

MINIATURE PRESSURE REGULATOR

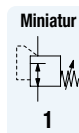
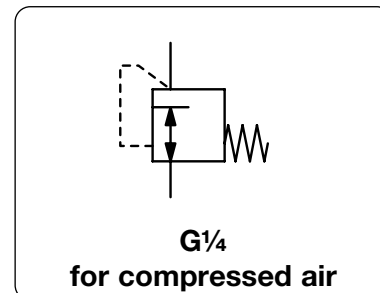


	DESCRIPTION		PRESSURE RANGE		CONNECTION	SERIES	PAGE
			bar		thread		
FACTORY-SET OUTLET PRESSURE	higher accuracy		2 / 3 / 4 / 6		G¼ fm	233F	1.02
	without exhaust	17 x 25	2 / 3 / ...	/10	G¼ fm	R13	1.03
	for compressed air	34 x 52	1 / 2 / ...	/ 8	G¼	231	1.04
	for liquids	34 x 52	1 / 2 / ...	/ 8	G¼	239A	1.05
	for drinking water	34 x 52	1 / 2 / ...	/ 8	G¼	239K	9.03
	for oxygen	34 x 52	1 / 2 / ...	/ 8	G¼	239M	1.05
	for oxygen	34 x 52	1 / 2 / ...	/ 9	G¼	234KM	1.06
	relieving		2 / 3 / ...	/ 8	G¼ - G¾	232	1.07
SLIM DESIGN	extremely small	19 x 40	0.2 ... 2	/ 8	M5	RR-M5	1.08
	also with FKM and EPDM	18 x 65	0.2 ... 1.4	/ 7	M5 / ½" NPT	MAR	1.18
VERY ACCURATE	very lightweight		0.03 ... 0.24	/ 6	½" NPT	R800	1.09
	very lightweight		0.03 ... 0.24	/ 6	10-32" and flange	R900	1.09
	interlockable		0.01 ... 0.7	/ 7	M5, G½, G¼, SS	R7	1.10
	FDA approved		0.1 ... 1	/12	G½ u. G¼	R037	1.11
	plastic		0.1 ... 1	/12	G½ u. G¼	R039	1.12
	inlet pressure compensated		0.1 ... 3	/16	G½ u. G¼	R310	1.13
	slim design		0 ... 0.35	/ 7	M5 and flange	RT	1.19
	very accurate		0.05 ... 2	/ 8	G½ / ½" NPT	R90	5.02
STANDARD	increased accuracy		0.1 ... 1	/12	G½ u. G¼	R039	1.12
	also for water,	brass	0.1 ... 1	/11	G½ u. G¼	R364	1.14
	made of aluminium		0.1 ... 1	/11	G½ u. G¼	R374	1.14
	even for oxygen		0.2 ... 2.5	/ 8	G½	R307	1.15
	even for oxygen		0 ... 0.25	/ 8	flange	R308	1.16
CARTRIDGE	up to 260 l/min		1 ... 8		G½ u. G¼	RC	1.17
STAINLESS STEEL	also for water		0.2 ... 1.8	/ 9	G¼	R364-S	15.03



1

Description	In-line pressure regulator with factory-set non-adjustable outlet pressure, reducing from e.g. 10 bar to 5 bar. The regulator R13 is suited for basic pressure control only with an outlet pressure tolerance of $\pm 30\%$. The outlet pressure stated below is valid for 15 bar inlet pressure. For other inlet pressure please refer to the according item from the diagram.
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. 15 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure.
Relieving function	The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Temperature range	non-relieving, therefore not recommended for applications such as nailers
Material	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
	Body: brass
	Elastomer: NBR/Buna-N, optionally FKM



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

Basic accuracy regulator			P: max. 15 bar, non-relieving, outlet pressure accuracy $\pm 30\%$, made of brass		R13		
17	34	17	300	15	G¼ fm	2	R13-02D
						3	R13-02E
						4	R13-02F
						5	R13-02G
						6	R13-02H
						7	R13-02I
						8	R13-02K
						10	R13-02M



R13

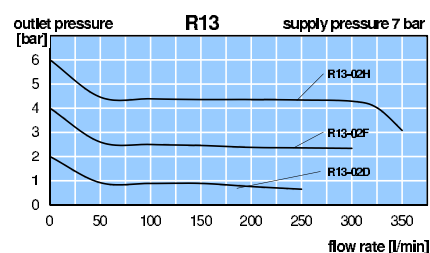
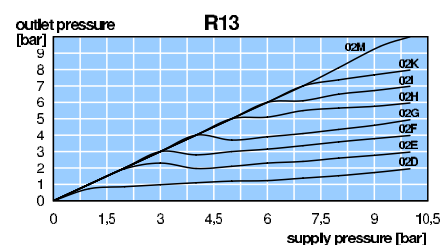
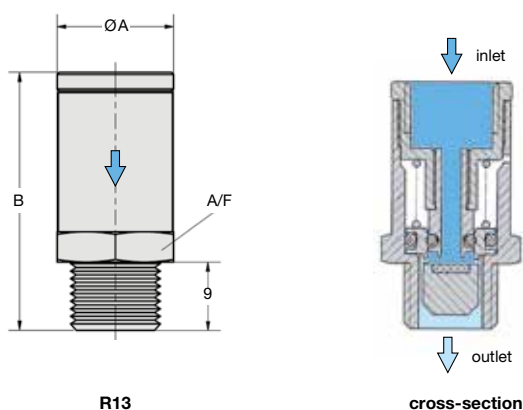
Special options, add the appropriate letter

FKM elastomer

R13-02 . V



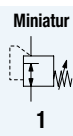
R13



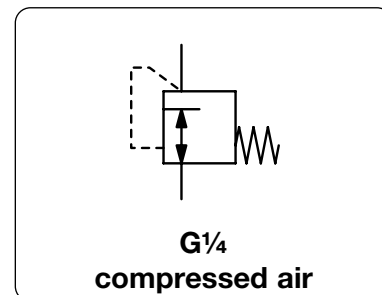
*1 at 7 bar supply pressure, 6 bar outlet pressure and 2 bar pressure drop

* Product group





Description	In-line pressure regulator with factory-set non-adjustable 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. $\pm 10\%$. Non-relieving function, therefore not recommended for applications such as nailers.		
Benefits	• 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	Diaphragm: NBR/Buna-N	
	Seat: PP, Santoprene	O-ring: NBR/Buna-N	



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



Regulator for air „SaveAir®“

P: max. 18 bar, non-relieving, accuracy *2, made of zinc

231

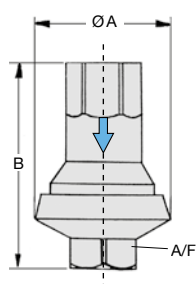
34	52	17	400	18	G1/4	1	231A0210
			600			2	231A0220
			700			3	231A0230
			700			4	231A0240
			700			5	231A0250
			800			6	231A0260
			800			7	231A0270
			800			8	231A0280



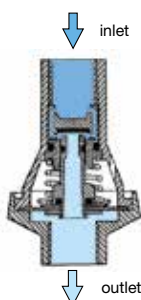
231

Special options, add the appropriate letter

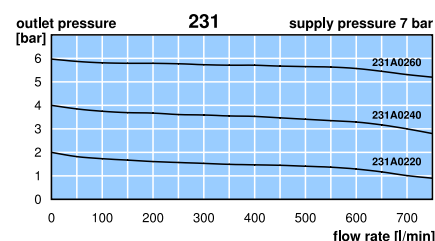
NPT	connection thread	231A 1 2 . .
deviant pressure range	indicate on order	231A . 2XX



231



cross-section


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

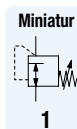
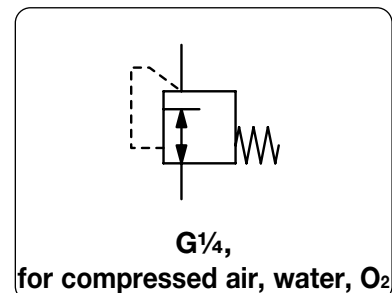
*2 Tolerance: $< 4 \text{ bar} \pm 0.3 \text{ bar}$ (air, $P_0 = 6 \text{ bar}$, 10 l/min)
 $\geq 4 \text{ bar} \pm 10\%$ (air, $P_0 = 10 \text{ bar}$, 10 l/min)

* Product group

PDF CAD
www.aircom.net

Order example:
231A0210

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. ±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	Seat: PP, Santoprene
	Inner parts:	stainless steel DIN 1.4404/AISI 316L	O-ring: NBR/Buna-N for 239A
	Diaphragm:	NBR/Buna-N for 239A, FPM for 239M	



Dimensions			Flow rate		Supply pressure	Connection thread	Outlet pressure	Order number	
$\varnothing A$	B	A/F	water	air	max. bar	G	bar ^{*2}		A*
mm	mm	mm	l/min ^{*1}						

Regulator for compr. air / watermade of brass, P₁: max. 18 bar / 10 bar, NBR/Buna-N, outlet pressure accuracy ^{*2}**239A**

34	52	17	10	400	18/10	G $\frac{1}{4}$	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



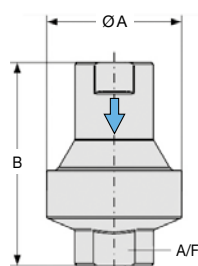
239A / 239M

Regulator for oxygenmade of brass, P₁: max. 10 bar, FKM, outlet pressure accuracy ^{*2}**239M**

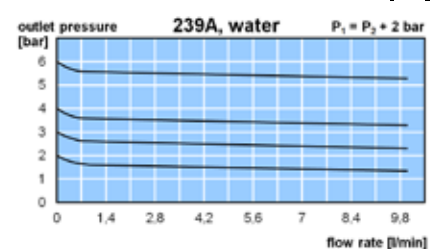
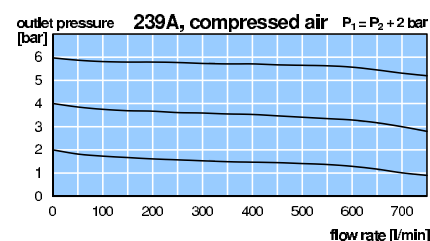
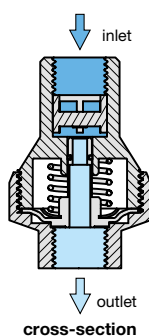
34	52	17	-	400	10	G $\frac{1}{4}$	1	239M0210
			-	600			2	239M0220
			-	700			3	239M0230
			-	700			4	239M0240
			-	700			5	239M0250
			-	800			6	239M0260
			-	800			7	239M0270
			-	800			8	239M0280

Special options, add the appropriate letter

NPT	connection thread	239A1 . . .
deviant pressure range	indicate on order	239 . . 2XX



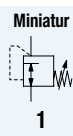
239A / 239M

^{*1} P₁ = 10 bar; Δp = 0.8 bar^{*2} Tolerance: < 4 bar $\pm$ 0.3 bar (air, P₀ = 6 bar, 10 NI/min)
 $\geq$ 4 bar $\pm$ 10% (air, P₀ = 10 bar, 10 NI/min)

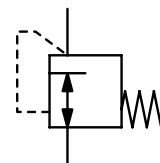
* Product group

PDF CAD
www.aircom.netOrder example:
239A0210

IN-LINE-DRUCKREGLER MIT FEST EINGESTELTLEM AUSGANGSDRUCK FÜR SAUERSTOFF 234KM



Allgemein	Der In-Line-Druckregler "OXYREG" hat einen fest eingestellten Ausgangsdruck der z. B. 10 bar auf 5 bar reduziert. Eine nachträgliche Veränderung des Ausgangsdruckes ist nicht möglich. Dies dient zur Sicherheit gegen ungewolltes Verstellen.
Beschreibung	Druckregler für Sauerstoff, Druckluft oder neutrale Gase
Anwendung	Lebensmittelindustrie, Medizintechnik, Verpackungstechnik
Eingangsdruck	max. 18 bar
Genauigkeit	± 0,3 bar bei Druckluft P ₁ : 6 bar und 10 NL/min (bis 3 bar Ausgangsdruck) ± 10 % bei Druckluft P ₁ : 10 bar und 10 NL/min (ab 4 bar Ausgangsdruck)
Temperaturbereich	0 °C bis 60 °C
Werkstoffe	Gehäuse: Grivory® GV-5 FWA Innentelle: Edelstahl DIN 1.4404 / AISI 316L Membrane: FPM



**G1/4
für Sauerstoff**

Abmessungen			Volumenstrom	Eingangs-	Anschluss-	Ausgangs-	Bestell-
ØA	B	SW	Luft	druck	gewinde	druck	Nummer
mm	mm	mm	l/min*1	max. bar	G	bar*2	

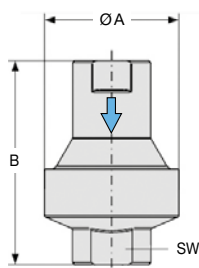
Druckregler für Sauerstoff					Grivory®, Ausgangsdruckgenauigkeit *2	P ₁ : max. 18 bar,	234KM
34	52	17	400	18	G¼	1	234KM0210
			600			2	234KM0220
			700			3	234KM0230
			700			4	234KM0240
			700			5	234KM0250
			800			6	234KM0260
			800			7	234KM0270
			800			8	234KM0280
			800			9	234KM0290



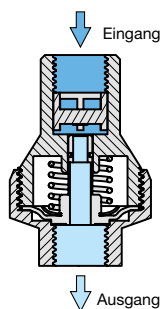
234KM

Wahlweise Ausführung, es ist der entsprechende Buchstabe hinzuzufügen

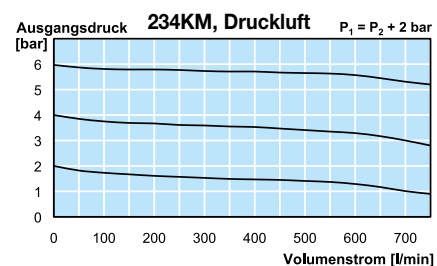
NPT	Anschlussgewinde	234KM1 . . .
andere Druckbereiche	Druckbereich im Klartext angeben	234KM . . XX



239KM



Schnittbild



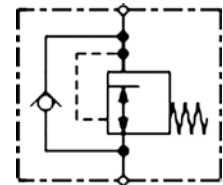
*1 P₁ = 10 bar; Δp = 0,8 bar

*2 Toleranz: < 4 bar ± 0,3 bar (Luft, P₀ = 6 bar, 10 NL/min)
≥ 4 bar ± 10% (Luft, P₀ = 10 bar, 10 NL/min)

* Produktgruppe



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 $\pm 10\%$ 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



**G $\frac{1}{4}$ up to G $\frac{3}{4}$
compressed air**

Miniatur
1

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 ₁ : max. 25 bar, accuracy*2, aluminium		232		
19	69	17	19	500	25	G $\frac{1}{4}$ ia	2	232F0220
				550			3	232F0230
				600			4	232F0240
				650			5	232F0250
				700			6	232F0260
				750			7	232F0270
				800			8	232F0280
19	59	17	19	500	25	G $\frac{1}{4}$	2	232A0220
				550			3	232A0230
				600			4	232A0240
				650			5	232A0250
				700			6	232A0260
				750			7	232A0270
				800			8	232A0280
25	63	22	25	1400	25	G $\frac{3}{8}$	2	232A0320
				1600			3	232A0330
				1800			4	232A0340
				2000			5	232A0350
				2200			6	232A0360
				2400			7	232A0370
				2600			8	232A0380
30	68	27	30	1400	25	G $\frac{1}{2}$	2	232A0420
				1600			3	232A0430
				1800			4	232A0440
				2000			5	232A0450
				2200			6	232A0460
				2400			7	232A0470
				2600			8	232A0480
40	102	34	40	2500	25	G $\frac{3}{4}$	2	232A0520
				3200			4	232A0540
				3900			6	232A0560
				4600			8	232A0580



232F
with female / male thread

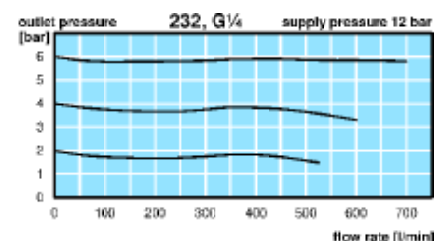
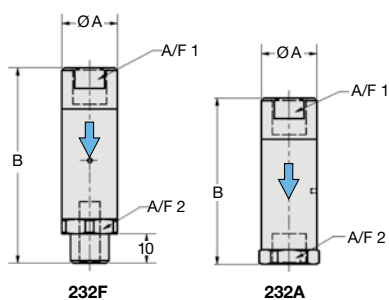


232A
with female thread

Special options, add the appropriate letter

NPT connection thread
deviant pressure range indicate on order

232. 1 . . .
232. . . X X



*1 P_s = 12 bar; Δp = 0.5 bar

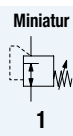
*2 Tolerance: < 4 bar ± 0.3 bar (air, P_s = 6 bar, 10 l/min)
≥ 4 bar $\pm 10\%$ (air, P_s = 10 bar, 10 l/min)

* Product group

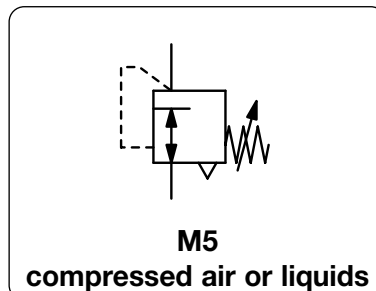
PDF CAD
www.aircom.net



Order example:
232F0220



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	
mm	mm	mm					

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

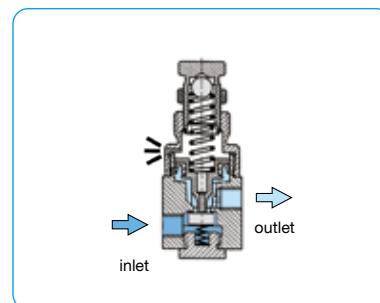
Special options, add the appropriate letter

for oxygen specially cleaned, with oxygen grease minimum purchase 50 pieces RR-M5 . . K15

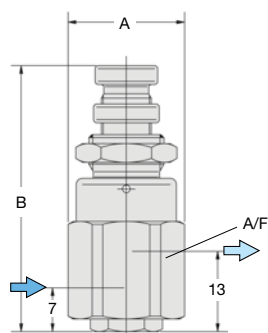
Accessories, enclosed

plastic panel nut

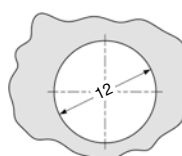
M12x1K



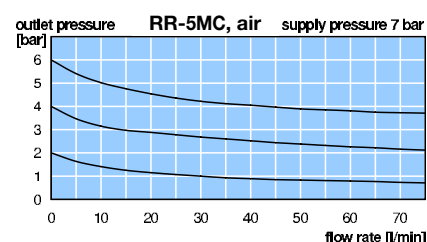
cross-section



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

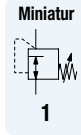
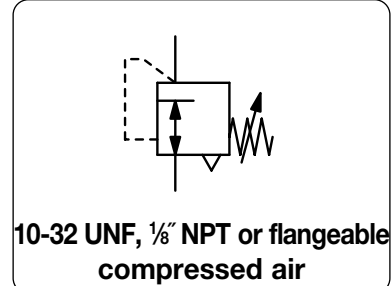
* Product group

PDF CAD
www.aircom.net



Order example:
RR-M5A

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



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

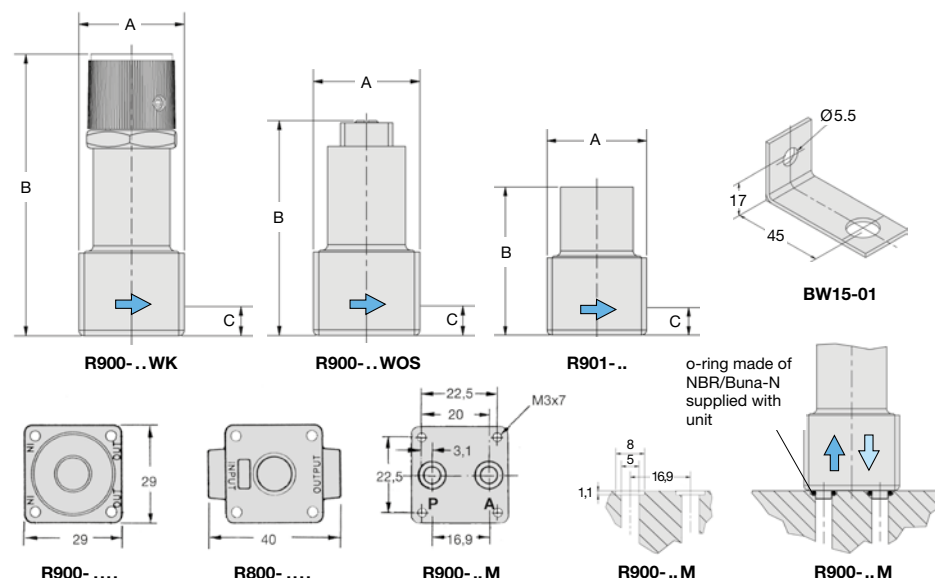
Precision pressure regulator						supply pressure max. 10 bar, relieving, with constant bleed	R900
29	78	8	knob	65	0.03 ... 0.24	R900-3,5MWK	R900-3,5WK
					0.03 ... 0.7	R900- 10MWK	R900- 10WK
					0.03 ... 2.1	R900- 30MWK	R900- 30WK
					0.03 ... 4.2	R900- 60MWK	R900- 60WK
					0.03 ... 6.2	R900- 90MWK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

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

Accessories, enclosed

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



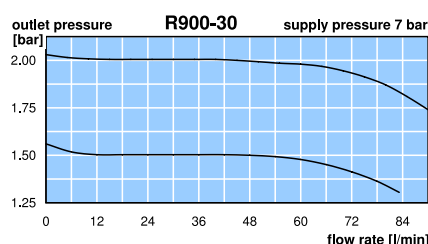
R800-..WK mounting nut incl. R900-..WK mounting nut incl.



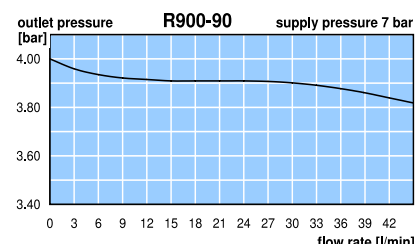
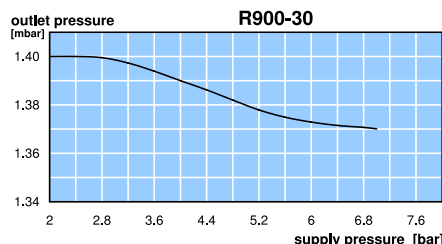
R910-..WOS mounting nut incl.



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



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

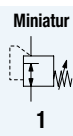


* Product group

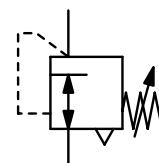
PDF CAD
www.aircom.net



Order example:
R900-3,5MWK



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	



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	Pressure range bar	Order number	C*
A	B	C						
mm	mm	mm						

Precision regulator

			Flow rate l/min*	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number
with adjusting knob, relieving, gauge port G $\frac{1}{8}$ on one side							
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

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	Ø 4 external diameter of hose	R....-4...
	Ø 6	R....-6...
	Ø 8	R....-8...
breach plate		R....-B...
connection plate	with permanent pressure supply	R....-U...
	without passage, modular combination of two devices	R....-C...
wall mounting	at breach plate	R....-W...

Accessories, enclosed

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



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



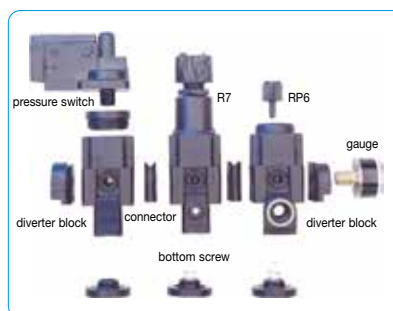
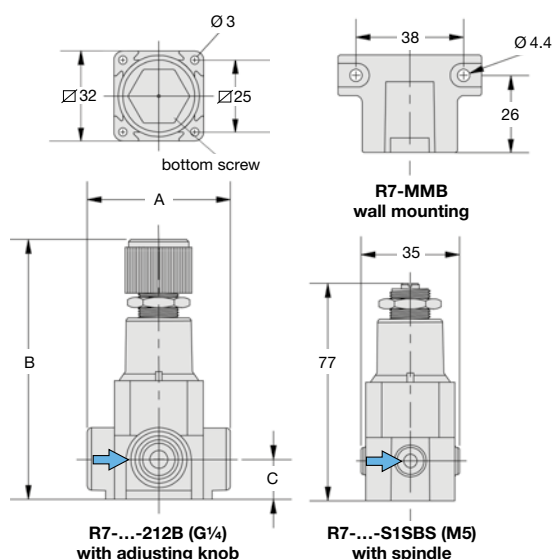
R7-...-2B2BS, G $\frac{1}{4}$



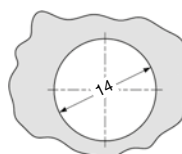
R7-...-SBSBS with spindle, M5 **R7-...-4B4B w/ quick connector Ø 4**



example for assembly



example for assembly

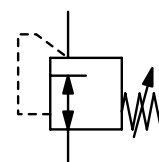


panel cut-out

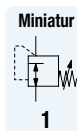
*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar



Description	Diaphragm miniature pressure regulator made of plastic and of small and lightweight design. All parts coming into contact with the medium 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



**G¹/₈, FDA, deionized water
compressed air or liquids**



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

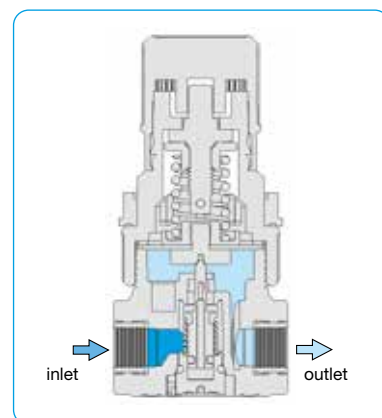
Pressure regulator w. FDA approval			supply pressure max. 16 bar, non-relieving EPDM, with inlet pressure compensation		R037		
41	86	11	5	350	G ¹ / ₈	0,1 ... 1	R037-010K
						0,1 ... 2	R037-01AK
						0,2 ... 4	R037-01BK
						0,3 ... 8	R037-01CK
						0,4 ... 12	R037-01DK
41	86	11	5	380	G ¹ / ₄	0,1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

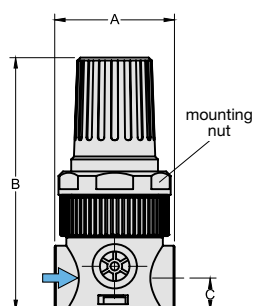
for oxygen specially cleaned, with oxygen grease R037-0...K15



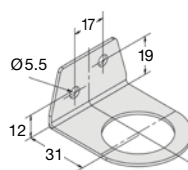
cross-section

Accessories, enclosed

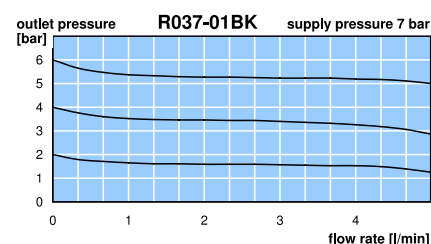
mounting bracket	made of steel	BW30-02
mounting nut	made of plastic	M30x1,5K
	made of aluminium	M30x1,5A



R037



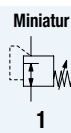
BW30-02



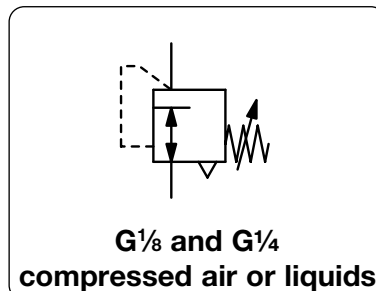
*1 supply pressure 1 bar above outlet pressure

* Product group





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	R039 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	black 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 with 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



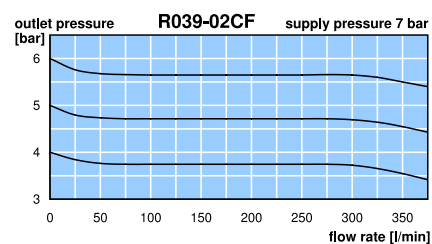
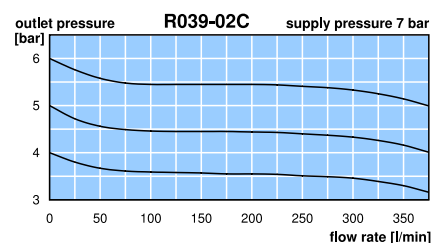
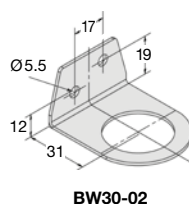
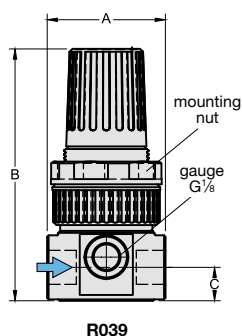
Special options, add the appropriate letter

adjustment lock	non-adjustable knob	R039-0...T
without gauge port		R039-0...X02
for oxygen	specially cleaned, with oxygen grease	R039-0...K15
	not for R039-0..F	

Accessories, enclosed

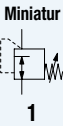
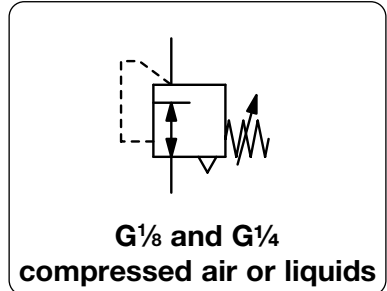
pressure gauge Ø 40 mm, 0...^{*2} bar, G $\frac{1}{8}$
mounting bracket made of steel
mounting nut made of plastic
 made of aluminium

MA4001-...^{*2}
BW30-02
M30x1,5K
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

Description	R310: Diaphragm pressure regulator made of brass without constant bleed.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 25 bar, max. 14 bar for the oxygen version		
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	l/min*1	max. bar	G	bar	
mm	mm	mm					

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



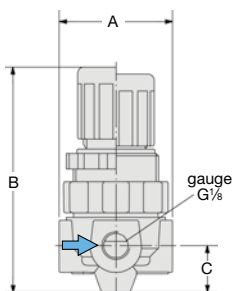
R310

Special options, add the appropriate letter or number

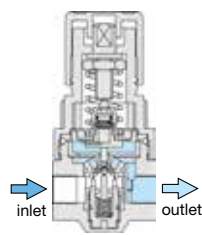
non-relieving	without relieving function	R310-0...K
for oxygen	specially cleaned, P ₁ : max. 14 bar, P ₂ : max. 10 bar	R310-0...K15
FKM elastomer		R310-0...V
EPDM elastomer	non-relieving, e.g. for brake fluid	R310-0...KE

Accessories, enclosed

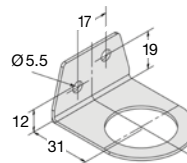
pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	R310 only	MA4001-...*2
mounting bracket	made of steel		BW30-02
mounting nut	made of plastic		M30x1,5K
	made of brass		M30x1,5M



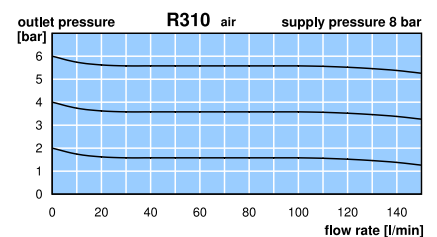
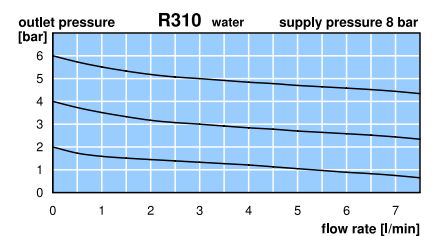
R310



cross-section



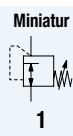
BW30-02



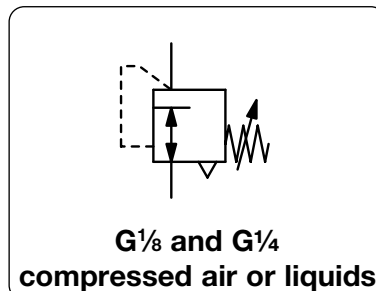
*1 for compressed air: 8 bar supply pressure, 4 bar outlet pressure and 1 bar pressure drop
 *2 01 = 0...1 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

MINIATURE PRESSURE REGULATOR

R364 / R374



Description	Compact regulator with diaphragm
Media	compressed air, non-corrosive gases or liquids (by R364)
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
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



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

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

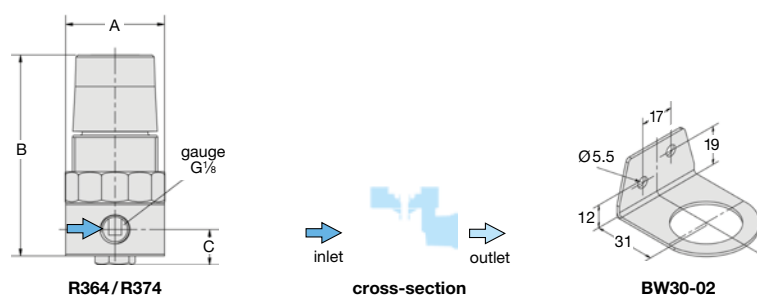
Aluminium pressure regulator			supply pressure max. 21 bar, relieving		R374		
35	76	12	27	450	G $\frac{1}{8}$	0.1 ... 1.0	R374-010
						0.2 ... 1.8	R374-01A
						0.2 ... 4.0	R374-01B
						0.3 ... 9.0	R374-01C
						0.5 ... 11	R374-01D
35	76	12	27	450	G $\frac{1}{4}$	0.1 ... 1.0	R374-020
						0.2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

Special options, add the appropriate letter

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	specially 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

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 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



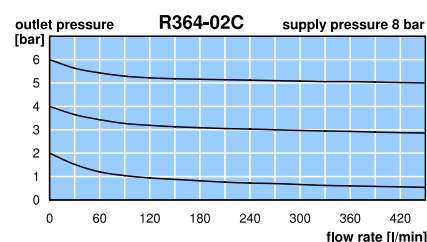
R364
made of brass



R374
made of aluminium



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



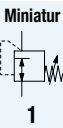
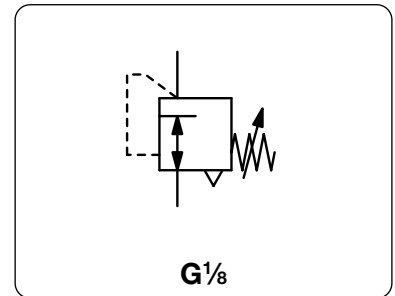
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R364-010

Description	Precision pressure regulator made of plastic, with diaphragm, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g.
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	
mm	mm	mm					

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

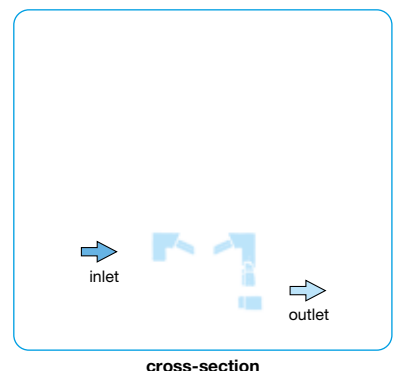
non-relieving	without relieving function	R307-01 . K
for oxygen	specially cleaned, with oxygen grease	R307-01 . K15



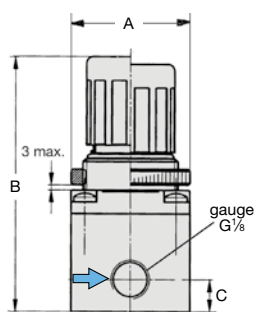
R307

Accessories, enclosed

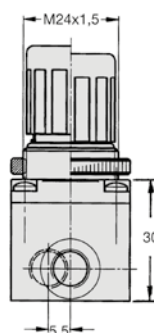
pressure gauge	Ø 23 mm, 0...*2 bar, G $\frac{1}{8}$	MA2301-...*2
mounting nut	made of brass	M24x1,5M



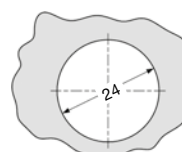
cross-section



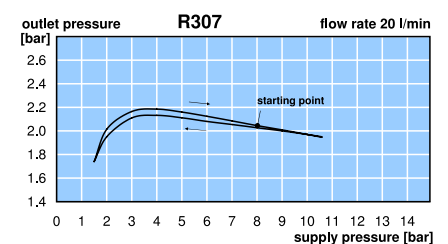
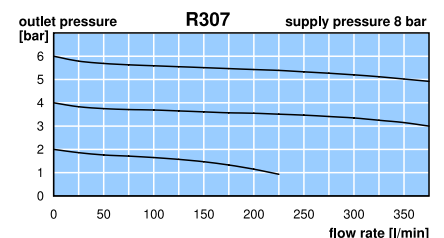
R307



R307

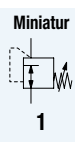


panel cut-out

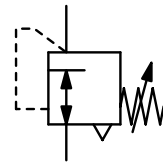


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 04 = 0...4 bar, 10 = 0...10 bar





Description	Precision pressure regulator, made of plastic, with diaphragm, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g.	
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



flangeable

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

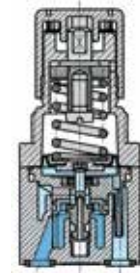
30	64	200	10	flange	0 ... 0.25	R308-P00
					0.2 ... 2.5	R308-P0B
					0.2 ... 3.5	R308-P0C
					0.2 ... 8.0	R308-P0D



R308 flangeable

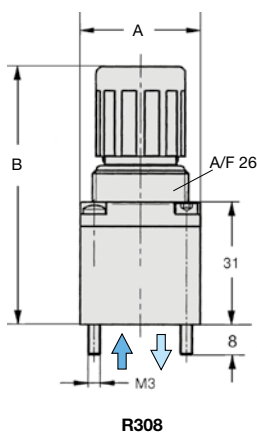
Special options, add the appropriate letter

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

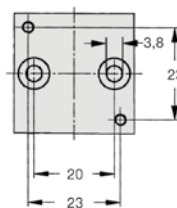


inlet outlet

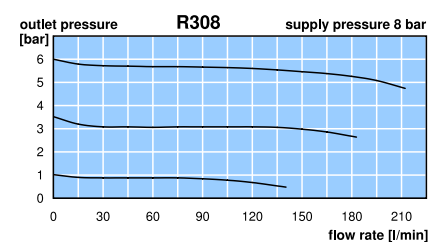
cross-section



R308



R308



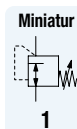
*1 for compressed air: 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group



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

G $\frac{1}{8}$ and G $\frac{1}{4}$



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 $\frac{1}{8}$	1...8 bar	RC-01C
19	63	18	17	260	10	G $\frac{1}{4}$	1...8 bar	RC-02C

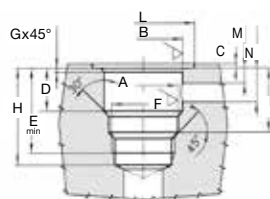


RC-01C

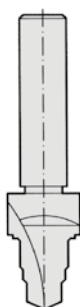
Step drill for cartridge seat						RCS	
16	-	-	-			G $\frac{1}{8}$	RCS-01
20	-	-	-			G $\frac{1}{4}$	RCS-02



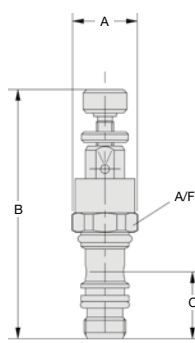
RC-02C



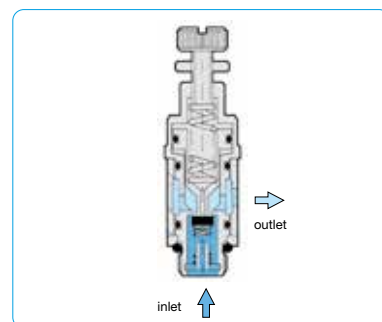
drilled hole



RCS



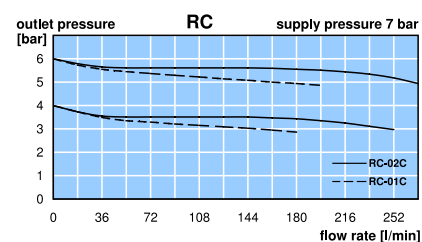
RC



cross-section

drill	F	A	B	C	D
RCS-01	$\frac{1}{8}$	9.8 - 0.1/-0	11.2 ± 0.05	0.5 ± 0.5	15.6 ± 0.07
RCS-02	$\frac{1}{4}$	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



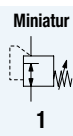
*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

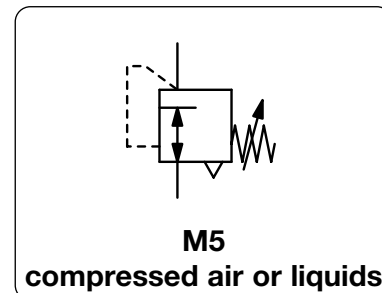
PDF CAD
www.aircom.net



Order example:
RC-01C



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*
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

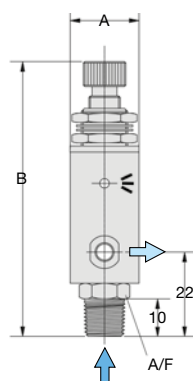
18	65	9.5	relieving	120	M5	M5	0.2 ... 1.4	MAR-1-20
							0.2 ... 3.5	MAR-1-50
							0.2 ... 7.0	MAR-1
18	65	9.5	non-relieving	120	M5	M5	0.2 ... 1.4	MAR-1NR-20
							0.2 ... 3.5	MAR-1NR-50
							0.2 ... 7.0	MAR-1NR



