and metal, subject to the same constraints discussed in the filter section. Transparent polycarbonate simplifies inspection of the oil level and checking for dirt and liquid condensate in the oil. Note that the system must be exhausted before removing the bowl. In some models, the system must also be exhausted before opening the fill plug to recharge the lubricator. Other designs automatically bypass the air during refilling.

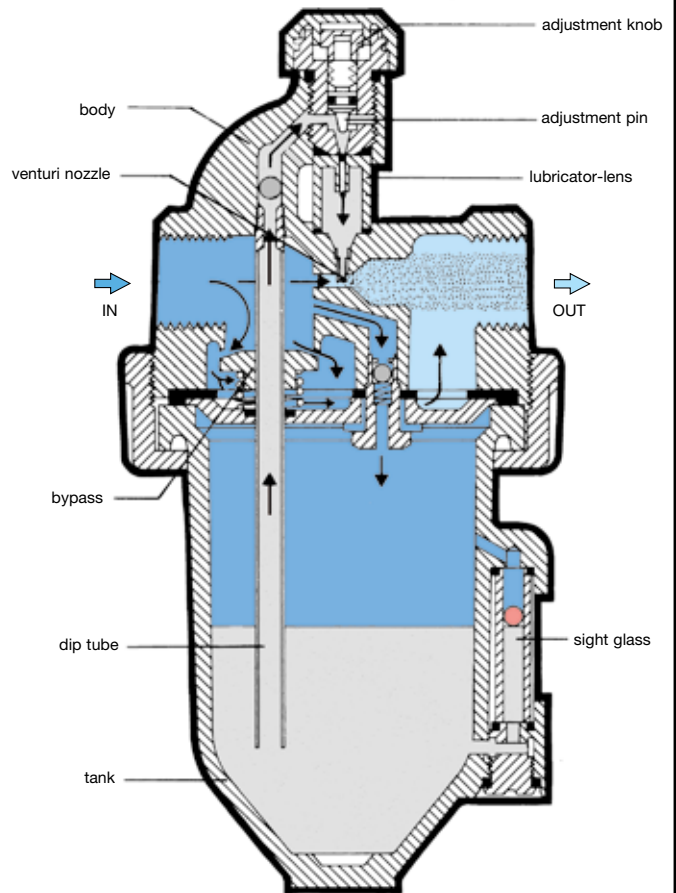
Lubricator Operation

Most lubricator designs include a high-velocity venture section in the air flow path which creates a low-pressure area to draw oil from the reservoir through the capillary tube to the point of injection. There, the air stream breaks up the oil into droplets. In a typical lubricator (see figure), filtered and regulated air enters the lubricator housing and is channelled in either of two directions depending on the flow rate. At low flow rates, all the air passes through the venture where it mixes with metered oil droplets. Under higher flow conditions, the spring-loaded bypass valve opens and the excess flow bypasses the venture, then blends with the lubricated air at a downstream point. A manual adjustment of the needle valve in the housing sets the oil drip-rate into the air stream; a sight glass allows that rate to be monitored. Fill plugs at the lubricator top provide access to refill the reservoir with oil. The bowl is removable for cleaning.

How to Select the Proper Lubricator

Use of the proper lubricator can greatly extend the life of expensive downstream pneumatic equipment. Lubricators often are selected according to pipe size. Other selection factors are type of bowl material, bowl size and refilling system capability. Bowls are available in both polycarbonate and metal. Polycarbonate offers the advantage of transparency, for simplified inspection of oil level and condition. However, caution must be exercised when using polycarbonate bowls in any area where certain chemicals are used.

In addition to choice of bowls, minimum and maximum flow rates and pressure requirements should also be considered. Be sure to check the pressure drop curves, to make certain the selected model will not create a higher pressure drop than the system design can tolerate.



VISIT US ON YOUTUBE



CERTIFICATIONS | DOCUMENTATION | SERVICE FEATURES

Info

21

CERTIFICATE ACCORDING TO EN10204

Certificate	2.1	25,00 €
Certificate	2.2	25,00 €
Certificate for Material	3.1	50,00 €
Certificate for Material	for RUG	130,00 €

SINGLE DEVICE TEST CERTIFICATE

Single device test certificate with document	on request
--	------------

TEST CHART, CALIBRATION

Test chart	charged per measuring point	25,00 €
Calibration chart	charged per measuring point	30,00 €

DOCUMENTATION

Extra copy	10,00 €
------------	---------

SERVICE INCLUDING HOUR OF TRAVEL AND WAITING

Man hour	service technician	55,00 €
	engineer	90,00 €

PRESSURE REGULATOR – QUICK FINDER

1 MINIATURE PRESSURE REGULATORS

2 STANDARD PRESSURE REGULATORS

3 LOW PRESSURE REGULATORS

4 HIGH PRESSURE REGULATORS

5 DIFFERENTIAL PRESSURE REGULATORS

6 VACUUM PRESSURE REGULATORS

7 PRECISION PRESSURE REGULATORS

8 PRESSURE REGULATORS FOR WATER

9 BACK PRESSURE REGULATORS

10 VOLUME BOOSTER

11 WITH MECHANICALLY FEATURES

12 WITH PNEUMATICALLY FEATURES

13 WITH SPECIAL MATERIALS

14 FOR EXTREMELY TEMPERATURES

15 FOR SPECIAL MEDIA

16 FOR SPECIAL BRANCHES

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE	
1	24 x 14, factory-set, Cartridge	2 to 6 bar	G $\frac{1}{4}$	233	1.02	
	17 x 25, factory-set, extremely small	2 to 10 bar	G $\frac{1}{4}$	R13	1.03	
	34 x 52, factory-set, extremely small	1 to 8 bar	G $\frac{1}{4}$	231	1.05	
	34 x 52, factory-set, extremely small	1 to 8 bar	G $\frac{1}{4}$	239	1.04	
	19 x 54, factory-set, extremely small, with exhaust	2 to 8 bar	G $\frac{1}{4}$ - G $\frac{3}{4}$	232	1.06	
	22 x 77, adjustable, extremely small	1 to 3 bar	G $\frac{1}{4}$	R33	www*	
	18 x 61, FKM, EPDM	0.2 - 1.4 / 7 bar	10-32", M5, $\frac{1}{8}$ "NPT	MAR	1.08	
	19 x 40, adjustable, extremely small	0.2 - 2.0 / 8 bar	M5	RR-M5	1.07	
	29 x 29, precision regulator, light-weight	0.03 - 0.2 / 6 bar	10-32", flange	R900	1.09	
	29 x 40, precision regulator, light-weight	0.03 - 0.2 / 6 bar	$\frac{1}{8}$ "NPT	R800	1.09	
	32 x 35, precision regulator, light-weight	0.01 - 0.7 / 7 bar	flange R6	R6	1.12	
	32 x 35, interlocking	0.01 - 0.7 / 7 bar	M5, G $\frac{1}{8}$, G $\frac{1}{4}$, SS	R7	1.13	
	40 x 40, made of plastic, also for water	0 - 1.0 / 9 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R25	9.02	
	52 x 52, made of plastic, also for water	0 - 1.8 / 9 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R45	9.02	
	40 x 42, acetal, also for drinking water	0.1 - 3.5 / 8.5 bar	G $\frac{1}{4}$, $\frac{1}{4}$ "NPT	R91	www*	
	40 x 40, precision regulator, pressure compensated	0.2 - 2.0 / 9 bar	flange	R342	1.14	
	40 x 40, precision regulator, without constant bleed	0.2 - 2.0 / 9 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R344	1.14	
	35 x 76, made of brass, also for water	0.1 - 1 / 11 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R364	1.15	
	35 x 76, made of aluminium	0.1 - 1 / 11 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R374	1.15	
	precision regulator, pressure compensated	0.1 - 3.0 / 6 bar	G $\frac{1}{8}$	R309	1.16	
	P1:25 bar, pressure compensated	0.1 - 3.0 / 16 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R310	1.16	
	FDA, pressure compensated	0.1 - 1.0 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R037	1.17	
	with increased accuracy, pressure compensated	0.1 - 1.0 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039	1.11	
	precision regulator, pressure compensated	0.1 - 1.0 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039-F	1.11	
	precision regulator, also for O $_2$	0.2 - 2.5 / 8 bar	G $\frac{1}{8}$	R307	1.18	
	precision regulator, also for O $_2$	0 - 0.25 / 8 bar	flange	R308	1.19	
	precision regulator, very accurate	0.05 - 2.0 / 8 bar	G $\frac{1}{8}$	RI	5.02	
	precision regulator, very accurate	0 - 0.35 / 7 bar	M5, flange	RT	1.10	
	Cartridge, 260 l/min	1 - 8 bar	Cartridge	RC	1.20	
	2	for air or water	0 - 4.0 / 12 bar	G $\frac{1}{8}$ - G1	R035 ... R095	2.03
		with FKM also	0.2 - 1.8 / 17 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R10 / R11	2.05
		with external feedback	0.2 - 7 bar	G $\frac{1}{4}$	R218	2.04
interlocking		0.2 - 1.8 / 17 bar	G $\frac{1}{4}$ - G1	R20 / R21	2.02	
very robust		0.2 - 1.8 / 17 bar	G $\frac{1}{4}$ - G3	R119	2.06	
zinc diecasting		0.2 - 1.5 / 15 bar	G $\frac{1}{8}$ - G2	RD1 ... RD4	2.08	
adjustment dial pressure regulator, pre-controlled		0 - 3.0 / 11 bar	G $\frac{1}{4}$ - G2	R11 ... R41	2.12	
with joint supply		0.1 - 3.0 / 16 bar	G $\frac{1}{8}$ - G $\frac{1}{2}$	RB / R035	2.10	
lockable		0,1 - 3,0 / 16 bar	G $\frac{1}{8}$ - G1	RS	2.11	
3		factory-set	50 mbar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R01	3.02
		miniature	25 - 50 / 1400 mbar	G $\frac{1}{4}$ - G $\frac{3}{8}$	R01-5/-6	3.03
		miniature	20 - 150 / 500 mbar	G $\frac{1}{2}$ and G $\frac{3}{4}$	R01-2/-4	3.03
	P1: 0.4 bar	2 - 16 / 100 mbar	G $\frac{1}{2}$ - G2	RGDJ	3.04	
	P1: 4 bar	5 - 12 / 350 mbar	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4	3.05	
	from 2 mbar on P1: 6 bar, for many gases	5 - 45 / 3000 mbar	G $\frac{1}{2}$ - G2	R160	3.06	
	P1: 20 bar	10 - 18 / 4400 mbar	G1 - G1 $\frac{1}{2}$, DN50	RZ	3.08	
	precision pressure regulator, relieving	2 - 45 / 350 mbar	G $\frac{3}{8}$ - G $\frac{3}{4}$	R4100	3.09	
	precision pressure regulator, relieving	2 - 35 / 800 mbar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110	5.15	
	precision pressure regulator, for pure gases 5.0	5 - 50 / 1500 mbar	G $\frac{1}{2}$	RR	3.10	
	stainless steel	5 - 45 / 7000 mbar	G $\frac{1}{2}$ - G2	R3100	15.12	
	booster P1: max. 0,4 bar	2 - 55 / 160 mbar	G $\frac{1}{2}$ - G2	RGDJ-J	6.13	
booster P1: max. 4 bar	5 - 350 mbar	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4-J	6.13		
booster P1: max. 20 bar	10 - 350 / 1000 mbar	G1 - G2	RZ-J	6.10		