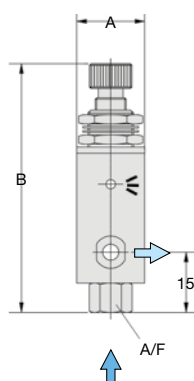
MAR-1, with female thread

Special options, add the appropriate letter

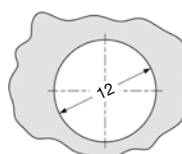
for oxygen	specially cleaned, with oxygen grease	MAR- . NR- ..15
FKM elastomer		MAR-V
EPDM elastomer		MAR-E
chemically nickel-plated	throughout	MAR-X13



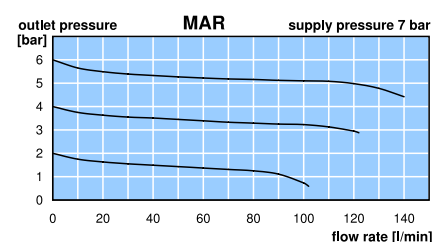
MAR-1P



MAR-1



panel cut-out



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

* Product group



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 l/min*1	Supply pressure max. bar	Connection thread M5 / Flansch	Pressure range bar	Order number	C*
A	B	C						
mm	mm	mm						

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

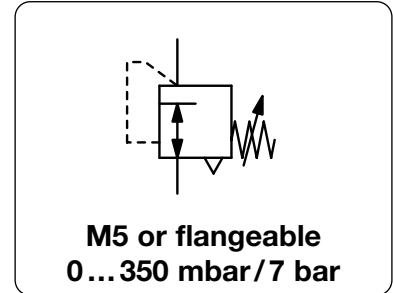
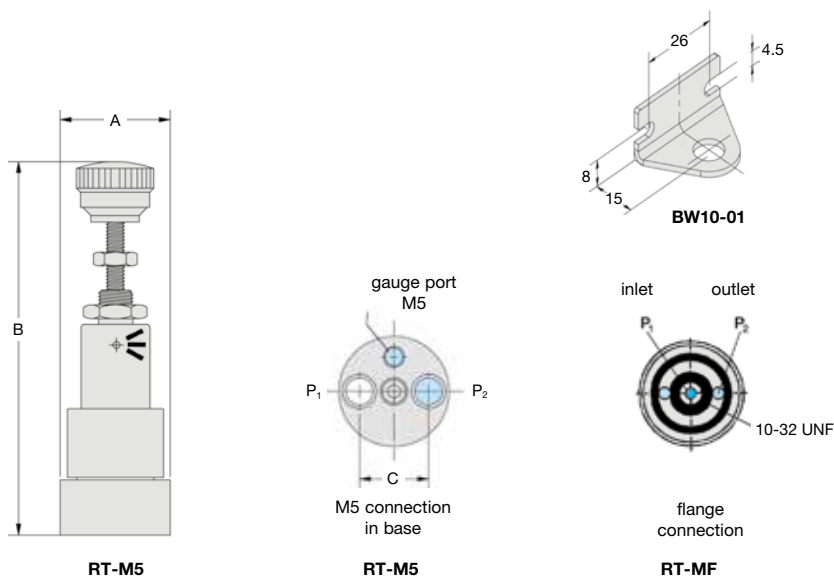
Regulator with flange				supply pressure max. 17 bar, with constant bleed			RT
25	83	–	100	17	flange	0...0.35	RT-MFA
						0... 1.1	RT-MFB
						0... 2.1	RT-MFC
						0... 4.2	RT-MFD
						0... 7.0	RT-MFE

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

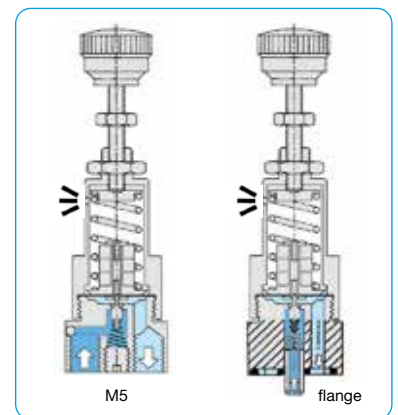
mounting bracket	made of steel, mounting nut at the device	BW10-01
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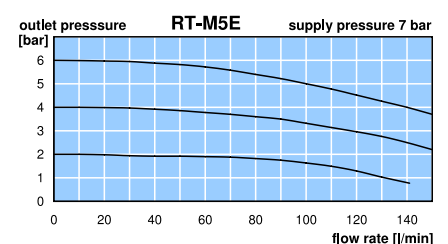
RT-M5C
with mounting nut



RT-MFC
with flange and mounting nut



cross section



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

* Product group

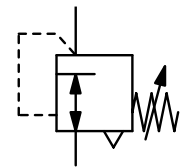


STANDARD PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE max. bar	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
STANDARD	Midi, also for water	30	0,2 ... 1,5 / 15	G $\frac{1}{4}$ - G $\frac{1}{2}$	R15	2.01
	„Maxi“-Series, robust, interlockable	21	0.2 ... 1.8 / 17	G $\frac{1}{4}$ - G1	R20, R21	2.03
	extremely robust, high flow rate	21	0.2 ... 1.8 / 17	G $\frac{1}{4}$ - G3	R119	2.04
	Series „D“, made of aluminium	30	0.2 ... 1.5 / 15	G $\frac{1}{8}$ - G2	RD1 ... RD4	2.06
	lockable pressure regulator	16	0.1 ... 3 / 16	G $\frac{1}{8}$ - G1	RS	2.08
	made of plastic, also for liquids	12.5	0 ... 4 / 12	G $\frac{1}{8}$ - G1	R035 ... R095	2.09
	270° adjustment dial pressure regulator	21	0 ... 3 / 11	G $\frac{1}{4}$ - G2	R11 ... R41	2.10
STAINLESS STEEL	Midi	21	0.2 ... 4 / 17	G $\frac{1}{2}$	R10-S	15.02
	many variations, also FDA	60	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - DN100	R3000	15.04



Beschreibung	Membran-Druckregler in kleiner Bauform
Medium	Druckluft, neutrale Gase und Flüssigkeiten
Eingangsdruck	max. 30 bar
Einstellung	mit Handrad, eine Kontermutter verhindert ungewollte Verstellung
Rücksteuerung	rücksteuerbar (Sekundärentlüftung), wahlweise nicht rücksteuerbar
Manometeranschluss	G $\frac{1}{4}$ beidseitig
Einbaulage	beliebig
Temperaturbereich	0 °C bis 60 °C 0 °C bis 130 °C, Hochtemperaturausführung bei entsprechend aufbereiteter Druckluft bis -20 °C oder Tieftemperaturausführung bis -40 °C
Werkstoffe	Gehäuse: Aluminiumdruckguss O-Ringe: NBR, wahlweise FKM oder EPDM Innenteile: Messing Membrane: NBR, wahlweise PTFE auf NBR-Träger



G $\frac{1}{4}$ bis G $\frac{1}{2}$

Druckluft, Gase und Flüssigkeiten

Abmessungen	Kv-	Volumen-	Anschluss-	Druck-	Bestell-
A B C	Wert	strom	gewinde	Regelbereich	Nummer
mm mm mm	(m 3 /h)	m 3 /h*1 l/min*1	G	bar	

„Midi“-Druckregler				Eingangsdruck max. 30 bar				R15	
82	166	33	1,4	120	2000	G¼	0,2... 1,5	R15-02A	
							0,3... 3	R15-02B	
							0,8... 8	R15-02C	
							1,5...15	R15-02D	
82	166	33	1,4	120	2000	G¾	0,2... 1,5	R15-03A	
							0,3... 3	R15-03B	
							0,8... 8	R15-03C	
							1,5...15	R15-03D	
82	173	38	3	280	4600	G½	0,2... 1,5	R15-04A	
							0,3... 3	R15-04B	
							0,8... 8	R15-04C	
							1,5...15	R15-04D	



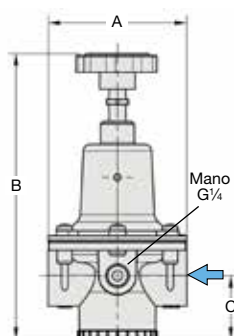
R15

Wahlweise Ausführungen

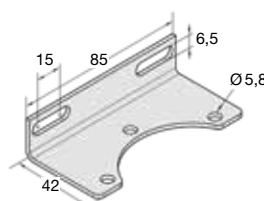
nicht rücksteuerbar	sekundärentlüftung	R15-0... K
bis -40 °C	Tieftemperaturausführung	R15-0... X51
bis 130 °C	Hochtemperaturausführung	R15-0... X54
FKM -O-Ring	PTFE-Membrane	R15-0... T
EPDM-O-Ring	PTFE-Membrane	R15-0... TE
EPDM-O-Ring	FDA-Zulassung, PTFE-Membrane	R15-0... TD

Zubehör, lose beigelegt

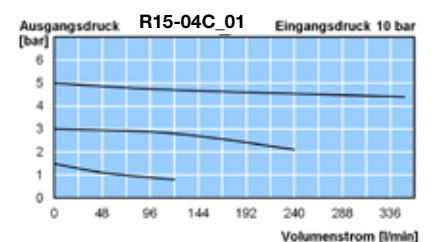
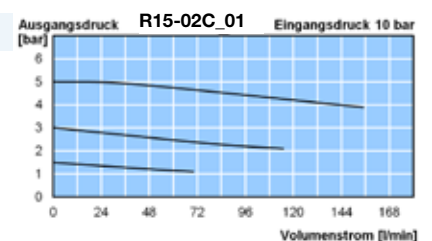
Manometer	Ø 50 mm, 0 ... ² bar, G $\frac{1}{4}$	MA5002-... ²
Befestigungswinkel		BW00-67



R15



BW00-67



*1 bei 10 bar Eingangsdruck, 5 bar Ausgangsdruck und 1 bar Druckabfall
*2 02 = 0...2,5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar

* Produktgruppe

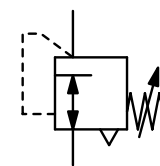
Manometer: siehe Kapitel Druckmessgeräte

PDF CAD
www.aircom.net



Bestellbeispiel:
R15-02A

Description	Piston-type 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	



G $\frac{1}{2}$ up to G1

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			
mm	mm	mm						

A*

"Maxi" pressure regulator						supply pressure max. 21 bar, relieving, without pressure gauge		R20
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



R20



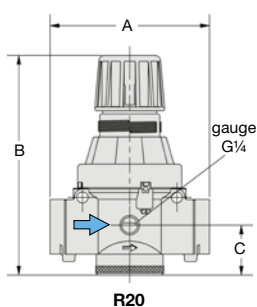
R21

Special options, add the appropriate letter

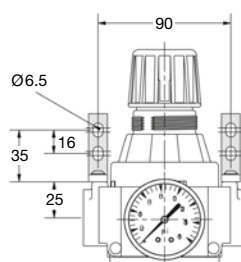
T-handle	including locknut	R21-0 . .
NPT	connection thread	R2 .-0 . . N
non-relieving	without relieving function	R2 .-0 . . K

Accessories, enclosed

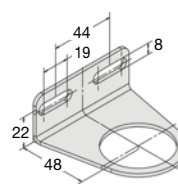
pressure gauge	Ø 63 mm, 0 ... *2 bar, G $\frac{1}{4}$ up to 16 bar	MA6302-... *2
	Ø 63 mm, 0 ... 25 bar, G $\frac{1}{4}$ up to 25 bar	MA6302-... 25
mounting bracket	assembly at spring cage	BW45-02
mounting nut	made of plastic	M45x1,5K
	made of aluminium	M45x1,5A
set of brackets	made of steel	MK20-0100



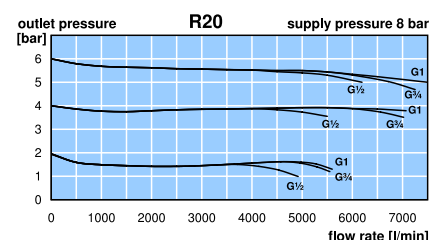
R20



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

* Product group

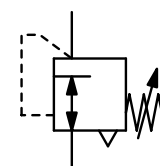
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R20-04A

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: see chart, 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	-0 °C to 60 °C / 31 °F to 140 °F (RD1 to RD3), 0 °C bis 80 °C / 32 °F to 176 °F (RD4), with suitably conditioned compressed air -20 °C / -4 °F
Material	Body: aluminium Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass at RD1/RD2 brass/aluminium at RD3/RD4



G $\frac{1}{4}$ up to G3

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

„Standard“ pressure regulator							supply pressure max. 21 bar, relieving, without pressure gauge		R119
70	157	35	1.5	150	2500	G $\frac{1}{4}$	0.2 ... 1.8		R119-02A
							0.2 ... 4.0		R119-02B
							0.3 ... 9.0		R119-02C
							0.5 ... 17		R119-02D
83	172	38	3.6	360	6000	G $\frac{3}{8}$ *3	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	G $\frac{1}{2}$	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	G $\frac{3}{4}$	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



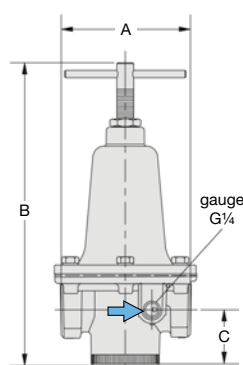
R119-04



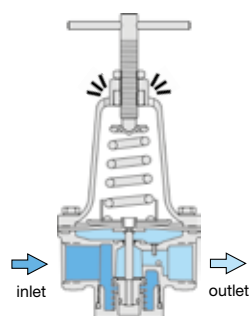
R119-06



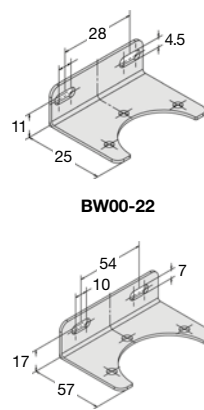
R119-08



R119-02 ... -12

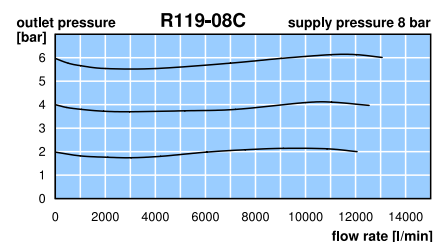
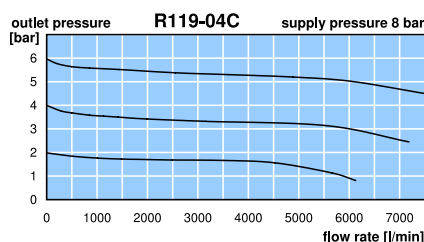
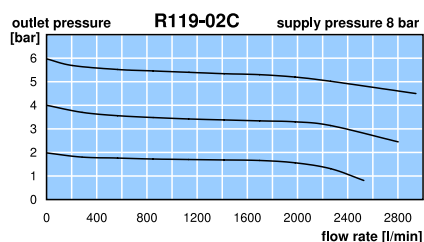


cross-section



BW00-22

BW00-23



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*3 reduced by the next larger pressure regulator

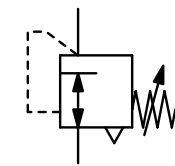
* Product group

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, max. 16 bar by R119-16B/-20B/-24B	
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 for 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, aluminium by G2 to G3 Diaphragm: NBR/Buna-N	Mounting position any Inner valve: brass Bottom screw: reinforced nylon



G¼ up to G3

Standard

2

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

„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 ... 7.0	R119-16B
							0.8 ... 8.0	R119-16C
							1.5 ... 15	R119-16D
186	300	79	37.1	2640	44 000	G2½	0.2 ... 7.0	R119-20B
							0.8 ... 8.0	R119-20C
							1.5 ... 15	R119-20D
214	360	95	56.0	6600	110 000	G3	0.2 ... 7.0	R119-24B
							0.8 ... 8.0	R119-24C
							1.5 ... 15	R119-24D



R119-12



R119-16



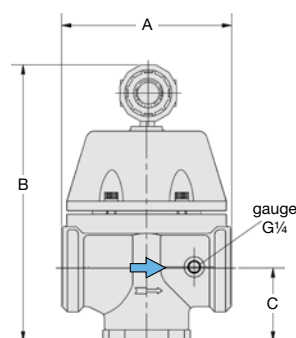
R119-16.F1
Zubehör Manometer

Special options, add the appropriate letter

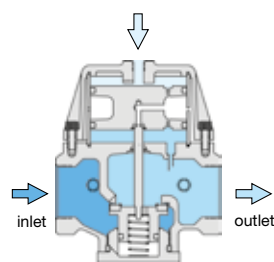
NPT	connection thread	for G2 to G3	R119-...N
non-relieving	without relieving function		R119-...K
FKM elastomer		for G¼ to G1½	R119-...X64
		for G3	R119-24.X64
panel mounting	with handwheel, hole diameter 16 mm	for G½	R119-...P
flange connection	see chapter SST devices / flanges		R119-...F.
PWIS-free	for painting plants		R119-...LA

Accessories, enclosed

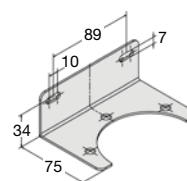
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ to G½	MA5002-...*2
	Ø 63 mm, 0...*2 bar, G¼	for G¾ to G3	MA6302-...*2
mounting bracket	made of steel	for G¼ and G¾	BW00-22
		for G½	BW00-23
		for G¾ to G1½	BW00-24



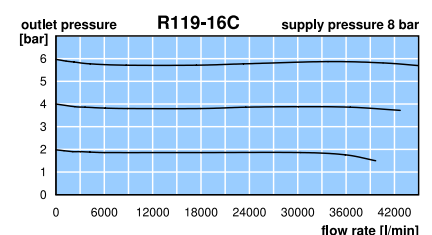
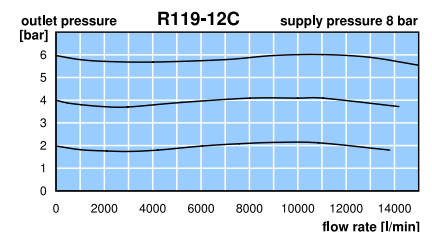
R119-16/-20



cross-section



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

Gauges: see chapter for measuring devices

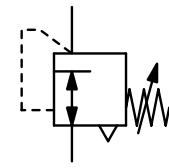
PDF CAD
www.aircom.net

* Product group



Order example:
R119-10C

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: see chart, 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, by RD1 and RD2 -20 °C to 60 °C / -4 °F to 140 °F, by RD3 -20 °C to 80 °C / -4 °F to 176 °F, by RD4
Material	Body: aluminium Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass at RD1/RD2, brass/aluminium at RD3/RD4



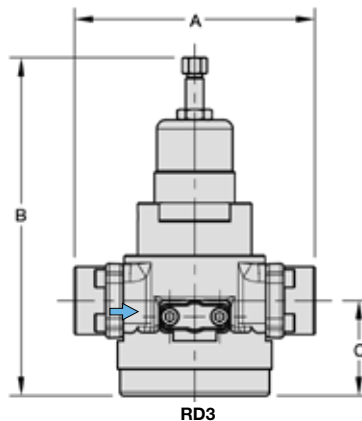
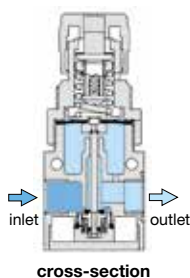
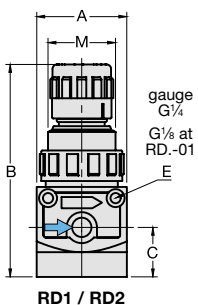
G $\frac{1}{4}$ up to G2

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

Pressure regulator RD1...RD4

supply pressure max. 20 / 30 bar, relieving, without pressure gauge									
40	95	22	0.6	27	450	20	G $\frac{1}{8}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD1-01A RD1-01B RD1-01D RD1-01E
40	95	22	0.6	27	450	20	G $\frac{1}{4}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD1-02A RD1-02B RD1-02D RD1-02E
64	151	48	3.0	108	1800	20	G $\frac{3}{8}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD2-03A RD2-03B RD2-03D RD2-03E
64	151	48	3.0	108	1800	20	G $\frac{1}{2}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD2-04A RD2-04B RD2-04D RD2-04E
130	190	54	8.4	195	3250	30	G $\frac{3}{4}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD3-06A RD3-06B RD3-06D RD3-06E
130	190	54	8.4	195	3250	30	G1	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD3-08A RD3-08B RD3-08D RD3-08E
241	190	54	8.4	195	3250	30	G1 $\frac{1}{4}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD3-10A RD3-10B RD3-10D RD3-10E
241	190	54	8.4	195	3250	30	G1 $\frac{1}{2}$	0.2...1.5 0.3...3.0 0.5...8.0 1.5... 15	RD3-1AA RD3-1AB RD3-1AD 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	—



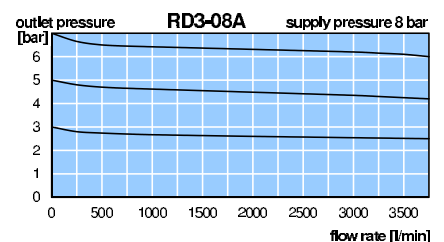
RD1



RD2



RD3-06/-08



*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

* Product group



Order example:
RD1-01A

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: see chart, 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, by RD1 and RD2 -20 °C to 60 °C / -4 °F to 140 °F, by RD3 -20 °C to 80 °C / -4 °F to 176 °F, by RD4
Material	Body: aluminium Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass at RD1/RD2, brass/aluminium at RD3/RD4

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

Standard

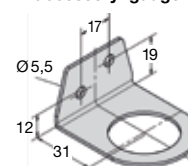
2

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	G	bar	

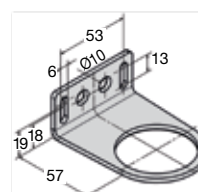
Pressure regulator								supply pressure 30 bar, relieving, without pressure gauge	RD1...RD4
174	386	122	25.0	1380	23 000	30	G $\frac{1}{2}$	0.2...1.5	RD4-12A
								0.3...3.0	RD4-12B
								0.5...8.0	RD4-12D
								1.5... 15	RD4-12E
174	386	122	25.0	1380	23 000	30	G2	0.2...1.5	RD4-16A
								0.3...3.0	RD4-16B
								0.5...8.0	RD4-16D
								1.5... 15	RD4-16E



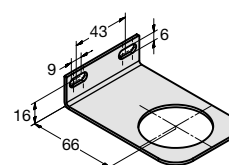
RD4 accessory: gauge



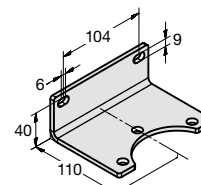
BW30-02



BW50-03



BW45-03S



BW00-68S

Special options, add the appropriate letter

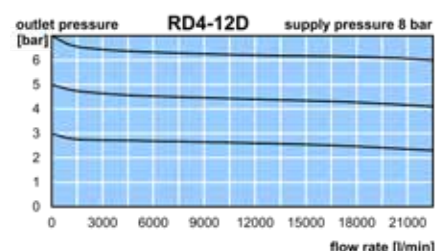
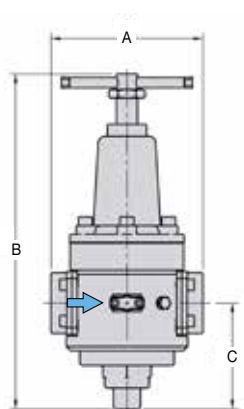
non-relieving without relieving function
30 bar operating pressure

RD K
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	M45X-1,5S
mounting bracket	made of stainless steel	for RD4	BW00-68S

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

* Product group



Order example:
RD4-12A

Description	Pressure regulator with diaphragm of solid design lockable with key		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 16 bar		
Air consumption	no air consumption		
Adjustment	by handwheel, lockable		
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	

G $\frac{1}{8}$ up to G1

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	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	RS-01A
							0,2 ... 6	RS-01B
							0,5 ... 10	RS-01C
48	123	27	1,4	90	1500	G $\frac{1}{4}$	0,1 ... 3	RS-02A
							0,2 ... 6	RS-02B
							0,5 ... 10	RS-02C
							0,5 ... 16	RS-02D
69	156	35	5,2	360	6000	G $\frac{1}{2}$	0,1 ... 3	RS-04A
							0,2 ... 6	RS-04B
							0,5 ... 10	RS-04C
							0,5 ... 10	RS-04D
100	209	52	6,1	600	10000	G1	0,1 ... 3	RS-08A
							0,2 ... 6	RS-08B
							0,5 ... 10	RS-08C
							0,5 ... 10	RS-08D



RS-01

RS-02



RS-04

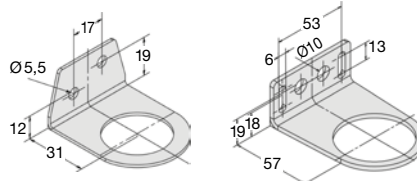
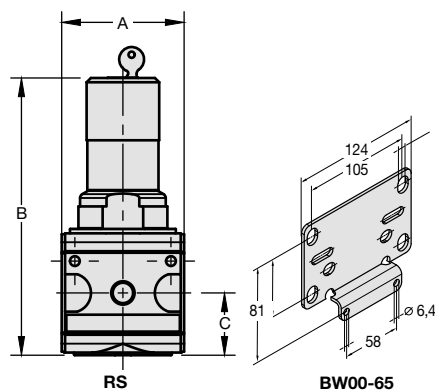
RS-08

Special options, add the appropriate letter

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

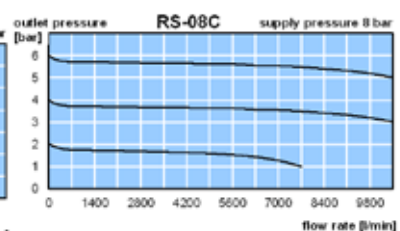
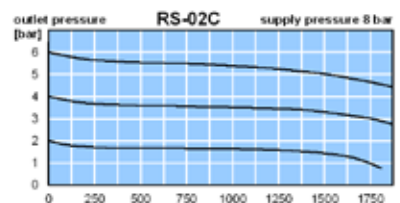
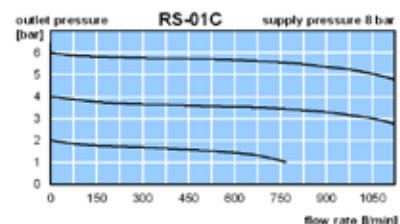
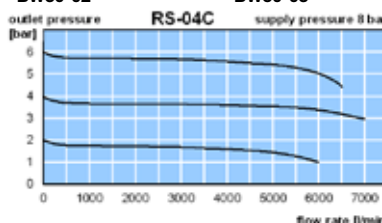
Accessories, enclosed

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 $\frac{1}{2}$	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



BW50-03

BW30-02



^{*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

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

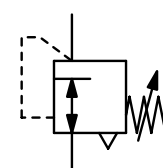


Order example:
RS-01A

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	



G $\frac{1}{8}$ up to G1

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			
mm	mm	mm						

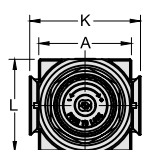
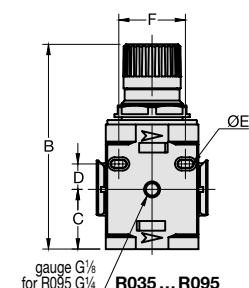
Pressure regulator			supply pressure max. 12.5 bar, for series R035 max. 10 bar, for series R042 max. 16 bar, relieving, without pressure gauge					R0
36	61	12	0.11	15	250	G $\frac{1}{8}$	0 ... 6	R035-01B
							0 ... 6	R035-01RB
42	102	20	0.36	51	850	G $\frac{1}{4}$	0 ... 4	R042-02B
							0 ... 8	R042-02C
							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

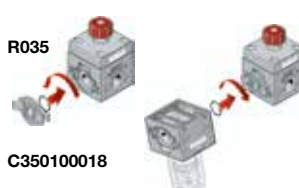
non-relieving without relieving function, also for liquids R0...-0...K

Accessories, enclosed

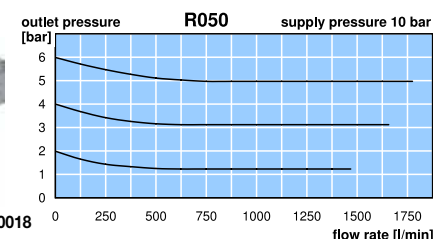
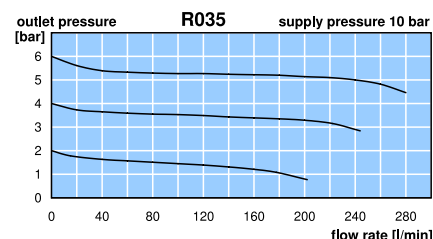
pressure gauge	Ø 23 mm, 0... ^{*2} bar, G $\frac{1}{8}$, max. 12 bar Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{4}$ Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{2}$ Ø 63 mm, 0... ^{*2} bar, G $\frac{3}{4}$	for R035 for R042 for R050 to R080 for R095	MA2301-...^{*2} MA4001-...^{*2} MA5001-...^{*2} MA6302-...^{*2}
mounting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



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



R035 assembly with connecting clips C350100018



*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

* Product group



Order example:
R035-01B

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		
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		
Mounting position	any		
Temperature range	0 °C to 65 °C / 32 °F to 149 °F		
Material	Body: zinc die-cast O-ring: NBR/Buna-N	Piston: acetal Valve seat: acetal, brass and 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			
mm	mm	mm						

Adjustment dial regulator supply pressure max. 21 bar, relieving, with constant bleed, adjusting dial 270° turn wheel **R21...R41**

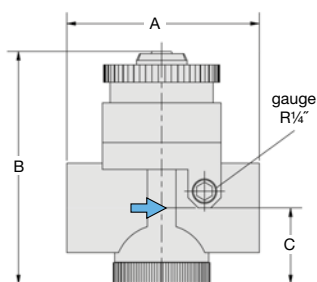
81	104	24	2.5	180	3000	G $\frac{1}{4}$	0 ... 3 0 ... 11	R21-C2-L R21-C2-O
81	104	24	3.8	270	4500	G $\frac{3}{8}$	0 ... 3 0 ... 11	R21-C3-L R21-C3-O
81	104	43	4.2	300	5000	G $\frac{1}{2}$	0 ... 3 0 ... 11	R21-C4-L R21-C4-O
109	132	43	6.8	480	8000	G $\frac{3}{4}$	0 ... 3 0 ... 11	R31-C6-L R31-C6-O
109	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

Special options, add the appropriate letter

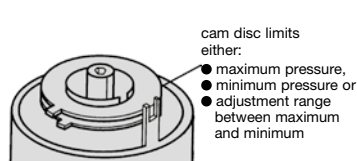
adjustment lock	RRP-95-585	R.1-C . - T
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Accessories, enclosed

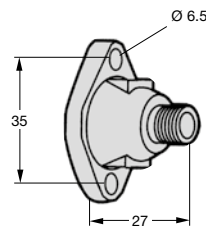
pressure gauge	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for R21 to R41	MA5002-..*2
mounting bracket	mounting through the gauge port at the back	for R21 to R41	RRP-95-590



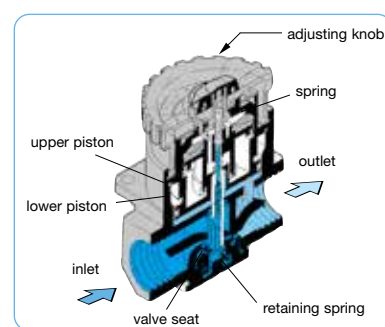
R21...R41



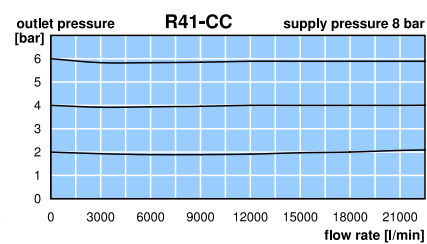
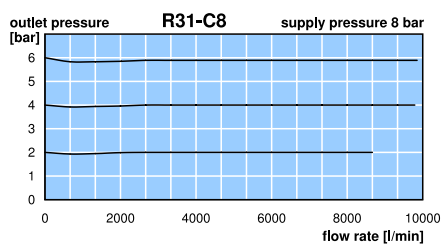
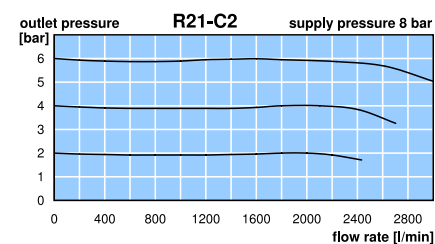
adjustment lock
RRP-95-585



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

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



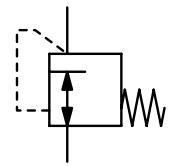
Order example:
R21-C2-L

LOW PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE		CONNECTION	SERIES	PAGE
		max. bar	mbar				
STANDARD	also for propane and other gases	16	factory-set	50	G¼ u. G½	R01	3.02
	miniature, manually adjustable	16	25 ...	50 / 1400	G¼ u. G¾	R01-5/-6	3.03
	miniature	10	20 ...	150	G½	R01-4	3.03
	for many different gases	0.4	2 ...	16 / 160	G½ - G2	RGDJ	3.04
	for many different gases	4	5 ...	12 / 350	G½ - G1½	RGB4	3.05
	for many different gases	10	5 ...	45 / 1500	G½ - G2	R160/R161	3.06
	for many different gases	20	10 ...	18 / 4400	G1 - flange DN50	RZ	3.08
PRECISE	with relieving function	10	2 ...	45 / 350	G¾ - G¾	R4100	3.09
	relatively small	10	2 ...	35 / 800	G¼ - G½	R110	5.11
MADE OF STAINLESS STEEL	for many different gases	7	5 ...	45 / 3000	G½ - G2	R3100	15.13
VOLUM. BOOSTER	for many different gases	20	10 ...	350 / 1000	G1 - G2	RZ-J	6.10
	for many different gases	0.4	2 ...	55 / 100	G½ - G2	RGDJ-J	6.11
	for many different gases	4	5 ...	350	G½ - G1½	RGB4-J	6.11
BACK PRESSURE REGUL.	precise	10	2 ...	35 / 800	G¼ - G½	DB110	8.08
	precise	6	5 ...	45 / 3000	G½ - G2	DBC	8.11



Description	Low pressure regulator with factory-set outlet pressure of 50 mbar and an integrated safety valve, (except for regulator R01-415), which opens at approx. 130-150 mbar. Therefore 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, R01-405, max. 2.5 bar bei R01-319/-604/-641		
Accuracy	at max. supply pressure and flow: < 15 % FS pressure deviation at max. supply pressure without flow: < 25 % FS pressure deviation at min. supply pressure and flow: < 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	Inner valve: brass	
	Elastomer: NBR/Buna-N		



G $\frac{1}{4}$ and G $\frac{1}{2}$
50 mbar

Dimensions			Flow rate		Supply pressure	Connection thread	Outlet pressure	Order number	
A	B	ØT	m³/h	l/min	max. bar	G	mbar		
mm	mm	mm							

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	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



R01-415



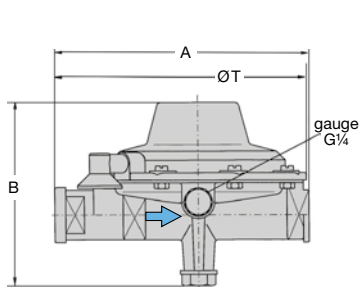
R01-319

Accessories, enclosed

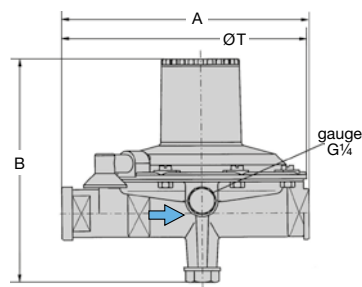
pressure gauge	Ø 63 mm, 0...60 mbar, G $\frac{1}{4}$	not for R01-319/-415	MA6302-B6
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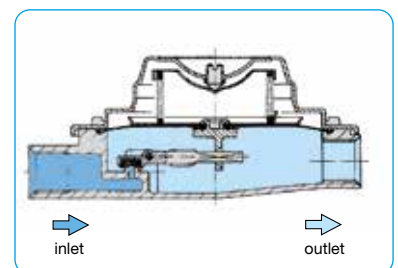
R01-604



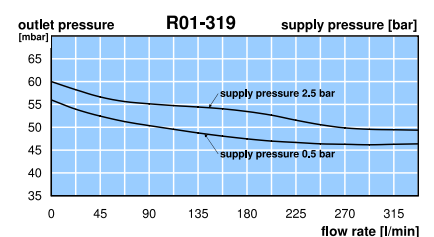
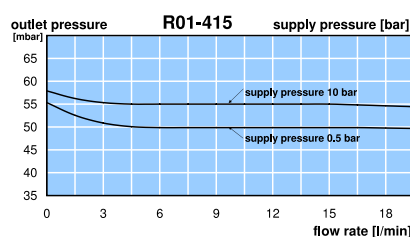
R01-405 / -604



R01-641



cross-section



Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group



Order example:
R01-415

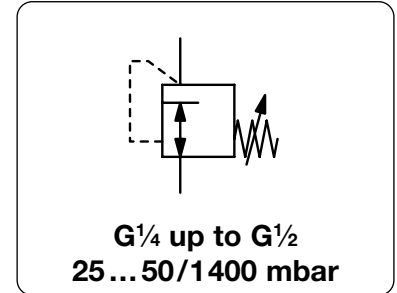
Description	The low pressure regulator is manually adjustable. Version R01-4 has an integrated safety valve which opens at a pressure of 1.5 times of the max. outlet pressure, thus not suitable for gas pressure regulation in closed rooms.		
Media	compressed air, propane, butane or other non-corrosive gases as well as oil		
Supply pressure	max. 16 bar at R01-5/-6, max. 10 bar at R01-4		
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		
Air consumption	without constant bleed	Mounting position	any
Adjustment	R01-5/-6: R01-4	by adjusting knob a. dial enabling eleven settings for different outlet pressures by T-handle with locknut	
Relieving function	non-relieving		
Gauge port	G½ on one side of the body, except on R01-5/-6		
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	Supply pressure	Connection thread	Pressure range	Order number	
A	B	ØT	l/min	empfohlen	G	mbar		D*
mm	mm	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	
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			R01-4		
138	127	117	140	2.5	G $\frac{1}{2}$	20 ... 150	R01-411-01	

Accessories, enclosed				
pressure gauge	Ø 63 mm, 0...250 mbar, G¼, capsule type	for R01-411-01	MA6302-C3	



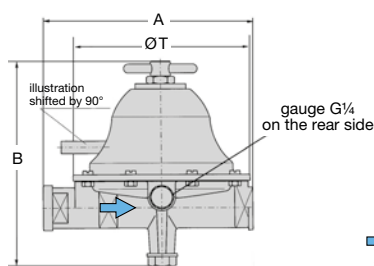
R01-524-00



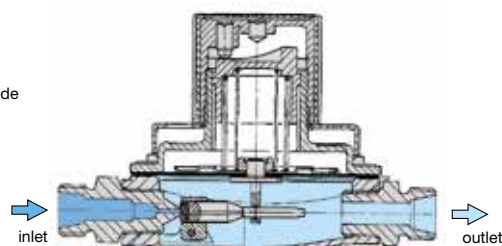
R01-627



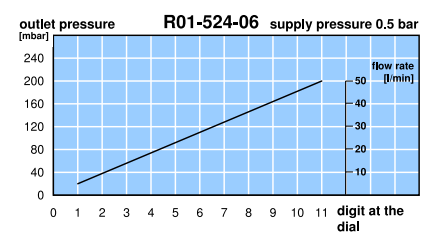
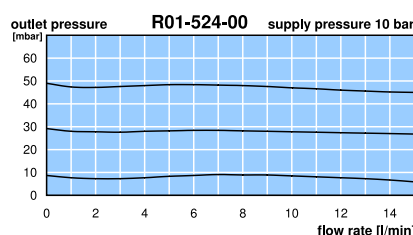
R01-411-01



R01-411



cross-section



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

* Product group

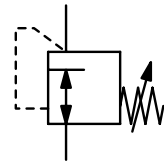
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R01-524-00

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	



R $\frac{1}{2}$ " up to R2"
2... 16/160 mbar

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	RGDJ-04A
								10... 20	RGDJ-04B
								16... 28	RGDJ-04C
								22... 40	RGDJ-04D
								40... 55	RGDJ-04E
125	166	34	20	1.49	27	450	3/4"	5... 15	RGDJ-06A
								12... 25	RGDJ-06B
								22... 35	RGDJ-06C
								30... 50	RGDJ-06D
								45... 65	RGDJ-06E
								60... 80	RGDJ-06G
								75... 100	RGDJ-06I
								100... 160	RGDJ-06L
125	166	34	25	2.6	51	850	1"	pressure range see R3/4	RGDJ-08.
155	194	45	40	4.9	90	1500	1 1/2"	5... 15	RGDJ-12A
								12... 25	RGDJ-12B
								22... 35	RGDJ-12C
								30... 50	RGDJ-12D
								45... 65	RGDJ-12E
								60... 80	RGDJ-12G
								75... 100	RGDJ-12I
								100... 160	RGDJ-12L
200	219	52	50	6.6	120	2000	2"	5... 15	RGDJ-16A
								12... 25	RGDJ-16B
								22... 35	RGDJ-16C
								30... 50	RGDJ-16D
								45... 65	RGDJ-16E
								60... 80	RGDJ-16G
								75... 100	RGDJ-16I