* visit our webshop: www.aircom.net

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE			
4	for water and oxygen also for many gases	Kv: 0.3 - 25.6 Kv: 0.2 - 70	40 / 0.2 - 3.0 / 35 bar 50 / 0.1 - 1.5 / 50 bar	G $\frac{1}{4}$ - G2 G $\frac{1}{4}$ - G2, DN100	R280 R120	4.02 4.04		
	for water and oxygen also	Kv: 1.3 - 3.2	60 / 0.5 - 12 / 50 bar	G $\frac{1}{4}$ - G1	R286	4.08		
	cylinder pressure regulator		100 / 0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-147	4.14		
	cylinder pressure regulator		200 / 0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-247	4.14		
	cylinder pressure regulator		200 / 0 - 1.5 / 40 bar	different	RH200	4.12		
	great nominal size	Kv: 0.9	207 / 0.2 - 1.7 / 14 bar	$\frac{3}{8}$ "NPT and $\frac{1}{2}$ "NPT	RH2	4.16		
	for many gases	Kv: 0.05 - 3.5	200 / 0.1 - 1.5 / 200 bar	G $\frac{1}{4}$ - G $\frac{1}{4}$	RH10	4.10		
	made of stainless steel	Kv: 0.05 - 3.5	200 / 1 - 8.0 / 200 bar	G $\frac{1}{4}$ - G $\frac{1}{4}$	RH3000	15.18		
	for many gases	Kv: 0.02	207 / 0.1 - 3.5 / 12 bar	$\frac{1}{4}$ "NPT	RH83	4.09		
	miniature	Kv: 0.05	241 / 0.2 - 2.0 / 7 bar	$\frac{1}{4}$ "NPT	RH0	4.15		
	great nominal size	Kv: 1.7	260 / 0.7 - 21 / 104 bar	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3	4.19		
	many pressure ranges	Kv: 0.05	300 / 0.1 - 1.7 / 35 bar	$\frac{1}{4}$ "NPT	HP500	4.18		
	cylinder pressure regulator		300 / 0 - 1.5 / 40 bar	different	RH300	4.13		
	up to 690 bar	cylinder pressure regulator		300 / 0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-347	4.14	
		very robust	Kv: 0.13	380 / 0.3 - 2.0 / 35 bar	$\frac{1}{4}$ "NPT	RHB	www*	
		made of stainless steel		380 / 0.3 - 2.0 / 15 bar	$\frac{1}{4}$ "NPT	RHB-S	www*	
		miniature	Kv: 0.05	414 / 0.5 - 5 / 124 bar	$\frac{1}{4}$ "NPT	RH1	4.15	
		many pressure ranges	Kv: 0.05	414 / 0.3 - 35 / 414 bar	$\frac{1}{4}$ "NPT	HP300	4.17	
		Messing	Kv: 0,05	0,7 ...104 / 172 bar	$\frac{1}{4}$ "NPT	HP306	4.21	
		stainless steel also	Kv: 0.05	414 / 0.7 - 104 / 172 bar	$\frac{1}{4}$ "NPT	HP400	4.17	
		made of brass	Kv: 0.03	414 / 0 - 14 / 28 bar	$\frac{3}{8}$ "NPT - $\frac{1}{2}$ "NPT	RH4	4.20	
		stainless steel	Kv: 0.05	690 / 0.3 - 35 / 414 bar	$\frac{1}{4}$ "NPT	HP300-S	4.17	
		booster		50 / 1 - 15 bar	G $\frac{1}{4}$ - G1	R120-J2	6.15	
		booster		50 / 1 - 50 bar	G $\frac{1}{4}$ - G2	R120-J5	6.15	
		booster, stainless steel,	Kv: 2.9	100 / 0.1 - 24 / 99 bar	G1	RLE	6.14	
		booster, brass	Kv: 2.9	100 / 0.1 - 24 / 99 bar	G1	RLM	6.14	
		booster, 1:2 - 1:19,	Kv: 1.7	260 / 3 - 42 / 104 bar	$\frac{1}{2}$ "NPT	RH3-J	6.12	
		booster	Kv: 0.3	414 / 0 - 41 bar	$\frac{3}{8}$ "NPT and $\frac{1}{2}$ "NPT	RH4-J	4.20	
differential pressure regulator			414 / 0 - 1 / 24 bar	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH44	4.22		
5		precision regulator, without constant bleed		0 - 1 / 10 bar	G $\frac{1}{4}$ u. G $\frac{3}{8}$	R650	6.02	
		with inlet pressure 0 - 1 bar		0.05 - 10 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03-J1	6.05	
		with inlet pressure 0 - 6 bar		0.05 - 10 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03-J6	6.05	
		high-, differential pressure regulator 0 - 1/24 bar		414/0 - 1/24 bar	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH44	4.22	
		6	22 l/min		0.15 - 1 bar _{abs}	$\frac{1}{8}$ "NPT	V800	7.02
22 l/min				0.15 - 1 bar _{abs}	10-32", flange	V900	7.02	
70 l/min				0 - 1.14 / 11 bar _{abs}	G $\frac{1}{4}$	R250	7.03	
330 l/min				0.01 - 1 bar _{abs}	G $\frac{1}{4}$ - G $\frac{1}{2}$	V170	7.04	
800 l/min				0 - 1.07 / 11 bar _{abs}	G $\frac{1}{2}$ and G $\frac{3}{4}$	R251	7.05	
60 - 1100 l/min, vacuum adjustment valve				0.01 - 0,7 bar _{abs}	G $\frac{1}{8}$ - G1	V04	7.06	
260 - 700 l/min, vacuum adjustment valve				0.01 - 1 bar _{abs}	G $\frac{1}{4}$ - G1	V05	7.06	
without constant bleed		pressure compensated, miniature		0.2 - 2.0 / 9 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R344	1.14	
	pressure compensated, miniature		0.2 - 2 / 9 bar	flange	R342	1.14		
	pressure compensated, miniature		0.2 - 2.5 / 8 bar	G $\frac{1}{8}$	R307	1.18		
	pressure compensated, miniature		0.1 - 3 / 6 bar	G $\frac{1}{8}$	R309	1.16		
	pressure compensated, miniature		0.2 - 2.5 / 8 bar	flange	R308	1.19		
	pressure compensated, miniature		0.1 - 1.0 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039-FK	1.11		
	robust		0.01 - 0.6 / 3.5 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R216	5.05		
	robust		0.01 - 1 / 16 bar	G $\frac{1}{4}$	R217	5.04		
	non-relieving		0.01 - 0.14/ 28 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	102...-N	5.08		
	non-relieving		0.01 - 0.14/ 10 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230-K	5.09		
	recommended for mbar-range		0.001 - 0.14/ 14 bar	G $\frac{1}{4}$ - G $\frac{3}{8}$	R300-K	5.10		
	also differential pressure regulator		0 - 1 / 10 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R650	6.02		
	good flow		0.03 - 0.7 / 10 bar	G $\frac{1}{4}$ - G $\frac{3}{8}$	R100	5.11		
	good flow, high-precision		0.03 - 0.7 / 17 bar	G $\frac{3}{8}$ - G $\frac{3}{4}$	R400	5.13		
	low pressure regulator, very precise		0.005- 0.05/ 1.5 bar	G $\frac{1}{2}$	RR	3.10		
	low pressure regulator, high-precision		0.002- 0.045/0.35 bar	G $\frac{3}{8}$ - G $\frac{3}{4}$	R4100	3.09		
	with constant bleed	miniature, interlocking		0.01 - 0.7 / 7 bar	flange	R6	1.12	
		many variations	mini	0.01 - 0.7 / 7 bar	M5, G $\frac{1}{8}$, G $\frac{1}{4}$, SS	R7	1.13	
		small and light-weight	mini	0.03 - 0.2 / 7 bar	10-32", flange	R900	1.09	
		small and light-weight	mini	0.01 - 0.2 / 7 bar	$\frac{1}{8}$ "NPT	R800	1.09	
		high accuracy,	mini	0 - 0.35/ 7 bar	M5, flange	RT	1.10	
		high accuracy,	mini	0.05 - 2 / 8 bar	G $\frac{1}{8}$, flange	R90	5.03	
		high accuracy,	mini	0.05 - 2 / 8 bar	G $\frac{1}{8}$	RI	5.02	
		Precision Pressure	pressure compensated, mini		0.1 - 1 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039	1.11
			pressure compensated, mini		0.1 - 1 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039-F	1.11
		with constant bleed	proven		0.020- 0.5 / 10 bar	G $\frac{1}{4}$	11-818	5.06
	high accuracy, wide control range			0.002- 0.12/ 31 bar	$\frac{1}{4}$ "NPT	R40	5.12	
	high accuracy, proven			0.140- 1.7 / 8 bar	G $\frac{1}{4}$, $\frac{1}{4}$ "NPT	53.10	5.07	
good exhaust			0.010- 0.14/ 28 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	102..	5.08		