RGDJ-04



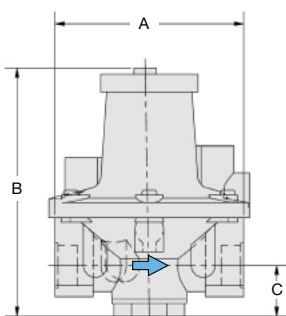
RGDJ-12

Special options, add the appropriate letter

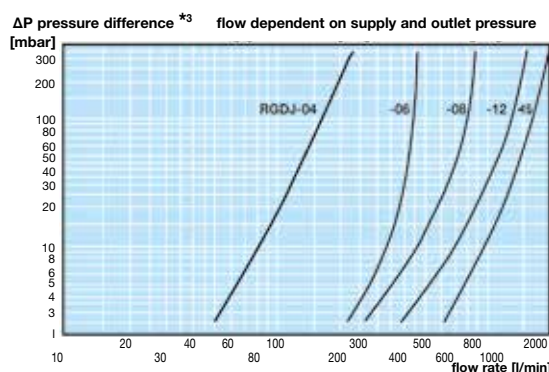
Connection thread G $\frac{1}{4}$ for pressure gauge not for R $\frac{1}{2}$ " RGDJ-... M

Accessories, enclosed

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

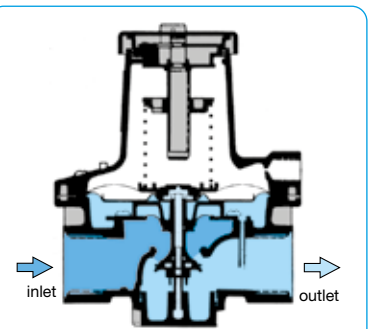


RGDJ



*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



cross-section

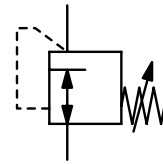
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
RGDJ-04A

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	G¼ on one site at R1½"	optionally G¼ at R½" and R1"
Mounting position	any, preferably bonnet upwards	
Temperature range	-15 °C to 60 °C / 5 °F to 140 °F	
Material	Body: aluminium Elastomer: NBR/Buna-N	Inner valve: aluminium and plastic



R1½" up to R1½"
5 ... 12/350 mbar

Dimensions			Nominal size	Kv-value	Flow rate		Connection thread	Pressure range	Order number
A	B	C	DN	(m³/h)	m³/h*1	l/min*1	R	mbar	
mm	mm	mm							

Low pressure regulator RGB4

supply pressure max. 4 bar, non-relieving									
148	174	24	15	0.62	42	700	½"	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
192	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
150	265	55	40	5	336	5600	1½"	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



RGB4-04



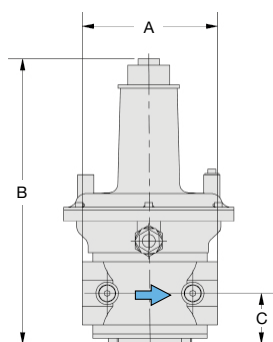
RGB4-08

Special options, add the appropriate letter

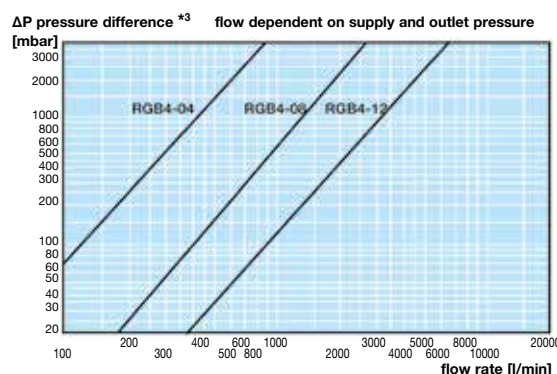
connection thread G¼ for pressure gauge for R½" and R1" RGB4-...M

Accessories, enclosed

pressure gauge Ø 63 mm, 0...*2 mbar, G¼ MA6302-..*2



RGB4



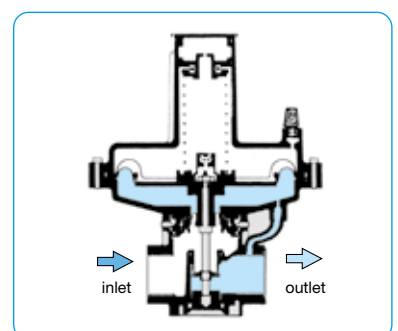
*1 at 4 bar supply pressure and 100 mbar outlet pressure

*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar

*3 ΔP = P₁ - P₂ difference between supply and outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
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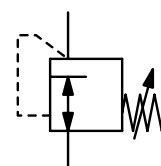
cross-section

* Product group



Order example:
RGB4-04A

Description	Low pressure regulator with large diaphragm for good accuracy and high sensitivity.	
Media	compressed air or non-corrosive gases	
Supply pressure	see chapter, max. 10 bar (bei R161), min. 1 bar	
Air consumption	without constant bleed	
Adjustment	with handwheel by R161	with adjusting screw on R160-06 to -1A (A, B, C), -12 and -16
	with T-handle by R160-06 to 1A (D, E)	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: FKM by G $\frac{1}{2}$, all other NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass / aluminium Spring cage: stainless steel	



G $\frac{1}{2}$ up to G2
5 ... 45/1500 mbar

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

Low pressure regulator R160/R161

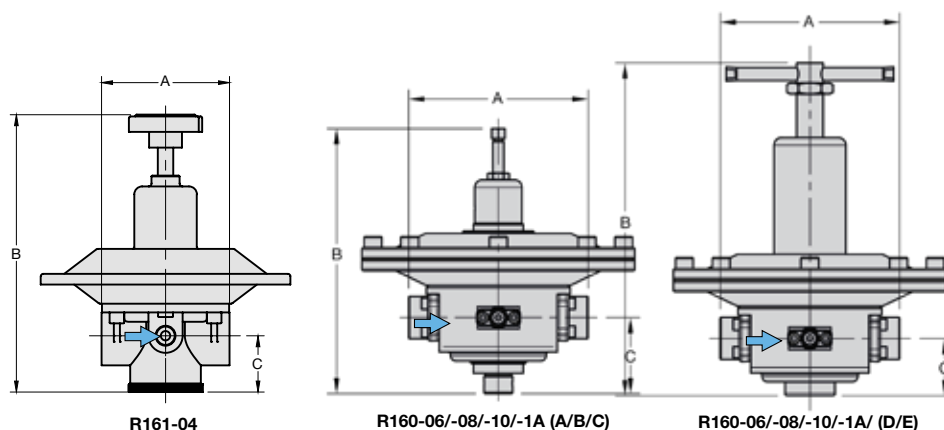
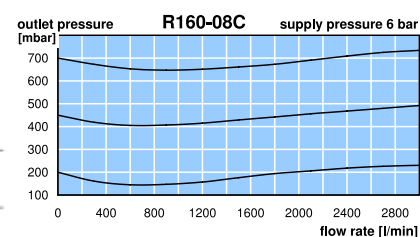
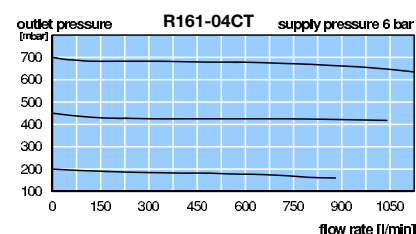
supply pressure max. 7 / 10 bar, non-relieving, without constant bleed									
82	191	40	1.4	60	1000	10	G $\frac{1}{2}$	5 ... 45	R161-04AT
								10 ... 400	R161-04BT
								20 ... 1000	R161-04CT
								50 ... 1500	R161-04DT
154	233	69	1.4	84	1400	7	G $\frac{3}{4}$	5 ... 45	R160-06A
								10 ... 120	R160-06B
								10 ... 400	R160-06C
154	292	53	8.4	576	9600			15 ... 700	R160-06D
								200 ... 1200	R160-06E
154	233	69	1.4	84	1400	7	G1	5 ... 45	R160-08A
								10 ... 120	R160-08B
								10 ... 400	R160-08C
154	292	53	8.4	576	9600			15 ... 700	R160-08D
								200 ... 1200	R160-08E
265	233	69	1.4	84	1400	7	G1 $\frac{1}{4}$	5 ... 45	R160-10A
								10 ... 120	R160-10B
								10 ... 400	R160-10C
265	292	53	8.4	576	9600			15 ... 700	R160-10D
								200 ... 1200	R160-10E
265	233	69	1.4	84	1400	7	G1 $\frac{1}{2}$	5 ... 45	R160-1AA
								10 ... 120	R160-1AB
								10 ... 400	R160-1AC
265	292	53	8.4	576	9600			15 ... 700	R160-1AD
								200 ... 1200	R160-1AE



R161-04



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



*1 at 6 bar supply pressure and max. outlet pressure

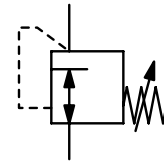
* Product group

PDF CAD
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Order example:
R161-04AT

Description	Low pressure regulator with large diaphragm for good accuracy and high sensitivity.	
Media	compressed air or non-corrosive gases	
Supply pressure	see chapter, max. 10 bar (bei R161), min. 1 bar	
Air consumption	without constant bleed	
Adjustment	with handwheel by R161	with adjusting screw on R160-06 to -1A (A, B, C), -12 and -16
	with T-handle by R160-06 to 1A (D, E)	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: FKM by G $\frac{1}{2}$, all other NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass / aluminium Spring cage: stainless steel	



G $\frac{1}{2}$ up to G2
5 ... 45/1500 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					
mm	mm	mm	(m ³ /h)			bar	G	mbar		

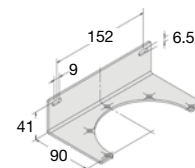
Low pressure regulator										supply pressure max. 7 / 10 bar, non-relieving, without constant bleed	R160
192	468	128	6.2	420	7000	6	G1½	20 ... 50			R160-12A
								50 ... 150			R160-12B
								150 ... 300			R160-12C
			25	1680	28000			100 ... 1000			R160-12D
192	468	128	6.2	420	7000	6	G2	20 ... 50			R160-16A
								50 ... 150			R160-16B
								150 ... 300			R160-16C
			25	1680	28000			100 ... 1000			R160-16D

Special options, add the appropriate letter

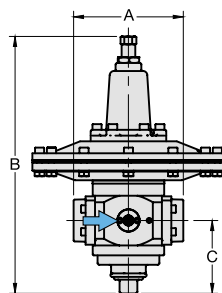
NPT	connection thread, A=141 mm	for G $\frac{1}{2}$	R160-... N
NPT	connection thread	for G $\frac{3}{4}$ to G2	R160-... N
SST inner parts	for ammonia NH ₃		R160-... 02
FKM -O-ring	PTFE diaphragm	for G3/4 to G2	R160-... T
EPDM-O-ring			R160-... TE
EPDM-O-ring	FDA-approval		R160-... TD
carbon dioxide CO ₂			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	for G $\frac{1}{2}$ bis G1½ (1A)	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

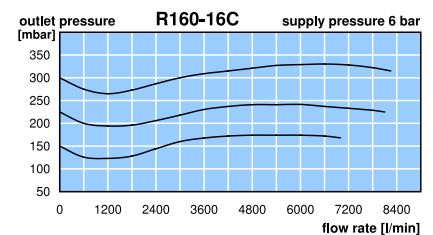
pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$, capsule type, connection parts required	MA6302-... *2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube, connection parts required	MA6302-... *2
connection parts	for pressure gauge, made of brass, not for NH ₃	for G $\frac{1}{2}$ AM-01
connection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



R160-12/-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, 01.6 = 0...1,6 bar

*4 without DVGW approval

* Product group

Gauges: see chapter for measuring devices

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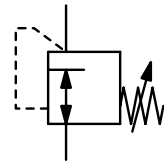


Order example:
R160-12A

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	



G1 up to flange DN50
15...20/4400 mbar

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	
mm mm mm							

Low press. regulator w. positioning spring

P1: max. 20 bar, non-relieving

RZ

100	245	30	10	17	1800	10	G1	15 ... 20	RZ1-08A
			10		1800	10		20 ... 30	RZ1-08B
			10		1800	10		30 ... 40	RZ1-08C
			10		1800	10		40 ... 70	RZ1-08D
			10		1800	10		70 ... 110	RZ1-08E
			10		3300	16/20		110 ... 180	RZ2-08F
			10		3300	16/20		180 ... 300	RZ2-08G
			5		4100	16/20		300 ... 700	RZ3-08H
100	245	30	10	17	2700	10	G1½*3	15 ... 20	RZ1-12A
			10		2700	10		20 ... 30	RZ1-12B
			10		2700	10		30 ... 40	RZ1-12C
			10		2700	10		40 ... 70	RZ1-12D
			10		2700	10		70 ... 110	RZ1-12E
			10		5000	16/20		110 ... 180	RZ2-12F
			10		5000	16/20		180 ... 300	RZ2-12G
			5		5000	16/20		300 ... 700	RZ3-12H
254	460	80	5	22	15000	10	flange	10 ... 18	RZ1-16AF
			5		15000	10	DN50	15 ... 30	RZ1-16BF
			5		15000	10		25 ... 49	RZ1-16CF
			5		25000	10		40 ... 75	RZ1-16DF
			5		25000	10		62 ... 120	RZ1-16EF
			5		25000	10		100 ... 170	RZ1-16FF
			5		25000	20		145 ... 270	RZ1-16GF
			5		25000	20		230 ... 350	RZ1-16HF
			5	34	28000	20		280 ... 720	RZ2-16IF
			5		28000	20		840 ... 1250	RZ2-16KF



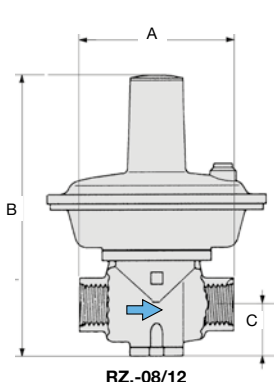
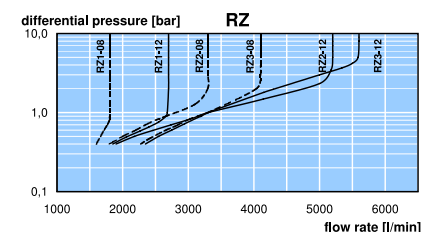
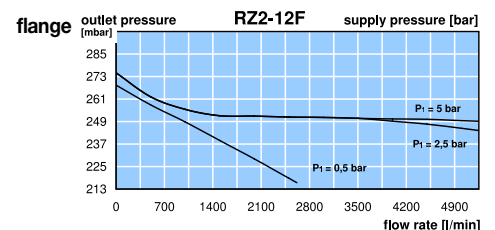
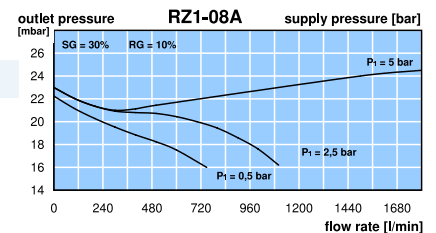
RZ2-08F



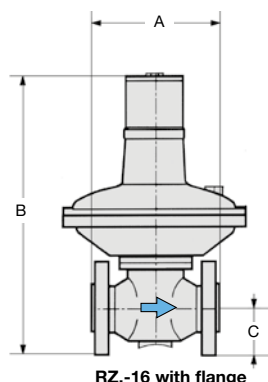
RZ1-16AF

Special options, add the appropriate letter

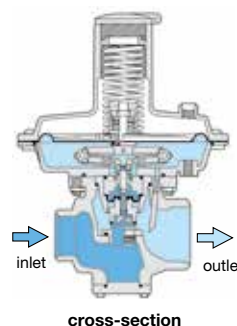
further ranges	RZ3-08 / -12	700 ... 1100	I	1100 ... 2000	J	2000 ... 3000	RZ3-...K
further ranges	RZ2-16	1050 ... 2300	L			2000 ... 4400	RZ3-16M
relieving		with relieving function, adjustable					RZ-...R
FKM elastomer							RZ-...V
nitrogen	N ₂ : 07	carbon dioxide	CO ₂ : 03	argon	Ar: RZ-...05		
helium	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		
connection	see chapter for stainless steel devices / flanges			RZ-...F.			



RZ-08/12



RZ-16 with flange



cross-section

*1 at 4 bar supply pressure and max. outlet pressure

*2 see description above

*3 G1 thread at inlet

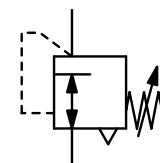
* Product group

PDF CAD
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Order example:
RZ1-08A

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



G $\frac{3}{8}$ up to G $\frac{3}{4}$
2...45/350 mbar

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

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

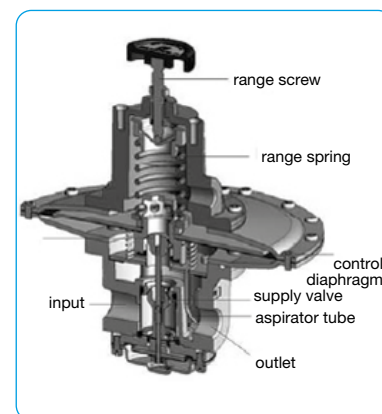
NPT	connection thread	R4100-...N
tapped exhaust	connection thread G $\frac{1}{4}$	R4100-...X12
tamper-proof cap	made of aluminium, adjustment by screwdriver, height 295 mm	R4100-...T
FKM elastomer		R4100-...V
flange connection	see chapter for stainless steel devices / flanges	R4100-...F.

Accessories, enclosed

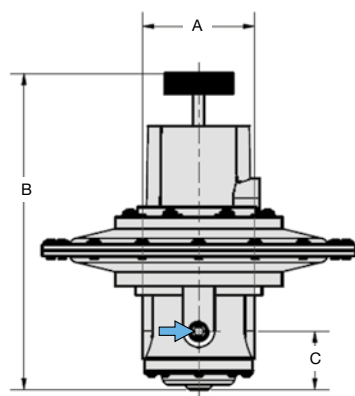
pressure gauge	Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$	MA6302-...*2
mounting bracket	made of steel	BW00-47



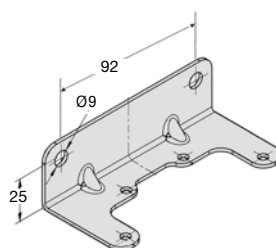
R4100



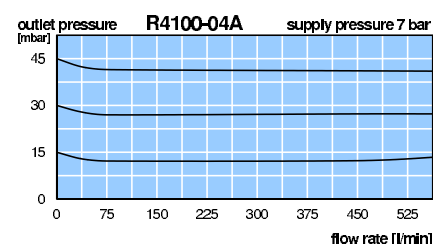
cross-section



R4100



BW00-47



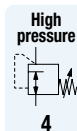
*1 at 10 bar supply pressure and max. outlet pressure *2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar

* Product group

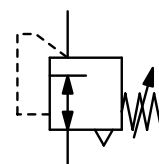


HIGH PRESSURE REGULATORS

DESCRIPTION			SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
			max. bar	bar	thread		
PRESS. REGULATOR	also for liquidis and O ₂	Kv: 0.3 - 25,6	40	0.2 ... 3 / 35	G $\frac{1}{4}$ - G2	R280	4.02
	for many different gases	Kv: 0.2 - 70	50	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - G4	R120	4.04
	also for liquids	Kv: 1.3 - 3,2	60	0.5 ... 12 / 50	G $\frac{1}{4}$ - G1	R286	4.08
	low cost	Kv: 0.02	207	0.1 ... 3.5 / 12	$\frac{1}{4}$ "NPT	RH83	4.09
	for many different gases	Kv: 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	RH201, RH202	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	Kv: 0.05	414	0.5 ... 5 / 124	$\frac{1}{4}$ "NPT	RH1	4.15
	different pressure ranges	Kv: 0.05	414	0.3 ... 35 / 414	$\frac{1}{4}$ "NPT	HP300	4.16
	made of brass	Kv: 0.05	414	0.7 ... 104 / 172	$\frac{1}{4}$ "NPT	HP400	4.16
	different pressure ranges	Kv: 0.05	300	0.1 ... 1.7 / 35	$\frac{1}{4}$ "NPT	HP500	4.17
	large nominal size	Kv: 1.7	260	0.7 ... 21 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3	4.18
	large nominal size	Kv: 1.7	345	0.7 ... 21 / 172	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-U	4.18
MADE OF SST	different pressure ranges	Kv: 0.05		0.3 ... 35 / 690	$\frac{1}{4}$ "NPT	HP306	4.19
	for many different gases	Kv: 0.05 - 3.5	200	1 ... 8 / 200	G $\frac{1}{4}$ - G1 $\frac{1}{4}$	RH3000	15.16
	different pressure ranges		690	0.3 ... 35 / 414	$\frac{1}{4}$ "NPT	HP300-S	4.16
	large nominal size	Kv: 1.7	310	0.7 ... 21 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-S1	4.18
	large nominal size	Kv: 1.7	410	0.7 ... 21 / 172	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-S2	4.18
	for different gases, wide variety		60	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - G2	R3000	15.04
VOLUM. BOOSTER	ratio 1:2 to 1:19	Kv: 1.7	260	3 ... 42 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-J	6.14
	SST 1:2 to 1:19	Kv: 1.7	310	3 ... 42 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-JS1	6.14
	made of brass		50	1 ... 15 / 50	G $\frac{1}{4}$ - G2	R120-J	6.15
	SST	Kv: 2.9	100	0.1 ... 24 / 99	G1	RLM, RLE	6.17
ELECTRICAL	control valves		75	0 ... 40 / 70	G $\frac{1}{8}$	PQH	10.19
	Proportional solenoid		90	0 ... 30 / 80	G $\frac{1}{4}$	PHP	10.21



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



G $\frac{1}{4}$ up to G2, P $_1$: max. 40 bar
0.2 ... 3/35 bar

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. 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 0.2 ... 6 0.5 ... 10 0.5 ... 16 0.5 ... 25	R280-02A R280-02B R280-02C R280-02D R280-02E
72	145	30	handwheel	0.8	75	1250	G $\frac{1}{2}$	0.2 ... 3 0.2 ... 6 0.5 ... 10 0.5 ... 16 0.5 ... 25	R280-04A R280-04B R280-04C R280-04D R280-04E
			hexagonal spindle						
95	216	41	T-handle	4.8	450	7500	G $\frac{3}{4}$ *2	0.2 ... 3 0.2 ... 6 0.5 ... 10 0.5 ... 16 0.5 ... 25	R280-06A R280-06B R280-06C R280-06D R280-06E
			hexagonal spindle						
95	216	41	T-handle	5.0	468	7800	G1	0.2 ... 3 0.2 ... 6 0.5 ... 10 0.5 ... 16 0.5 ... 25	R280-08A R280-08B R280-08C R280-08D R280-08E
			hexagonal spindle						
128	240	50	T-handle	7.1	660	11000	G1 $\frac{1}{4}$ *2	0.2 ... 3 0.2 ... 6 0.5 ... 10 0.5 ... 16 0.5 ... 25	R280-10A R280-10B R280-10C R280-10D R280-10E
			hexagonal spindle						



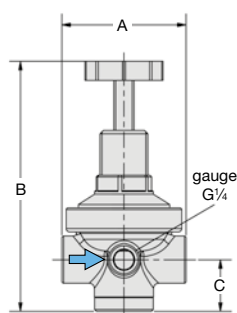
R280-02



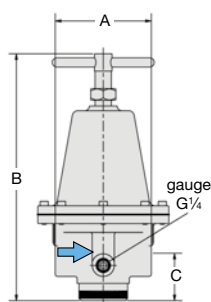
R280-04A / B / C



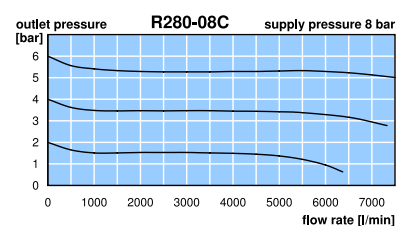
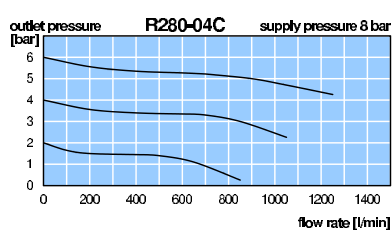
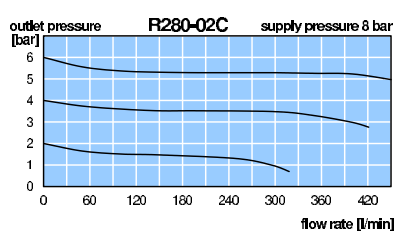
R280-10D / E



R280-02/-04



R280-06/-08/-10/-12



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

*2 reduced from next bigger thread

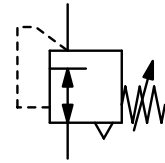
* Product group

PDF CAD
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Order example:
R280-02A

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



G $\frac{1}{4}$ up to G2, P $_1$: max. 40 bar
0.2...3/35 bar

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
mm	mm	mm						

Brass pressure regulator									supply pressure max. 40 bar, for compressed air relieving, without pressure gauge	R280
114	240	50	T-handle	7.7	720	12 000	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	2 400	40 000	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

Special options, add the appropriate letter

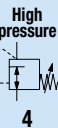
non-relieving	without relieving function	not for G2	R280-... K
for oxygen	specially cleaned, with oxygen grease, max. 60 °C/140 °F up to G1 $\frac{1}{2}$		R280-... K15

Accessories, enclosed

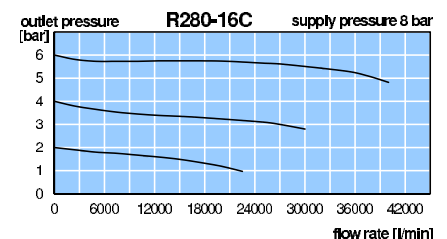
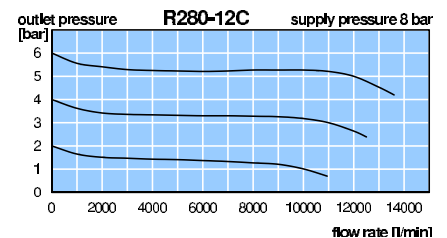
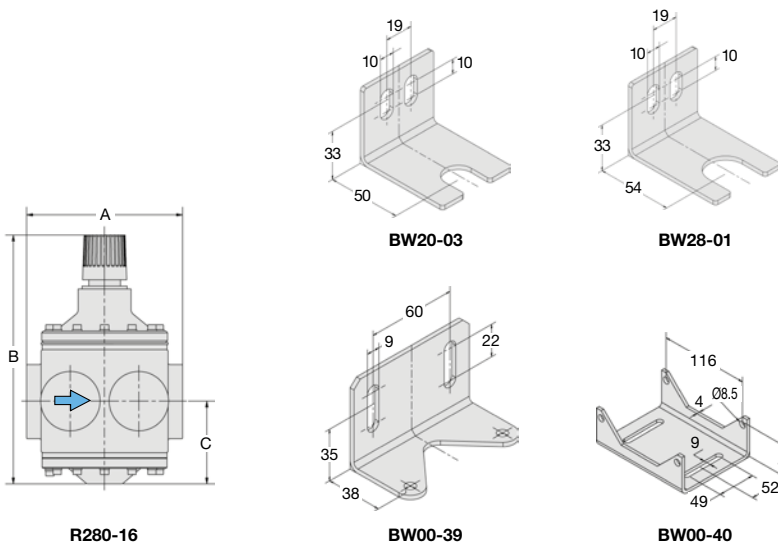
pressure gauge	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$	MA5002-... ^{*2}
	Ø 50 mm, 0...25 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ and G $\frac{1}{2}$	MA5002- 25
	Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$	from G $\frac{3}{4}$	MA6302-... ^{*2}
	Ø 63 mm, 0...25 bar, G $\frac{1}{4}$	from G $\frac{3}{4}$	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



R280-12A/B/C



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

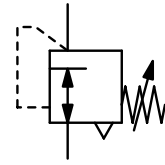
PDF CAD
www.aircom.net

* Product group



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 $\Delta p_{\text{max}} = 25$ 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
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



G $\frac{1}{8}$ up to G4
0.1 ... 1.5/50 bar

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	

Brass pressure regulator				for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge				R120			
40	88	18	D	0.35	8	130	G $\frac{1}{8}$	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	0.35	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	146	35	D	1.4	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	
69	161	35	P		50	840		50	2 ... 30	R120-02F	
			P		60	1000		50	3 ... 50	R120-02G	
69	146	35	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	
69	161	35	P		50	840		50	2 ... 30	R120-03F	
			P		60	1000		50	3 ... 50	R120-03G	

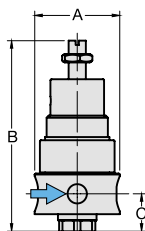


R120-01/-A2

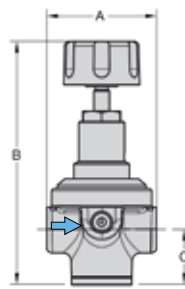


R120-02/-03

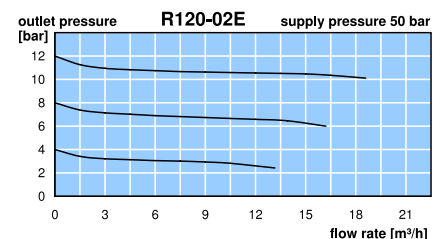
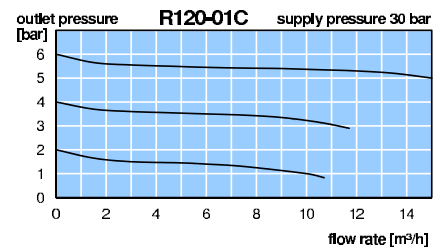
Special options and Accessories, see separate page



R120-01/-A2



R120-02/-03



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

* Product group

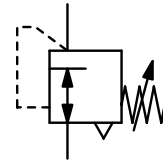
Gauges: see chapter for measuring devices

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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, Supply pressure see chart, max. 50 bar, for liquids $\Delta p_{max} = 25$ bar R120-04 to -B6: with T-handle, at R120-02 with black knob R120-16/-24/-32: by pilot pressure regulator, R120-16: with hexagonal spindle (spanner size 24 mm)
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, all others G $\frac{1}{4}$ 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



G $\frac{1}{8}$ up to G4
0.1 ... 1.5/50 bar

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	

Brass pressure regulator					for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge					R120
78	171	37	D	3.0	27	450	G½	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	171	37	P		100	2080		50	2 ... 30	R120-04F
			P		120	2500		50	3 ... 50	R120-04G
114	290	66	D	9.8	75	1250	G¾*2	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
114	315	66	P		400	6600		50	2 ... 30	R120-06F
			P		500	8300		50	3 ... 50	R120-06G
114	290	66	D	9.8	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
114	315	66	P		400	6600		50	2 ... 30	R120-08F
			P		500	8300		50	3 ... 50	R120-08G



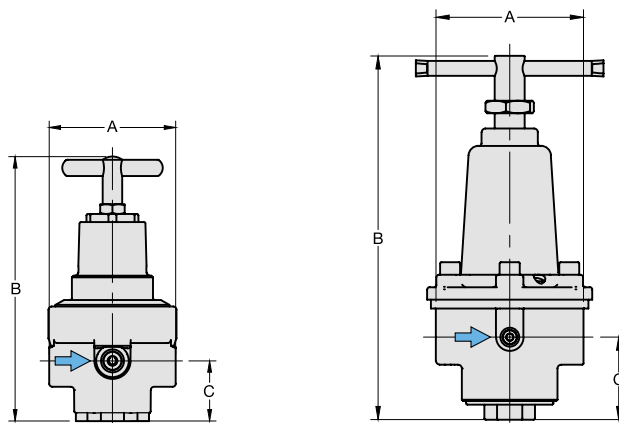
R120-04



R120-06/-08



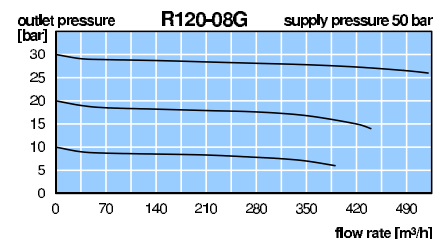
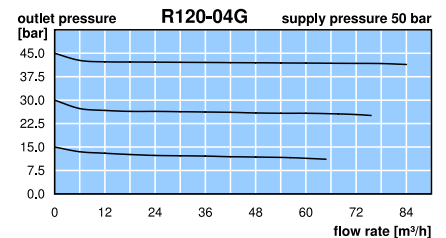
Special options and Accessories, see separate page



R120-04

R120-06/-08

*1 at max. supply pressure and max. outlet pressure
*2 reduced from next bigger thread



* Product group

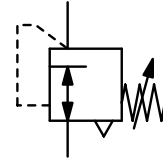
Gauges: see chapter for measuring devices

PDF CAD
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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-B6: relieving
Gauge port	R120-16/-24/-32: non-relieving 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



G $\frac{1}{8}$ up to G4
0.1 ... 1.5/50 bar

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	(m³/h)	m³/h*1 l/min*1	G	bar	bar	

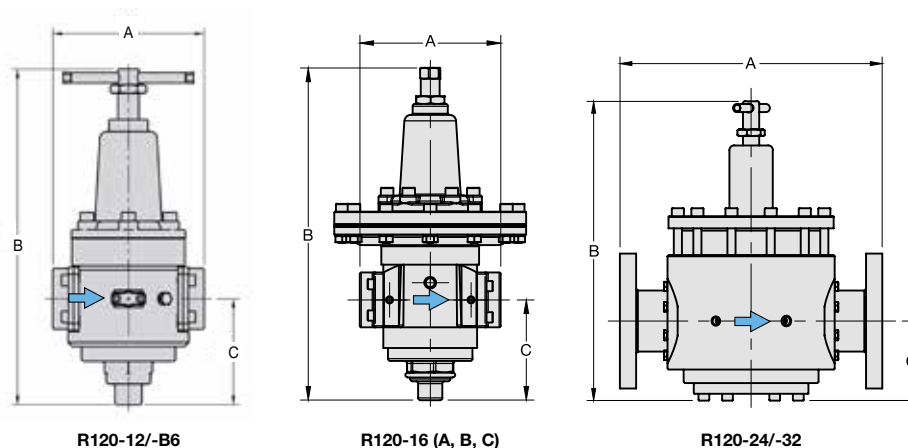
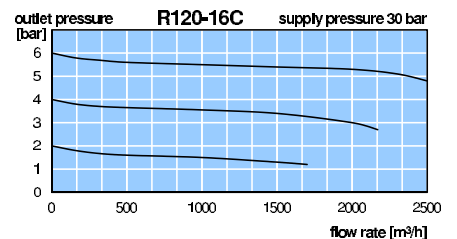
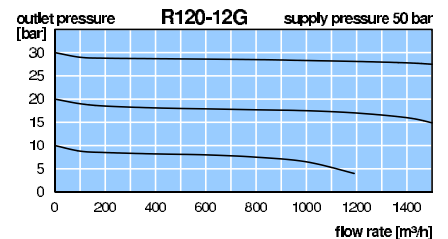
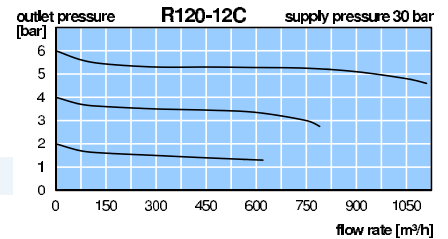
Brass pressure regulator								for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge		R120
174	386	122	P	25	400	6600	G1½	30	0.1 ... 1.5	R120-12A
			P		670	11000		30	0.2 ... 3.0	R120-12B
			P		1000	16600		30	0.5 ... 8.0	R120-12C
			P		1500	25000		50	1 ... 15	R120-12E
			P		1600	27000		50	2 ... 30	R120-12F
			P		2000	33000		50	3 ... 50	R120-12G
174	386	122	P	25	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
			P		1600	27000		50	2 ... 30	R120-B6F
			P		2000	33000		50	3 ... 50	R120-B6G
180	421	128	D	25	1800	30000	G2	30	0.1 ... 1.5	R120-16AK
			D		2100	35000		30	0.2 ... 3.0	R120-16BK
			D		2500	40000		30	0.3 ... 6.0	R120-16CK
180	403	128	D		3500	50000		30	1 ... 15	R120-16DK
389	434	118	D	65	2400	40000	flange	30	0.1 ... 1.5	R120-24AKF
			D		5000	83000		30	0.2 ... 3.0	R120-24BKF
			D		5000	83000	DN80	30	0.3 ... 6.0	R120-24CKF
			D		6000	99000		30	1 ... 15	R120-24DKF
389	434	118	D	65	2400	40000	flange	30	0.1 ... 1.5	R120-32AKF
			D		3700	61000		30	0.2 ... 3.0	R120-32BKF
			D		5000	83000	DN100	30	0.3 ... 6.0	R120-32CKF
			D		6000	99000		30	1 ... 15	R120-32DKF



R120-12/-B6



R120-16DK



R120-12/-B6

R120-16 (A, B, C)

R120-24/-32

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

* Product group

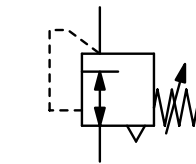
Gauges: see chapter for measuring devices

PDF CAD
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Order example:
R120-12A

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 $\Delta p_{\text{max}} = 25$ 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 $\frac{1}{8}$ 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



G $\frac{1}{8}$ up to G4
0.1 ... 1.5/50 bar

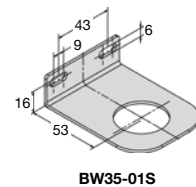
Dimensions	Regul. system	K _v -	Flow	Connection	P ₁	Pressure	Order
A B C	D: diaphragm	value	rate	thread	max.	range	number
mm mm mm	P: piston	(m ³ /h)	m ³ /h*1 l/min*1	G	bar	bar	B*

Special options, add the appropriate letter

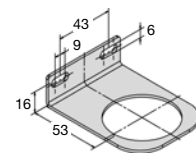
NPT	connection thread	R120-...N
non-relieving	without relieving function	up to R120-B6 R120-...K
down to -40 °C	low temperature version	R120-...X51
up to 130 °C	high temperature version	R120-...X54
Spring cage made of POM	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	R120-...X57
EPDM O-ring	PTFE diaphragm	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.

Accessories, enclosed

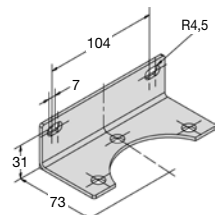
pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	MA4001-...*2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ (02) up to G $\frac{1}{2}$	MA5002-...*2
	Ø 50 mm, 0...60 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ up to G $\frac{1}{2}$	MA5002-60
	Ø 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 $\frac{1}{8}$ u. G $\frac{1}{4}$ (A2)	BW30-03S
mounting nut	made of stainless steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	M30x1,5SS
mounting bracket	made of stainless steel	for G $\frac{1}{4}$ (02) and G $\frac{3}{8}$	BW35-01S
mounting nut	made of stainless steel	for G $\frac{1}{4}$ (02) 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
mounting bracket	made of stainless steel	for G1 $\frac{1}{2}$ and G2 (B6)	BW00-68S



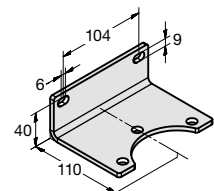
BW35-01S



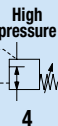
BW50-01S



BW00-42



BW00-68S



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

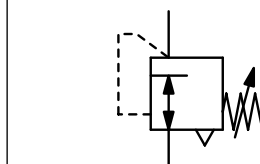
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 without DVGW approval

* Product group



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 μm
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	



G $\frac{1}{4}$ up to G1, P $_1$: max. 60 bar
0.5 ... 12/50 bar

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



R286-02C / E



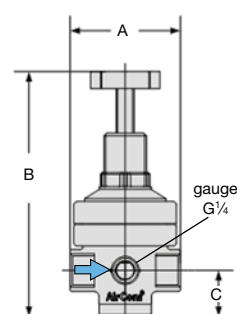
R286-08F / G

Special options, add the appropriate letter

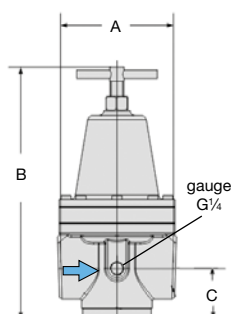
non-relieving	without relieving function, for liquids	R286-0 . . K
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Accessories, enclosed

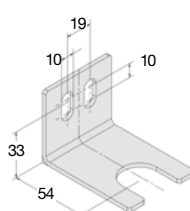
pressure gauge	Ø 50 mm, 0...10 bar, G $\frac{1}{4}$ 0...25 bar, G $\frac{1}{4}$ 0...60 bar, G $\frac{1}{4}$ Ø 63 mm, 0...16 bar, G $\frac{1}{4}$ 0...25 bar, G $\frac{1}{4}$ 0...60 bar, G $\frac{1}{4}$	for G $\frac{1}{4}$ to G $\frac{1}{2}$ for G $\frac{1}{4}$ to G $\frac{1}{2}$ for G $\frac{1}{4}$ to G $\frac{1}{2}$ for G1 for G1 for G1 for G1	MA5002- 10 MA5002- 25 MA5002- 60 MA6302- 16 MA6302- 25 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



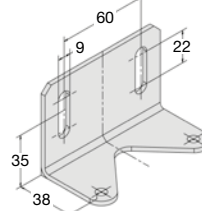
R286-02/-03/-04



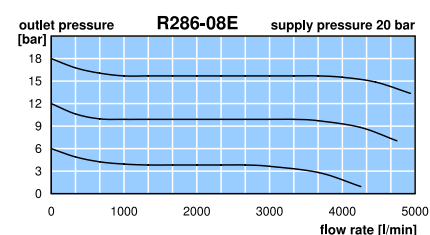
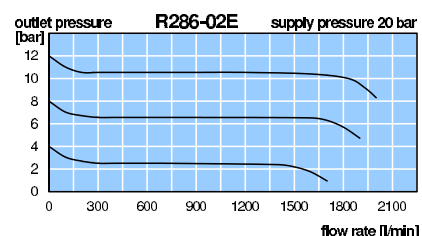
R286-08



BW28-01



BW00-45



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

* Product group

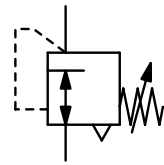
Gauges: see chapter for measuring devices

PDF CAD
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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	



P₁: max. 207 bar
0.1 ... 3.5/12 bar

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

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

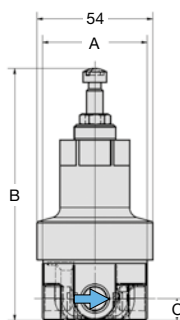


RH83

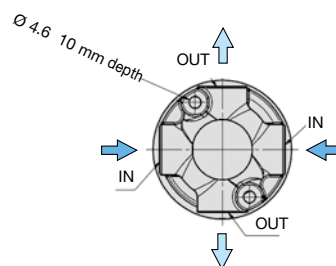
High pressure
4

Accessories, enclosed

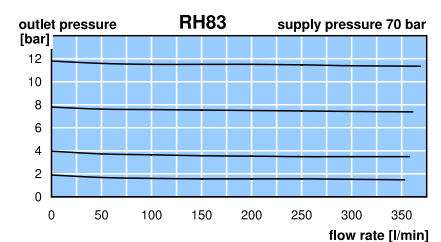
pressure gauge	Ø 50 mm, ¼" NPT	MA5002- ..*2N
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RH83



connections



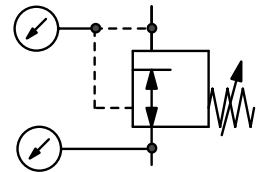
*1 bei P₁ = 70 bar, P₂ = 4 bar und Δp = 0.35 bar

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

* Product group



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



**G $\frac{1}{4}$ up to G $\frac{1}{4}$
1 ... 8/220 bar**

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



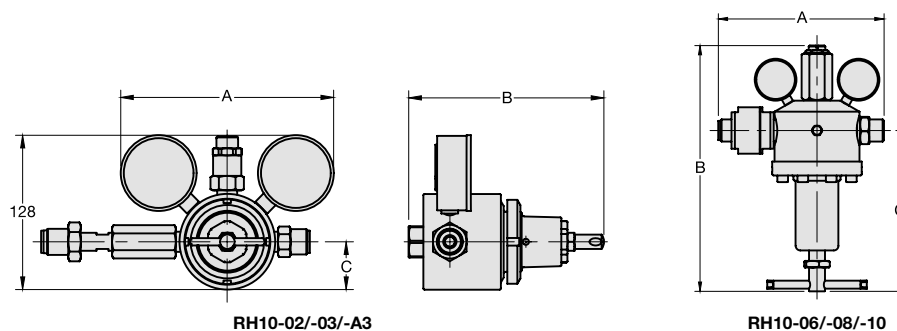
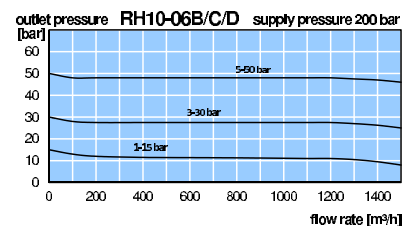
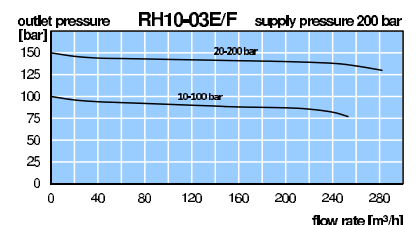
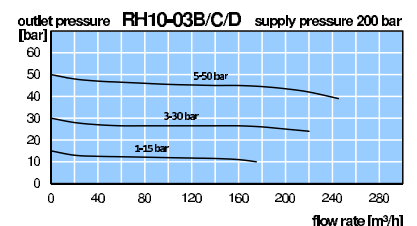
High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied	RH10	
176	145	35	S	0.05	80	1300	DIN 477 / G $\frac{1}{4}$ f	1 ... 8	RH10-02A
			S					1 ... 15	RH10-02B
176	163	35	S					3 ... 30	RH10-02C
			S					5 ... 50	RH10-02D
			S					10 ... 100	RH10-02E
			-					20 ... 200	RH10-02F
184	176	40	S	0.19	228	3800	DIN 477 / G $\frac{3}{8}$ f	0.1 ... 1.5	RH10-030
			S					1 ... 15	RH10-03B
			S					3 ... 30	RH10-03C
			S				RH10-04 for DIN 477 / G $\frac{1}{2}$ f	5 ... 50	RH10-03D
184	186	40	-					10 ... 100	RH10-03E
			-					20 ... 200	RH10-03F
182	245	102	S	0.25	422	7000	G $\frac{3}{4}$ f / G $\frac{3}{4}$ m	0.1 ... 1.5	RH10-A30
			S					1 ... 15	RH10-A3B
182	260	102	S				RH10-A4 for G $\frac{3}{4}$ f / G $\frac{1}{2}$ m	3 ... 30	RH10-A3C
			S					5 ... 50	RH10-A3D
182	195	35	-					10 ... 100	RH10-A3E
			-					20 ... 200	RH10-A3F
166	345	232	S	0.6	2000	33000	G $\frac{3}{4}$ a / G $\frac{3}{4}$ m	1 ... 8	RH10-06A
			S					1 ... 15	RH10-06B
166	358	245	S					3 ... 30	RH10-06C
			S					5 ... 50	RH10-06D
			-					10 ... 100	RH10-06E
253	370	242	S	1.8	3000	48000	G1m / G1m	1 ... 8	RH10-08A
			S					1 ... 15	RH10-08B
253	406	278	S					3 ... 30	RH10-08C
			S					5 ... 50	RH10-08D
253	406	278	-					20 ... 200	RH10-08F



RH10-02B



RH10-A3B07



*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

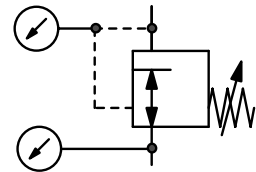
PDF CAD
www.aircom.net

* Product group



**Order example:
RH10-02A**

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



**G $\frac{1}{4}$ up to G1 $\frac{1}{4}$
1 ... 8/220 bar**

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

High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied	RH10
248	385	270	S	3.1	5000	80000	G1m / G1 $\frac{1}{4}$	1 ... 8 RH10-10A
			S					1 ... 15 RH10-10B
			S					3 ... 30 RH10-10C
248	420	305	S					5 ... 50 RH10-10D



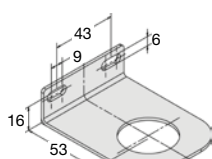
RH10-08B

Special options, add the appropriate letter

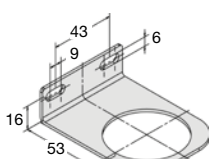
relieving	with relieving function, for compressed air	RH10-...R
FKM elastomer		RH10-...V
PTFE elastomer		RH10-...T
SST diaphragm	from RH10-03	RH10-...S
for panel mounting	for RH10-02 to -A3	RH10-...P
carbon dioxide *2	CO ₂	RH10-...03
argon	Ar	RH10-...05
nitrogen	N ₂	RH10-...07
helium	He	RH10-...09
hydrogen	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 cylinder connection		RH10-...X40

Accessories, enclosed

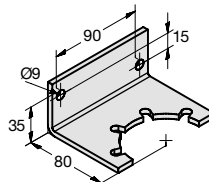
mounting bracket	made of stainless steel	for RH10-02	BW35-01S
mounting nut		for RH10-02	M35x1,5S
mounting bracket		for RH10-03 and -A3	BW50-01S
mounting nut		for RH10-03 and -A3	M50x1,5S
mounting bracket		for RH10-06	BW00-31S
		for RH10-08	BW00-35S



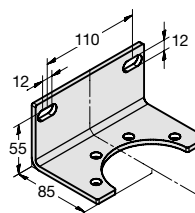
BW35-01S



BW50-01S



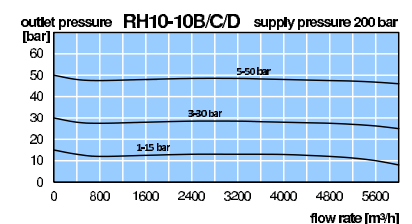
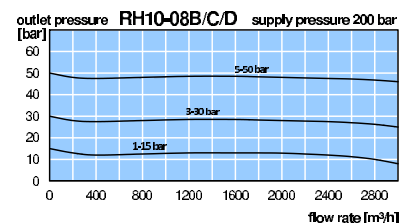
BW00-31S



BW00-35S

*1 at 200 bar supply pressure max. outlet pressure

*2 max. 80 bar outlet pressure



* Product group

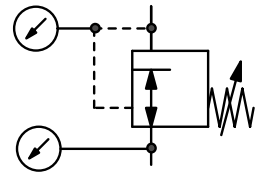
Stainless steel version: see chapter for stainless steel devices

PDF CAD
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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 (Part 1)		
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	Spring cage: brass
	Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0		



P₁: max. 200 bar
0 ... 1.5/40 bar

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

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

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 ... 1.5	RH202-00A
				48	800		0 ... 10	RH202-00C

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

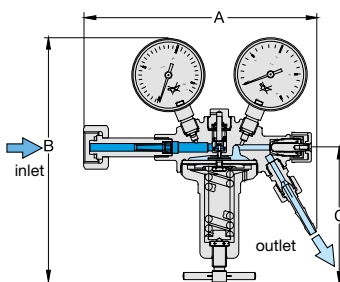
210	190	100	1-step	propane	C ₃ H ₈	max. 8	0 ... 4.0	RH201-00B16
210	190	100	1-step	azetylene	C ₂ H ₂	max. 26	0 ... 1.5	RH201-00A19



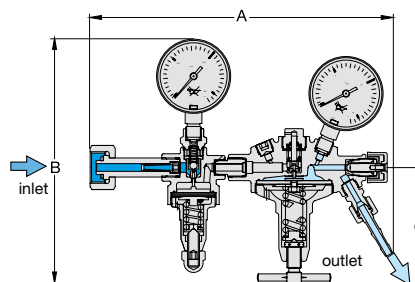
RH201, 1-step

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...



cross-section, 1-step



cross-section, 2-step



RH202, 2-step

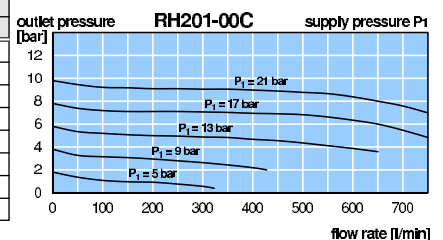


RH201-C..., chrome-plated

connection thread up to 200 bar		
gas type	inlet *1	outlet
compressed air	G½ m	G¼
oxygen	G½ f	G¼
inert gas	W21, 8x¼	G¼
CO ₂ / argon	W21, 8x¼	G¼
helium	W21, 8x¼	G¼
fuel gas	W21, 8x¼ LH	G¾ LH
hydrogen	W21, 8x¼ LH	G¾ LH
forming gas	W21, 8x¼ LH	G¾ LH

connection thread up to 200 bar		
gas type	inlet *1	outlet
nitrogen	W24,32x¼	G¼
testing gas	M19x1,5 LH	G¾ LH
nitrous oxide	G¾	G¼
azetylene	clamp (cylinder)	G¾a 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, Part 1

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

only left hand thread is marked LH, right hand RH is not marked.

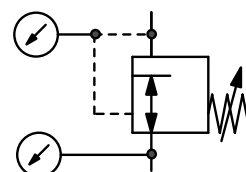
* Product group

PDF CAD
www.aircom.net



Order example:
RH201-00C

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 (Part 5)
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 Spring cage: brass Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0



P₁: max. 300 bar
0 ... 1.5/40 bar

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**

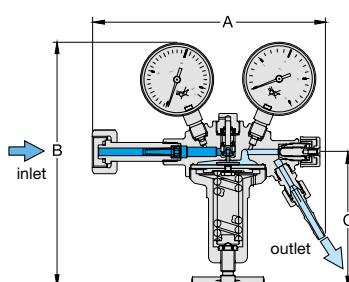
210	190	100	1-step	48	800	300	0 ... 10	RH301-00C
210	210	120		75	1250		0 ... 20	RH301-00D
				120	2000		0 ... 40	RH301-00E
240	190	100	2-step	8	133	300	0 ... 1.5	RH302-00A
				48	800		0 ... 10	RH302-00C



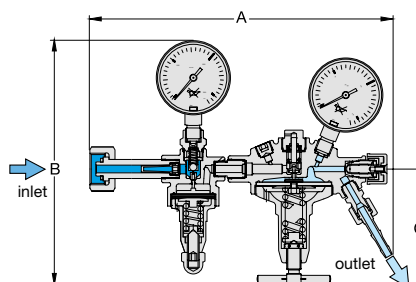
RH301, 1-step

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		RH30 -... .08
helium	He	RH30 -... .09
hydrogen	H ₂	RH30 -... .11
testing gas		RH30 -... .12
oxygen	O ₂	RH30 -... .15
chrome-plated body	inside and outside	RH301 -C...
chrome-plated body	inside and outside	RH302 -C...
metal diaphragm	5.0 purity	RH301 -M...
		RH302 -M...



cross-section, 1-step



cross-section, 2-step

connection thread up to 300 bar		
gas type	inlet *1	outlet
fuel gas	W30x2 LH	G ¹ / ₂ LH
all others	W30x2	G ¹ / ₄

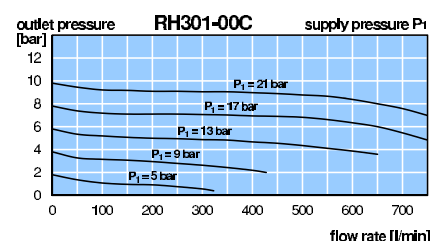
flow rate - correction factor	
gas type	factor
compressed air	1.00
oxygen O ₂	0.95
carbon dioxide CO ₂	0.81
hydrogen H ₂	3.80
argon Ar	0.85
helium He	2.70
propane C ₃ H ₈	0.80
nitrous oxide N ₂ O	0.80



RH302, 2-step



RH301-C..., chrome-plated



*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

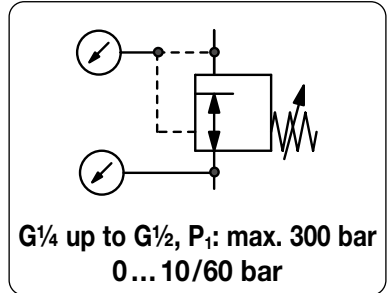
* Product group

PDF CAD
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Order example:
RH301-00C

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
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	
mm	mm	mm						

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			0...20	RH-147.525
			290	4830			15...40	RH-147.545
			450	7500			15...60	RH-147.565
150	205	115	50	830	200	G½	0...10	RH-247.510
			75	1250			0...20	RH-247.520
200	310	215	170	2830			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			0...20	RH-347.525
			290	4830			15...40	RH-347.545
			450	7500			15...60	RH-347.565



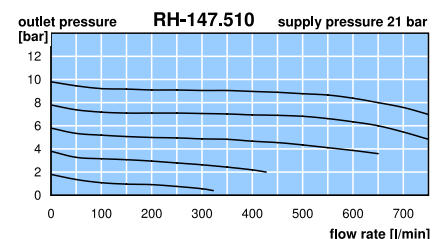
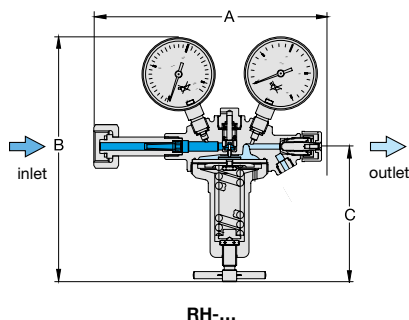
RH-147.510 / 520



RH-47.525 / 545 / 565

Special options, add the appropriate letter

G¼	connection thread, max. 100 bar	RH-...27...
G½	connection thread	RH-...37...
metal diaphragm	5.0 purity	RH-...7...M
carbon dioxide	CO ₂	RH-...7...03
inert gas		RH-...7...04
argon	Ar	RH-...7...05
fuel gas		RH-...7...06
nitrogen	N ₂	RH-...7...07
forming gas		RH-...7...08
helium	He	RH-...7...09
hydrogen	H ₂	RH-...7...11
testing gas		RH-...7...12
methane	CH ₄	RH-...7...13M
natural gas *2		RH-...7...14
oxygen	O ₂	RH-...7...15
chrome plated body	inside and outside	RH-...7...C

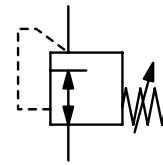


*1 at supply pressure of 2 x outlet pressure + 1 bar

*2 without DVGW-approval

* Product group

Description	Diaphragm-operated high pressure regulator of small and light design.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 414 bar
Adjustment	by black plastic knob
Relieving function	non-relieving
Leakage rate	$< 1 \times 10^{-4}$ mbar l/s He
Gauge port	1/4" NPT for inlet and outlet pressure
Weight	aluminium 200 g, brass 430 g
Mounting position	any
Temperature range	-25 °C to 75 °C / -13 °F to 167 °F
Materials	Body: nickel-plated aluminium Regulating system: piston with EPDM o-ring, as option NBR/Buna-N or FKM Valve seat: CTFE or Vespel as option Inner valve: stainless steel and aluminium



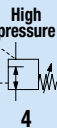
P₁: max. 414 bar
0.5 ... 5/124 bar

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

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

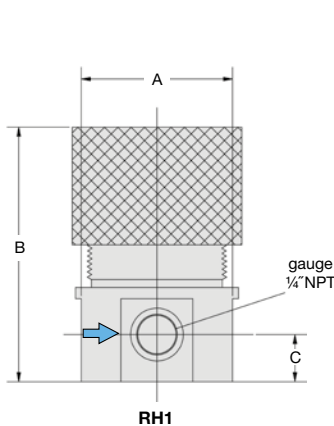


RH1

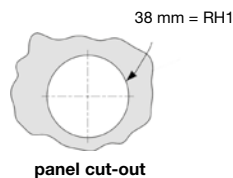


Special options, add the appropriate letter

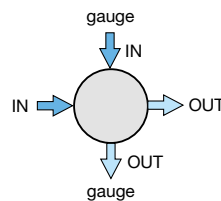
Vespel seat	für RH1	RH1-02.X45
NBR o-ring	für RH1	RH1-02.N
FKM o-ring	für RH1	RH1-02.V
brass pressure gauge	inlet side	HM
SST pressure gauge	inlet side	H
	outlet side	RH1-02.GM
	outlet side	RH1-02.G



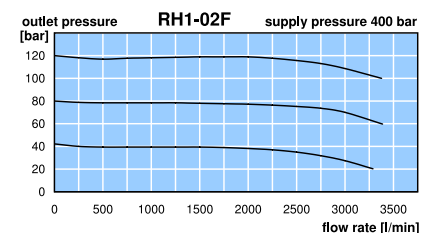
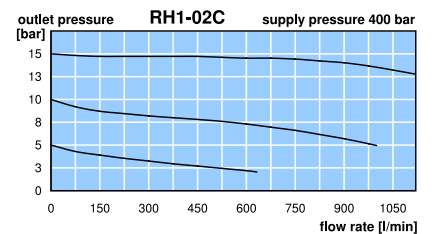
RH1



panel cut-out



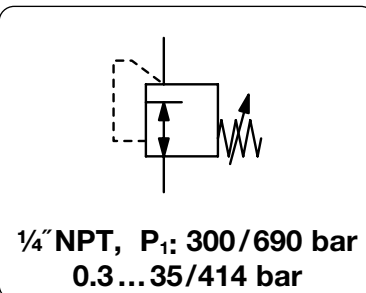
connection diagram



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



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

High pressure regulator 414 bar							HP300
non-relieving, brass							
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							HP400
non-relieving, brass							
50	137	13	0.05	90	1500	1/4" NPT	0.7 ... 104 HP400-104
							1.0 ... 172 HP400-170

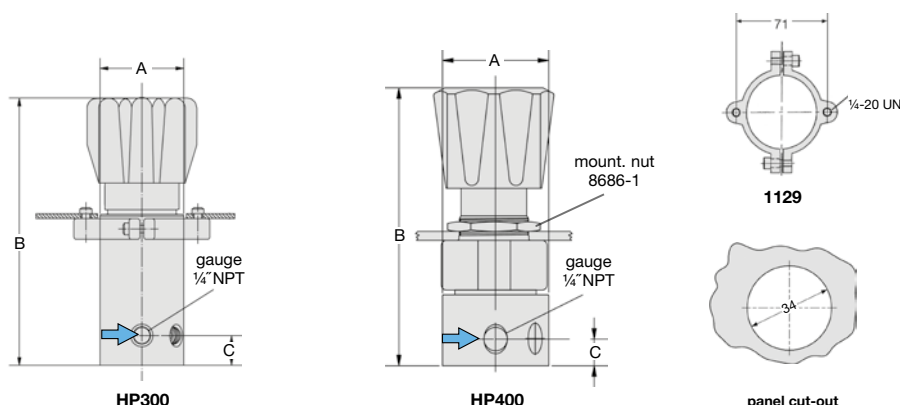


Special options, add the appropriate letter

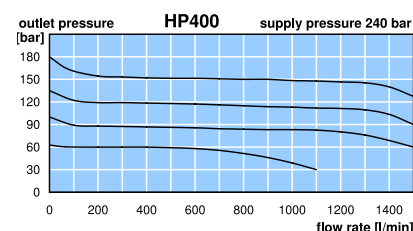
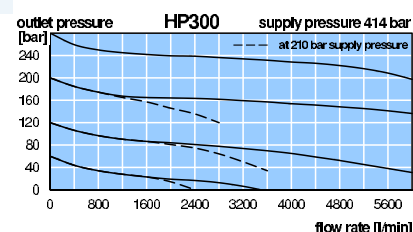
relieving				HP300-...R
				HP400-...R
body made of SST		(690 bar)		HP300-...S
		(414 bar)		HP400-...S
for oxygen	specialty cleaned,	P ₁ < 300 bar	for HP300/400	HP.00-...15
for liquids	w/o filter at inlet, valve seat of Nylatron		for HP300	HP300-...W
	w/o filter at inlet, valve seat of Vespel		for HP400	HP400-...W
brass pressure gauge	for brass body, inlet side			HP.00-...HM
	for brass body, outlet side			HP.00-...GM
SST pressure gauge	for stainless steel body, inlet side			HP.00-...H
	for stainless steel body, outlet side			HP.00-...G

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



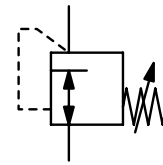
* Product group

PDF CAD
www.aircom.net



Order example:
HP300-035

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



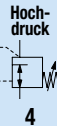
1/4" NPT, P₁: 300 bar
0.1 ... 1.7/35 bar

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

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

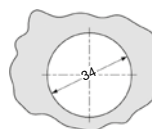
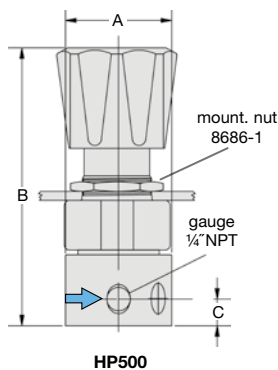


Special options, add the appropriate letter

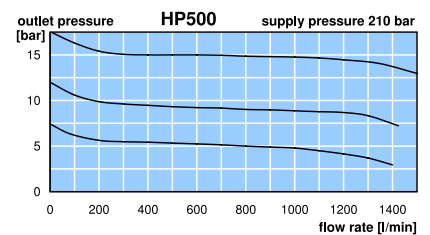
relieving		HP500-...R
body made of SST		HP500-...S
free of grease and oil	suitable for oxygen, P ₁ < 200 bar	HP500-...L
for liquids	w/o filter at inlet, valve seat of Vespel	HP500-...W
brass pressure gauge	for brass body, inlet side	HP500-...HM
	for brass body, outlet side	HP500-...GM
SST pressure gauge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

Accessories, enclosed

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



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

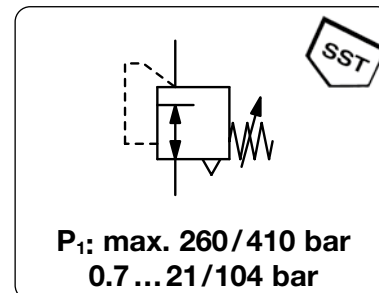
* Product group

PDF CAD
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Order example:
HP500-002

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 310 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	Flow rate		Connection thread	Pressure range	Order number
A	B	C		m ³ /h	l/min			
mm	mm	mm	(m ³ /h)	m ³ /h*	l/min*	NPT	bar	

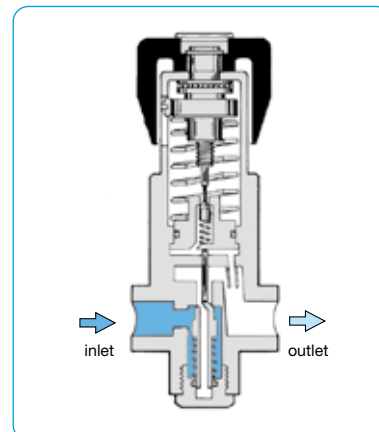
High pressure regulator 260 bar, 1/2" NPT							relieving, brass	RH3
76	203	45	1.7	420	7000	1/2" NPT	0.7 ... 21	RH3-04B
							1.0 ... 42	RH3-04C
							1.4 ... 70	RH3-04D
							3.4 ... 104	RH3-04E



RH3

Special options, add the appropriate letter

1/4" 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 MHM	outlet side RH3-0..MGM
SST pressure gauge	inlet side MH	outlet side RH3-0..MG

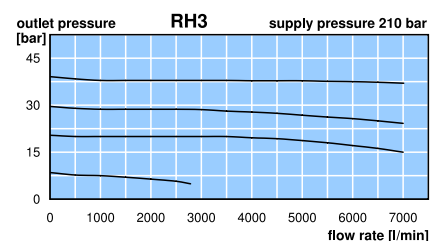
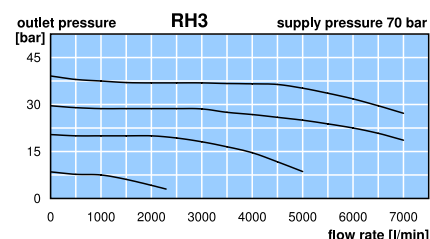
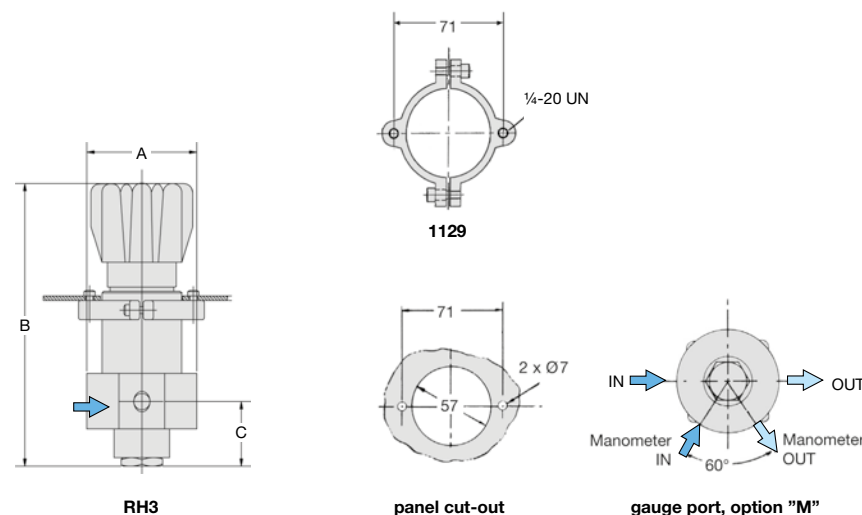


cross-section

Accessories, enclosed

set of mounting brackets for panel mounting

1129



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

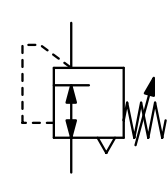
* Product group

PDF CAD
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Order example:
RH3-04B

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	



SST

**P1: max. 415 / 1034 bar
0,3 ... 35 / 690 bar**

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 steal, NBR			HP306
55	175	19	0,05	210	3600	¼" NPT	0.3 ...	35	HP306-035
				230	3900	¼" NPT	0.3 ...	55	HP306-055
				280	4800	¼" NPT	0.7 ...	105	HP306-105
				320	5400	¼" NPT	1.0 ...	175	HP306-175
				390	6500	¼" NPT	1.7 ...	275	HP306-280
				420	7000	¼" NPT	3.4 ...	415	HP306-415
				450	7500	¼" NPT	14 ...	690	HP306-690

Special options, add the appropriate letter

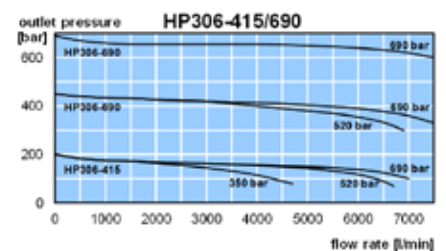
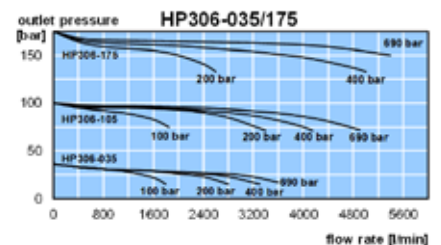
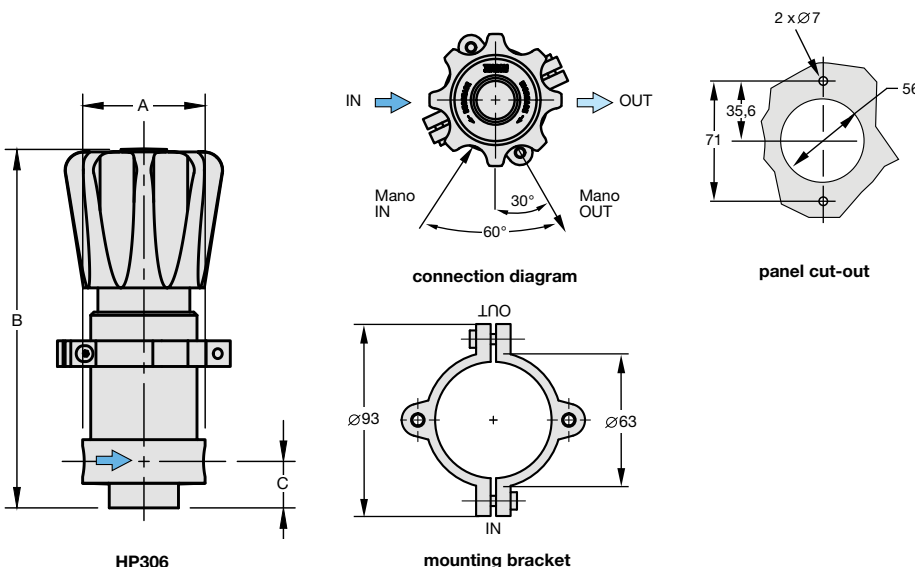
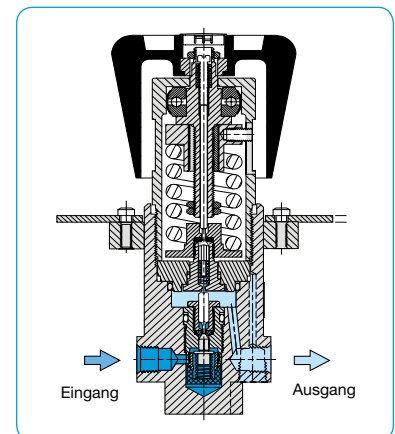
3/8"NPT	connection thread	HP306-...03
1/2"NPT	connection thread not possible by option S	HP306-...04
FKM elastomer		HP306-...V
non-relieving	with FKM elastomer	HP306-...VK
for oxygen	special cleaned, P1 < 200 bar	HP306-...15
inlet pressure 415 bar	brass up to pressure range 3.4 ... 415	HP306-...U
inlet 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

mounting bracket	made of aluminium	1129
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HP306
accessory: mounting bracket



*1 at 690 bar inlet pressure, see diaphragm

* Product group

PDF CAD
www.aircom.net



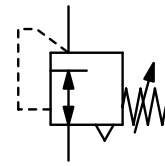
Order example:
HP306-035

PRECISION PRESSURE REGULATOR

	DESCRIPTION	PRESSURE RANGE	CONNECTION	SERIES	PAGE
		bar	thread		
WITH CONSTANT BLEED	miniature	0.05 ... 2 / 8	G $\frac{1}{8}$ a. $\frac{1}{8}$ "NPT	R90	5.02
	proven	0.02 ... 0.5 / 10	G $\frac{1}{4}$	11-818	5.03
	proven	0.14 ... 1.7 / 8	G $\frac{1}{4}$ a. $\frac{1}{4}$ "NPT	53.10	5.04
	many variations	0.01 ... 0.14 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R230	5.06
	very precise	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10	5.07
	small design	0.001 ... 0.14 / 7	G $\frac{1}{4}$ a. G $\frac{3}{8}$	R300	5.08
	high exhaust	0.01 ... 3 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03	5.10
	low pressure	0.002 ... 0.5 / 0.8	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110	5.11
	2-stage	0.14 ... 2.7 / 8.2	G $\frac{1}{4}$ - G $\frac{3}{4}$	R700	5.13
	many pressure areas	0.03 ... 0.15 / 14	G $\frac{1}{4}$ - G $\frac{3}{4}$	R410	5.14
	high volume flow	0.001 ... 0.7 / 10	G1 a. G1 $\frac{1}{2}$	R102	5.16
	miniature	0.01 ... 0.35 / 7	M5 a. flange	RT	1.19
	stainless steel	0.02 ... 1.5 / 10	G $\frac{1}{4}$ a. G $\frac{1}{2}$	R3150	15.12
WITHOUT CONSTANT BLEED	robust, low cost	0.01 ... 0.6 / 3.5	G $\frac{1}{4}$ a. G $\frac{3}{8}$	R216	5.05
	non-relieving	0.01 ... 0.14 / 10	G $\frac{1}{4}$ a. G $\frac{1}{2}$	R230-K	5.06
	non-relieving	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10-N	5.07
	small design	0.001 ... 0.14 / 7	G $\frac{1}{4}$	R300-K	5.08
	high volume flow	0.03 ... 0.7 / 10	G $\frac{1}{4}$ u. G $\frac{3}{8}$	R100	5.09
	non-relieving	0.002 ... 0.35 / 0.8	G $\frac{1}{4}$ - G $\frac{1}{2}$	R110-K	5.11
	robust	0.01 ... 0.5 / 16	G $\frac{1}{4}$	R217	5.12
	non-relieving	0.03 ... 0.15 / 14	G $\frac{1}{4}$ - G $\frac{3}{4}$	R410-K	5.14
	high-precision	0.03 ... 0.7 / 17	G $\frac{3}{8}$ - G $\frac{3}{4}$	R400	5.15
	non-relieving	0.001 ... 0.7 / 10	G1 a. G1 $\frac{1}{2}$	R102-K	5.16
	differential pressure regulator	0.01 ... 1 / 10	G $\frac{1}{4}$ a. G $\frac{3}{8}$	R650	6.03
	miniature	0.2 ... 2.5 / 8	G $\frac{1}{8}$	R307	1.15
	miniature	0.2 ... 0.25 / 8	Flange	R308	1.16
MINIATUR	very lightweight	0.03 ... 0.24 / 6	$\frac{1}{8}$ "NPT, 16 - 32" flange	R800/R900	1.09
	interlockable	0.01 ... 0.7 / 7	M5, G $\frac{1}{8}$, G $\frac{1}{4}$, SS	R7	1.10
ELECTRICAL	control valves	0 ... 0.005/35	G $\frac{1}{8}$	PQ	10.04
	piezo-operated	-1 ... 1 / 10	G $\frac{1}{8}$ u. G $\frac{1}{4}$	PRE	10.25



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 repeatability: $\pm 0.3\%$ FS supply sensitivity: 35 mbar for a 7 bar supply pressure change
Air consumption	max. 3 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	-18 °C to 71 °C / -0.4 °F to 159.8 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



G $\frac{1}{8}$
0.05 ... 2 / 4 / 8 bar

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

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



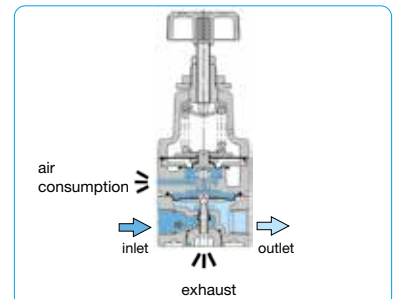
R90

Special options, add the appropriate letter

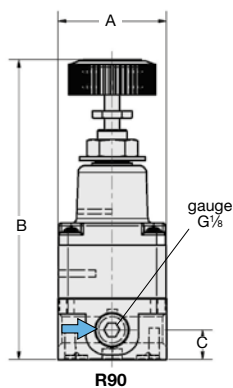
NPT	connection thread	R90-01.N
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Accessories, enclosed

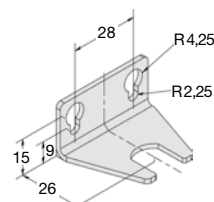
pressure gauge	Ø 23 mm, 0...*2 bar, G $\frac{1}{8}$	MA2301-...*2
mounting bracket	made of steel, mounting nut at the device	BW10-02



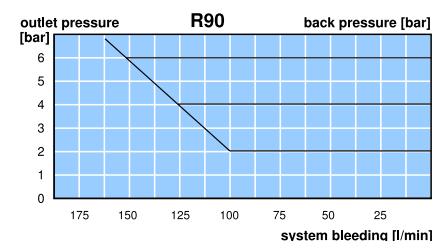
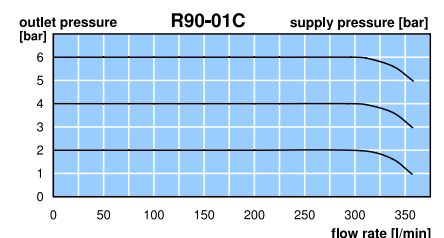
cross-section



R90



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

Gauges: see chapter for measuring devices

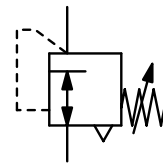
PDF CAD
www.aircom.net

* Product group



Order example:
R90-01A

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				
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				
	Mounting position any				



G¼, 280 l/min

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

Precision pressure regulator								
				P1: max. 8 / 10 / 14 bar, relieving, with constant bleed, accuracy < 30 mbar, K _v = 0.16 m³/h				11-818
55	137	13	handwheel w/o gauge port	8	280	G¼	0.02 ... 0.5	11-818-999
				10			0.07 ... 4.0	11-818-100
				14			0.40 ... 10	11-818-110
55	137	13	handwheel with gauge port	8	280	G¼	0.02 ... 0.5	11-818-987
				10			0.07 ... 4.0	11-818-993
				14			0.40 ... 10	11-818-991
55	137	13	spindle w/o gauge port	8	280	G¼	0.02 ... 0.5	11-818-998
				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
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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
mounting nut	for metal sheet thickness from 2.5 up to 6 mm	3081-01

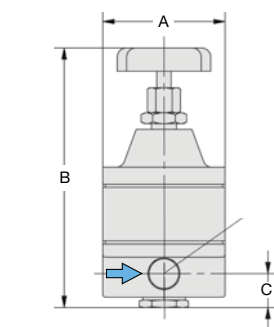


11-818-100

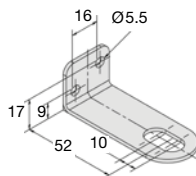
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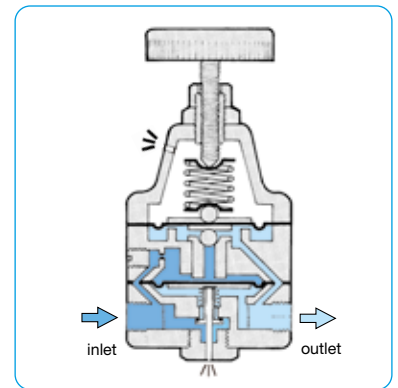
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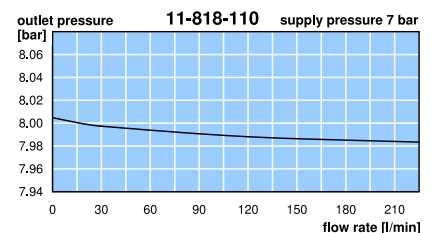
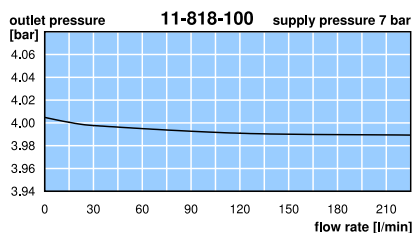
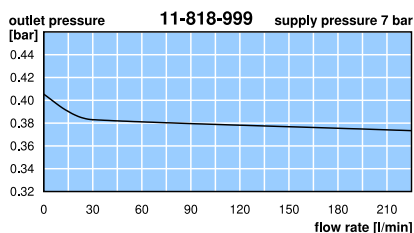
BW12-01



tamper-proof cap



cross-section



*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

* Product group

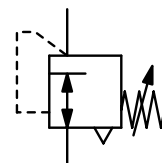
Gauges: see chapter for measuring devices

PDF CAD
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Order example:
11-818-999

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	
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



G¼ and ¼" NPT
280 l/min

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

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



53.1002.6X

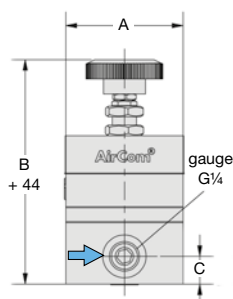
Special options, add the appropriate letter

tamper-proof cap aluminium, adjustment by screwdriver, total height 109 mm 53.1...T

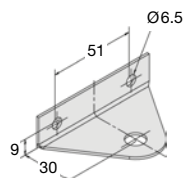
Accessories, enclosed

pressure gauge Ø 50 mm, 0...*2 bar, G¼
connecting parts gauge for NPT ports, adapter ¼" NPT - G¼ female
mounting bracket made of steel, mounting nut at the device

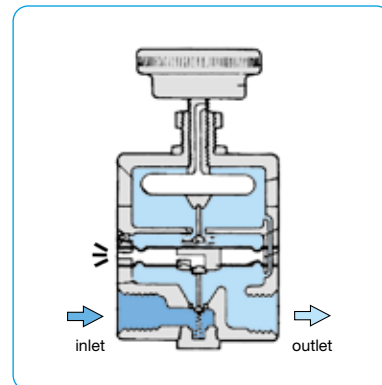
MA5002-...*2
VP-0202N
BW11-01



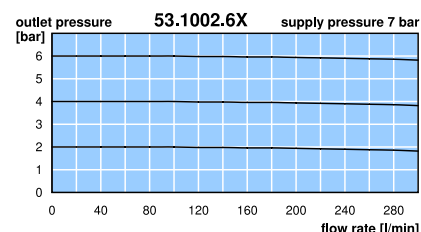
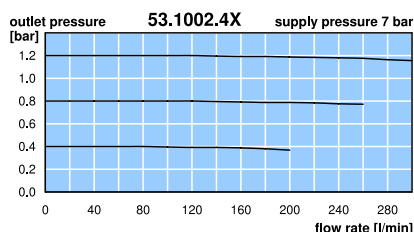
53.10...