* visit our webshop: www.aircom.net

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE	
Regulator (continuation)	low-cost	0.010- 0.14/ 10 bar	G¼ - G½	R230	5.09	
	recommended for mbar-range	0.001- 0.14/ 7 bar	G¼ - G¾	R300	5.10	
	low pressure	0.35 /800 bar	G¼ - G½	R110	5.15	
	robust	0.010- 3 / 10 bar	G¼ - G½	R03	5.14	
	high volume flow rate	0.001- 0.7 / 10 bar	G1 - G1½	R102	5.16	
8 miniature	factory-set, also for water	1 / 2 / 3 /... 8 bar	G¼	239A	1.03	
	factory-set, also for drinking water	1 / 2 / 3 /... 8 bar	G¼	239K	9.03	
	extremely small	0 - 2 / 8 bar	M5	RR-K	1.08	
	diameter 18 mm	0 - 1 / 7 bar	M5 / ½"NPT	MAR	1.08	
	azetal, 40 x 40	0 - 1 / 9 bar	G½ and G¼	R25	9.02	
	brass, 35 x 35	0 - 1 / 11 bar	G½ and G¼	R364	1.15	
	POM, 40 x 40, also deionized water	0 - 1 / 12 bar	G½ and G¼	R037	1.17	
	brass, 40 x 40, also for brake fluids	0 - 3 / 16 bar	G½ and G¼	R310	1.16	
	plastic, 40 x 40, with increased accuracy	0 - 1 / 12 bar	G½ and G¼	R039	1.11	
	plastic, 40 x 40, with high precision	0 - 1 / 12 bar	G½ and G¼	R039-F	1.11	
	azetal, 40 x 42, for drinking/deionized water	0 - 3 / 8 bar	G¼	R91-K	www*	
	standard	plastic, block design	0 - 4 / 12 bar	G½ - G1	R035...R095	2.03
		brass P1 max. 40 bar	0 - 3 / 35 bar	G¼ - G2	R280	4.02
brass P1 max. 60 bar		0 - 12 / 50 bar	G¼ - G1	R286	4.08	
brass P1 max. 50 bar, up to DN100		0 - 1 / 50 bar	G¼ - G2	R120	4.04	
brass P1 max. 60 bar		0 - 2 / 45 bar	G¼ - G2	RWI	9.04	
brass P1 max. 25 bar, with male thread		0 - 2 / 20 bar	R¾" - R2½"	RWA	9.06	
brass P1 max. 40 bar, with flange		0 - 2 / 20 bar	DN8 - DN125	RWF	9.08	
pilot-operated	brass P1 max. 21 bar, miniature	0 - 1 / 11 bar	G½ - G¼	R364-J	www*	
	brass P1 max. 50 bar, diaphragm/piston	0 - 15 / 50 bar	G¼ - G2	R120-J	6.15	
	brass P1 max. 140 bar, piston	0 - 24 / 99 bar	G1	RLM	6.14	
9 miniature	with male thread, very small	1 - 2 / 14 bar	G½	59	8.14	
	with male thread, tapped exhaust	0 - 3 / 7 bar	G¼	130	8.14	
	brass, tapped exhaust	0 - 1 / 7 bar	G¼	134	8.14	
standard	aluminium P1 max. 30 bar	0 - 1 / 15 bar	G½ - G2	DBC	8.02	
	brass	0 - 0.1 / 50 bar	G½" - G2	DBM	8.04	
precise	aluminium P1 max. 35 bar	0 - 0.1 / 28 bar	G¼ - G½	10BP	8.06	
	aluminium P1 max. 17 bar	0 - 0.1 / 10 bar	G¼ - ½"NPT	DB240	8.07	
	aluminium P1 max. 17 bar	0 - 0.1 / 10 bar	G¾ - G¾	DB400	8.10	
	aluminium P1 max. 10 bar	0 - 0.1 / 7 bar	G¼ and G¾	DB300	8.09	
low pressure	aluminium P1 max. 10 bar	0 - 35 / 800 mbar	G¼ - G½	DB110	8.08	
	aluminium P1 max. 6 bar	0 - 45 / 3000 mbar	G½ - G2	DBC	8.11	
pilot-operated	aluminium P1 max. 17 bar, precise	0 - 10 bar	G¼ - G½	DB208	8.12	
	aluminium P1 max. 17 bar, precise	0 - 10 bar	G¾ - G¾	DB450	8.13	
10	miniature, also for water	0 - 6 bar	G½ - G¼	R035-J	www*	
	miniature, also for water	0 - 11 bar	G½	R364-J	www*	
	also for differential pressure	0 - 1 / 10 bar	G¼ and G¾	R650	6.02	
	also for differential pressure	0 - 10 bar	G¼ - G½	R03-J	6.05	
	precise, with ratio 1:2 to 1:6	0 - 10 bar	G¼ and G¾	R750	6.03	
	precise, with ratio 1:2 to 1:6 / 2:1 to 5:1	0 - 10 bar	G¼ and G¾	R208	6.04	
	with ratio also 1:2 / 1:3 / 2:1 / 3:1	0 - 10 bar	G½ and G¾	R450	6.07	
	precise	0 - 10 bar	G1 and G1½	R200	6.09	
	precise, high exhaust	0.2 - 18 bar	G¼ - G1¼	R116	6.08	
	precise, high exhaust	0 - 10 bar	G¾ and G1	R490	6.06	
	precise, very high exhaust	0 - 10 bar	1½"NPT	R201	6.09	
	sehr robust	0.2 - 18 bar	G¼ - G3	R119-J	6.11	
	low pressure	2 - 55 / 100 mbar	G½ - G2	RGDJ-J	6.13	
	low pressure	5 - 350 mbar	G½ - G1½	RGB4-J	6.13	
	low pressure	10 - 350/1000mbar	G1 - G2	RZ-J	6.10	
	very precise, wide pressure ranges	0.002 - 0.12/ 31 bar	¼"NPT	R40A	5.12	
	high pressure, brass	50 / 1 - 15 / 50 bar	G¼ - G2	R120-J	6.15	
	high pressure, stainless steel	50 / 1 - 15 / 50 bar	G¼ - G2	R3000-J	15.22	
	high pressure, stainless steel	100 / 0.1 - 24 / 99 bar	G1	RLE	6.14	
	high pressure, brass	100 / 0.1 - 24 / 99 bar	G1	RLM	6.14	
	high pressure, 1:2 up to 1:19	260 / 3 - 42 / 104 bar	½"NPT and ¾"NPT	RH3-J	6.12	