BW11-01



cross-section



*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

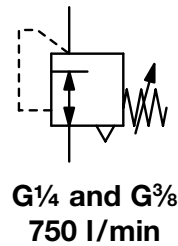
* Product group



Order example:
53.1002.4X

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 $\frac{1}{8}$ 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 for appropriately conditioned compressed air down to -30 °C / -22 °F		
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N	Bottom screw: brass
	Spring cage: aluminium		



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		D*
mm	mm	mm	by							

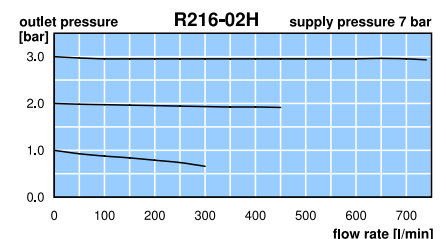
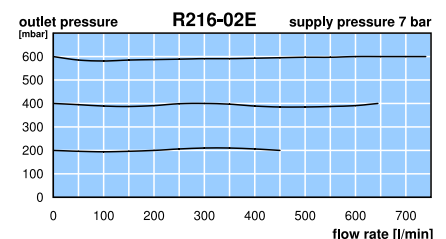
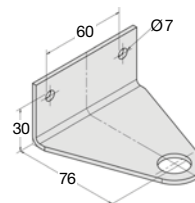
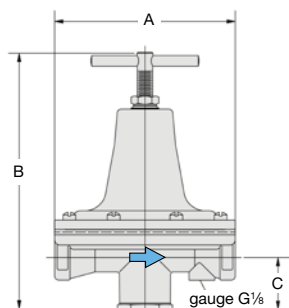
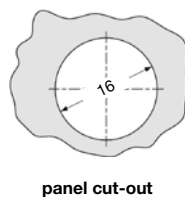
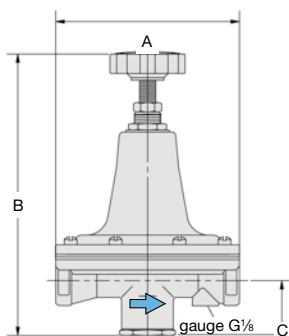
Precision pressure regulator									supply pressure max. 21 bar, relieving, without constant bleed	R216
108	162	32	T-handle	0.39	42	700	G $\frac{1}{4}$	0.01 ... 0.6		R216-02E
									0.01 ... 1.6	R216-02F
									0.01 ... 3.5	R216-02H
				0.42	45	750	G $\frac{3}{8}$	0.01 ... 0.6		R216-03E
							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

Special options, add the appropriate letter

non-relieving	without relieving function	R216-0...K
NPT	connection thread (not for G $\frac{3}{8}$ with T-handle)	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



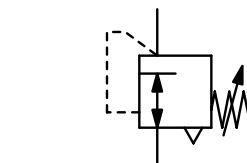
*1 at 7 bar supply pressure and 3 bar outlet pressure

*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar

* Product group



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: brass, galvanized steel



**G $\frac{1}{4}$ up to G $\frac{1}{2}$, 900 l/min
10 ... 140 mbar / 10 bar**

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

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



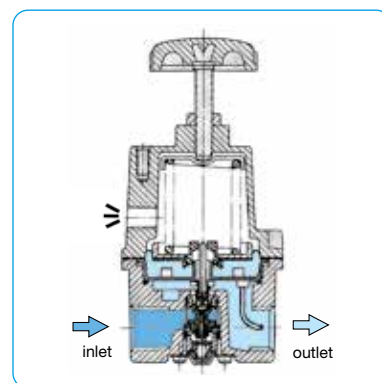
R230

Special options, add the appropriate letter

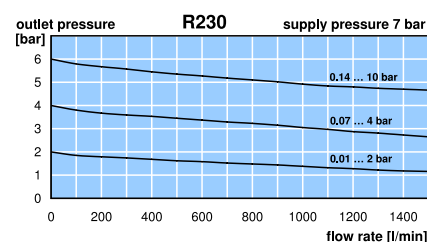
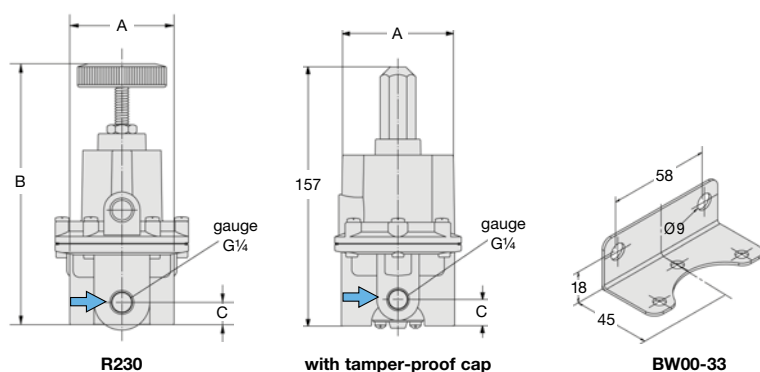
G$\frac{3}{8}$	connection thread	R230-03 .
G$\frac{1}{2}$	connection thread, recommended for mbar range	R230-04 .
NPT	connection thread	R230-0 . .N
non-relieving	and without constant bleed	R230-0 . .K
reduced bleeding		R230-0 . .X19
tapped exhaust	connection thread G $\frac{1}{4}$	R230-0 . .X12
tamper-proof 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



cross-section



*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

* Product group

Gauges: see chapter for measuring devices

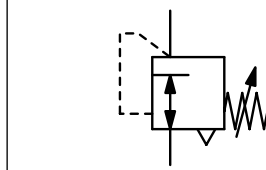
PDF CAD
www.aircom.net



**Order example:
R230-020**

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: brass, galvanized steel
	Elastomer: NBR/Buna-N, optionally FKM	

Mounting position any



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

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



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

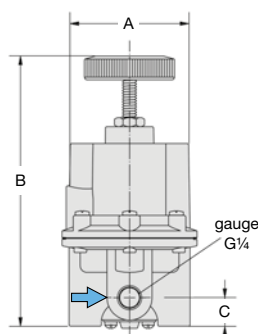
pressure gauge	Ø 63 mm, 0 ... 160 mbar, G $\frac{1}{4}$, capsule type
pressure gauge	Ø 50 mm, 0 ... *2 bar, G $\frac{1}{4}$, Bourdon tube
gauge connectors	for NPT ports, adapter $\frac{1}{4}$ " NPT - G $\frac{1}{4}$ female
mounting bracket	made of steel

MA6302-C2

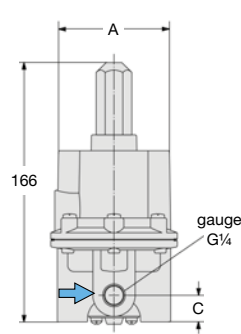
MA5002-...*2

VP-0202N

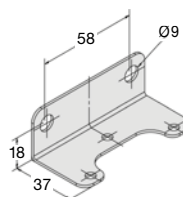
BW00-34



Model 10



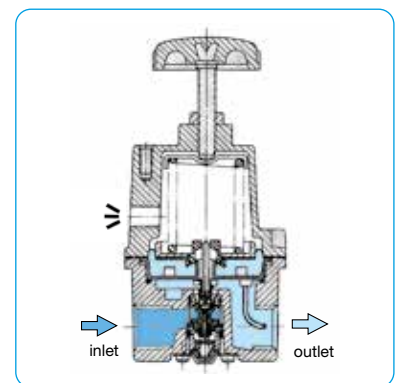
with tamper-proof cap



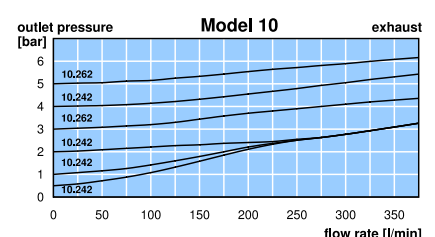
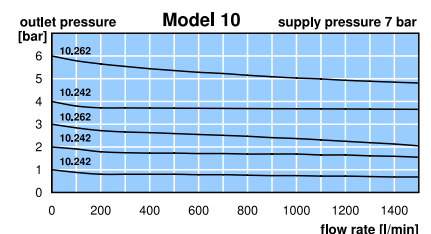
BW00-34



Model 10



cross-section



* Product group

*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

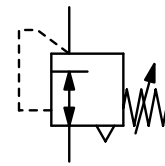
PDF CAD
www.aircom.net



Order example:
10212H

Description	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: brass, galvanized steel Elastomer: NBR/Buna-N, optionally FKM	

Mounting position any



G $\frac{1}{4}$ and G $\frac{3}{8}$
900 l/min

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



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



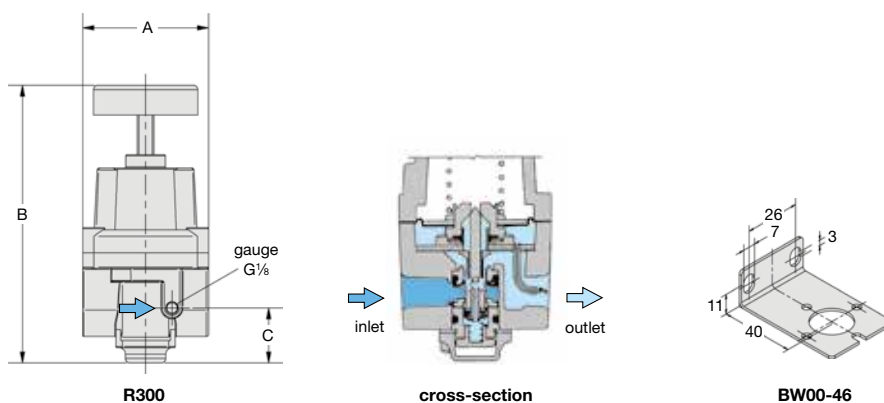
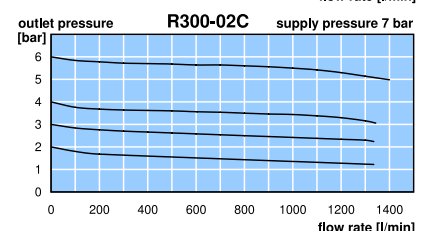
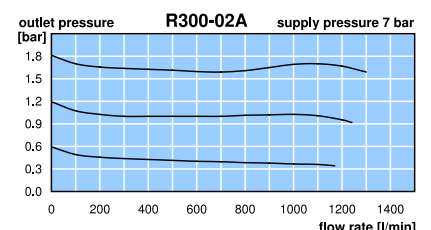
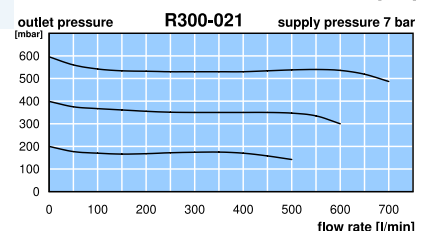
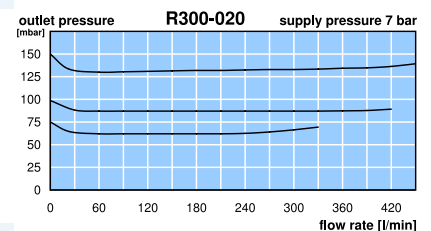
R300

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	specialty 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

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group



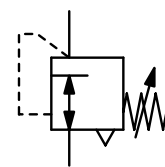
Order example:
R300-020

PRECISION PRESSURE REGULATOR WITHOUT CONSTANT BLEED

R100

Description	Regulator provides precision regulation in high flow and high relief applications.		
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	G¼ 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	Elastomer: NBR/Buna-N

Mounting position any



G¼ and G¾
1400 l/min

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			
mm	mm	mm						

Precision pressure regulator						supply pressure max. 18 bar, relieving, without constant bleed	R100	
54	129	25	0.73	78	1300	G¼	0.03 ... 0.7	R100-021
							0.03 ... 2.0	R100-02A
							0.07 ... 4.0	R100-02B
							0.14 ... 10	R100-02C
54	129	25	0.78	84	1400	G¾	0.03 ... 0.7	R100-031
							0.03 ... 2.0	R100-03A
							0.07 ... 4.0	R100-03B
							0.14 ... 10	R100-03C



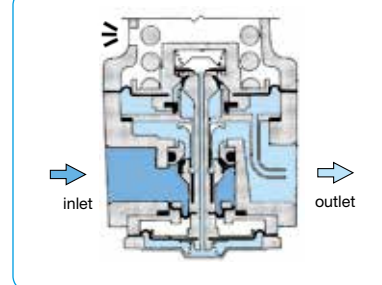
R100

Special options, add the appropriate letter

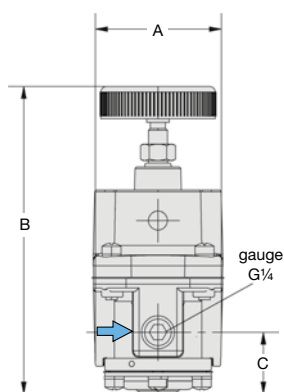
NPT	connection thread	R100-0...N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 139 mm	R100-0...T

Accessories, enclosed

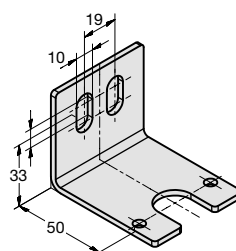
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	MA5002-...*2
mounting bracket	made of steel, including mounting screws	BW20-04



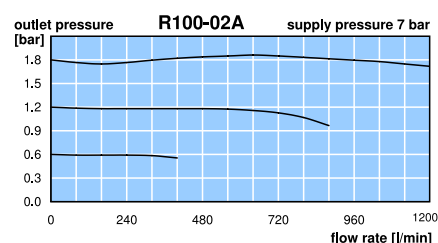
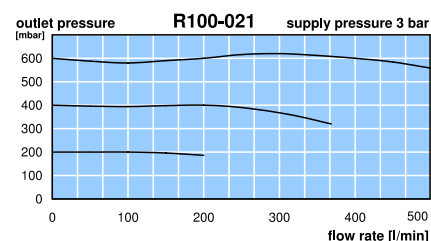
cross-section



R100



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

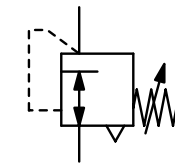
PDF CAD
www.aircom.net

* Product group



Order example:
R100-021

Description	Regulator provides precision regulation in high flow and high relief applications. 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		



**G¼ up to G½
4500 l/min**

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

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

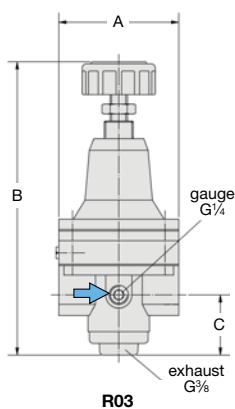
Accessories, enclosed

pressure gauge Ø 50 mm, 0...*2 bar, G¼

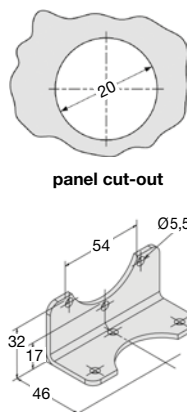
MA5002-...*2

mounting bracket made of steel

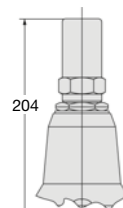
BW00-36



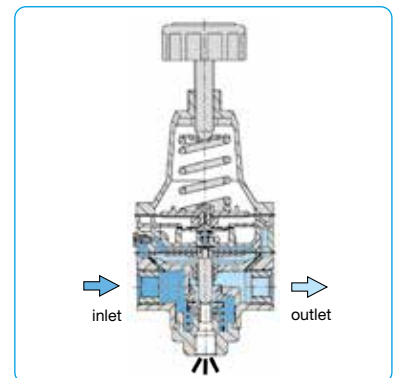
R03



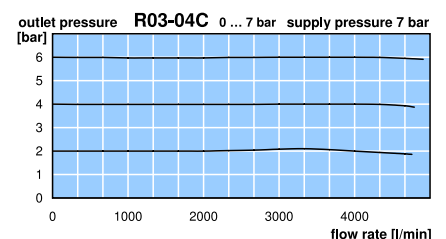
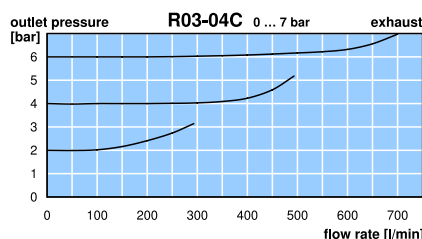
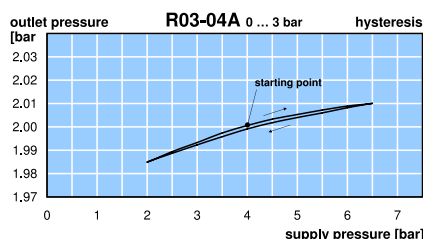
BW00-36



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

* Product group

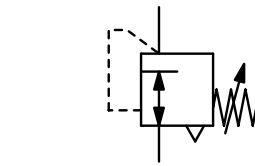
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R03-02A

Description	Diaphragm regulator with small dimensions. Suitable for low pressure and high accuracy applications. It's special 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	



**G $\frac{1}{4}$ up to G $\frac{1}{2}$, 700 l/min
2...35 / 800 mbar**

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

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



R110

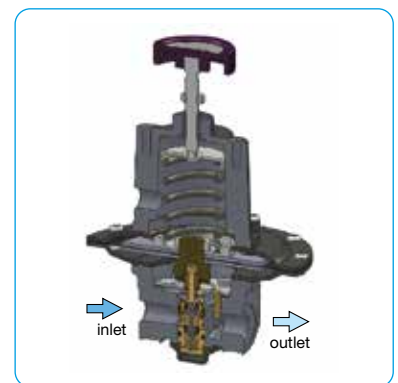
Präzis.
5

Special options, add the appropriate letter

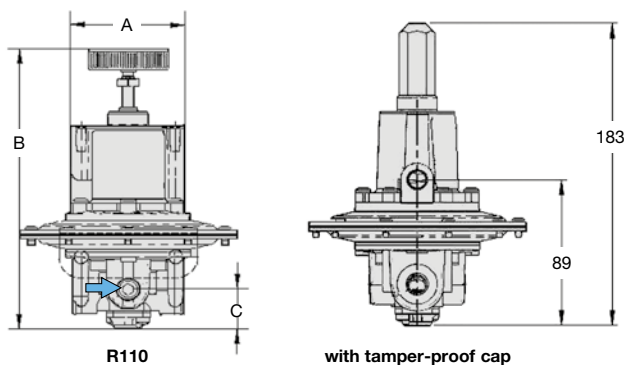
G$\frac{3}{8}$	connection thread	R110-03 .
NPT	connection thread	R110-0 . .N
non-relieving	without constant bleed	R110-0 . .K
reduced bleeding	ca. 1 l/min	R110-0 . .X19
tapped exhaust	connection thread G $\frac{1}{4}$	R110-0 . .X12
FKM elastomer		R110-0 . .V
tamper-proof cap	aluminium, adjustment by 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 ... 600 mbar, 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



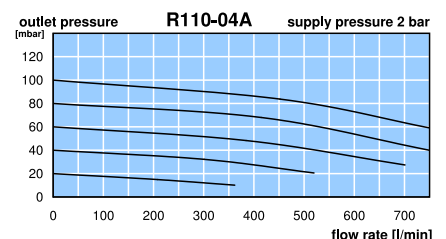
cross-section



R110

with tamper-proof cap

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

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

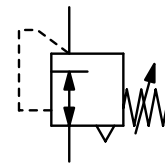
* Product group



Order example:
R110-020

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		



**G $\frac{1}{4}$, up to 16 bar
600 l/min**

Dimensions			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	

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



R217

Präzis.



5

Special options,

add the appropriate letter

free of grease and oil

specially cleaned

R217-0...L

Accessories,

enclosed

pressure gauge

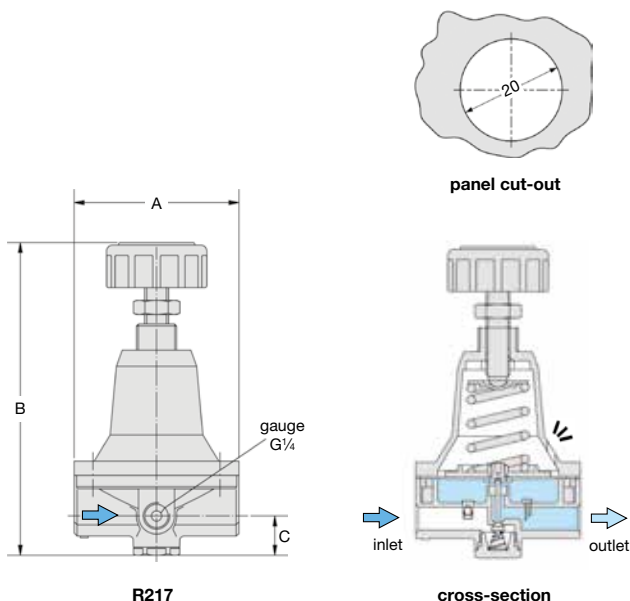
Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$

MA6302-...*2

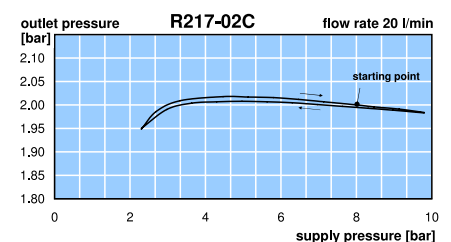
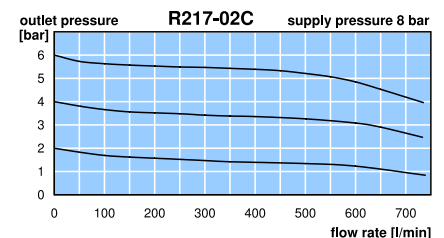
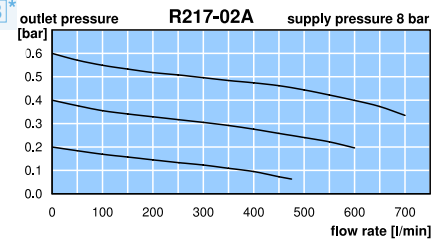
mounting bracket

made of steel

BW00-36



B*



*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

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

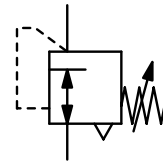


Order example:
R217-02A

Description

Media
Supply pressure
Accuracy
Air consumption
Relieving function
Relief capacity
Gauge port
Mounting position
Temperature range
Material

The diaphragm regulator provides high-precision two-stage regulation in high flow and high relief applications. A special diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
 compressed air or non-corrosive gases
 max. 17 bar
 response sensitivity: < 2 mbar
 max. 3 l/min in depending on outlet pressure
 relieving
 1000 l/min at 5 bar outlet and 0.35 bar overpressure above setpoint
 1/4" NPT on both sides of the body
 any
 0 °C to 71 °C / 32 °F to 160 °F, for appropriately conditioned compressed air down to -29 °C / -29 °F
 Body: aluminium die-cast
 Elastomer: NBR/Buna-N
 Inner valve: stainless steel, brass and aluminium



1/4" NPT to 3/4" NPT
 4150 l/min

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

Precision pressure regulator

supply pressure max. 17 bar, relieving, with constant bleed

R700

92	176	25	2.0	100	1600	1/4" NPT	0.14...2.7	R700-02A
							0.14...4.1	R700-02B
							0.14...8.2	R700-02C
92	176	25	4.3	220	3600	1/2" NPT	0.14...2.7	R700-04A
							0.14...4.1	R700-04B
							0.14...8.2	R700-04C
92	176	25	5.0	250	4150	3/4" NPT	0.14...2.7	R700-06A
							0.14...4.1	R700-06B
							0.14...8.2	R700-06C



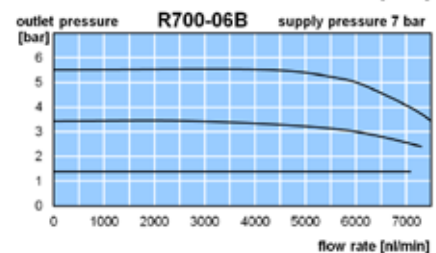
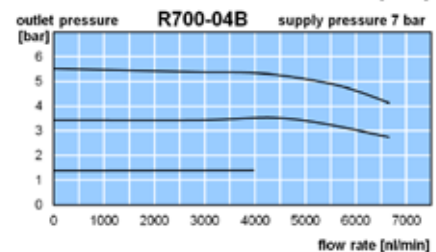
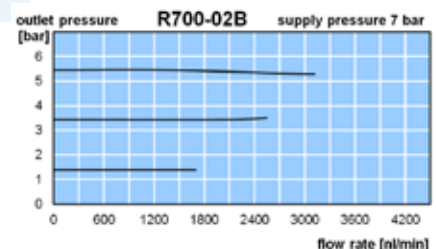
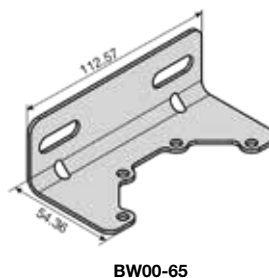
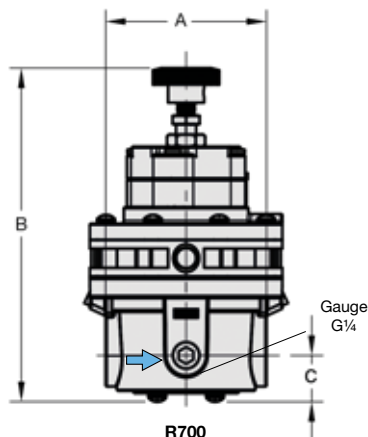
R700

Special options, add the appropriate letter

tapped exhaust	connection thread 1/4" NPT	R700-0..X12
tamper-proof cap	aluminium, adjustment by screwdriver, total height 173 mm	R700-0..T

Accessories, enclosed

pressure gauge	Ø 63 mm, 0...*2 bar, G1/4	MA6302-...*2
Gauge connectors	NPT connection thread, adapter 1/4" NPT to G1/4 female	VP-0202N
Mounting bracket	made of steel	BW00-65



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

Gauges: see chapter for measuring devices

PDF CAD
 www.aircom.net

* Product group



Order example:
 R700-02A

Description

The diaphragm regulator provides high-precision regulation in high flow and high relief applications. A special 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. 17 bar

Accuracy

response sensitivity: < 2 mbar

Air consumption

max. 3 l/min depending on outlet pressure

Relieving function

relieving, optionally non-relieving

Relief capacity

850 l/min at 5 bar outlet and 0.35 bar overpressure above setpoint

Gauge port

1/4" NPT on both sides of the body

Mounting position

any

Temperature range

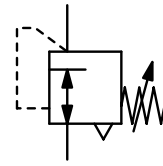
0 °C to 93 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F

Material

Body: Aluminium die-cast

Elastomer: NBR

Inner valve: stainless steel, brass and aluminium



1/4" NPT to 3/4" NPT
4150 l/min

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



Precision pressure regulator

supply pressure max. 17 bar, relieving, with constant bleed

R410

92	194	25	1.7	100	1600	1/4" NPT	0.03 ... 0.15	R410-02A
							0.03 ... 0.7	R410-02B
							0.03 ... 2.0	R410-02C
							0.07 ... 4.0	R410-02D
							0.07 ... 7.0	R410-02E
							0.15 ... 10	R410-02F
							0.15 ... 14	R410-02G
92	194	25	3.7	200	3300	1/2" NPT	0.03 ... 0.15	R410-04A
							0.03 ... 0.7	R410-04B
							0.03 ... 2.0	R410-04C
							0.07 ... 4.0	R410-04D
							0.07 ... 7.0	R410-04E
							0.15 ... 10	R410-04F
							0.15 ... 14	R410-04G
92	194	25	4.3	250	4150	3/4" NPT	0.03 ... 0.15	R410-06A
							0.03 ... 0.7	R410-06B
							0.03 ... 2.0	R410-06C
							0.07 ... 4.0	R410-06D
							0.07 ... 7.0	R410-06E
							0.15 ... 10	R410-06F
							0.15 ... 14	R410-06G



R410

Präzis.



5

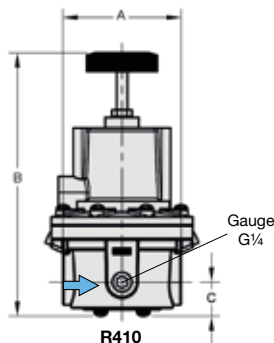
Special options, add the appropriate letter

non-relieving	without constant bleed	R410-0...K
tapped exhaust	connection thread 1/4" NPT	R410-0...X12
tamper-proof-cap	of aluminium, adjustment by screwdriver, total height 295 mm	R410-0...T

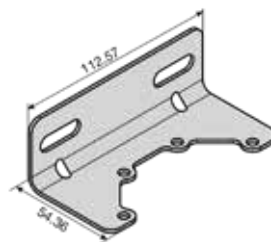
Accessories, enclosed



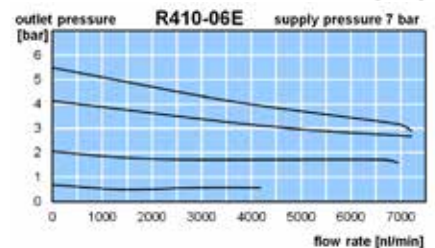
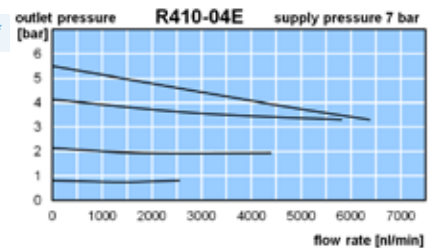
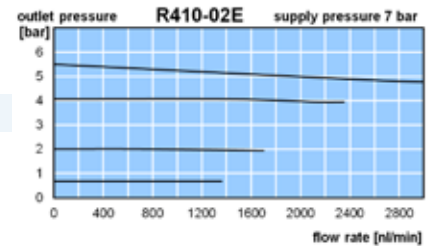
pressure gauge	Ø 63 mm, 0...*1 bar, G1/4	MA6302-...*1
gauge connectors	NPT connection thread, adapter 1/4" NPT to G1/4 female	VP-0202N
mounting bracket	made of steel	BW00-65



R410



BW00-65



*1 bei 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

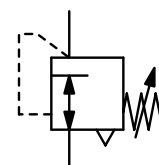
* Product group



Order example:
R410-02A

Description	The diaphragm regulator provides high-precision regulation in high flow and high relief applications. A special 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	

Mounting position any



**G $\frac{3}{8}$ up to G $\frac{3}{4}$
4200 l/min**

Dimensions			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	



Precision pressure regulator

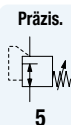
supply pressure max. 18 bar, relieving,
without constant bleed

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



R400



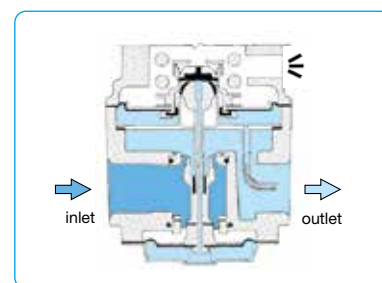
Special options, add the appropriate letter

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

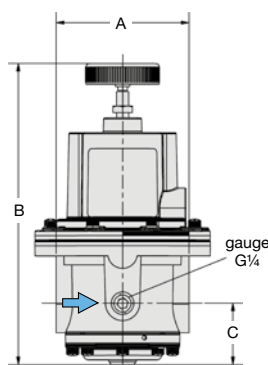
Accessories, enclosed

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

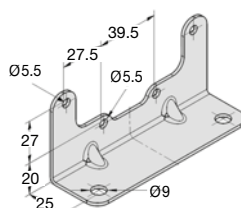
MA6302-...*2
BW00-47



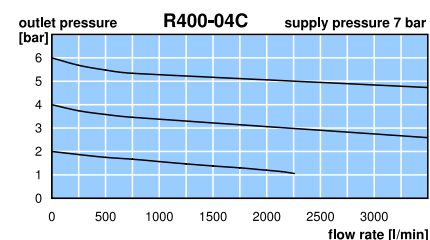
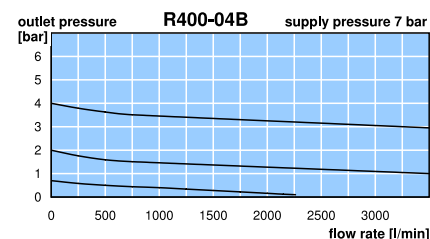
cross-section



R400

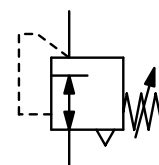


BW00-47



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	
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	

Mounting position any



**G1 and G1½
30000 l/min**

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



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



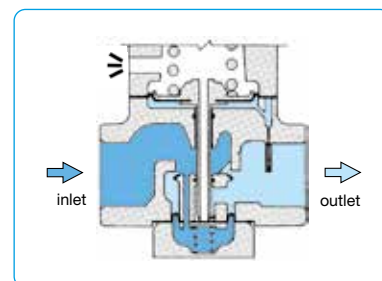
R102

Special options, add the appropriate letter

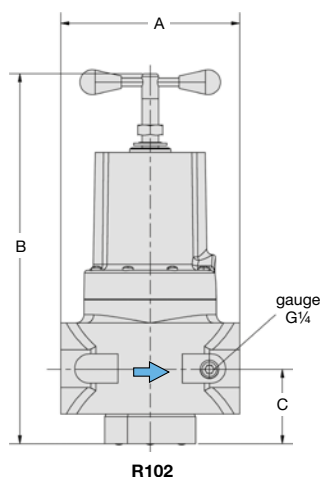
NPT	connection thread	R102-... N
non-relieving	and without constant bleed	R102-... K
tapped exhaust	G¾ connection thread	R102-... X12
supply pressure 35 bar	free of non-ferrous metal, FKM elastomer	R102-... X62
tamper-proof cap	aluminium, adjustment by screwdriver, total height 295 mm	R102-... T

Accessories, enclosed

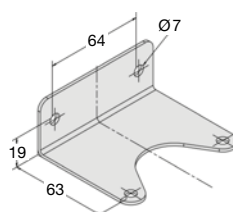
pressure gauge	Ø 63 mm, 0...*2 bar, G¼	MA6302-...*2
mounting bracket	made of steel	BW00-30



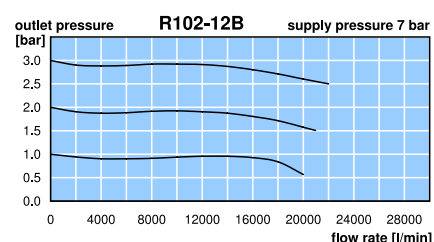
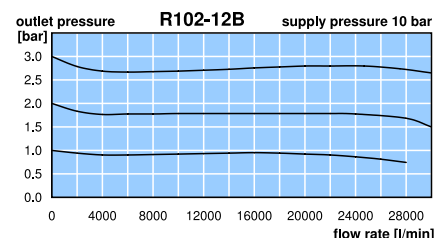
cross-section



R102



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
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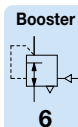
* Product group



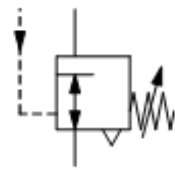
Order example:
R102-081

VOLUME BOOSTER

	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE		CONNECTION	SERIES	PAGE
		max. bar	bar		thread		
PRECISE	with external feedback	16	0.2	...	7	G $\frac{1}{4}$	R218 6.02
	differential pressure also	17	0	...	1 / 10	G $\frac{1}{4}$ u. G $\frac{3}{8}$	R650 6.03
	ratio 1:1 up to 1:6	17	0	...	10	G $\frac{1}{4}$ u. G $\frac{1}{2}$	R750 6.04
	different ratio	17	0	...	10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R208 6.05
	differential pressure also	16	0	...	10	G $\frac{1}{4}$ - G $\frac{1}{2}$	R03-J 6.06
	high exhaust capacity	17	0	...	10	$\frac{3}{4}$ "NPT u. 1"NPT	R600 6.07
	high exhaust capacity	28	0.2	...	18	G $\frac{1}{4}$ - G2	R116 6.08
	different ratio, high-precision	17	0	...	10	G $\frac{1}{2}$ u. G $\frac{3}{4}$	R450 6.09
	high volume flow	17	0	...	10	G1 u. G1 $\frac{1}{2}$	R200 6.13
	high exhaust capacity	17	0	...	10	1 $\frac{1}{2}$ "NPT	R201 6.13
	high volume flow	21	0.2	...	18	G $\frac{1}{4}$ - G3	R119-J 6.12
	high exhaust capacity	17	0	...	10	1 $\frac{1}{2}$ "NPT	R201 6.13
STANDARD	high volume flow	21	0.2	...	18	G $\frac{1}{4}$ - G3	R119-J 6.12
MIT ÜBERSETZUNG	1:1 up to 1:6	17	max.	10		G $\frac{1}{4}$ - G $\frac{1}{2}$	R750 6.04
	1:1 up to 1:6 and 2:1 up to 5:1	17	max.	10		G $\frac{1}{4}$ - G $\frac{1}{2}$	R208 6.05
	1:1 bis 1:3 u. 2:1 bis 3:1	17	max.	10		G $\frac{1}{2}$ u. G $\frac{3}{4}$	R450 6.09
NIEDERDRUCK	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 6.11
	also for gases	4	5	...	350 mbar	G $\frac{1}{2}$ - G1 $\frac{1}{2}$	RGB4-J 6.11
HOCHDRUCK	ratio 1:2 up to 1:19	260	3	...	42 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-J 6.14
	made of brass	100	0.1	...	24 / 99	G1	RLM 6.15
	made of brass	50	1	...	15 / 50	G $\frac{1}{4}$ - G2	R120-J 6.16
EDELSTAHL	ratio 1:2 up to 1:19	310	3	...	42 / 104	$\frac{1}{2}$ "NPT u. $\frac{3}{4}$ "NPT	RH3-J 6.14
	made of stainless steel	100	0.1	...	24 / 99	G1	RLE 6.15
	made of stainless steel	50	1	...	15 / 50	G $\frac{1}{4}$ - G2	R3000-J 15.18
	high exhaust capacity	17	0	...	10	$\frac{3}{4}$ "NPT u. 1"NPT	R601 15.20
DRUCKERHÖHER	1:2 up to 1:10	12	4	...	100	G $\frac{1}{4}$ - G $\frac{3}{4}$	AM 6.18
	1:2 up to 1:5, with storage	12	4	...	40	G $\frac{3}{8}$ u. G $\frac{1}{2}$	AP 6.19
	1:2, small design	8	4	...	16	G $\frac{1}{8}$ - G $\frac{1}{2}$	AB 6.20



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



**G $\frac{1}{4}$, max. 16 bar
420 l/min**

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

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
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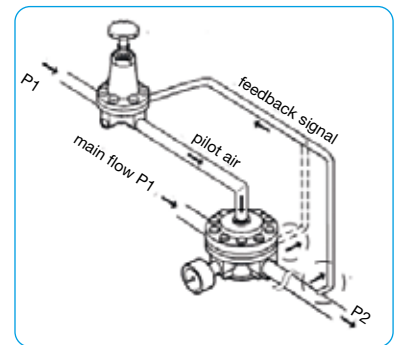


R218

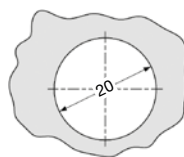
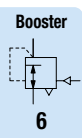
Accessories, enclosed

pressure gauge Ø 63 mm, 0 ... 10 bar, G $\frac{1}{4}$
mounting bracket made of steel
mounting nut made of brass