* visit our webshop: www.aircom.net

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE	
11 flange bottom side 	mini	0.01 - 0.7 / 7 bar	flange	R6	1.12	
	mini	0 - 0.25 / 8 bar	flange	R308	1.19	
	mini, precision pressure regulator	0.03 - 0.2 / 6 bar	flange	R900-M	1.09	
	mini, precision pressure regulator	0 - 0.35 / 7 bar	flange	RT-F	1.10	
	mini, precision pressure regulator	0.05 - 2 / 8 bar	G $\frac{1}{8}$, flange	R90	5.03	
	mini, precision pressure regulator	0.2 - 2 / 9 bar	flange	R342	1.14	
	flange at the side 	lockable	0.2 - 1.8 / 17 bar	DN15 - DN25	R20 - F	2.02
		P1: 40 bar	0.2 - 3 / 35 bar	DN15 - DN50	R280 - F	4.02
		very robust	0.2 - 1.8 / 17 bar	DN15 - DN80	R119 - F	2.06
		booster	0.2 - 1.8 / 17 bar	DN15 - DN80	R119 - JF	6.13
P1: 50 bar		0.1 - 1.5 / 50 bar	DN15 - DN100	R120 - F	4.04	
low pressure regulator		2 - 16 / 100 mbar	DN15 - DN50	RGDJ - F	3.04	
low pressure regulator		5 - 12 / 350 mbar	DN15 - DN40	RGB4 - F	3.05	
low pressure regulator		10 - 18 / 4400 mbar	DN25 - DN50	RZ - F	3.08	
low pressure regulator		5 - 45 / 6000 mbar	DN25 - DN50	R160 - F	3.06	
stainless steel low pressure regulator		5 - 45 / 7000 mbar	DN15 - DN50	R3100- F	15.12	
stainless steel		0.1 - 1.5 / 50 bar	DN15 - DN50	R3000- F	15.06	
stainless steel variations		0.2 - 3 / 16 bar	DN15 - DN25	REA - F	15.11	
booster		1 - 15 / 50 bar	DN15 - DN50	R3000- JF	15.22	
special flanges		stainless steel, milk pipe, many variations	0.2 - 3 / 16 bar	milk pipe	REA - M	15.11
		stainless steel, welding ends	0.2 - 3 / 16 bar	welding ends	REA - A	15.11
	stainless steel, Tri-Clamp	0,2 - 1,5 / 8 bar	ASME BPE 1/4" - 1/2"	RTC	15.20	
adjustment dial	pilot-operated	0 - 3 / 11 bar	G $\frac{1}{4}$ - G2	R11 ... R41	2.12	
press. regulator Cartridge	150 / 260 l/min	1 - 8 bar	Cartridge	RC	1.20	
lockable	precision pressure regulator	0.02 - 0.5 / 10 bar	G $\frac{1}{4}$	11-818-A	5.06	
12 tapped exhaust 	precise	0.01 - 0.14 / 28 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	102..-E	5.08	
	precise	0.01 - 0.14 / 10 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230-X12	5.09	
	precise	0.03 - 0.7 / 17 bar	G $\frac{3}{8}$ - G $\frac{3}{4}$	R400-X12	5.13	
	precise	0.001 - 0.7 / 10 bar	G1 - G1 $\frac{1}{2}$	R102	5.16	
	precise	0 - 1 / 10 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R650-X12	6.02	
	precise, with transmission ratio	0 - 10 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R750-X12	6.03	
	precise, with transmission ratio	0 - 10 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R208-X12	6.04	
	precise, with transmission ratio	0 - 10 bar	G $\frac{1}{2}$ and G $\frac{3}{4}$	R450-X12	6.07	
	low pressure	0 - 35/800 mbar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110	5.15	
	high exhaust	0 - 10 bar	G1 and G1 $\frac{1}{2}$	R200-X12	6.09	
	booster	1 - 15 / 50 bar	G $\frac{1}{4}$ - G2	R120-JX12	6.15	
	joint supply	miniature	0 - 6 bar	G $\frac{1}{8}$	R035	2.10
		standard	0.1 - 3 / 16 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RB	2.10
quick exhaust	precision pressure regulator	0.01 - 0.14 / 10 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230-X80	5.09	
pressure compensated	precision pressure regulator, mini	0.1 - 3 / 16 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R310	1.16	
	precision pressure regulator, mini	0.1 - 1 / 12 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R039	1.11	
	precision pressure regulator, mini	0.2 - 2 / 9 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R344	1.14	
	precision pressure regulator, mini	0.2 - 2 / 9 bar	flange	R342	1.14	
	precision pressure regulator, mini	0.2 - 2.5 / 8 bar	G $\frac{1}{8}$	R307	1.18	
external feedback	pre-pressure regulator for booster	0.2 - 7 bar	G $\frac{1}{4}$	R216	2.04	
	booster	0 - 10 bar	G $\frac{1}{2}$ and G $\frac{3}{4}$	R450-X27	6.07	
high flow rate 	standard	110.000 l/min	0.2 - 1.8 / 17 bar	G $\frac{1}{4}$ - G3	R119	2.06
	booster	110.000 l/min	0.2 - 1.8 / 17 bar	G $\frac{1}{4}$ - G3	R119-J	6.13
	high pressure regulator	76.000 l/min	50 / 0.1 - 1.5 / 50 bar	G $\frac{1}{8}$ - G2, DN100	R120	4.04
	booster	76.000 l/min	50 / 1 - 15 / 50 bar	G $\frac{1}{4}$ - G2	R120-J	6.15
	made of zinc		30 / 0.2 - 1.5 / 15 bar	G $\frac{1}{8}$ - G2	RD	2.08
	made of brass		40 / 0.2 - 3 / 35 bar	G $\frac{1}{4}$ - G2	R280	4.02
	adjustment dial pressure regulator		0 - 3 / 11 bar	G $\frac{1}{4}$ - G2	R11 ... R41	2.12
	low pressure regulator		2 - 16 / 160 mbar	G $\frac{1}{2}$ - G2	RGDJ	3.04
	booster		2 - 55 / 160 mbar	G $\frac{1}{2}$ - G2	RGDJ-J	6.13
	low pressure regulator		10 - 18 / 4400 mbar	G1 and G1 $\frac{1}{2}$, DN50	RZ	3.08
	low pressure regulator		5 - 45 / 3000 mbar	G $\frac{1}{2}$ - G2	R160	3.06
	spheroidal cast iron, red brass, stainless steel		0.14 - 1.7 / 9 bar	G $\frac{1}{2}$ - G2, flange	RU	9.12
	stainless steel		50 / 0.1 - 1.5 / 50 bar	up to G2	R3000	15.06
	stainless steel booster		50 / 1 - 15 / 50 bar	up to G2	R3000-J	15.22
	stainless steel		5 - 45 / 7000 mbar	up to G2	R3100	15.12
	pharmacy		5 - 7 / 450 mbar	up to G2 $\frac{1}{2}$	R74	15.16
	pharmacy		0.25 - 0.4 / 53 bar	up to G2 $\frac{1}{2}$	R70	15.14

* visit our webshop:
www.aircom.net

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE	
13 made of stainless steel	mini	0.2 - 1.8 / 9 bar	G $\frac{1}{4}$	R364-S	15.03	
	standard	0.2 - 4 / 17 bar	G $\frac{1}{2}$	R10-S	15.02	
	standard	0.1 - 1.5 / 50 bar	G $\frac{1}{8}$ - G2	R3000	15.06	
	many variations	0.2 - 3 / 16 bar	G $\frac{1}{4}$ - G2	REA	15.11	
	for pure gases	0.05 - 2 / 4 bar	M5 - G $\frac{1}{8}$	RE1	15.04	
	low pressure regulator	5 - 45 / 7000 mbar	G $\frac{1}{2}$ - G2	R3100	15.12	
	pharmacy	5 - 7 / 450 mbar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R74	15.16	
	pharmacy	0.25 - 0.4 / 53 bar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R70	15.14	
	high pressure regulator	200/1 - 8 / 200 bar	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH3000	15.18	
	high pressure regulator	241/0.2 - 2 / 7 bar	$\frac{1}{4}$ "NPT	RH0-S	4.15	
	high pressure regulator	380/0.3 - 2 / 15 bar	$\frac{1}{4}$ "NPT	RHB-S	www*	
	high pressure regulator	410/0.7 -21/ 104 bar	$\frac{1}{2}$ "NPT	RH3 -S	4.19	
	high pressure regulator	300/0.1 -1.7/ 35 bar	$\frac{1}{4}$ "NPT	HP500-S	4.18	
	high pressure regulator	690/0.3 -35/ 414 bar	$\frac{1}{4}$ "NPT	HP300-S	4.17	
	high pressure regulator	414/0.7-104/ 172 bar	$\frac{1}{4}$ "NPT	HP400-S	4.17	
	high pressure regulator, differential pressure: 0 - 1 / 24 bar	414/0 - 1 / 24 bar	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH44	4.22	
	water, male thread, DN 8 - DN50	0.2 - 3 / 16 bar	G $\frac{1}{2}$ - G2	REA	15.11	
	water, male thread, DN15 - DN50	0.2 - 2 / 20 bar	G $\frac{1}{2}$ - G2	RAI	9.11	
	water, flange, DN15 - DN50	0.2 - 3 / 16 bar	flange	REF	15.10	
	water, flange, DN15 - DN50	0.2 - 2 / 20 bar	flange	RAF	9.10	
	booster, for many gases	50 / 1 - 15 / 50 bar	G $\frac{1}{4}$ -G2	R3000-J	15.22	
	booster, dome press. regulator	100/0.1 - 24 / 99 bar	G1	RLE	6.14	
	booster, also with transmission ratio	310 / - 42 / 104 bar	$\frac{1}{2}$ "NPT and $\frac{3}{4}$ "NPT	RH3-JS1	6.12	
	stainless steel, Tri-Clamp	0,2 - 1,5 / 8 bar	ASME BPE $\frac{1}{4}$ " - 1 $\frac{1}{2}$ "	RTC	15.20	
	made of plastic	precision pressure regulator, mini	0.03 - 0.2 / 6 bar	10-32", flange	R900	1.09
		precision pressure regulator, mini	0.03 - 0.2 / 6 bar	$\frac{1}{8}$ "NPT	R800	1.09
		interlockable, mini	0.01 - 0.7 / 7 bar	G $\frac{3}{8}$, flange	R6 / R7	1.12
made of spheroidal cast iron, red brass	for steam	0.14 - 1.7 / 9 bar	G $\frac{1}{2}$ - G2	RU	9.12	
non-ferrous metal	precision pressure regulator	0.01 - 0.14 / 28 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	102...-X63	5.08	
	precision pressure regulator	0.001 - 0.7 / 10 bar	G1 - G1 $\frac{1}{2}$	R102-X62	5.16	
nickel-plated	onyl surface nickel-plated	0.2 - 1.4 / 7 bar	10-32", M5, $\frac{1}{8}$ "NPT	MAR-X25	1.08	
	completely chemical nickel-plated	0.2 - 1.4 / 7 bar	10-32", M5, $\frac{1}{8}$ "NPT	MAR-X13	1.08	
	high pressure regulator, nickel-plated surface	380/0.3 - 2 / 35 bar	$\frac{1}{4}$ "NPT	RHB-X25	4.21	
chrome-plated	cylinder pressure regulator	100/0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH-147C	4.14	
	cylinder pressure regulator	200/0 - 1.5 / 40 bar	diverse	RH200-C	4.12	
	cylinder pressure regulator	300/0 - 1.5 / 40 bar	diverse	RH300-C	4.12	
	cylinder pressure regulator	300/0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH347-C	4.14	
with EPDM	miniature	0.2 - 1.4 / 7 bar	10-32", M5, $\frac{1}{8}$ "NPT	MAR-E	1.08	
	precision pressure regulator, mini	0.1 - 3 / 16 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	R310-E	1.16	
	low pressure regulator	5 - 45 / 3000 mbar	G $\frac{1}{2}$ - G2	R160-E	3.06	
	high pressure regulator	200/0.1 - 1.5/ 200 bar	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH10-E	4.10	
	high pressure regulator	50/0.1 - 1.5/ 50 bar	G $\frac{1}{4}$ - G2, DN100	R120-E	4.04	
	booster	50/1 - 15 / 50 bar	G $\frac{1}{4}$ - G2	R120-JE	6.15	
	booster	100/0.1 - 24 / 99 bar	G1	RL-E	6.14	
	stainless steel, many variations	0.2 - 3 / 16 bar	G $\frac{1}{4}$ - G1	REA-E	15.11	
	high pressure regulator	200/0.1 - 1.5/ 200 bar	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH10-T	4.10	
	with silicone	booster	0 - 10 bar	G $\frac{1}{4}$ and G $\frac{3}{8}$	R208 -A	6.04
with stainless steel diaphragm	cylinder pressure regulator	100/0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH147-M	4.14	
	cylinder pressure regulator	200/0 - 1.5/ 40 bar	diverse	RH200-M	4.12	
	cylinder pressure regulator	300/0 - 1.5/ 40 bar	diverse	RH300-M	4.12	
	cylinder pressure regulator	300/0 - 10 / 60 bar	G $\frac{1}{4}$ - G $\frac{1}{2}$	RH347-M	4.14	
	stainless steel pressure regulator	50/0.1-1.5 / 50 bar	G $\frac{1}{8}$ - G2	R3000-TE	15.06	
	stainless steel volume booster	50/1 -15 / 50 bar	G $\frac{1}{4}$ - G2	R3000-JE	15.22	
14	high pressure regulator	up to 106°C	380/0.3 - 2 / 35 bar	$\frac{1}{4}$ "NPT	RHB	4.21
	high pressure regulator	up to 130°C	50/0.1 - 1.5 / 50 bar	G $\frac{1}{8}$ - G $\frac{1}{2}$	R120 - X54	4.04
	stainless steel press. regulator	up to 130°C	50/0.1 - 1.5 / 50 bar	G $\frac{1}{4}$ - G2	R3000- X54	15.06
	low pressure regulator	up to 130°C	5 - 45 /7000 mbar	G $\frac{1}{2}$ - G2	R3100- X54	15.12
	high volume booster	up to 130°C	50/1 - 15 / 50 bar	G $\frac{1}{4}$ - G2	R120-04JX54	6.15
	high volume booster	up to 130°C	50/1 - 15 / 50 bar	G $\frac{1}{4}$ - G2	R3000-J-X54	15.22
	pharmacy	up to 150°C	0.25 - 0.4 / 53 bar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R70 - X55	15.14
	pharmacy	up to 140°C	5 - 7 / 450 mbar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R74 - X55	15.16
	pharmacy	up to 200°C	0.25 - 0.4 / 53 bar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R70 - X56	15.14
	pharmacy	up to 200°C	5 - 7 / 450 mbar	G $\frac{1}{4}$ - G2 $\frac{1}{2}$	R74 - X56	15.16
	filter pressure regulator	up to - 40°C	0 - 0.7 / 8 bar	$\frac{1}{4}$ "NPT	B300	17.08

* visit our webshop:
www.aircom.net

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE	
15 nitrogen, oxygen, helium, carbon dioxide, hydrogen, nitrous oxide, argon, methane, propane	low pressure regulator	5 - 45 / 3000 mbar	G½ - G2	R160	3.06	
	high pressure regulator	50 / 0.1 - 1.5 / 50 bar	G¼ - G2, DN100	R120	4.04	
	volume booster	50 / 1 - 15 / 50 bar	G¼ - G2	R120-J	6.15	
	volume booster	100 / 0.1 - 24 / 99 bar	G1	RLM / RLE	6.14	
	cylinder pressure regulator	100 / 0 - 10 / 60 bar	G¼ - G½	RH-147	4.14	
	cylinder pressure regulator	200 / 0 - 1.5 / 40 bar	diverse	RH200	4.12	
	cylinder pressure regulator	300 / 0 - 1.5 / 40 bar	diverse	RH300	4.12	
	cylinder pressure regulator	300 / 0 - 10 / 60 bar	G¼ - G½	RH-347	4.14	
	stainless steel pressure regulator	50 / 0.1 - 1.5 / 50 bar	G½ - G2	R3000	15.06	
	stainless steel volume booster	50 / 1 - 1.5 / 50 bar	G¼ - G2	R3000-J	15.22	
	stainless steel pressure regulator	5 - 45 / 7000 mbar	G½ - G2	R3100	15.12	
	factory-set,	mini	2 up to 10 bar	G¼	R13	1.03
	factory-set,	mini	1 up to 8 bar	G¼	239M	1.04
	made of brass,	mini	0.2 - 1.4 / 7 bar	10-32", M5, ¼"NPT	MAR - 15	1.08
	precision press. regul.,	mini	0.2 - 2 / 9 bar	G½ and G¼	R344	1.14
precision press. regul.,	mini	0.2 - 2 / 9 bar	flange	R342	1.14	
precision press. regul.,	mini	0.1 - 3 / 6 bar	G½	R309 - 15	1.16	
brass pressure regul.,	mini	0.1 - 3 / 16 bar	G½ and G¼	R310 - 15	1.16	
precision press. regul.,	mini	0.1 - 1 / 12 bar	G½ - G¼	R039 - 15	1.11	
precision press. regul.,	mini	0.2 - 2.5 / 8 bar	G½	R307 - 15	1.18	
precision press. regul.,	mini	0 - 0.25 / 8 bar	flange	R308 - 15	1.19	
precision press. regul.		0.01 - 0.6 / 3.5 bar	G¼ - G¾	R216 - L	5.05	
precision press. regul.		0.01 - 1 / 16 bar	G¼	R217 - 15	5.04	
precision press. regul.		0.001 - 0.14 / 7 bar	G¼ - G¾	R300 - 15	5.10	
precision press. regul.		0.01 - 0.14 / 28 bar	G¼ - G½	102.. - SC	5.08	
low pressure regulator		5 - 45 / 3000 mbar	G½ - G2	R160 - 15	3.06	
high pressure regulator		40 / 0.2 - 3 / 35 bar	G¼ - G2	R280 - 15	4.02	
high pressure regulator		50 / 0.1 - 1.5 / 50 bar	G¼ - G2, DN100	R120 - 15	4.04	
high pressure regulator		60 / 0.5 - 12 / 50 bar	G¼ - G1	R286 - 15	4.08	
cylinder pressure regulator		100 / 0 - 10 / 60 bar	G¼ - G½	RH-147-15	4.14	
cylinder pressure regulator		200 / 0 - 1.5 / 40 bar	diverse	RH200- 15	4.12	
cylinder pressure regulator		300 / 0 - 1.5 / 40 bar	diverse	RH300- 15	4.12	
cylinder pressure regulator		300 / 0 - 10 / 60 bar	G¼ - G½	RH-347-15	4.14	
high pressure regulator		414 / 0.3 - 35 / 414 bar	¼"NPT	HP300- 15	4.17	
high pressure regulator		414 / 0.7 - 104 / 175 bar	¼"NPT	HP400- 15	4.17	
volume booster		50 / 1 - 15 / 50 bar	G¼ - G2	R120-J- 15	6.15	
volume booster		100 / 0.1 - 24 / 99 bar	G1	RL. - 15	6.14	
free of oil and grease	mini	0.2 - 2 / 8 bar	M5	RR - L	1.07	
	mini	0.1 - 1 / 11 bar	G½ and G¼	R364 - L	1.15	
	precision pressure regulator	0.01 - 0.6/3.5 bar	G¼ - G¾	R216 - L	5.05	
	high pressure regulator	241/ 0.2 - 2 / 7 bar	¼"NPT	RH0 - L	4.15	
	high pressure regulator	300/ 0.1 - 1.7/ 35 bar	¼"NPT	HP500 - L	4.17	
	stainless steel, mini	0.2 - 1.8/ 9 bar	G¼	R364S - L	15.02	
	stainless steel	0.2 - 4 / 17 bar	G½	R10S - L	15.03	
	stainless steel, many variations	0.2 - 3 / 16 bar	G¼ - G1	REA - M	15.11	
for ammonia	P1: 6 bar	5 - 45 / 3000 mbar	G½ - G2	R160-02	3.06	
for natural gasoline, w/o certificate	P1: max. 0.4 bar	2 - 15 / 160 mbar	G½ - G2	RGDJ	3.04	
	P1: max. 4 bar	5 - 12 / 350 mbar	G½ - G1½	RGB4	3.05	
	P1: max. 20 bar	10 - 18 / 4400 mbar	G1 - G1½, DN50	RZ	3.08	
for pure gases	Kl.10.000	0.05 - 2 / 4 bar	M5, G½	RE1	15.04	
purity grade 5.0	cylinder pressure regulator	100 / 0 - 10 / 60 bar	G¼ - G½	RH-147- M	4.14	
	cylinder pressure regulator	200 / 0 - 1.5 / 40 bar	diverse	RH200- M	4.12	
	cylinder pressure regulator	300 / 0 - 1.5 / 40 bar	diverse	RH300- M	4.12	
	cylinder pressure regulator	300 / 0 - 10 / 60 bar	G¼ - G½	RH-347- M	4.14	
for steam	made of spheroidal cast iron, red brass	0.14 - 1.7 / 9 bar	G½ - G2	RU	9.12	
16 FDA approved	Edelstahl, Tri-Clamp	0,2 - 1,5 / 8 bar	ASME BPE ¼" - 1½"	RTC	15.20	
	mini			R037	1.17	
	mini	0 - 1 / 9 bar	G½ u. G¼	R25	9.02	
	mini	0 - 1,8 / 9 bar	G¼ u. G¾	R45	9.02	
	mini	0,1 - 3 / 8 bar	G¼	R91	www*	
for pharmacy and food	made of stainless steel, many variations	0,25 - 0,4 / 53 bar	G¼ - G2½	R70	15.14	
	made of stainless steel, low pressure regulator	5 - 7 / 450 mbar	G¼ - G2½	R74	15.16	
CIP-capable	stainless steel, pharmacy	0,25 - 0,4 / 53 bar	G¼ - G2½	R70	15.14	
	stainless steel, pharmacy	5 - 7 / 450 mbar	G¼ - G2½	R74	15.16	
PWIS-free	very robust	0,2 - 1,8 / 17 bar	G¼ - G3	R119-LA	2.06	
	high pressure regulator	50/0,1 - 1,5 / 50 bar	G¼ - G2, DN100	R120-LA	4.04	