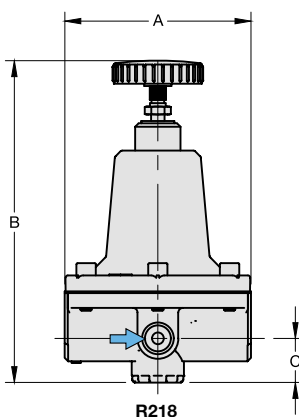
MA6302-10
BW00-36
M20x1,5M



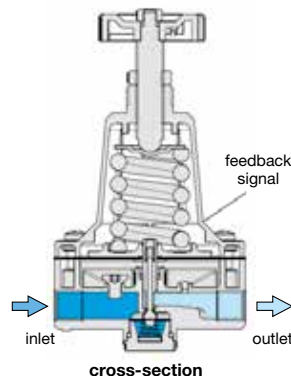
Example: combination with booster



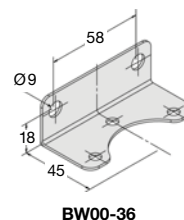
panel cut-out



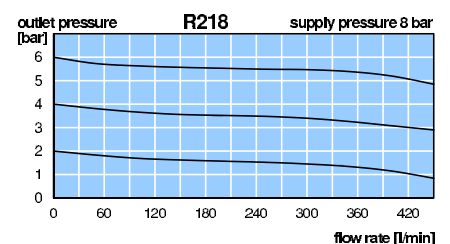
R218



cross-section



BW00-36

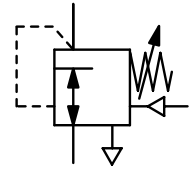


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group



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		
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 Inner valve: brass		



G $\frac{1}{4}$ up to G $\frac{1}{2}$, 900 l/min parallel translation

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	bar		
mm	mm	mm								D*

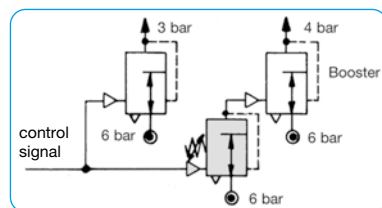
Positive bias relay						supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1			R650	
68	170	16	72	900	G $\frac{1}{4}$	5	0 ... 1	0 ... 10	R650-02C	
						5	0 ... 2		R650-02D	
						8	0 ... 4		R650-02E	
						15	0 ... 10		R650-02F	
68	170	16	78	900	G $\frac{3}{8}$	5	0 ... 1	0 ... 10	R650-03C	
						5	0 ... 2		R650-03D	
						8	0 ... 4		R650-03E	
						15	0 ... 10		R650-03F	
68	170	16	78	900	G $\frac{1}{2}$	5	0 ... 1	0 ... 10	R650-04C	
						5	0 ... 2		R650-04D	
						8	0 ... 4		R650-04E	
						15	0 ... 10		R650-04F	

Special options, add the appropriate letter

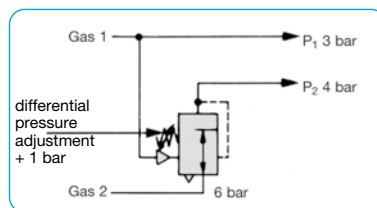
negative bias	factory-set to -0.3 bar	R650-0...Y
NPT	connection thread	R650-0...N
tamper-proof cap	above spindle, total height 174 mm	R650-0...T

Accessories, enclosed

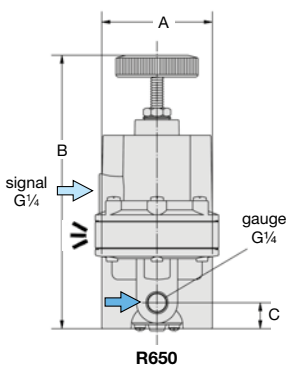
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-33



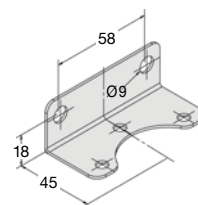
Example 1: constant differential pressure of 1 bar at high flow



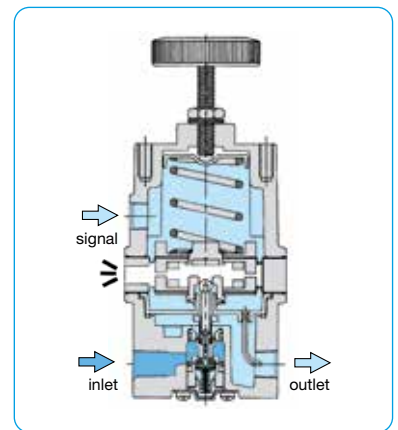
Example 2: constant differential pressure of 1 bar



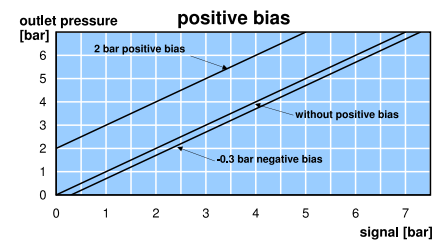
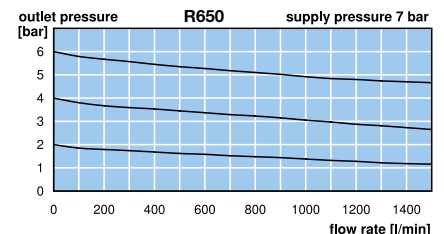
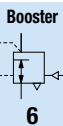
R650



BW00-33



cross-section



*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



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, 1.7 bar at 1:6, pilot port G $\frac{1}{4}$

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
response sensitivity: < 2 mbar 1:1, < 3 mbar at 1:2, < 17 mbar at 1:3, < 23 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

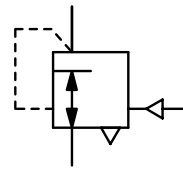
on both sides of the body, thread equal to regulator thread

Mounting position

any
0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F

Temperature range

Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: brass and stainless steel



G $\frac{1}{4}$ and G $\frac{3}{8}$, 1000 l/min
1:1 up to 1:6

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

Booster

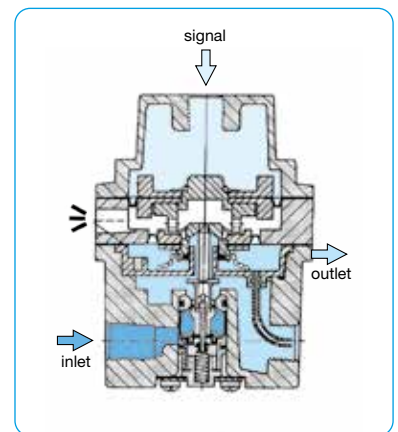
with transmission ratio, relieving, with constant bleed, supply pressure max. 17 bar, pressure range 0...10 bar

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
68	102	16	0.5	60	1000	G $\frac{1}{2}$	10	1:1	R750-04I
							5.0	1:2	R750-04K
							3.3	1:3	R750-04C
							1.7	1:6	R750-04M



R750



cross-section

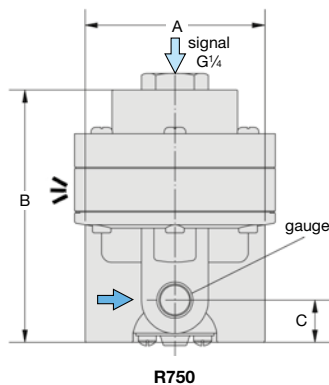
Special options, add the appropriate letter

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

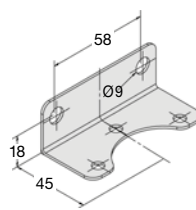
Accessories, enclosed

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

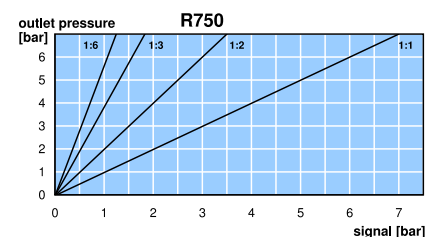
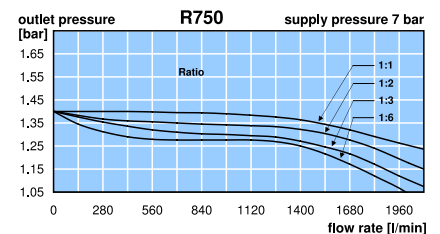
MA5002-...*2
BW00-33



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

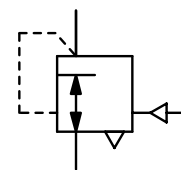
PDF CAD
www.aircom.net

* Product group



Order example:
R750-02I

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		
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation		
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		
Material	Body: aluminium die-cast Inner valve: brass and zinc-plated steel		



**G $\frac{1}{4}$ to G $\frac{1}{2}$, 1300 l/min
1:1 up to 1:6, 2:1 up to 5:1**

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						

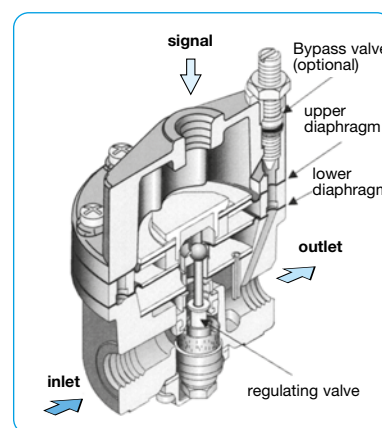
Booster			with transmission ratio, supply pressure max. 17 bar, relieving, with constant bleed, pressure range 0...10 bar				R208	
76	98	24	0.7	78	1300	G $\frac{1}{4}$	10	1 : 1
							5.0	1 : 2
							3.3	1 : 3
76	110	24	0.7	78	1300	G $\frac{1}{4}$	2.5	1 : 4
							2.0	1 : 5
							1.7	1 : 6
76	98	24	0.7	78	1300	G $\frac{1}{4}$	10	2 : 1
								3 : 1
76	110	24	0.7	78	1300	G $\frac{1}{4}$	10	4 : 1
								5 : 1



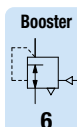
R208

Special options, add the appropriate letter

G $\frac{3}{8}$	connection thread	R208-03 .
G $\frac{1}{2}$	connection thread	R208-04 .
NPT	connection thread	R208-0 .N
non-relieving*3	without relieving function	R208-0 .K
tapped exhaust*3	connection thread G $\frac{1}{4}$	R208-0 .X12
bypass with restrictor*4	between control chamber and outlet	1:1 only R208-0 .X16
negative bias*3	preset to -0.24 bar, adjustable by 30 mbar	R208-0 .Y
silicone elastomer	supply pressure max. 5 bar	1:1 only R208-0 .A
FKM elastomer		R208-0 .V

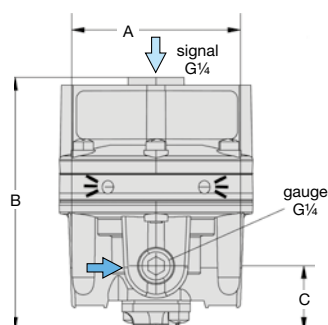


cross section

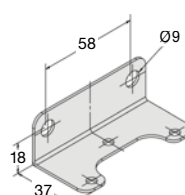


Accessories, enclosed

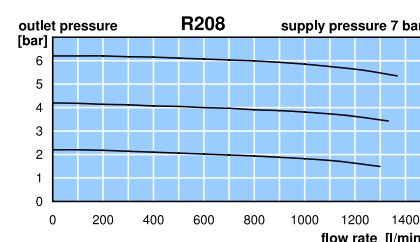
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-34



R208



BW00-34



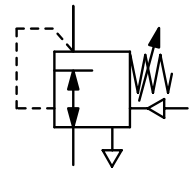
*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

*3 only for 1:1, 1:2, 1:3, 2:1 and 3:1
*4 not compatible with option Y

* Product group



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	Pilot port G $\frac{1}{8}$
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	
Air consumption	response sensitivity: < 2 mbar	
Relieving function	1.5 l/min at P ₁ = 5 bar, 2 l/min at P ₁ = 7 bar, 4 l/min at P ₁ = 10 bar, < 1% of volume flow relieving	
Relief capacity	700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint	
Gauge port	G $\frac{1}{4}$ 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, for appropriately conditioned compressed air down to -30 °C / -22 °F	
Material	Body: zinc die-cast	Elastomer: NBR/Buna-N



G $\frac{1}{4}$ up to G $\frac{1}{2}$, 4500 l/min parallel translation

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

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	G¼*3	without	0.05...10	R03-02J
			2.3	228	3800	G⅝*3			R03-03J
			2.7	270	4500	G½			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	G¼*3	0...1 bar	0.05...10	R03-02J1
			2.3	228	3800	G⅜*3			R03-03J1
			2.7	270	4500	G½			R03-04J1
82	180	41	2.0	198	3300	G¼*3	0...6 bar	0.05...10	R03-02J6
			2.3	228	3800	G⅜*3			R03-03J6
			2.7	270	4500	G½			R03-04J6

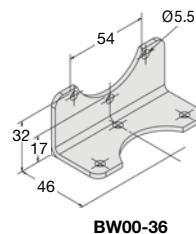
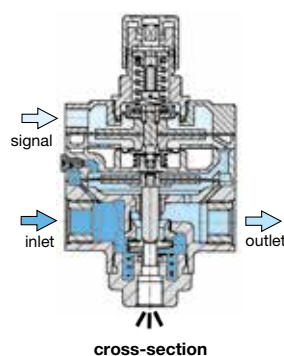
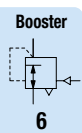


R03-...J1

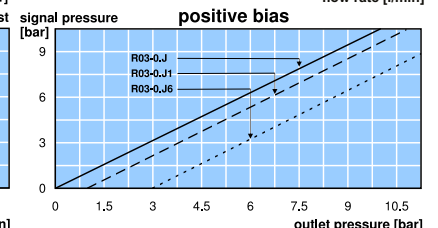
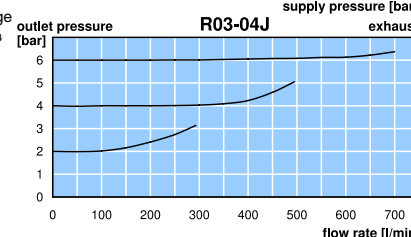
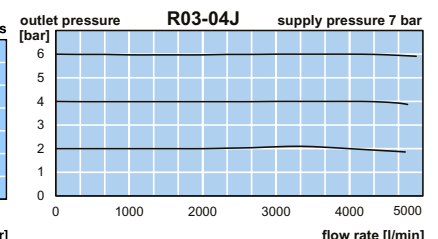
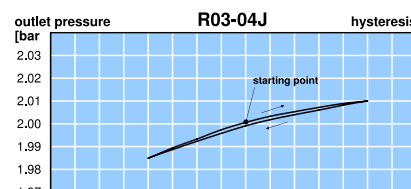
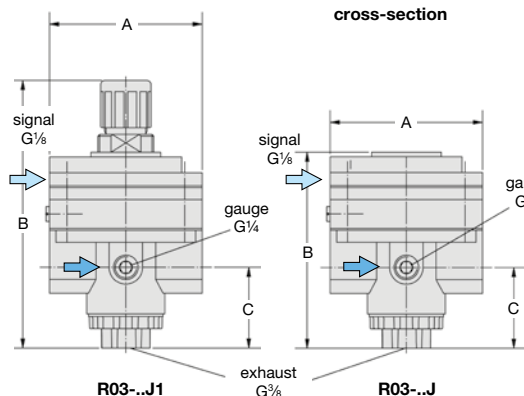
Accessories, enclosed		enclosed	for R03-...J1	MA5002-...*2 M30x1,5K BW00-36
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$			
mounting nut	made of plastic			
mounting bracket	made of steel			



R03-...J6



BW00-36



*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 $\frac{1}{2}$ reduced to smaller threads by fittings

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group



Order example:
R03-02J

Description

The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The booster is robust, highly accurate and sensitive. The hysteresis between the outlet pressure and the relieving pressure is very small and constant. Caused by the inlet pressure compensation of the control valve the regulator is stable against fluctuations in inlet pressure vibrations due to sudden changes of the volume flow are prevented by damping in the diaphragm chamber.

Media

compressed air or non-corrosive gases

Supply pressure max. 17 bar

Pilot pressure

max. 10 bar

Accuracy

response sensitivity 15 mbar

Internal air consumption

no internal air consumption

Relieving function relieving, tapped exhaust function ¾ NPT

Relief capacity

4245 l/min at 0.35 bar overpressure above setpoint

Gauge port

¾ NPT on both sides of the body

Mounting position any

Temperature range

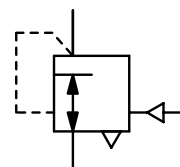
-40 - 93 °C; optional -52 °C

Material

Body: aluminium die-cast

Elastomer: NBR

Inner valve: aluminium and galvanized steel



¾ NPT and 1 NPT
13000 l/min

Dimensions			K _v -Value	Flow rate		Connection thread	Pilot pressure	Transmission ratio	Order number
A	B	C	(m³/h)	m³/h*1	l/min*1	G	max. bar	signal : outlet	
mm	mm	mm							

Booster

Transmission ratio 1:1, inlet pressure max. 17 bar
reversible, without internal air consumption

R600

117	177	45	8	690	11500	¾"NPT	17	0 ...10	R600-06N
			9	780	13000	1"NPT	17	0 ...10	R600-08N



R600

Special options, add the appropriate letter

Low Temperature Option

R600-0.NX51

Body

made of stainless steel (s. page 15.20)

R601

Accessories, enclosed

pressure gauge

Ø 63 mm, 0...*2 bar, G¼

MA6302-..*2

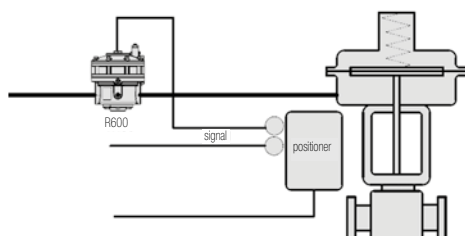
connection part pressure gauge

¼"NPTa - G¼

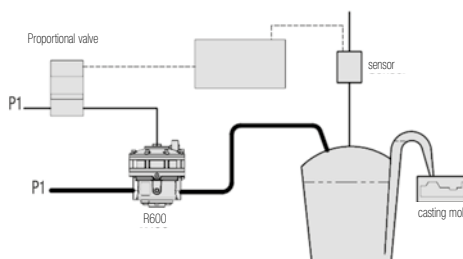
VP-0202N

mounting bracket

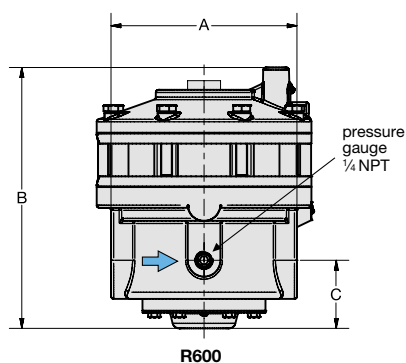
BW00-66



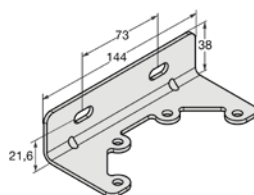
Volume flow booster with single-acting positioner and diaphragm actuator



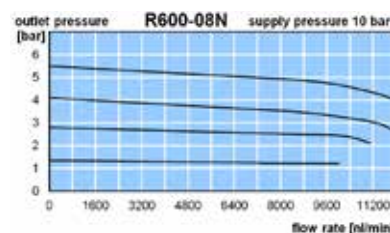
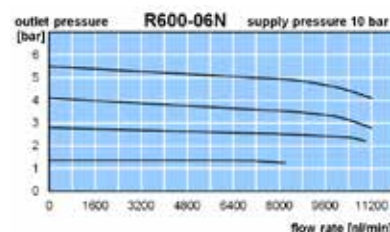
Volume flow booster in a casting plant



R600



BW00-66



*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
Stainless steel version in chapter 15

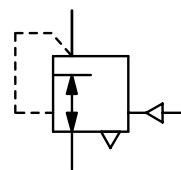
PDF CAD
www.aircom.net

* Product group



Order example:
R600-06N

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, max. 31 bar at G1½ a. G2	Air consumption	without constant bleed
Relieving function	6500 l/min at 6 bar, see diagram		
Ports	inlet / outlet: see chart gauge P ₂ : G¼	exhaust: G½ (up to overall size G½), G¾ (from size G¾ on) gauge P ₁ : G½ (from size G¾ on)	
Temperature range	-18 °C to 70 °C / 0 °F to 158 °F		
Material	Body: zinc die-cast, die-cast aluminum at G1½ a. G2 Elastomer: NBR/Buna-N Inner valve: brass Bottom screw: reinforced nylon, glass fiber reinforced, ... G1½ u. G2		



G¼ up to G2
12500 l/min

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						

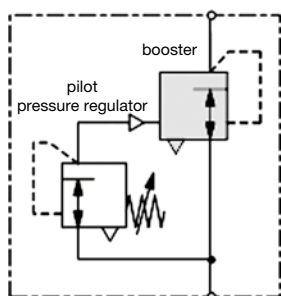
Booster with high relief capacity								P ₁ : max. 28/31 bar, ratio 1:1 relieving	R116
80	129	39	15	4.3	270	4500	G¼		R116-02
				4.4	290	4800	G¾		R116-03
				4.5	300	5000	G½		R116-04
93	149	48	25	9.5	690	11500	G¾		R116-06
				10.0	720	12000	G1		R116-08
				10.4	750	12500	G1½		R116-10
152	183	89	40	35.4	2000	42000	G1½		R116-10
				35.4	2500	42000	G2		R116-12

Special options, add the appropriate letter

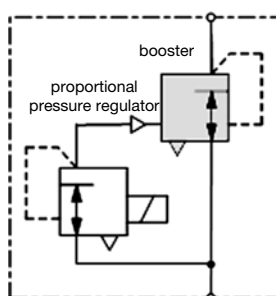
NPT	connection thread	R116-...N
flange connection	see chapter SST devices / flanges	R116-...F

Accessories, enclosed

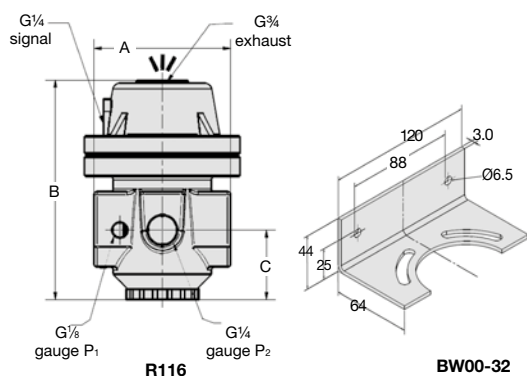
pressure gauge	Ø 50 mm, 0...*2 bar, G¼ Ø 63 mm, 0...*2 bar, G¼	for G¼ to G½ MA5002-*2 for G¾ to G1¼ MA6302-*2
mounting bracket	made of aluminium	for G¼ to G1¼ BW00-32



example: booster with pilot pressure regulator



example: booster with proportional pressure regulator



R116

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

* Product group



Order example:
R116-02



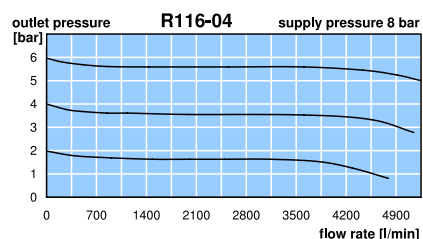
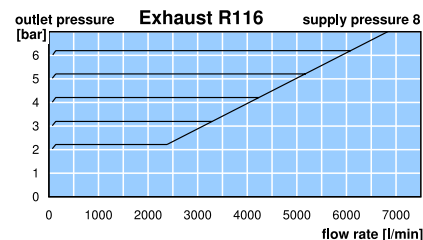
R116-04



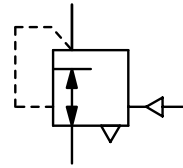
R116-08



R116-12/-16



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		
Pilot pressure	max. 10 bar at 1:1, 2:1 and 3:1 ratio,	5 bar at 1:2,	Supply pressure max. 17 bar
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation		pilot port: G $\frac{1}{4}$
Internal air consumption	max. 3 l/min, depending on outlet pressure		Relieving function relieving
Relief capacity	1100 l/min at 0.35 bar overpressure above setpoint		Mounting position any
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



**G $\frac{1}{2}$ up to G $\frac{3}{4}$, 4200 l/min
1:1 to 1:3, 2:1 and 3:1**

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

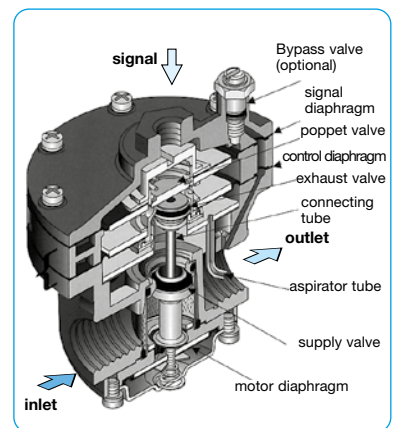
Booster							with transmission ratio, supply pressure max. 17 bar relieving, with constant bleed, pressure range 0...10 bar		R450
87	129	40	2.16	240	4000	G $\frac{1}{2}$	10	1 : 1	R450-04I
							5.0	1 : 2	R450-04K
							3.3	1 : 3	R450-04L
							10	2 : 1	R450-04M
							10	3 : 1	R450-04N
87	129	40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

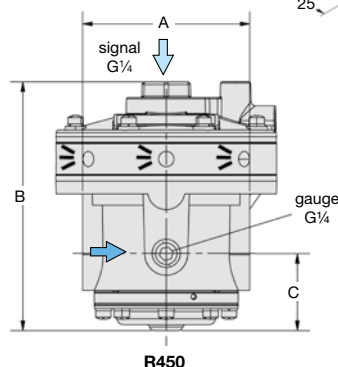
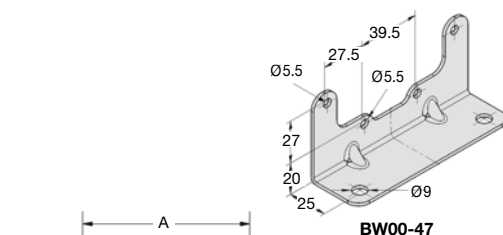
NPT	connection thread	R450-0..N
tapped exhaust	G $\frac{1}{2}$ connection thread, total height 148 mm	R450-0..X12
bypass with restrictor	from control chamber to outlet	1:1 only R450-0..X16
external feedback	with connection thread G $\frac{1}{8}$	R450-0..X27
FKM elastomer		R450-0..V



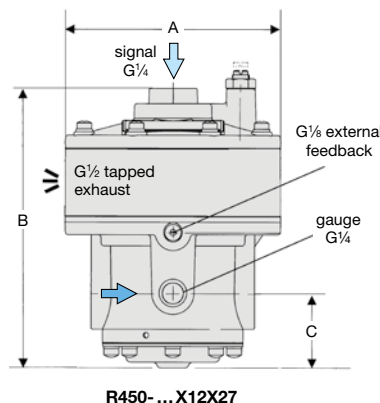
cross section

Accessories, enclosed

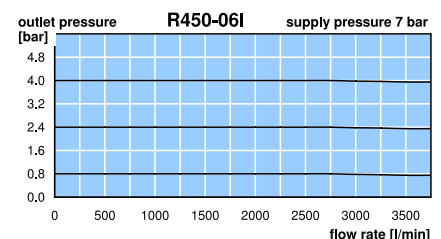
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
mounting bracket	made of steel	BW00-47



R450



R450-...X12X27



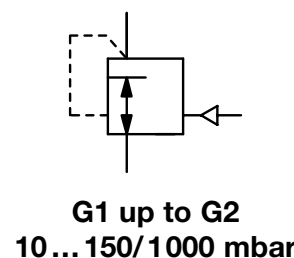
*1 at 7 bar supply pressure and 1.4 bar outlet pressure

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

* Product group



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		
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	
	Spring cage: aluminium	Inner valve: brass and stainless steel	



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

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	20		180 ... 1000	RZ3-08J
100	245	30	10	17	2700	10	G1½*3	15 ... 110	RZ1-12J
			5		5000	20		180 ... 1000	RZ3-12J
254	460	80	10	34	15000	10	G2	10 ... 350	RZ1-16JF
			5		28000	20		350 ... 1000	RZ2-16JF



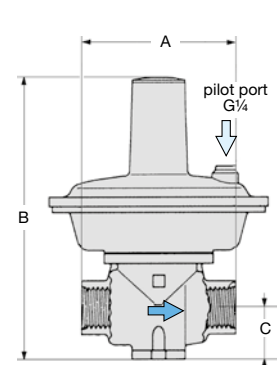
RZ1-08J

Special options, add the appropriate letter

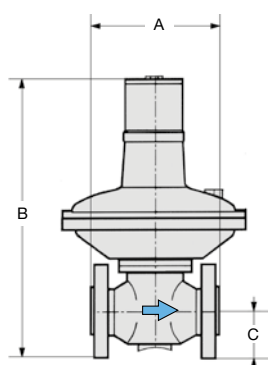
relieving	with relieving function	RZ . - . . . R
FKM elastomer		RZ . - . . . V
flange connection	see chapter for SST devices / flanges (not for RZ.-16J)	RZ . - . . . F.
carbon dioxide	CO ₂	RZ . - . . . 03
argon	Ar	RZ . - . . . 05
nitrogen	N ₂	RZ . - . . . 07
helium	He	RZ . - . . . 09
hydrogen	H ₂	RZ . - . . . 11
methane	CH ₄	RZ . - . . . 13
oxygen	O ₂	RZ . - . . . 15
propane	C ₃ H ₈	RZ . - . . . 16
nitrous oxide	N ₂ O	RZ . - . . . 17



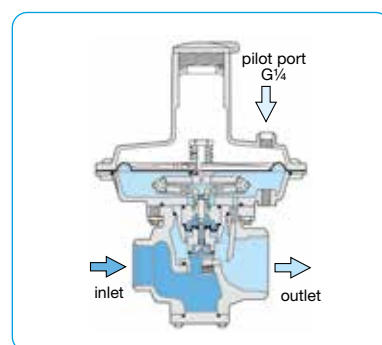
RZ1-16JF



RZ.-08/12J



RZ.-16JF with flange



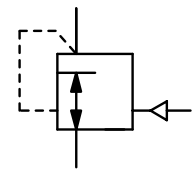
cross-section

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

* Produkt group



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. 160 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	G $\frac{1}{4}$ on one side for RGB4-12J, optionally G $\frac{1}{4}$ for all others except RGDJ-04J		
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		



R $\frac{1}{2}$ " up to R2"
2...55/350 mbar

Dimensions			Nominal size	Kv-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 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	$\frac{1}{2}$ "	2... 55	RGDJ-04J
125	166	34	20	1.49	27	450	$\frac{3}{4}$ "	5... 160	RGDJ-06J
125	166	34	25	2.6	51	850	1"	5... 160	RGDJ-08J
155	194	45	40	4.9	90	1500	$1\frac{1}{2}$ "	5... 160	RGDJ-12J
200	219	52	50	6.6	120	2000	2"	5... 100	RGDJ-16J

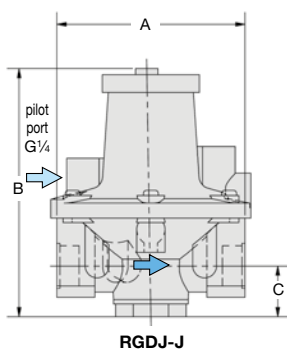
Low pressure booster <i>P₁ max. 4 bar</i> non-relieving, without constant bleed, transmission ratio 1:1									RGB4-J
148	174	24	15	0.62	42	700	$\frac{1}{2}$ "	5... 350	RGB4-04J
192	230	33	25	2.5	168	2800	1"	5... 350	RGB4-08J
150	265	55	40	5	336	5600	$1\frac{1}{2}$ "	5... 350	RGB4-12J

Special options, add the appropriate letter

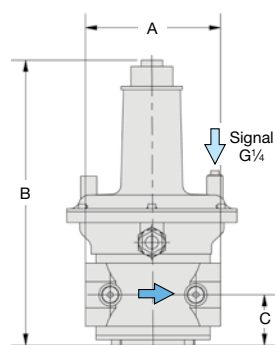
connection thread G $\frac{1}{4}$ for pressure gauge not for RGDJ-04J RG...M

Accessories, enclosed

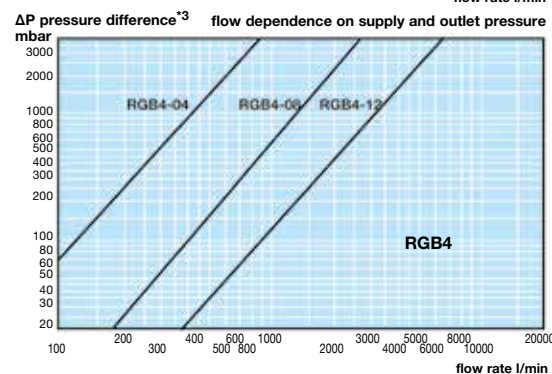
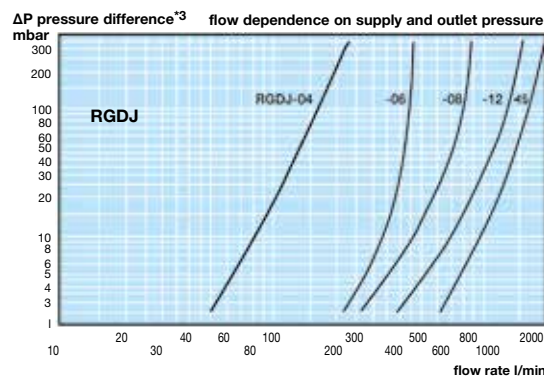
pressure gauge Ø 63 mm, 0...*2 mbar, G $\frac{1}{4}$ for R $\frac{3}{4}$ " up to R2" MA6302-...*2



RGDJ-J



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

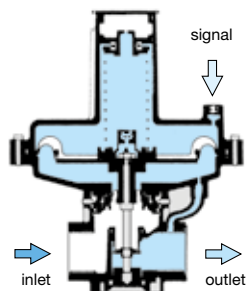
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group

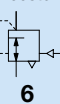


Order example:
RGDJ-04J



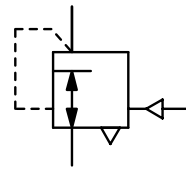
cross section RGB4-J

Booster



6

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 up to G1		
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 by G2 to G3	Inner valve: brass	Mounting position any
	Diaphragm: NBR/Buna-N, optionally FKM	Bottom screw: reinforced nylon	



G¼ up to G3
110 000 l/min

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

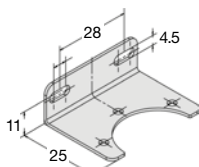
Booster			supply pressure max. 21 bar, outlet pressure 0.2 ... 18 bar with constant bleed, transmission ratio 1:1, relieving				R119-J	
70	86	35	5	2.1	102	1700	G¼	R119-02J
70	86	35	10	2.8	150	2500	G¾	R119-03J
83	98	37	15	5.0	340	5600	G½	R119-04J
113	123	49	20	7.6	540	9000	G¾	R119-06J
113	123	49	25	8.4	600	10000	G1	R119-08J
125	132	48	32	9.2	660	11000	G1¼³	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

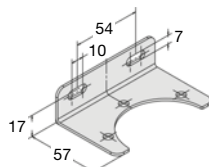
NPT	connection thread	for G2 to G3	R119-...JN
non-relieving	without relieving function	for G¼ to G1	R119-...JK
FKM elastomer		for G¼ to G1½	R119-...JX64
		for G3	R119-24JX64
		for G¼ to G1½	R119-...JX71
			R119-...JF
without constant bleed	insided the pilot chamber		
flange connection	see chapter for SST devices / flanges		
external feedback	for faster and increased accuracy	for G3	R119-24JX27
pre-pressure regulation	340 mbar, advisable if P ₁ is close to P ₂	for G3	R119-24JX06

Accessories, enclosed

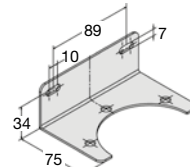
pressure gauge	Ø 50 mm, 0...² bar, G¼	for G¼ to G½	MA5002-²
	Ø 63 mm, 0...² bar, G¼	for G¾ to G3	MA6302-²
mounting bracket	made of steel	for G¼ and G¾	BW00-22
		for G½	BW00-23
		for G¾ to G1½	BW00-24



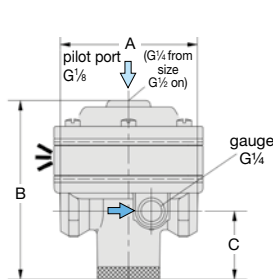
BW00-22



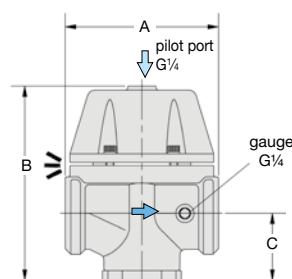
BW00-23



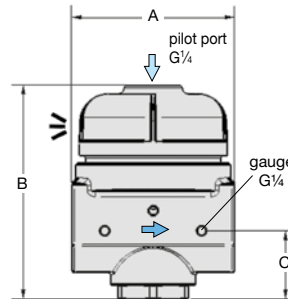
BW00-24



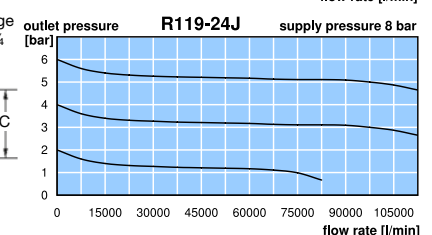
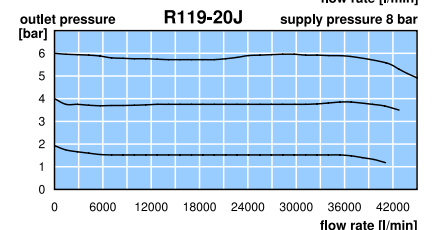
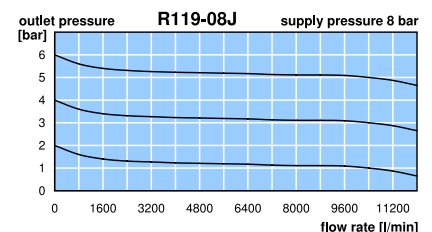
R119-02J...-12J



R119-16J/-20J



R119-24J



*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

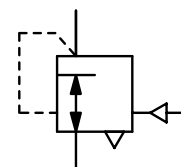
PDF CAD
www.aircom.net

* Product group



Order example:
R119-02J

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	1 800 l/min at 0.3 bar overpressure above setpoint at R200, 9 000 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		



**G1 and G1½, 1½" NPT
30 000 l/min**

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

Booster w. high volume flow						supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1			R200
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

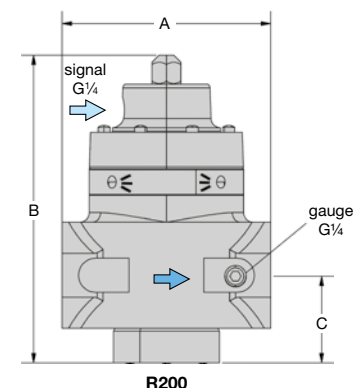
Booster w. high exhaust capacity							supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1		R201
250	240	57	12.2	1800	30000	1½" NPT	17	0...10	R201-12I

Special options, add the appropriate letter

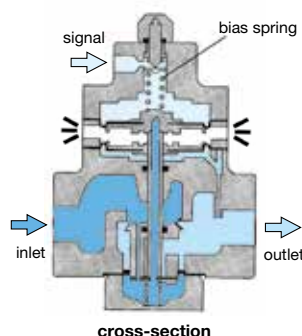
NPT	connection thread	for R200	R200-...IN
non-relieving	without relieving function	for R200	R200-...IK
tapped exhaust	connection thread G $\frac{3}{8}$	for R200	R200-...IX12
FKM elastomer			R20-...IV

Accessories, enclosed

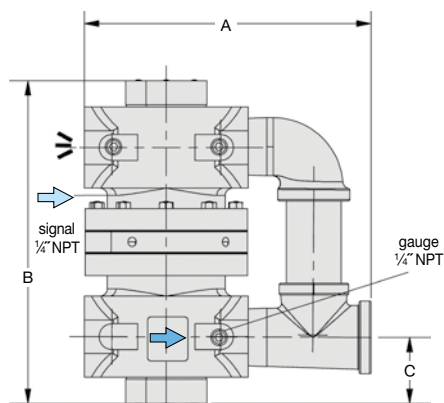
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-...*2
adapter	¼" NPT male / G $\frac{1}{4}$ female	VP-0202N
mounting bracket	made of steel	BW00-41



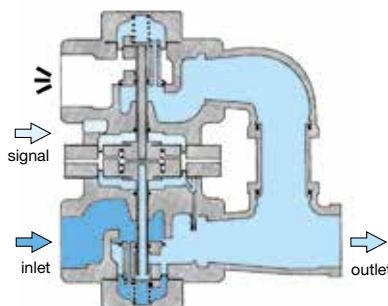
R200



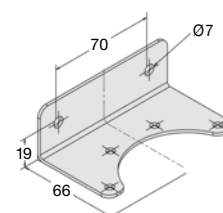
cross-section



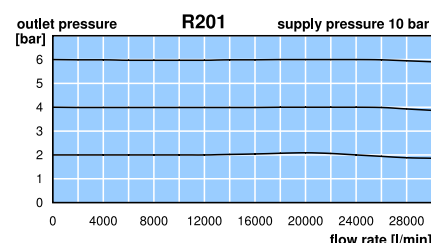
R201



cross-section



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

* Product group



Order example:
R200-08I

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
Inner valve: PTFE, brass or optionally stainless steel