* visit our webshop: www.aircom.net



for oxygen

PERSONAL NOTES

PERSONAL NOTES

ORDER NUMBER INDEX

ORDER NUMBER	CATALOGUE PAGE	DESCRIPTION	ORDER NUMBER	CATALOGUE PAGE	DESCRIPTION
AB	6.18	Pressure booster	HP500	4.18	High pressure regulator
AM/AP	6.16	Press. booster, Air amplifier station			
AT1004	12.08	Pressure switch	LD	18.06	Lubricator
A042...A080	19.05	Soft start valve	L042...L095	18.02	Lubricator
			L10-S	15.40	Lubricator
BD	17.06	Filter pressure regulator	L20	18.03	Lubricator
BP1/BP2	10.25	Prop. pressure regulator-combi	L606	18.04	Lubricator
B042...B095	17.04	Filter pressure regulator	L3000	15.33	Lubricator
B11/B12	17.03	Filter pressure regulator	MA	14.07	Pressure gauge
B11-S	15.32	Filter pressure regulator	MAR	1.08	Miniature pressure regulator
B20/B21	17.05	Filter pressure regulator	ME/MF	14.06	Pressure gauge
B300	17.08	Filter pressure regulator	MHA	14.03	Hand-operated gauge
B548	17.02	Filter pressure regulator	MKA	14.05	Digital pressure gauge
B548-S/B558-S	15.32	Filter pressure regulator	MPAX	14.04	Industrial process gauge
B3000	15.30	Filter pressure regulator	MPV/MPA	14.02	Digital pressure gauge
			MS	14.08	Pressure gauge
CD2/CD3	19.08	FRL service unit	M5000	1.12	Accessories f. press. regulators
C2/C3	19.03	FRL service unit			
C10/C11	19.06	FRL service unit	NV30	20.02	Needle valve
C10-S/C11-S	15.40	FRL service unit			
C20/C21	19.07	FRL service unit	PCEX	10.16	Proportional pressure regulator
C35...C95	19.04	Assembly parts	PD	10.15	Proportional pressure regulator
C630	19.10	FRL service unit	PF	10.11	Proportional pressure regulator
C3002/C3003	15.38	FRL service unit	PM	10.02	Proportional pressure regulator
			PPB	10.23	Setpoint potentiometer
DA	13.06	Pressure transducer	PP700	12.09	Pressure switch
DBC	8.02	Back pressure regulator	PP, „AirTronic“®D	10.13	Proportional pressure regulator
DBC	8.11	Back press. regul., low pressure	PQ1/PQ2/PQ3...PQ6	10.04	Proportional pressure regulator
DBM	8.04	Back pressure regulator	PQH	10.17	Proportional pressure regulator
DB110	8.08	Back press. regul., precision	PR „AirTronic“®	10.08	Proportional pressure regulator
DB208	8.12	Back press. regul., pilot-operated	PRE	10.21	Proportional pressure regulator
DB240	8.07	Back press. regul., precision	PT6/PT7	10.18	Proportional pressure regulator
DB300	8.09	Back press. regul., precision	PVE/PVK	11.16	Flow control valve
DB450	8.13	Back press. regul., pilot-operated	PVM	11.06	Mass flow meter
DSB/DSC	12.10	Pressure transducer	PVR	11.07	Mass flow meter
DSP/DSQ	12.05	Pressure switch	PV21...PV40 „AirProp“	11.10	Flow control valve
DS08...DS46	12.02	Pressure switch	PV202/PV202/PV203	11.13	Flow control valve
DS15...DS18	12.03	Pressure switch	PV630/PV631	11.12	Flow control valve
DS34/DS35	12.04	Pressure switch	P180	10.22	Proportional pressure regulator
D5, D7, D8, D9	13.02	Pressure transducer	P8	11.15	Flow control valve
D11	16.18	Codensate drain			
D608	16.18	Codensate drain	Q	11.18	Pinch valve
D3000/D3100	15.24	Back pressure regulator	QE	15.37	Pinch valve
FD	16.12	Compressed air filter	RAF	9.10	Pressure regulator
FG	16.14	Compressed air filter	RAI	9.11	Pressure regulator
FH	16.06	Compressed air filter	RB	2.10	Standard pressure regulator
FH3	15.36	Compressed air filter	RC	1.20	Cartridge pressure regulator
FM	16.08	Compressed air filter	RD1...RD4	2.08	Standard pressure regulator
F1...F4	15.41	Mounting flange	RE1	15.04	Precision pressure regulator
F035...F095	16.04	Compressed air filter	REF	15.10	Pressure regulator, w. flange
F10-S/F11-S	15.40	Compressed air filter	REA	15.11	Standard pressure regulator
F20	16.07	Compressed air filter	RF	20.03	Restrictor
F400	16.02	In-Line filter	RGB4	3.05	Low pressure regulator
F445/F465	16.16	Compressed air filter	RGBJ-J	6.13	Volume booster
F504	16.03	Compressed air filter	RGDJ	3.04	Low pressure regulator
F504-S	15.38	Compressed air filter	RGD4-J	6.13	Volume booster
F602	16.10	Compressed air filter	RH-147/RH-247/RH-347	4.14	High pressure regulator
F950/F960/F970	20.04	Compressed air filter	RH0/RH1	4.15	High pressure regulator
F2804	20.06	Check valve	RH2	4.16	High pressure regulator
F3000	15.34	Compressed air filter	RH3	4.19	High pressure regulator
F4000/F4400	12.08	Pressure switch	RH3-J	6.12	Volume booster
F4200/F4300	12.06	Pressure switch	RH4	4.20	High pressure regulator
			RH10	4.10	High pressure regulator
HP300	4.17	High pressure regulator	RH44	4.22	Differential pressure regulator
HP306	4.21	High pressure regulator	RH44-S	15.21	Differential pressure regulator
HP400	4.17	High pressure regulator			

ORDER NUMBER INDEX

ORDER NUMBER	CATALOGUE PAGE	DESCRIPTION	ORDER NUMBER	CATALOGUE PAGE	DESCRIPTION
RH83	4.09	High pressure regulator	R400	5.13	Precision pressure regulator
RH200	4.12	Cylinder pressure regulator	R450	6.07	Volume booster
RH300	4.13	Cylinder pressure regulator	R490	6.06	Volume booster
RH3000	15.18	High pressure regulator	R650	6.02	Volume booster
RI	5.02	Precision pressure regulator	R750	6.03	Volume booster
RK	19.11	Drain valve	R800/R900	1.09	Miniature pressure regulator
RL13	3.03	Low pressure regulator	R3000	15.06	Standard pressure regulator
RLE	6.15	Dome pressure regulator	R3000-J	15.22	Volume booster
RLM	6.14	Dome pressure regulator	R3100	15.12	Low pressure regulator
RM	2.11	Adjustment dial press. regul.	R3150	15.05	Precision pressure regulator
RR-M5	1.07	Miniature pressure regulator	R4100	3.09	Low pressure regulator
RR	3.10	Low pressure regulator			
RS	2.11	abschließbarer Druckregler	SA	19.11	Drain valve
RT	1.10	Miniature pressure regulator	SFE	16.17	Filter silencer
RTC	15.20	Tri-Clamp Druckregler	S042...S080	19.05	Switch-on valve
RU	9.12	Steam pressure regulator			
RWA	9.06	Water pressure regulator	VG	11.02	Mass flow meter
RWF	9.08	Water pressure regulator	VPF	11.08	Flow monitor
RWI	9.04	Water pressure regulator	VP700	12.09	Vacuum switch
RZ	3.08	Low pressure regulator	VR6	11.04	Needle valve
RZ-J	6.10	Volume booster	VS	15.42	Flange and nipples
R-0	20.04	Restrictor	V04	7.06	Vacuum pressure regulator
R01	3.02	Low pressure regulator	V05	7.06	Vacuum pressure regulator
R03	5.14	Precision pressure regulator	V042...V080	19.05	Switch-on valve
R035...R095	2.03	Standard pressure regulator	V170	7.04	Vacuum pressure regulator
R037	1.17	Miniature pressure regulator	V800	7.02	Vacuum pressure regulator
R039/R039-F	1.11	Miniature pressure regulator	V900	7.02	Vacuum pressure regulator
R03-J	6.05	Volume booster			
R6	1.12	Miniature pressure regulator	10	5.08	Precision pressure regulator
R7	1.13	Miniature pressure regulator	10BP	8.06	Back pressure valve
R10/R11	2.05	Standard pressure regulator	11-818	5.06	Precision pressure regulator
R10-S	15.02	Standard pressure regulator	53.10	5.07	Precision pressure regulator
R11...R41	2.12	Adjustment dial press. regul.	59/130/134	8.14	Back pressure valve
R13	1.03	In-Line pressure regulator	137	16.02	In-line filter
R20/R21	2.02	Standard pressure regulator			
R25	9.04	Miniature pressure regulator	231	1.05	In-Line pressure regulator
R40	5.12	Precision pressure regulator	232	1.06	In-Line pressure regulator
R45	9.02	Miniature pressure regulator	233	1.02	Cartridge pressure regulator
R70	15.14	Standard pressure regulator	239A/239M	1.04	In-Line pressure regulator
R74	15.16	Low pressure regulator	239K	9.03	In-Line pressure regulator, drinking water
R90	5.03	Precision pressure regulator	281	19.12	Hose rupture valve
R100	5.11	Precision pressure regulator			
R102	5.16	Precision pressure regulator			
R110	5.15	Precision pressure regulator			
R116	6.08	Volume booster			
R119	2.06	Standard pressure regulator			
R119-J	6.11	Volume booster			
R120	4.04	High pressure regulator			
R120-J	6.15	Volume booster			
R160	3.06	Low pressure regulator			
R200/R201	6.09	Volume booster			
R208	6.04	Volume booster			
R216	5.05	Precision pressure regulator			
R217	5.04	Precision pressure regulator			
R218	2.04	Standard pressure regulator			
R230	5.09	Precision pressure regulator			
R250	7.03	Vacuum pressure regulator			
R251	7.05	Vacuum pressure regulator			
R280	4.02	High pressure regulator			
R286	4.08	High pressure regulator			
R300	5.10	Precision pressure regulator			
R307	1.18	Miniature pressure regulator			
R308	1.19	Miniature pressure regulator			
R309/R310	1.16	Miniature pressure regulator			
R342/R344	1.14	Miniature pressure regulator			
R354-S/R364-S	15.03	Miniature pressure regulator			
R364/R374	1.15	Miniature pressure regulator			

GENERAL TERMS AND CONDITIONS

§ 1 GENERAL INFORMATION / SCOPE

1. The following General terms and conditions are valid for all contracts between the company AirCom Pneumatic GmbH, Siemensstraße 18, 40885 Ratingen ("Seller") and companies (§ 14 BGB), body corporate organised under public law and special assets under public law ("Purchaser").
2. The acceptance of the order confirmation as well as the receipt of deliveries of the Seller is valid as recognising these general terms and conditions even in cases where the Purchaser has submitted an offer based on own general terms and conditions.
3. Contrary or deviating conditions of the Purchaser are not recognised unless the validity of contrary or deviating conditions is explicitly accepted in writing.
4. An explicit rejection of deviating conditions of the Purchaser is not necessary.

§ 2 CONTRACT CONCLUSION

1. The offers are non-binding and without obligation. The contract is not concluded until the order confirmation of the Seller is signed.
2. Deviations, supplements and verbal agreements as well as agreements with travelling salesmen, representatives and agents require the written confirmation by the Seller to be valid when the contract is closed.
3. Minimal deviations by the delivered objects from the description of the offer or the order confirmation are considered as authorised and do not affect the fulfilment of the contract insofar as they concern conventional quantity and quality tolerances; in particular in cases of modifications and improvements that are based on technical development.
4. Quotations, drawings, graphics and other documentations of the offer and order confirmation are meant only for the Purchaser and must not be made available to third parties. They remain property of the Seller and are protected by copyright. They must be returned upon request or if the order was not placed.

§ 3 PRICES AND PAYMENT

1. The price lists, price quotations and cost estimates are without obligation.
2. The specified prices are valid only for the concrete order determined by amount and delivery time. If our general delivery prices increase or drop before the delivery, the price for the individual order increases or diminishes accordingly. Price increases are limited by the price prevailing on the market. If a basic agreement has been signed by the parties, then the prices specified in it are valid for its validity period, deviating from sentence 1 and 2 of this number.
3. All prices are net prices and are understood as ex-works or warehouse, plus freight and the respectively valid value added tax.
4. Payment is due within 30 days upon invoice date without deductions and only to the Seller. Further price reductions, rebates or deductions are not granted. A cash discount deduction of new invoices is not permitted as long as older due invoices are still unpaid.

In the absence of other agreements, payment to the Seller can be made only according to the specifications of the issued invoice. The employees of the Seller, representatives and travelling salesmen are only permitted to collect payment if a special written authority to collect is submitted. Bills of exchange can be accepted for payment only upon prior agreement. The acceptance of cheques and bills of exchange is done only as payment. Discount charges and collection expenses are at the expense of the Purchaser.

5. If the contracted payment terms are exceeded, default interest is charged to the amount of 9 percentage points above the respective base interest rate, at least 7 % though.
6. The Seller is not obligated to fulfilling the contract as long as the Purchaser does not meet his obligations as contracted, in particular when due invoices are not paid. Compensation or assertion of the right of retention based on claims from the Purchaser that are not explicitly recognised in writing by the Seller is excluded insofar as it does not concern undisputed, legally effective, time-barred claims.
7. In case the Purchaser is in default for two subsequent instalments, the entire remaining purchase price becomes due for payment.
8. If the Purchaser owes compensation for damages because of non-performance according to the general legal provisions, then the Purchaser is obligated to pay the Seller an amount of 15 % of the order amount including VAT as compensation for damages, subject to the assertion of further damages, unless the Purchaser can prove that there was no damage or loss of value or significantly less than the aforementioned flat rate.

§ 4 DELIVERY AND SHIPMENT / TRANSFER OF RISK

1. The written order confirmation of the Seller is solely applicable for the scope of the delivery.
2. Delivery is as quick as possible, the latest though within about eight weeks after the start of the delivery time. The delivery time begins with the sending of the order confirmation, however, not before receiving the documentation, authorisations or releases to be provided by the Purchaser or before an agreed down payment has been received. The delivery time is maintained if the delivery item has left the factory or the readiness for dispatch has been informed before the delivery time's expiration. Maintaining of the delivery time requires that all contractual obligations are met by the Purchaser.
3. All cases of force majeure release the Seller from the obligation for fulfilling the contract for the duration and the scope of the occasion. Force majeure are considered in particular to be natural disasters, war or the risk of war, reactor accidents, labour strife, strikes, lock-outs, unforeseeable disruption of operations or shortage of raw materials, limitation of energy supply by third parties or other events that are not the responsibility of the Seller. Claim for damages by the Purchaser are ruled out. In case of permanent impossibility of performance, the parties retain the right of immediate withdrawal; any advance performances shall be returned. This is also valid if such situations occur after the delivery date has been exceeded.

4. If the delivery item is shipped to the Purchaser upon his request, then the risk of the accidental loss or accidental degradation of the delivery item is transferred to the Purchaser with the dispatch to the Purchaser or at the latest when the delivery item has left the factory or the warehouse of the Seller, unless something else was agreed upon. This is valid regardless of who pays the shipping costs. If the shipment is delayed upon request by the Purchaser, the risk is transferred when the readiness for delivery has been reported. Insurance will be arranged only upon expressive request of the Purchaser and at his expense.

5. Claims for wrong or incomplete delivery due to obvious defects are ruled out if they are not reported in writing within a week upon arrival of the delivery item at its destination.

§ 5 ACCEPTANCE AND ASSEMBLY

1. Merchandise that is reported as ready for shipment has to be fetched promptly by the Purchaser. If the Purchaser falls into arrears with the fetching, the acceptance or the picking up of the merchandise, then the Seller has the right to demand compensation of the occurred damage. With the start of the acceptance delay, the risk of accidental degradation or accidental loss is transferred to the Purchaser.