Elastomer: FKM

Media

Supply pressure

Test pressure

Pilot pressure

Leakage rate

Air consumption

Relieving function

Gauge port

Mounting position

Temperature range

Material

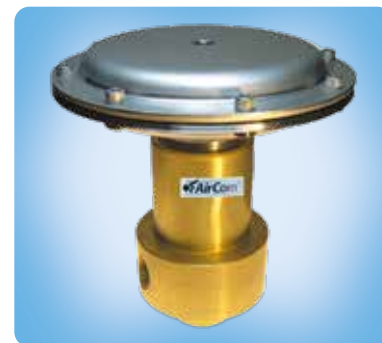
Dimensions			K _v -value	Flow rate	Pilot pressure	Pressure range	Transmission ratio	Order number
A	B	C		m ³ /h	l/min	max. bar	signal : outlet	
mm	mm	mm	(m ³ /h)	m ³ /h*	l/min*	max. bar	bar	

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



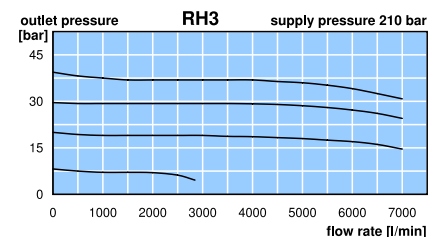
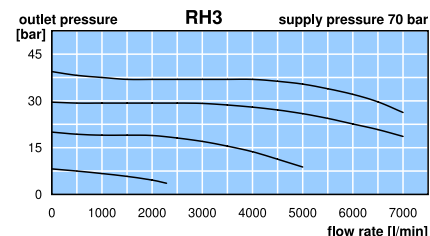
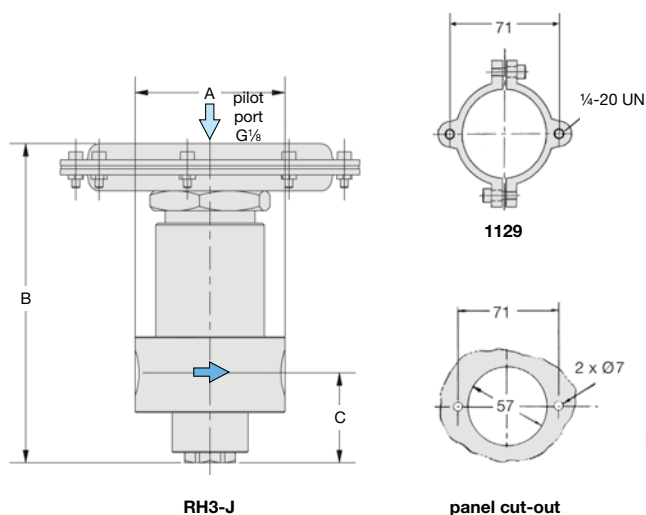
RH3-J

Special options, add the appropriate letter

3/4" 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	MMH	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
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*1 at 210 bar supply pressure and 40 bar outlet pressure

Gauges: see chapter for measuring devices

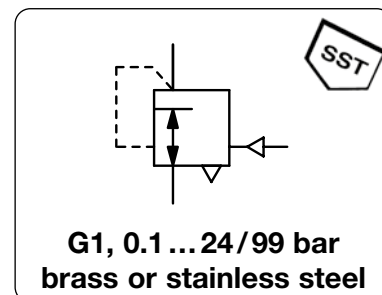
PDF CAD
www.aircom.net

* Product group



Order example:
RH3-J402

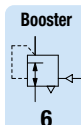
Description	The pilot pressure regulator / booster regulates the outlet pressure through a signal pressure at ratio of 1:1. Functioning as a pressure regulator the pilot pressure may either be internally inducted from the inlet pressure or externally. The dome chamber is closed by a needle valve. Functioning 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 G¼				
Accuracy	at supply pressure variation of 10 bar: 0.1 bar pressure deviation at temperature variation of 3 °C / K: 1% pressure deviation at internal pilot pressure				
Air consumption	without constant bleed				
Gauge port	not available				
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				



RLM, made of brass



RLE, made of stainless steel



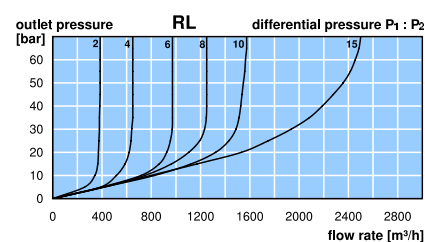
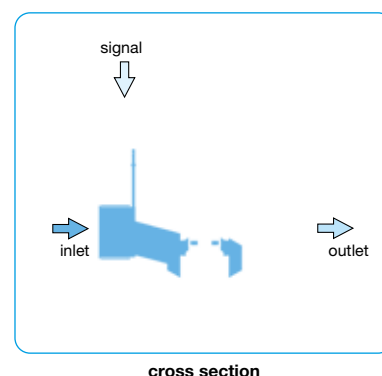
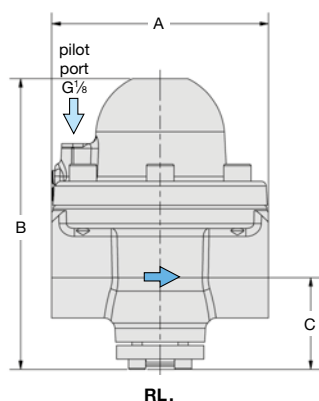
Dimensions			K _v -value	Flow rate	Connection thread	Supply pressure	Pressure range	Order number
A	B	C	(m³/h)	m³/h*1	l/min*1	G	max. bar*2	
mm	mm	mm					bar	

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

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

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



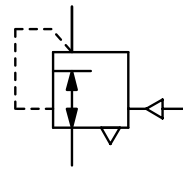
*1 RL-0.J1: at 25 bar supply pressure and 5 bar outlet pressure
RL-0.J2: at 85 bar supply pressure and 70 bar outlet pressure

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

* Product group



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 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass		



G $\frac{1}{4}$ up to G2
1 ... 15/50 bar

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



Booster made of brass R120-J

supply pressure max. 50 bar, non-relieving, without constant bleed, transmission ratio 1:1

64	79	38	D	0.35		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	R120-04J2
80	107	38	P				50	1 ... 50	R120-04J5
114	147	66	D	9.8	500	8300	G $\frac{3}{4}$	15	R120-06J2
114	176	66	P				50	1 ... 50	R120-06J5
114	147	66	D	9.8	500	8300	G1	15	R120-08J2
114	176	66	P				50	1 ... 50	R120-08J5
174	223	122	P	25.0	1380	23000	G1 $\frac{1}{2}$	15	R120-12J2
174	223	122	P				50	1 ... 50	R120-12J5
174	223	122	P	25.0	1380	23000	G2	15	R120-16J2
174	223	122	P				50	1 ... 50	R120-16J5



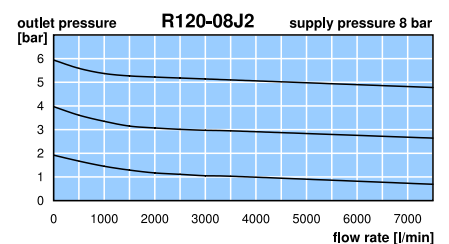
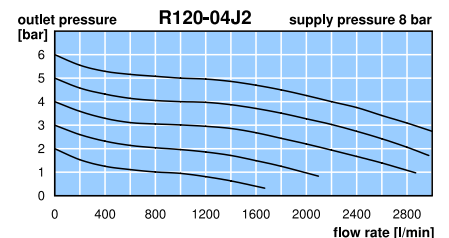
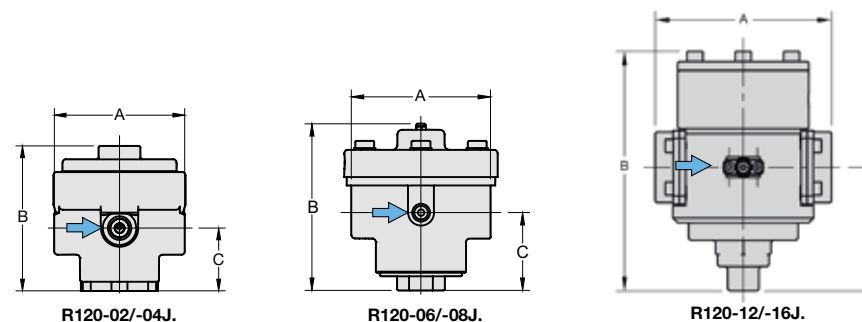
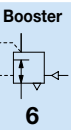
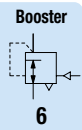
R120-02J2



R120-04J5



R120-06J2



*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

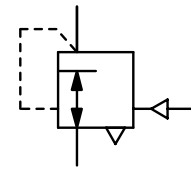
PDF CAD
www.aircom.net

* Product group



Order example:
R120-02J2

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		



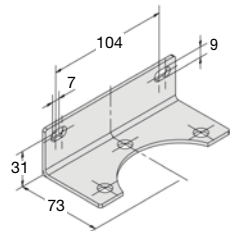
G $\frac{1}{4}$ up to G2
1 ... 15/50 bar

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

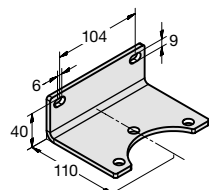


Special options, add the appropriate letter

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: R120-...J.05
helium He: 09	hydrogen H ₂ : 11	methane CH ₄ : R120-...J.13
natural gas 14	oxygen O ₂ : 15	propane C ₃ H ₈ : R120-...J.16
	nitrous oxide N ₂ O: 17	water H ₂ O: R120-...J.W



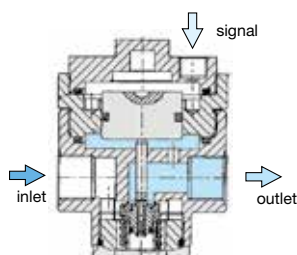
BW00-42



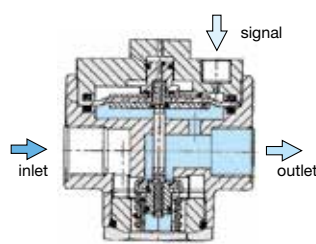
BW00-68S

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
	made of stainless steel	for G1 $\frac{1}{2}$ and G2	BW00-68S



cross-section: with piston



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

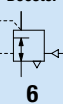
PDF CAD
www.aircom.net

* Product group

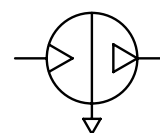


Order example:
MA5002-02

Booster



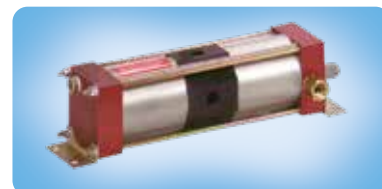
Description	The air amplifier compresses air or nitrogen from a standard pressure of 10 bar max. to the desired outlet pressure of 60 bar max. This is realised by cylinders with different ratios - simple, safe and economical. No electrical installation is required and there is no energy consumption once 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



P₁: max. 12 bar, P₂: 100 bar
50 - 1200 l/min

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

Pressure booster / Air amplifier							supply pressure P ₁ max. 12 bar, for compressed air	drive pressure P _A 2...10 bar	AM
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



AM20-0580



AM20-0960

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...-...
pressure booster for liquids		AM...-...



AM20-1200



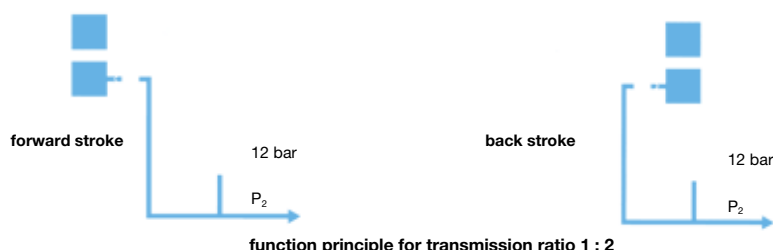
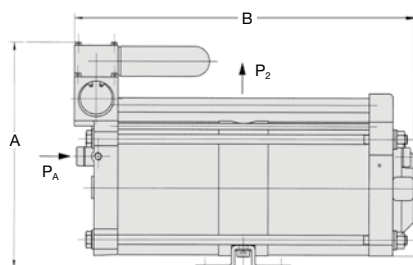
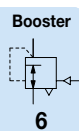
AM32-0230



AM40-0050



AM60-0360



function principle for transmission ratio 1 : 2

*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

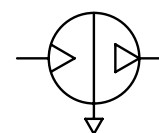
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 www.aircom.net

* Product group



Order example:
 AM20-0580

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 P ₁	max. 12 bar, for instance nitrogen or the system air		
Outlet pressure P ₂	amplified outlet or operating pressure of 20 bar to 40 bar maximum		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		
Material	Body: aluminium	Seals: NBR/Buna-N	Tank: coated steel, SST at AP40-0050
		Sound level max. 79 dB (A)	



P₁: max. 12 bar, P₂: 40 bar
50 - 1200 l/min

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



AP20-0580 similar AP20-0960

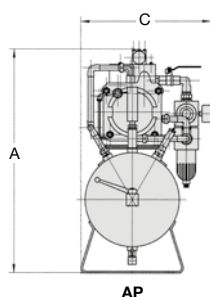
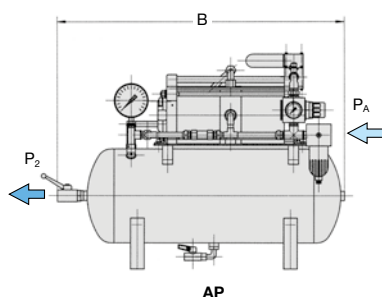


AP20-1200 similar AP40-0360 and AP20-0230

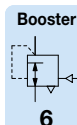
Special options, add the appropriate letter

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

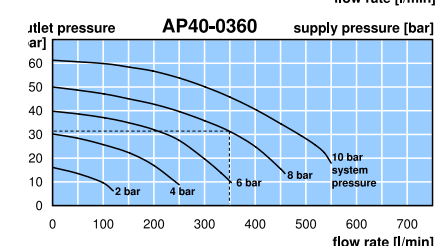
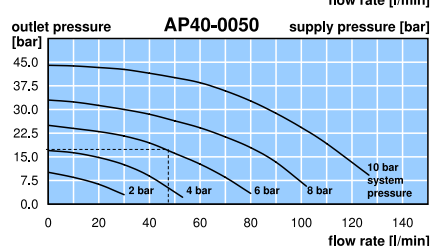
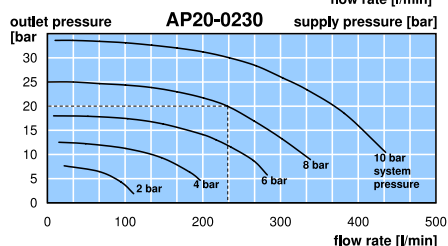
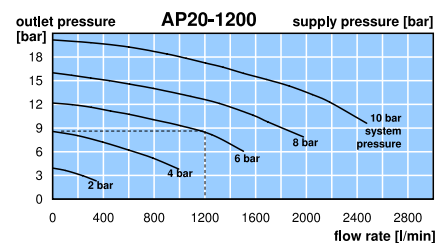
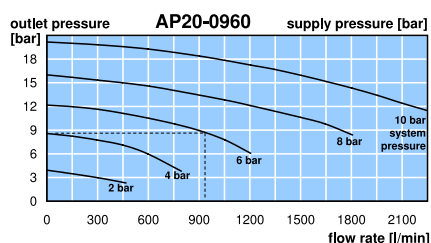
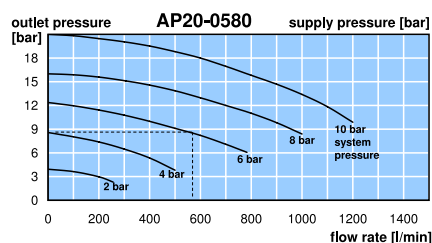
AP...T
 AP...EX
 AP...



AP40-0050



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

*5 outlet pressure P₂ limited by the pressure stage of the accumulator, higher pressure ranges on request

*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

* Product group

Calculation examples can be found in the appendix

PDF CAD
www.aircom.net



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
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
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 P₁. See circuit below.

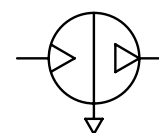
Temperature range

-5 °C to 50 °C / 23 °F to 122 °F

Material

Cylinder: anodized aluminium

seals: NBR/Buna-N



**max. 4...20 bar
transmission ratio 1:2**

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

Pressure booster

P₁ max. 8 bar, for compressed air

AB

100	192	70	1.5	G $\frac{1}{8}$	1 : 2	130	30	4...16	AB040
117	284	90	3.0	G $\frac{3}{8}$	1 : 2	260	15	4...16	AB063
176	468	155	12	G $\frac{1}{2}$	1 : 2	440	6	4...16	AB100



AB040

Pressure booster with regulator and gauge

P₁ max. 8 bar, for compressed air

AB-D

100	192	126	1.5	G $\frac{1}{8}$	1 : 2	130	30	4...16	AB040D
117	284	168	3.0	G $\frac{3}{8}$	1 : 2	260	15	4...16	AB063D
176	468	218	12	G $\frac{1}{2}$	1 : 2	440	6	4...16	AB100D



AB040D

Accessories, enclosed

Mounting plate

made of steel, central attachment below

for AB040

BW00-49

for AB063

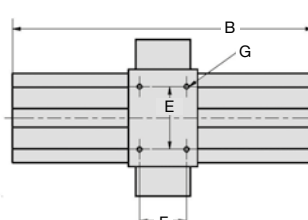
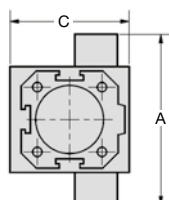
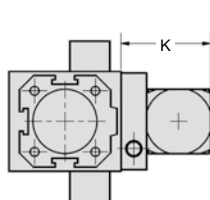
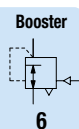
BW00-50

Mounting bracket

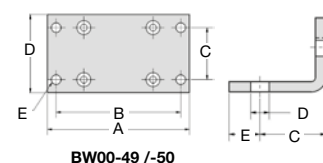
made of steel, mounting at the side, 1 piece

for AB100

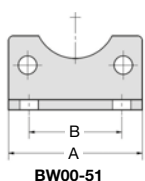
BW00-51



Device	A	B	C	D	E	F	G	H	K
AB040	100	192	70	57	40	30	M4	G $\frac{1}{8}$	56
AB063	117	284	90	75	60	40	M6	G $\frac{3}{8}$	78
AB100	176	468	155	130	114	45	M8	G $\frac{1}{2}$	63

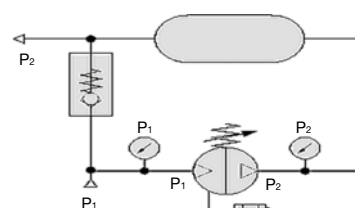


BW00-49 /-50

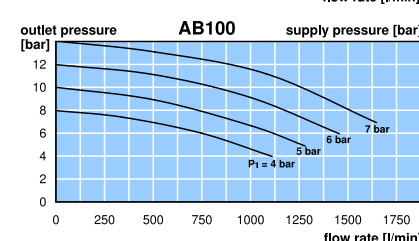
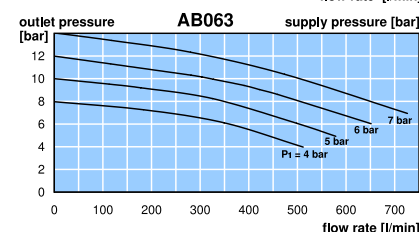
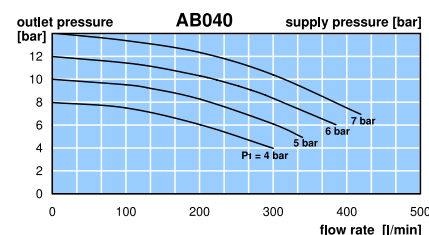
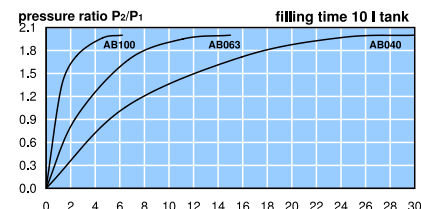
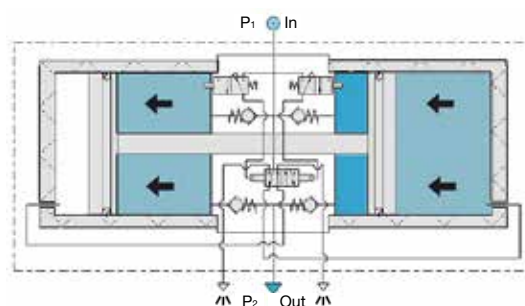


BW00-51

BW00-	A	B	C	D	E
49	82	72	30	45	5,5
50	110	98	53	70	M8
51	65	45	32	9	15



circuit with air tank



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

Pressure booster with 2 l to 20 l tank on request

PDF CAD
www.aircom.net

* Product group



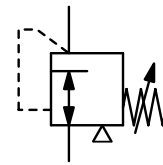
Order example:
AB040

VACUUM PRESSURE REGULATOR

	DESCRIPTION	PRESSURE RANGE		CONNECTION	SERIES	PAGE
		bar				
MINIATURE	max. 22 l/min	-850 ... 0	mbar	1/8"NPT	V800	7.02
	max. 22 l/min	-850 ... 0	mbar	10-32" and flange	V900	7.02
	max. 50 l/min	-1 ... 0.01	bar	1/4"NPT	V480	7.03
PRECISE	max. 70 l/min	-1 ... +0.14 / 10	bar	G1/4	R250	7.04
	max. 330 l/min	-990 ... 0	mbar	G1/4 - G1/2	V170	7.05
	max. 800 l/min	-1 ... +0.7 / 10	bar	G1/2 u. G3/4	R251	7.06
	vacuum adjustment valve	-1 ... -0.3		G1/8 - G1	V04	7.07
	vacuum adjustment valve	-1 ... 0	bar	G1/4 u. G1	V05	7.07
ELECTRICAL	control valves	-1 ... 0	/ +1 bar	G1/8	PQ	10.04
	proportional magnet	-1 ... 0	/ +1 bar	G1/8 - G1	PR	10.09
	digital control	-1 ... 0		G1/8 - G1	PP	10.15
	piezo-operated	-1 ... 1	/+10 bar	G1/8 u. G1/4	PRE	10.25



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	



10-32" or flangeable
0 ... -350/-850 mbar

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

Vacuum regulator 10-32"			supply pressure max. -1000 mbar, with constant bleed		V900-W	
29	78	8	adjusting knob	22	-350 ... 0	V900-10WK
					-850 ... 0	V900-30WK
29	60	8	adjusting screw	22	-350 ... 0	V900-10WOS
					-850 ... 0	V900-30WOS
29	43	8	preset	22	indicate on order	V901-..

Vacuum reglator with flange			supply pressure max. -1000 mbar, with constant bleed		V900-M	
29	78	8	adjusting knob	22	-350 ... 0	V900-10MWK
					-850 ... 0	V900-30MWK
29	60	8	adjusting screw	22	-350 ... 0	V900-10MWOS
					-850 ... 0	V900-30MWOS
29	43	8	preset	22	indicate on order	V901-.. M

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



V800-..WK

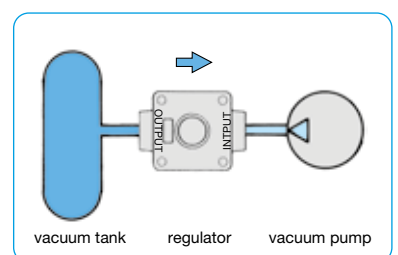
V900-..WK



V900-..WOS



V901-..

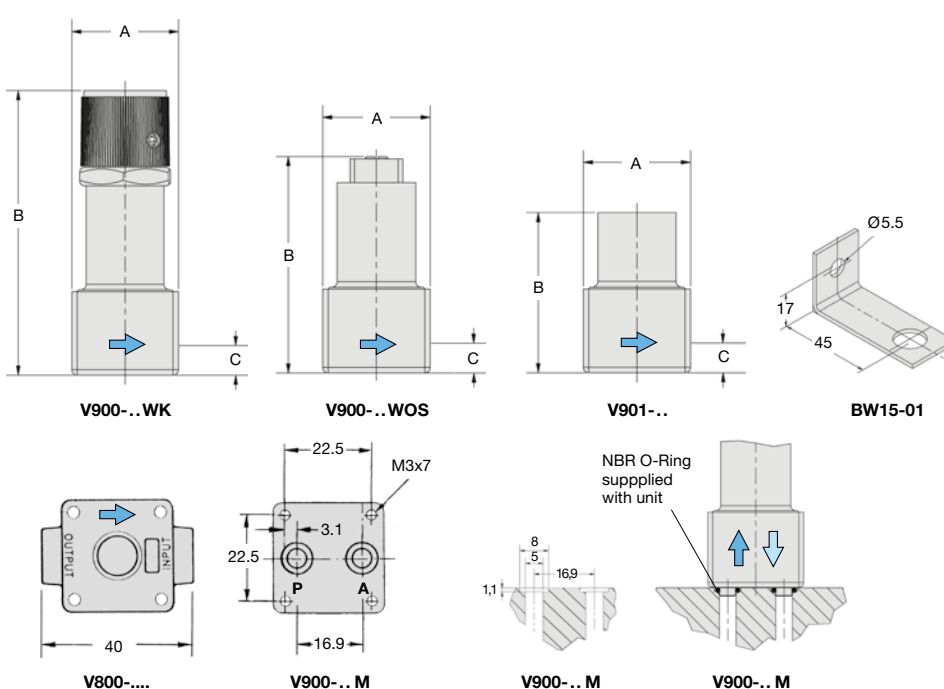


vacuum connection

* Product group

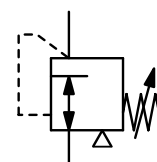


Order example:
V900-10WK



PDF CAD
www.aircom.net

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	G¼ 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	



G¼
vacuum ... 0.14/10 bar

Dimensions				K _v value	Flow rate	Connection thread	Vacuum range	Order number	D*
A	B	C	D						
mm	mm	mm	mm	m³/h	m³/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	G¼	-1 ... +0.14	R250-020
								-1 ... +0.7	R250-02A
								-1 ... +2.0	R250-02B
								-1 ... +7.0	R250-02C
								-1 ... +10	R250-02D

Special options, add the appropriate letter

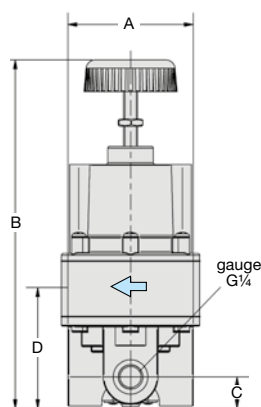
NPT	connection thread	R250-0..N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 189 mm	R250-0..T



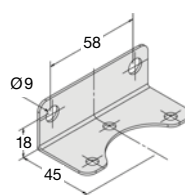
R250

Accessories, enclosed

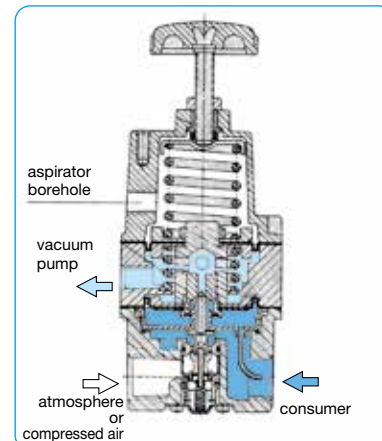
pressure gauge	Ø 63 mm, -1 ... 0 bar, G¼	MA6302-00
mounting bracket	made of steel	BW00-33



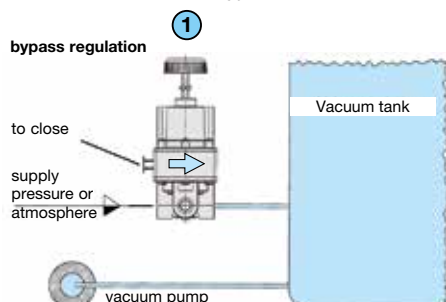
R250



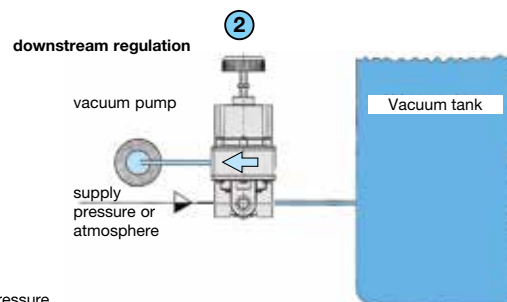
BW00-33



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 installation** is preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

*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

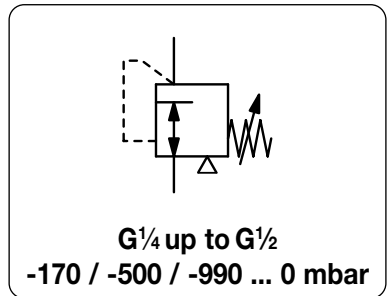
PDF CAD
www.aircom.net

* Product group



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	D*
A	B	C		m ³ /h*1	l/min*1				
mm	mm	mm							

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



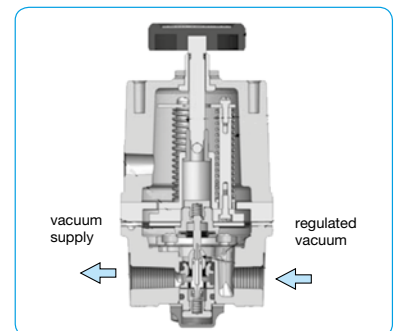
V170

Special options, add the appropriate letter

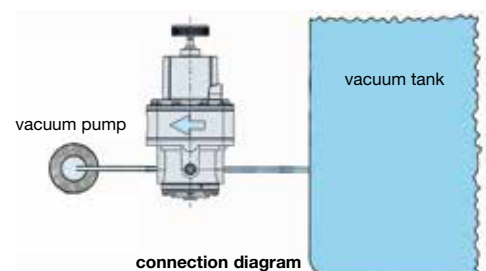
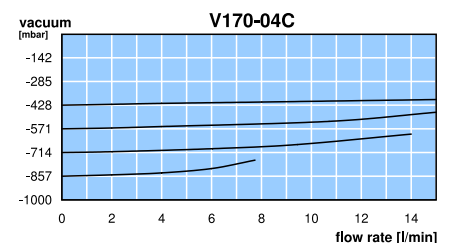
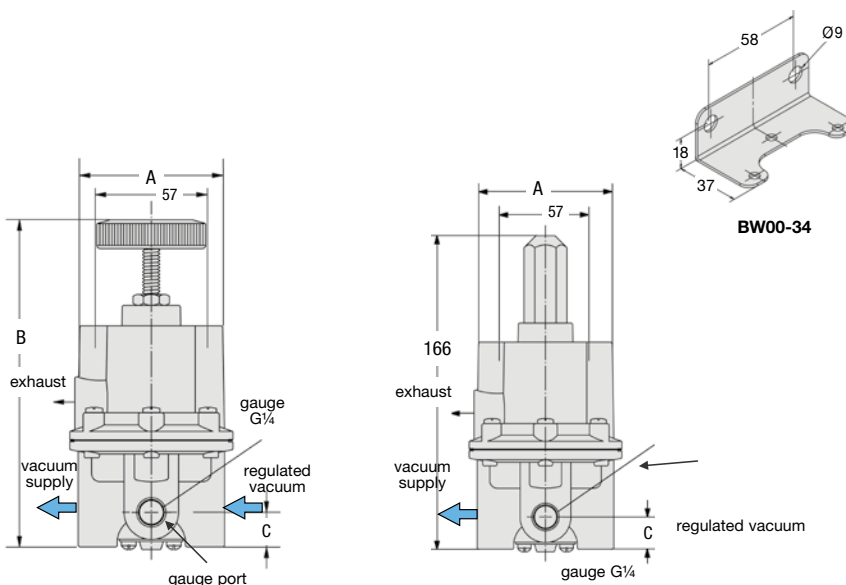
NPT	connection thread	V170-0..N
Verstellsicherung	made of aluminium, adjustment by screwdriver, total height 160 mm	V170-0..T
FKM-Elastomere		V170-0..V

Accessories, enclosed

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



cross-section



connection diagram

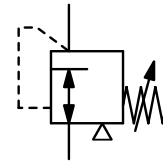
*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



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	G¼ 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		



**G $\frac{1}{2}$ and G $\frac{3}{4}$
vacuum ... 0.7/10 bar**

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

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 -1 ... +2.0 -1 ... +10	R251-04A R251-04B R251-04D
87	238	40	98	2.5	48	800	G $\frac{3}{4}$	-1 ... +0.7 -1 ... +2.0 -1 ... +10	R251-06A R251-06B R251-06D

Special options, add the appropriate letter

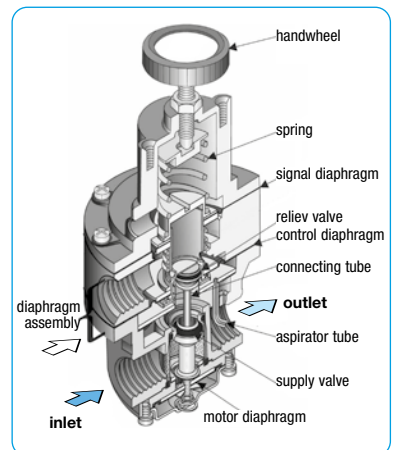
NPT	connection thread	R251-0 . . N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 240 mm	R251-0 . . T
FKM elastomer		R251-0 . . V

Accessories, enclosed

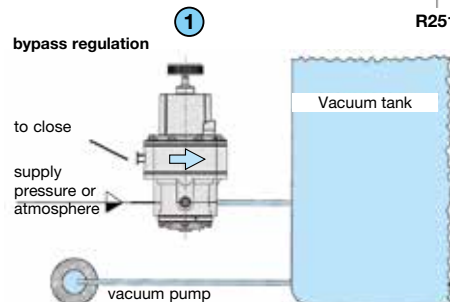
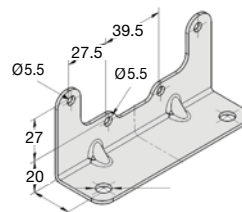
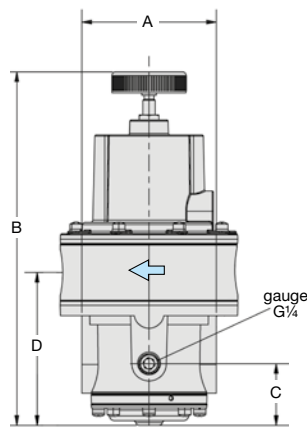
pressure gauge	Ø 63 mm, -1 ... 0 bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-47



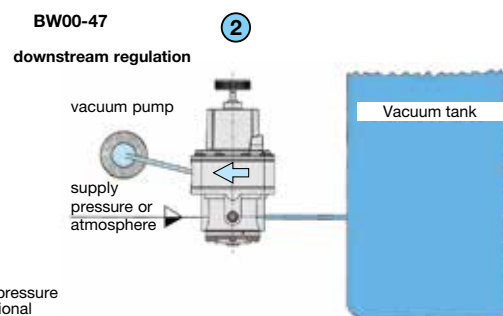
R251



**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 installation** is preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

Note
A strainer is provided on the pressure side or atmospheric, 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

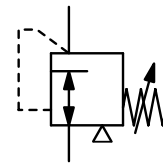
PDF CAD
www.aircom.net

* Product group



**Order example:
R251-04A**

Description	When these valves reach a certain precalibrated vacuum degree, they introduce atmospheric air into the circuit to prevent the increase of the actual 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 spindle with lock nut 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



G¹/₈ up to G1
vacuum -1 ... 0 bar

Dimensions			Flow rate		Connection thread	Vacuum-range	Order number	D*
A	B	SW	m³/h	l/min	G	bar		
mm	mm	mm						

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

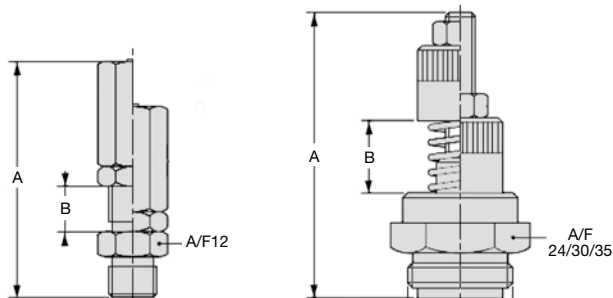
V04-04

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



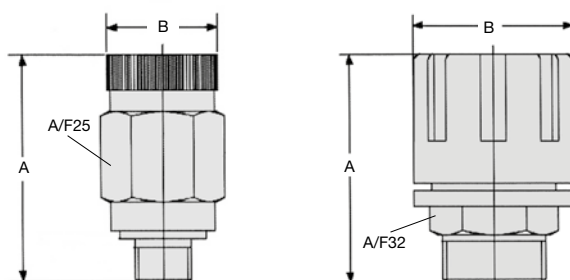
V04-06

V04-08



V04-01

V04-04 / -06 / -08



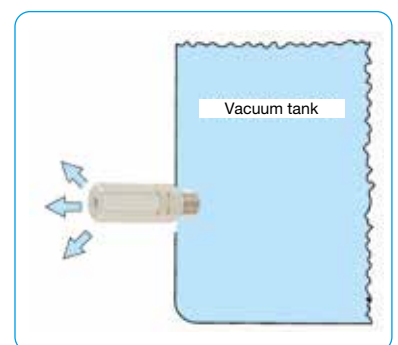
V05-02

V05-08



V05-02

V05-08



* Product group

PDF CAD
www.aircom.net



Order example:
V04-01

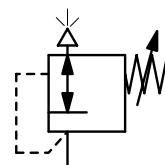
BACK PRESSURE REGULATOR

	DESCRIPTION	OVERPRESSURE max. bar	ADJUSTMENT RANGE bar	CONNECTION	SERIES	PAGE
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
	- 40 °C	65	0.2 ... 1.5 / 50	G $\frac{1}{4}$ - G2	DBM-X51	8.05
	+130 °C	65	0.2 ... 1.5 / 50	G $\frac{1}{4}$ - G1	DBM-X54	8.05
PRECISE	high-precision	35	0.01 ... 0.14 / 28	G $\frac{1}{4}$ - G $\frac{1}{2}$	10BP	8.06
	ree 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 $\frac{1}{4}$ u. 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
HIGH PRESSURE	precise	1034	0.35 ... 35 / 1034	$\frac{1}{8}$ "NPT - $\frac{1}{2}$ "NPT	DB26	8.14
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
STAINLESS STEEL	für viele Gase, auch FDA	65	0.1 ... 1.5 / 50	G $\frac{1}{8}$ - G2	D3000	15.21
	- 40 °C	65	0.2 ... 1.5 / 50	G $\frac{1}{4}$ - G2	D3000-X51	15.24
	+130 °C	65	0.1 ... 1.5 / 50	G $\frac{1}{4}$ - G2	D3000-X54	15.24
	Niederdruck	6	0.005 ... 0.045 / 3	G $\frac{1}{2}$ - G2	D3100	15.25



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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 Diaphragm: NBR/Buna-N with PTFE coating O-rings: NBR/Buna-N, optionally FKM or EPDM Inner valve: brass		



G $\frac{1}{8}$ up to G2
0.1 ... 1.5/15 bar

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

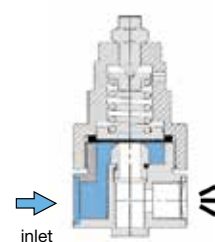
40	78	13	D	200	30	G $\frac{1}{8}$	0.2 ... 1.5	DBC-01A
							0.3 ... 3.0	DBC-01B
							0.8 ... 8.0	DBC-01D
							1.5 ... 15	DBC-01E
40	78	13	D	200	30	G $\frac{1}{4}$	0.2 ... 1.5	DBC-A2A
							0.3 ... 3.0	DBC-A2B
							0.8 ... 8.0	DBC-A2D
							1.5 ... 15	DBC-A2E
78	166	33	D	400	30	G $\frac{1}{4}$	0.2 ... 1.5	DBC-02A
							0.3 ... 3.0	DBC-02B
							0.8 ... 8.0	DBC-02D
							1.5 ... 15	DBC-02E
78	166	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	175	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	175	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



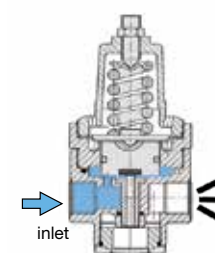
DBC-01/-A2



DBC-04/-A6



cross-section with diaphragm (D)

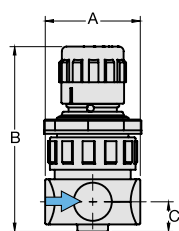


cross-section with piston (P)

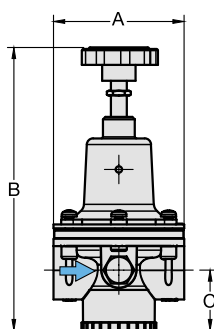
Back pressure



8



DBC-01/-A2



DBC-02/-03/-04/-A6

*1 at 7 bar overpressure and open outlet

Gauges: see chapter for measuring devices

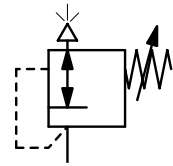
PDF CAD
www.aircom.net

* Product group



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 (DBC-01 to -A6), 0 °C to 80 °C / 32 °F to 176 °F (DBC-12 and -16), for appropriately conditioned compressed air down to -20 °C / -4 °F		
Material	Body: aluminium Diaphragm: NBR/Buna-N with PTFE coating O-rings: NBR/Buna-N, optionally FKM or EPDM Inner valve: brass		