2. The offer of the Seller excludes the assembly.

§ 6 RETENTION OF TITLE

1. The delivered merchandise remains the property of the Seller (reserved goods) until final payment of all claims made or being made based on the business relationship. If there are multiple claims or open invoices, the retention of title is valid as a collateral for the outstanding balance, even if individual merchandise shipments have already been paid.

2. In case the Purchaser acts contrary to the stipulations of the contract, for example delayed payment, the Seller has the right, upon preliminary setting of a reasonable deadline, to take back the reserved goods. If the reserved goods are taken back, this represents a withdrawal from the contract. The Seller has the right to dispose of the reserved goods after the retraction. After subtracting a reasonable amount for the disposal costs, the disposal proceeds are to be settled with the amounts owed by the Purchaser. The Purchaser is liable for the claim for the deficiency.

3. In case of third parties claiming the reserved goods, in particular distrains, the Purchaser will inform about the ownership of the Seller and will promptly notify the Seller so that owner rights can be asserted. Costs incurred thereby are borne by the Purchaser.

4. The Purchaser has the right to process and sell the reserved goods in normal course of business as long as he does not fall into arrears. Pledges as collateral or transfers by way of security are not permitted. Claims ensuing from the resale or other legal basis (insurance, unlawful act) regarding the reserved goods, are fully transferred already now by the Purchaser to the Seller as a collateral. Upon request of the Seller, the Purchaser has to notify debtors of the assignment. The Purchaser is obligated to also reserve ownership of the reserved goods towards his Purchaser until it is paid in full. The Seller gives the revocable right to the Purchaser to collect the claims ceded to the Seller for his invoice in his own name. The direct debit authorisation becomes void if the Purchaser does not fulfil his payment obligations properly, has difficulty in meeting payments, judicial execution proceedings are taken against him or insolvency proceeding are filed against him or the filing of such insolvency proceedings are refused due to lack of assets.

5. Processing or transformation of the goods is always done for the Seller as manufacturer, but without obligation for him. If the delivery items are processed with other items not belonging to the Seller, then he acquires joint ownership of the new item in the ratio of the value of the delivery items to the other processed items at the time of the processing. If the delivery items are combined or inseparately mixed with other items not belonging to the Seller, then the Seller acquires joint ownership of the new item in the ratio of the value of the delivery items to the other combined or mixed items. If the combination or mixture of the item of the Purchaser is to be regarded as main item, then it is agreed upon that the Purchaser transfers the proportion of the joint ownership of the new item to the Seller. The Purchaser stores the thus created joint ownership for the Seller.

6. The Seller is obligated to release the collaterals to which he is entitled insofar as the realisable value of the collaterals exceeds the claims by more than 10 %; the Seller has the choice thereby of the collaterals to be released. 2. Im Falle vertragserwiderigen Verhaltens des Käufers, zum Beispiel Zahlungsverzug, hat die Verkäuferin nach vorheriger Setzung einer angemessenen Frist das Recht, die Vorbehaltsware zurückzunehmen. Wird die Vorbehaltsware zurückgenommen, stellt dies einen Rücktritt vom Vertrag dar. Die Verkäuferin ist berechtigt, die Vorbehaltsware nach Rücknahme zu verwerten. Nach Abzug eines angemessenen Betrages für die Verwertungskosten ist der Verwertungserlös mit den vom Käufer geschuldeten Beträgen zu verrechnen. Für die Ausfallforderung haftet der Käufer.

§ 7 GUARANTEE / LIABILITY

1. If contractual obligations are infringed, the Purchaser has the legal rights in compliance with the following regulations.
2. The Purchaser can only file guarantee claims if he has performed his inspection and complaint obligations according to § 377 HGB (German Commercial Code) within a week of receiving the service. Contract, type and scope of the defect must be specified during the notification.
3. The warranty is also under the condition that the Seller has the choice to view and check the faulty item at the Purchaser or having it sent back to the Seller.
4. The statutory limitation period for defects claims is one year after the transfer of risk. This is not valid unless the law requires longer periods in accordance with §§ 438 Section 1 no. 2 (Construction Work and Objects for Construction Work), 478, 479 (Supplier Regress) and 634 a Section 1 no. 2 (building defects) of the BGB (Civil Code) as well as in cases of injury to life, physical injury or damage to health due to intentional or negligent dereliction of duty on the part of the Seller and if a defect was fraudulently concealed.

3. In case of an entitled and timely notification of defects, the Purchaser has the right to supplementary performance during the warranty period. The Seller has the right of choice for the type of supplementary performance – repairing the defect or delivery of a fault-free item. If the supplementary performance fails or if further supplementary performances are unacceptable for the Purchaser, then the Purchaser has the right to reduction or the withdrawal from the contract. Replaced parts become the property of the Seller.

4. If claims are made towards the Purchaser by his customer or a consumer due to a defect of the delivered merchandise that was already present during the transfer of risk or that was complained about by a consumer as end user, the legal claims to recourse of the Purchaser towards the Seller remain untouched in accordance with §§478, 479 BGB.

5. Claim for damages to the conditions regulated in Number 7 due to a defect can be asserted by the Purchaser only if the supplementary performance has failed or if we deny the supplementary performance. The right of the Purchaser to assertion of the right of further claim for damages to the conditions regulated in Number 7 remains untouched by that.

6. Claims against the Seller due to defects may only be made by the Purchaser and are not assignable.

7. The Seller is liable for occurring damages only insofar as they stem from a breach of an essential contractual duty or intentional or grossly negligent behavior on the part of its legal representatives or vicarious agents. If an essential contractual duty is only slightly negligently breached, then the liability is limited to the foreseeable damages typical for the contract. An essential contractual duty prevails for obligations whose fulfillment makes the proper execution of the contract even possible and which the Purchaser has expected to be complied with or was allowed to expect to be complied with. Any further liability for compensation is ruled out. The liability for culpable injury to life, body and health in accordance with legal regulations remains untouched. This is also valid for mandatory liability in accordance with the product liability law.

§ 8 WEITERGABE VON PERSONENBEZOGENEN DATEN ZUM ZWECHE DER RECHTS DURCHSETZUNG UND FORDERUNGSEINZUG

1. In the event of a legitimate interest according to Art. 6 para. 1 lit. f GDPR, particularly in case of payment default, the Seller reserves the right to disclose the data provided when placing the order for law enforcement and debt collection purposes to a lawyer and/or external companies (e. g. AKZEPTA GmbH, Krausenstraße 8, D-10117 Berlin).

2. Furthermore the Seller collects address information, information on the Purchaser's payment behaviour and credit worthiness based on mathematical and statistical methods applying address data information from external companies such as CRIF Bürger GmbH, Radlkofersstraße 2, D-81373 Munich, to fulfil the contract.

The processing of this data is necessary to fulfil contractual purposes or implement pre-contractual measures (Art. 6(1)(b)) and to protect the legitimate interests of the Seller (Art. 6 (1)(f)).

3. Declaration of consent, Art. 6 (1)(a) GDPR

„I hereby agree that AirCom Pneumatic GmbH collects and processes address information, information on my payment behaviour and credit worthiness based on mathematical and statistical methods from external companies such as CRIF Bürger GmbH, Radlkofersstraße 2, D-81373 Munich, applying address data information for the purpose of the conclusion of contract.

The Purchaser declares furthermore as follows:

„I hereby agree that AirCom Pneumatic GmbH discloses data provided when placing an order to lawyers or external companies such as AKZEPTA GmbH, Krausenstraße 8, D-10117 Berlin, for the purpose of law enforcement and debt collection.“

4. Possibility of revocation / Possibility of opposition

The consent given to the Seller can be revoked by the Purchaser at any time.

This does not affect the legality of the collection and use of the data based on this consent until the consent is withdrawn.

The Purchaser is entitled to object at any time to the processing of its data. This applies if the processing is not required to fulfil a contract with the Purchaser or pre-contractual measures or does not preclude legitimate interests of the Seller in particular.

§ 9 FINAL PROVISIONS

1. Place of performance for all delivery obligations of the Seller and for other contractual obligation of both parties is the registered office of the Seller AirCom Pneumatic GmbH, Siemensstraße 18, 40885 Ratingen.

2. The contract concluded between the parties, the terms and conditions of the Seller as well as all the legal relations between the Purchaser and the Seller are subject to the laws of the Federal Republic of Germany with the exclusion of all references to other legal orders and international contracts. The United Nations Convention on Contracts is excluded.

3. The place of jurisdiction for all disputes arising from this contractual relationship is Düsseldorf, insofar as Seller and Purchaser do not constitute a different common place of jurisdiction. The Seller has the right, however, to file suit against the Purchaser also at his registered office.

4. Should a provision of these terms and conditions be ineffective or contain an omission, then the effectiveness of the remaining provisions remain unaffected.

REFERENCES

- Full or partial reprint, reproduction or translation subject to prior written approval.
- Technical modifications reserved.
- The characteristic values given in the catalogue are average values of series production instruments. Individual divergences are possible.
- Printing errors and general errors reserve.

AIRCOM PNEUMATIC GMBH

Siemensstraße 18 · 40885 Ratingen · 40851 Postfach 4001 · Tel. +49 (0)21 02/7 33 90 -0 · Fax +49 (0)21 02/7 33 90 -10
E-Mail: info@aircom.net · Internet: www.aircom.net