G $\frac{1}{8}$ up to G2
0.1 ... 1.5/15 bar

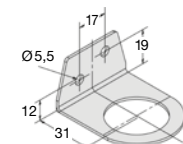
Dimensions			Regul. system	Relief capacity	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	D: diaphragm P: piston	l/min*1	max. bar	G	bar	
mm	mm	mm						



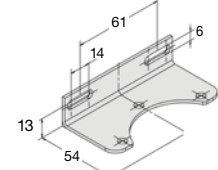
Aluminium back pressure regulator					overpressure max. 30 bar	DBC		
174	283	35	P	25000	30	G1 $\frac{1}{2}$	0.2 ... 1.5	DBC-12A
							0.3 ... 3.0	DBC-12B
							0.8 ... 8.0	DBC-12D
							1.5 ... 15	DBC-12E
174	283	35	P	25000	30	G2	0.2 ... 1.5	DBC-16A
							0.3 ... 3.0	DBC-16B
							0.8 ... 8.0	DBC-16D
							1.5 ... 15	DBC-16E



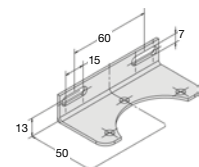
DBC-12/-16
accessory pressure gauge



BW30-02



BW00-44



BW00-63S

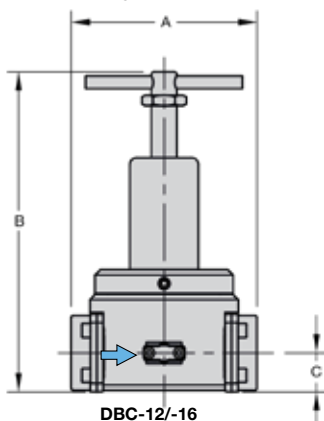
Special options, add the appropriate letter

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



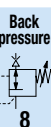
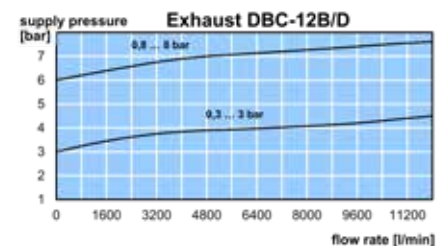
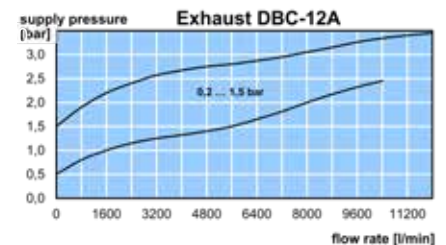
pressure gauges	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for G $\frac{1}{4}$	MA5002-...^{*2}
pressure gauges	Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$	from G $\frac{1}{2}$	MA6302-...^{*2}
mounting bracket	made of steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	BW30-02
mounting nut	made of aluminium	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
mounting bracket	made of stainless steel	for G $\frac{1}{2}$ and G2	BW00-63S



DBC-12/-16

*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

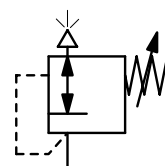
PDF CAD
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* Product group



Order example:
DBC-06A

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 black plastic knob with snap-lock for DBM-02/-03 by T-handle with locknut for DBM-04 to -16	Overpressure	see chart, max. 70 bar
Gauge port	G¼ on both sides of the body, from DBM-02 on 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	



G½ up to G2
0.1... 1.5/50 bar

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	



Brass back pressure regulator

overpressure max. 30/65 bar

DBM

69	150	35	D	800	30	G¼	0.2 ... 1.5	DBM-02A
							0.3 ... 3.0	DBM-02B
							0.8 ... 8.0	DBM-02D
							1.5 ... 15	DBM-02E
69	145	35	P		65		3.0 ... 30	DBM-02F
69	160	35					5.0 ... 50	DBM-02G
69	150	35	D	800	30	G¾	0.2 ... 1.5	DBM-03A
							0.3 ... 3.0	DBM-03B
							0.8 ... 8.0	DBM-03D
							1.5 ... 15	DBM-03E
69	145	35	P		65		3.0 ... 30	DBM-03F
69	160	35					5.0 ... 50	DBM-03G
78	170	38	D	2500	30	G½	0.2 ... 1.5	DBM-04A
							0.3 ... 3.0	DBM-04B
							0.8 ... 8.0	DBM-04D
							1.5 ... 15	DBM-04E
78	170	38	P		65		3.0 ... 30	DBM-04F
							5.0 ... 50	DBM-04G
118	291	66	D	8000	30	G¾	0.2 ... 1.5	DBM-06A
							0.3 ... 3.0	DBM-06B
							0.8 ... 8.0	DBM-06D
							1.5 ... 15	DBM-06E
118	313	66	P		65		3.0 ... 30	DBM-06F
							5.0 ... 50	DBM-06G
118	291	66	D	8000	30	G1	0.2 ... 1.5	DBM-08A
							0.3 ... 3.0	DBM-08B
							0.8 ... 8.0	DBM-08D
							1.5 ... 15	DBM-08E
118	313	66	P		65		3.0 ... 30	DBM-08F
							5.0 ... 50	DBM-08G



DBM-02/-03



DBM-04

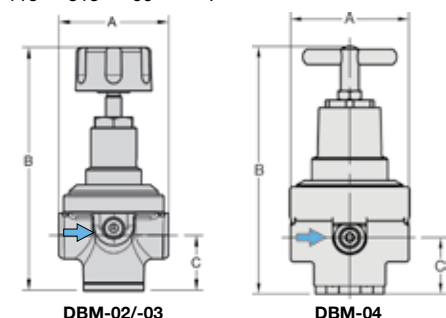


DBM-06/-08

Back pressure

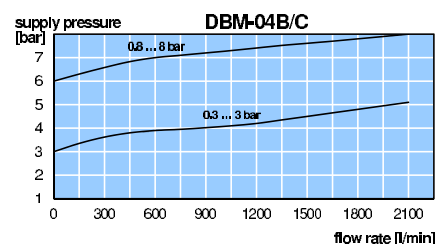
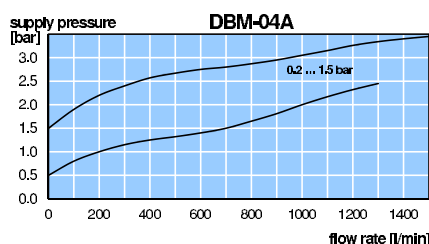


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DBM-02/-03

DBM-04



*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

* Product group

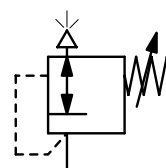
Gauges: see chapter for measuring devices

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Order example:
DBM-02A

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/-03	Overpressure see chart, max. 70 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	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	



G $\frac{1}{8}$ up to G2
0.1... 1.5/50 bar

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	
mm	mm	mm						



Brass back pressure regulator

overpressure max. 30/65 bar

DBM

174	283	35	P	28000	70	G1½	0.2... 1.5	DBM-12A
							0.3... 3.0	DBM-12B
							0.8... 8.0	DBM-12D
							1.5... 15	DBM-12E
							3.0... 30	DBM-12F
							5.0... 50	DBM-12G
174	283	35	K	28000	70	G2	0.2... 1.5	DBM-16A
							0.3... 3.0	DBM-16B
							0.8... 8.0	DBM-16D
							1.5... 15	DBM-16E
							3.0... 30	DBM-16F
							5.0... 50	DBM-16G



DBM-12/-16

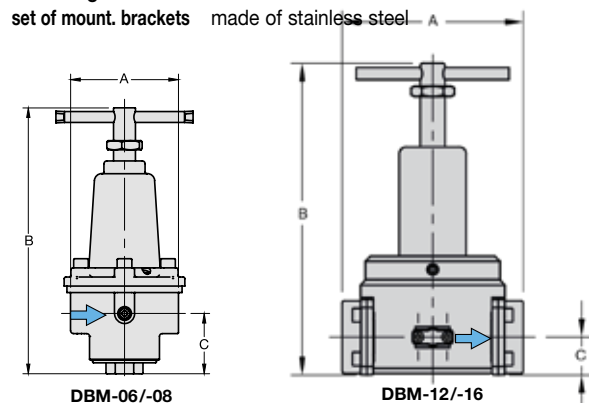
Special options, add the appropriate letter

NPT	connection thread				DBM-... N			
down to -40 °C/ -40 °F	low temperature version				DBM-... X51			
up to 130 °C/ 266 °F	high temperature version				DBM-0... X54			
EPDM o-ring	PTFE diaphragm				DBM-... E			
T-handle	instead of knob				DBM-0... T			
	DBM-02 / -03 only							
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

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
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{3}{4}$ to G2	MA6302-...*2
	Ø 50 / Ø 63 mm, 0...25 bar, G $\frac{1}{4}$	für G $\frac{1}{4}$ bis G2	MA...02-25
	Ø 50 / Ø 63 mm, 0...60 bar, G $\frac{1}{4}$	für G $\frac{1}{4}$ bis G2	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 stainless steel	for G1½ and G2	BW00-63S



*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

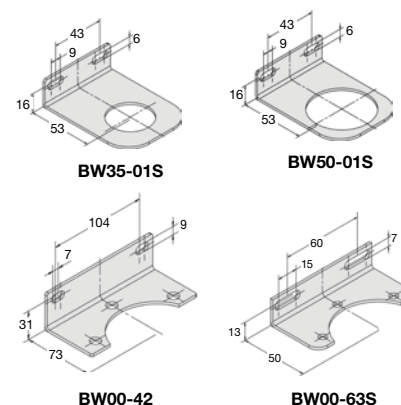
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group

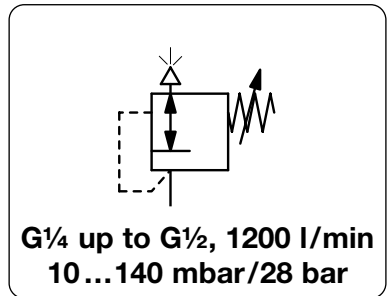


Order example:
DBM-12A



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

Precision back pressure regulator					overpressure max. 21/35 bar	Model 10BP	
67	162	19	1200	21	G¼	0.01 ... 0.14	10212BPH
						0.01 ... 0.7	10222BPH
						0.01 ... 2.1	10232BPH
						0.07 ... 4.1	10242BPH
						0.14 ... 10	10262BPH
						0.20 ... 14	10272BPH
67	171	19	1200	35	G¼	0.30... 21	10282BPH
						0.30... 28	10292BPH



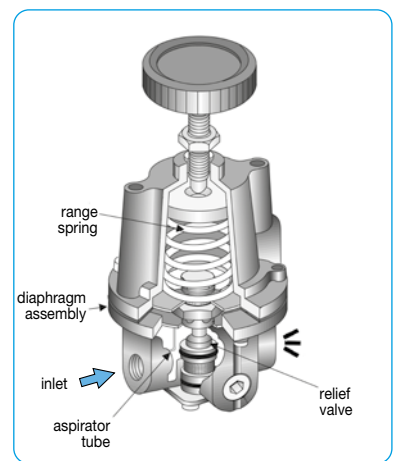
Modell 10BP

Special options, add the appropriate letter

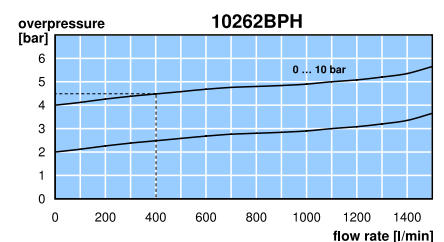
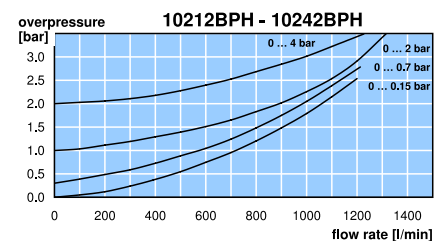
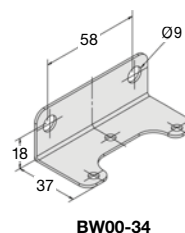
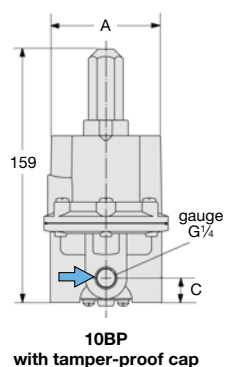
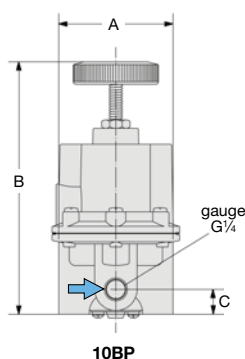
G$\frac{3}{8}$	connection thread	102.3BPH
G$\frac{1}{2}$	connection thread, recommended for mbar range	102.4BPH
NPT	connection thread	102.2BP
FKM elastomer		102..BP.J
free of non-ferrous metal	FKM elastomer	102..BP.X63
tamper-proof cap	aluminium, adjustment by screwdriver, total height 159 mm	102..BP.T

Accessories, enclosed

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



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, 25 = 0...25 bar, 60 = 0...60 bar

Gauges: see chapter for measuring devices

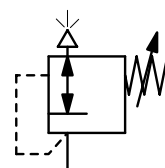
PDF CAD
www.aircom.net

* Product group



Order example:
10212BPH

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



G $\frac{1}{4}$ / $\frac{1}{4}$ " up to $\frac{1}{2}$ " NPT
10... 140 mbar/10 bar

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

Precision back pressure regulator						overpressure max. 17 bar	DB240
67	154	19	1100	17	G¼	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



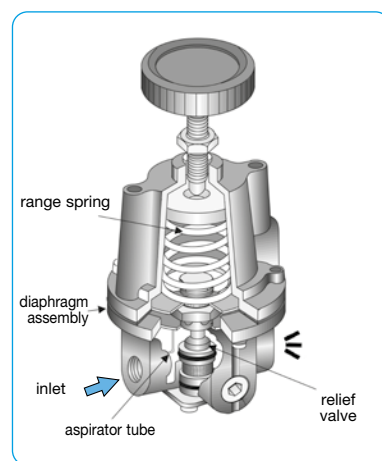
DB240

Special options, add the appropriate letter

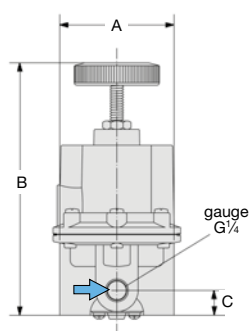
$\frac{1}{4}$" NPT	connection thread	DB240-02 . N
$\frac{3}{8}$" NPT	connection thread	DB240-03 . N
$\frac{1}{2}$" NPT	connection thread, recommended for mbar range	DB240-04 . N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 157 mm	DB240-0 . T

Accessories, enclosed

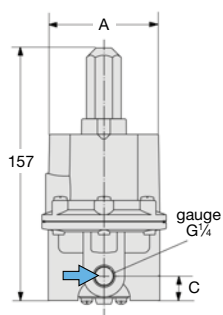
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$, Bourdon tube, from 1 bar on	MA5002-...*2
	Ø 63 mm, 0...160 mbar, G $\frac{1}{4}$, capsule type	MA6302- C2
mounting bracket	made of steel	BW00-33



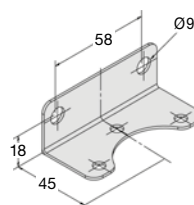
cross-section



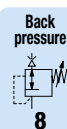
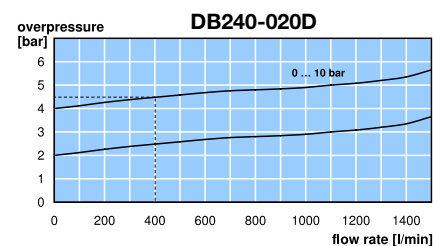
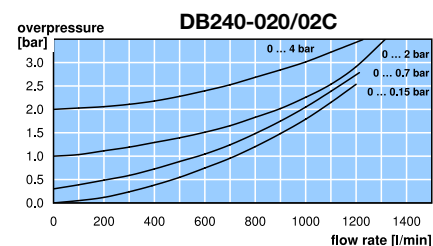
DB240



DB240-...T
with tamper-proof cap



BW00-33



*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

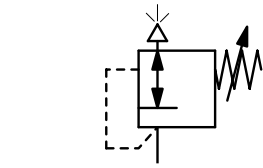
PDF CAD
www.aircom.net

* Product group



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. 4 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



**G¼ up to G½, 700 l/min
0...35/800 mbar**

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

Low back pressure regulator						overpressure max. 4 bar	DB110
67	180	25	700	4	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	4	G½	2 ... 35	DB110-040
						2 ... 140	DB110-04A
						2 ... 280	DB110-04B
						2 ... 400	DB110-04C
						2 ... 800	DB110-04D



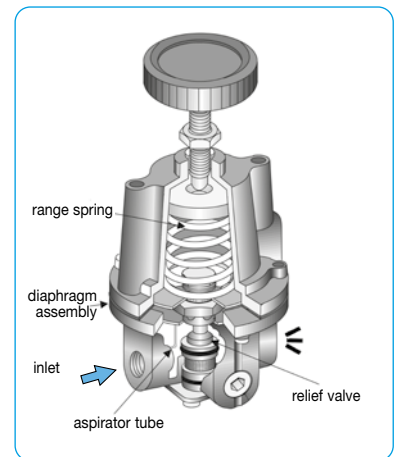
DB110

Special options, add the appropriate letter

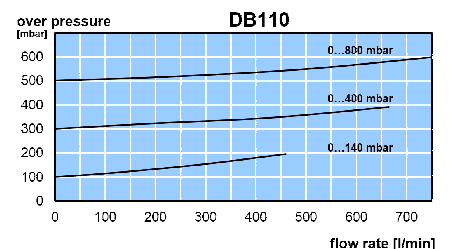
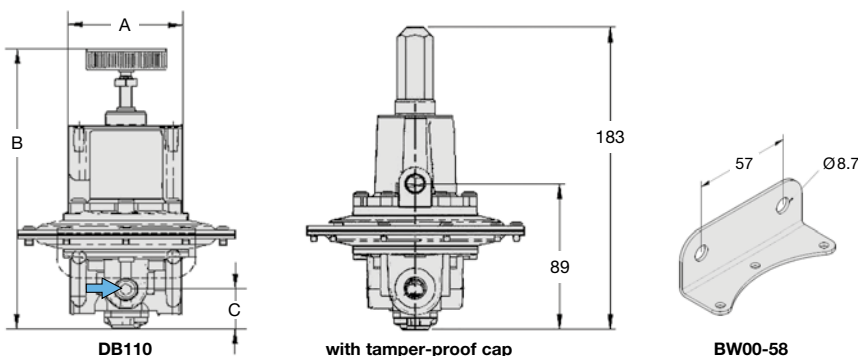
G¾	connection thread	DB110-03.
NPT	connection thread	DB110-0.. N
FKM elastomer		DB110-0.. V
tamper-proof cap	aluminium, adjustment by screwdriver, total height 183 mm	DB110-0.. T

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

Gauges: see chapter for measuring devices

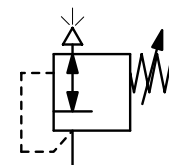
PDF CAD
www.aircom.net

* Product group



Order example:
DB110-020

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
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



**G $\frac{1}{4}$ and G $\frac{3}{8}$, 1100 l/min
0...0.14/7 bar**

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

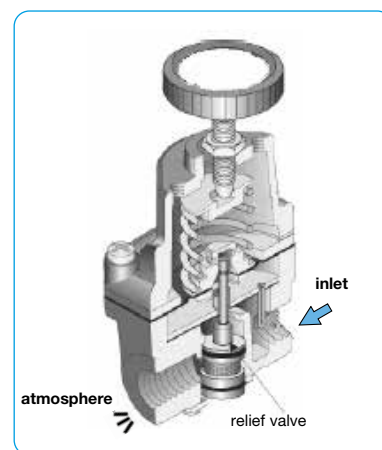
Precision back pressure regulator						overpressure max. 10 bar	DB300
57	126	19	1100	10	G $\frac{1}{4}$	0.001... 0.14	DB300-020
						0.01 ... 0.7	DB300-021
						0.03 ... 2.0	DB300-02A
						0.07 ... 4.0	DB300-02B
						0.14 ... 7.0	DB300-02C
57	126	19	1100	10	G $\frac{3}{8}$	0.001... 0.14	DB300-030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

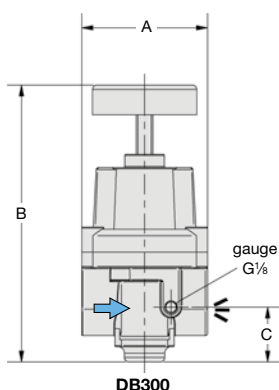
NPT	connection thread	DB300-0...N
tamper-proof cap	aluminium, adjustment by screwdriver, total height 141 mm	DB300-0...T
FKM elastomer		DB300-0...V



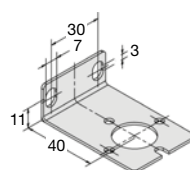
cross-section

Accessories, enclosed

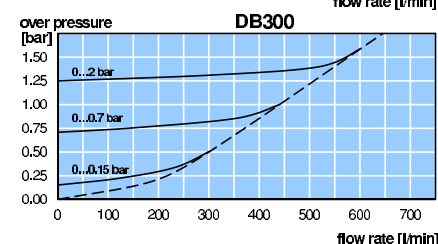
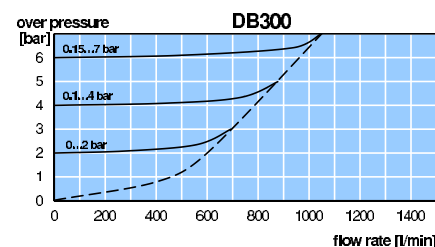
pressure gauge	Ø 63 mm, 0... 160 mbar, G $\frac{1}{4}$ - connecting parts required	MA6302-C2
	Ø 50 mm, 0...*2 bar, G $\frac{1}{8}$	MA5001-...*2
connecting parts gauge	for MA6302-C2	AM-04
mounting bracket	made of steel	BW00-46



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

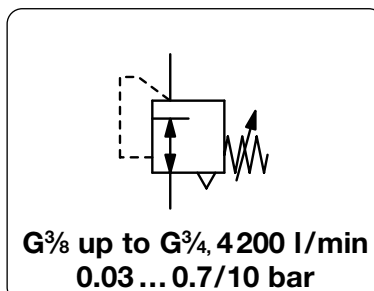
PDF CAD
www.aircom.net

* Product group



Order example:
DB300-020

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
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

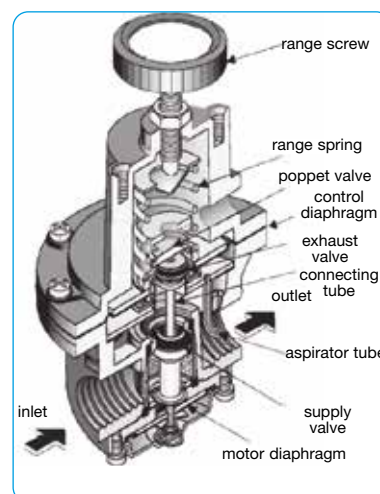


Dimensions			Relief capacity	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	l/min*1	max. bar	G	bar	
mm	mm	mm					

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



cross-section

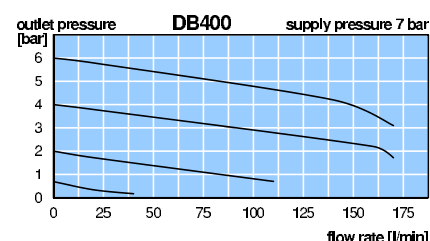
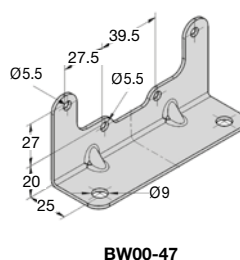
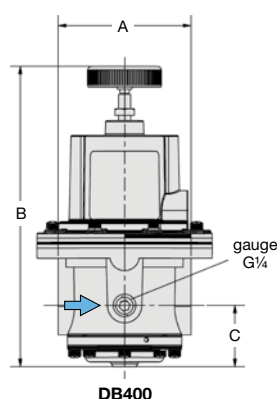
Special options, add the appropriate letter

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-... ^{*2}
mounting bracket	made of steel	BW00-47

Back pressure



*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

* Product group

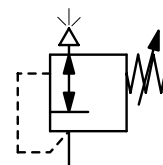
Gauges: see chapter for measuring devices

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



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

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

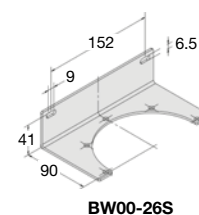
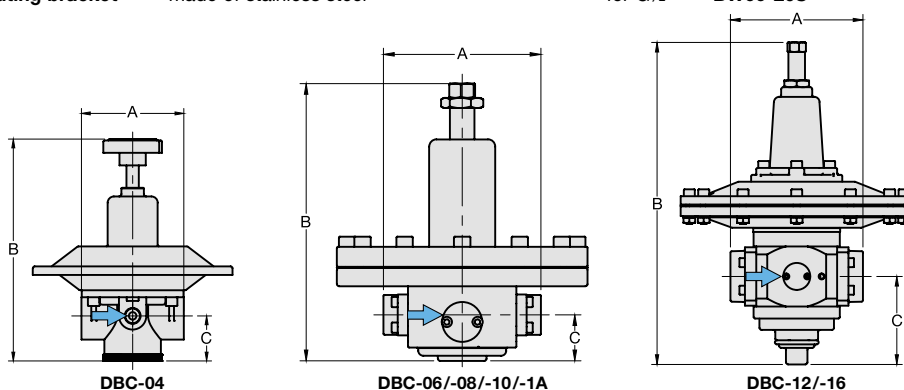
Aluminium back pressure regulator			NBR/Buna-N with PTFE coating			DBC	
82	186	38	300	1	G $\frac{1}{2}$	5 ... 45	DBC-04N
			500			20 ... 200	DBC-04P
			1000			150 ... 700	DBC-04Q
161	290	45	1300	6	G $\frac{3}{4}$	50 ... 300	DBC-06P
			2300			100 ... 700	DBC-06Q
			5000			200 ... 1200	DBC-06R
161	290	45	1300	6	G1	50 ... 300	DBC-08P
			2300			100 ... 700	DBC-08Q
			5000			200 ... 1200	DBC-08R
265	290	45	1300	6	G1 $\frac{1}{4}$	50 ... 300	DBC-10P
			2300			100 ... 700	DBC-10Q
			5000			200 ... 1200	DBC-10R
265	290	45	1300	6	G1 $\frac{1}{2}$	50 ... 300	DBC-1AP
			2300			100 ... 700	DBC-1AQ
			5000			200 ... 1200	DBC-1AR
192	444	128	2500	6	G1 $\frac{1}{2}$	20 ... 50	DBC-12N
			5000			50 ... 150	DBC-12P
			7500			150 ... 300	DBC-12Q
			10000			300 ... 3000	DBC-12R
192	444	128	2500	6	G2	20 ... 50	DBC-16N
			5000			50 ... 150	DBC-16P
			7500			150 ... 300	DBC-16Q
			10000			300 ... 3000	DBC-16R

Special options, add the appropriate letter

NPT	connection thread	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

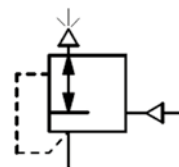
PDF CAD
www.aircom.net

* Product group



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
Accurcay	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	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 casting O-rings: NBR/Buna-N, optionally FKM Elastomer: NBR/Buna-N Inner valve: brass and zinc-plated steel		



**G¼ up to G½, 1700 l/min
0... 10 bar**

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

Back pressure regulator, pilot-operated DB208

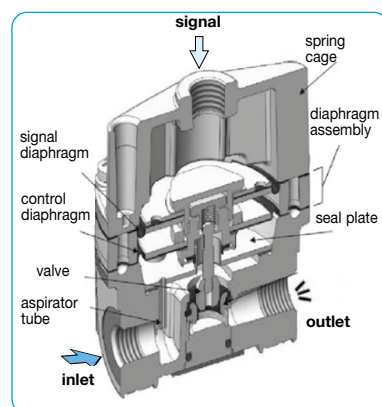
76	98	24	1700	17	0... 10	G¼	DB208-02
						G¾	DB208-03
						G½	DB208-04



DB208

Special options, add the appropriate letter

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

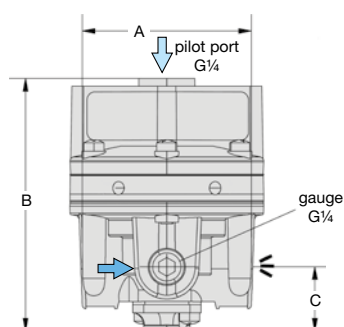


cross-section

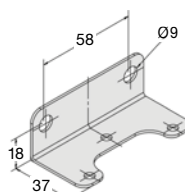
Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G¼	MA5002-...*2
mounting bracket	made of steel	BW00-34

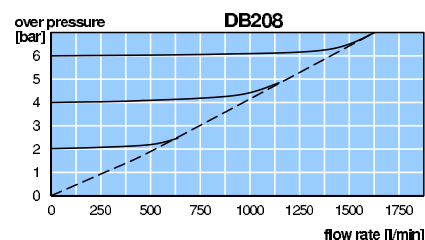
Back pressure



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

* Product group

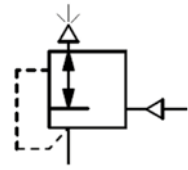
Gauges: see chapter for measuring devices

PDF CAD
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Order example:
DB208-02

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	



**G $\frac{3}{8}$ up to G $\frac{3}{4}$, 3500 l/min
0... 10 bar**

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

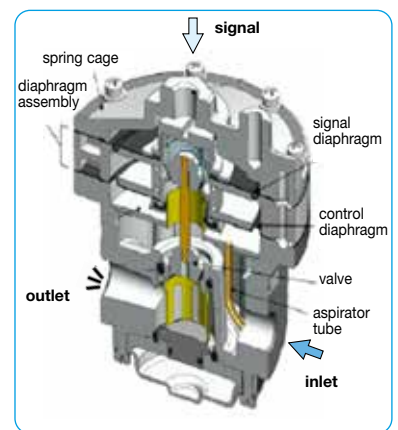
Back pressure regulator, pilot-operated				pilot pressure overpressure	0...10 bar max. 17 bar	DB450	
87	129	40	3500	17	0... 10	G $\frac{3}{8}$	DB450-03
						G $\frac{1}{2}$	DB450-04
						G $\frac{3}{4}$	DB450-06



DB450

Special options, add the appropriate letter

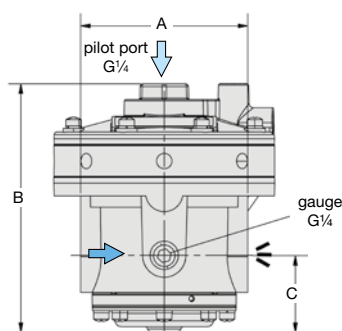
NPT	connection thread	DB450-0. N
FKM elastomer		DB450-0. V



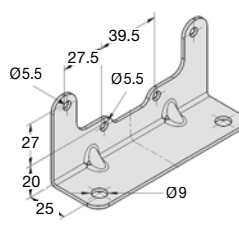
cross-section

Accessories, enclosed

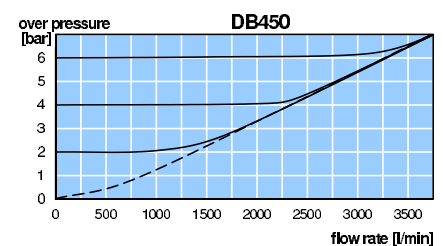
pressure gauge	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	MA6302-..*2
mounting bracket	made of steel	BW00-47



DB450



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

* Product group



WATER PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
		max. bar	bar	thread		
MINIATURE	made of plastic	11	0 ... 1.0 / 9	G $\frac{1}{8}$ u. G $\frac{1}{4}$	R25	9.02
	made of plastic	11	0 ... 1.8 / 9	G $\frac{1}{4}$ u. G $\frac{3}{8}$	R45	9.02
	preset, for drinking water	15	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 $\frac{1}{2}$ " - R $2\frac{1}{2}$ "	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	9.12
STEAM PRES. REGULATOR	spheroidal graphite iron	19	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, Flansch	RU	9.14
	red brass	17	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, Flansch	RU-R	9.14
	stainless steel	19	0.14 ... 1.7 / 9	G $\frac{1}{2}$ - G2, Flansch	RU-S	9.14



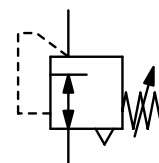
9

Special



9

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. 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 Inner valve: glass fibre-reinforced acetal		Elastomer: NBR/Buna-N



G $\frac{1}{8}$ to G $\frac{3}{8}$
compressed air or water

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	14	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	14	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



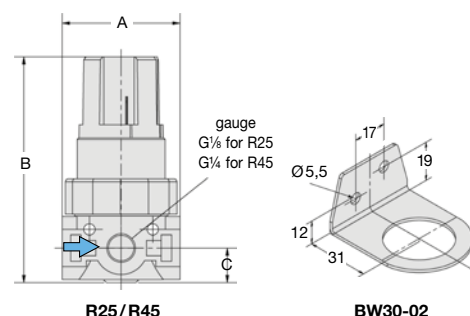
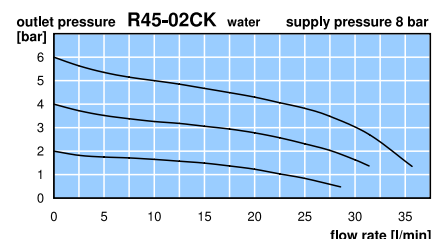
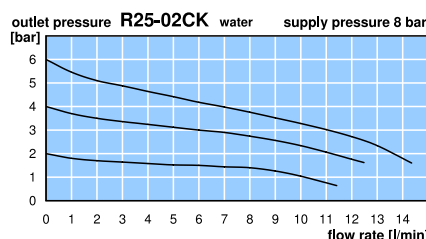
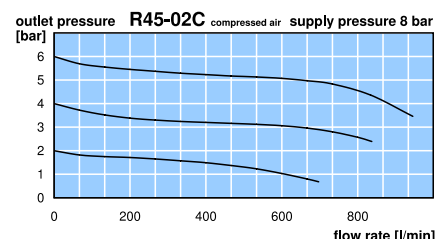
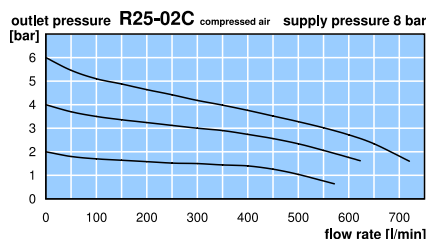
R45

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	R05X51
	made of aluminium	M30x1,5A



R25/R45

BW30-02

*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

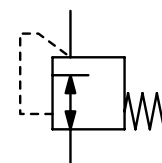
PDF CAD
www.aircom.net

* Product group



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 certified according to NSF 61, 372		
Application	applications areas such as drinking water, food and medical industry		
Supply pressure	max. 15 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 Diaphragm: EPDM	Seat: PP, Santoprene O-ring: FKM	



G¼
for drinking water / NSF

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	

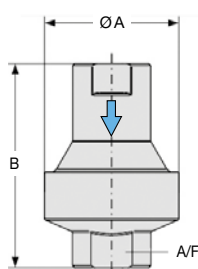
Regulator for drinking water					Grivory, accuracy *2	P _i : max. 15 bar,	239K
34	52	17	10	15	G¼	1	239K0210
			10			2	239K0220
			10			3	239K0230
			10			4	239K0240
			10			5	239K0250
			10			6	239K0260
			10			7	239K0270
			10			8	239K0280



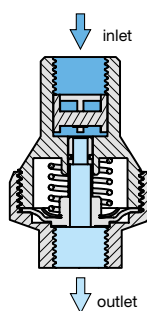
239K

Special options, add the appropriate letter

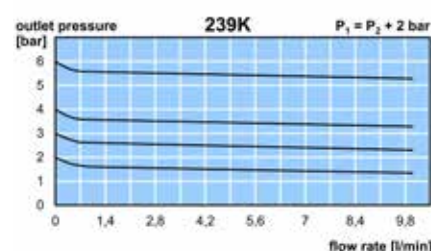
NPT	connection thread	239K1 . . .
deviant pressure range	indicate on order	239K . . XX



239K



cross-section



*1 P_i = 10 bar; Δp = 0.8 bar

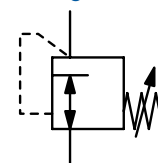
*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 l/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 l/min)

* Product group



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	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.		
Media			
Pressure difference	1 bar, between inlet and outlet pressure	Mounting position	any, preferably vertical
Reduction ratio	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		
Gauge port	G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.		
ATEX	according to ATEX2014/34/EU, 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	Screw standard	according to DIN ISO 228
Material	see opposite page		

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		B*

Regulator with female thread

gunmetal, NBR/Buna-N
drinking water: RWI...C

RWI

70	186	46	0.2	0.5	DN8	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	DN10	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	DN15	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	DN20	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
85	224	48	0.6	1.3			60	20 ... 45	RWI-06I
105	156	29	3.6	5.4	DN25	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	1.6		25	1.5 ... 8	RWI-08D
	105	164	29	3.6	5.4		25	1.5 ... 10	RWI-08E
	105	184	29	3.6	5.4		25	1.5 ... 12	RWI-08F
	105	235	29	3.6	5.4		25	2.0 ... 20	RWI-08G
	95	256	55	0.7	1.6		40	2.0 ... 20	RWI-08H



RWI-02...-03A

RWI-04...-10A

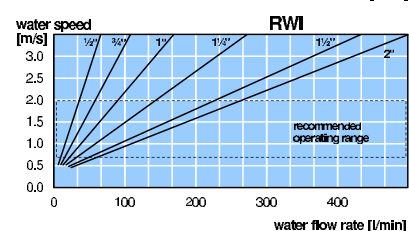
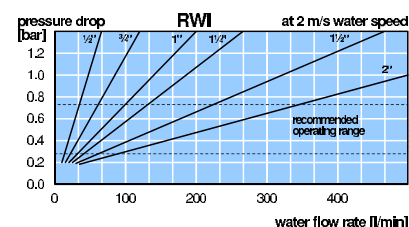


RWI-02...-08D

RWI-02...-08H/I



RWI-02...-10B/C/E/F/G

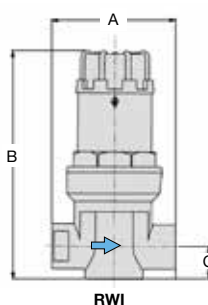


* Product group

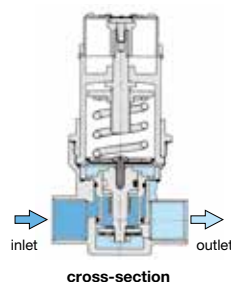


Order example:
RWI-02A

Special



RWI



cross-section

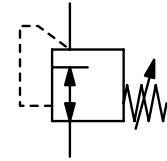
*1 at 2 m/s water speed

*2 for compressed air the flow is 70 times greater

PDF CAD
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Material											
Regulator	RW	RWI...A		RWI...B	RWI...C	RWI...D	RWI...E	RWI...F	RWI...G	RWI...H	RWI...I
Nominal size	DN	DN8-10	DN15-80	DN15-50	DN15-50	DN8-50	DN15-50	DN15-50	DN15-50	DN8-50	DN8-20
Body	all	gunmetal CnSn5Zn5Pb2-C-GS / CC499K (Rg5)									
Spring cage	< DN32	Ms (< DN25)	PA	Ms	PA	Ms (< DN25)	Ms	Ms	Ms (< DN25)	Ms (< DN25)	
	> DN40	-	Rg	GG	GG	GG (> DN32)	GG	GG	GG (> DN32)	GG (> DN32)	
Seals	all	NBR/Buna N									
Diaphragm	< DN25	CR	NBR/Buna N			CR	NBR/Buna-N		NBR/Buna-N	piston / NBR/Buna-N	
	> DN32		NBR/Buna N			CR	NBR/Buna-N		piston / NBR/Buna-N		
Spring cage	< DN32	Ms	Ms, SS, Ho			Ms	Ms, SS, Ho (< DN25 Ms)		Ms	Ms	
	> DN40	-	Ms, SS			Ms, Rg, SS	Ms, SS		Ms, Rg, SS	Ms	
Reg. assembly	< DN32	cartridge		valve seat		cartridge		valve seat		valve seat	
removable	> DN40										
Legend:	Ms: brass	SS: stainless steel		Rg: gunmetal		GG: grey cast iron		Ho: Hostaform C			

drinking water



G $\frac{1}{4}$ 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	(m ³ /h)*1	(m ³ /h)*2	DN	G	max. bar	bar		B*

Regulator with female thread

gunmetal, NBR/Buna-N
drinking water: RWI...C

RWI

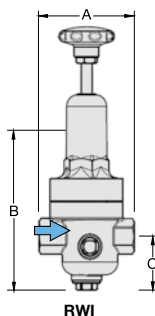
120	174	47	5.8	6.1	DN32	G1 $\frac{1}{4}$	16	0.2 ... 2	2	RWI-10A
120	187	47	5.8	6.0			25	0.5 ... 4	4	RWI-10B
120	186	47	5.8	6.1			25	1.5 ... 6	6	RWI-10C
104	323	61	3.0	4.2			25	1.5 ... 8	8	RWI-10D
120	182	47	5.8	6.1			25	1.5 ... 10	10	RWI-10E
120	200	47	5.8	6.1			25	1.5 ... 12	12	RWI-10F
120	252	47	5.8	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	DN40	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	DN50	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

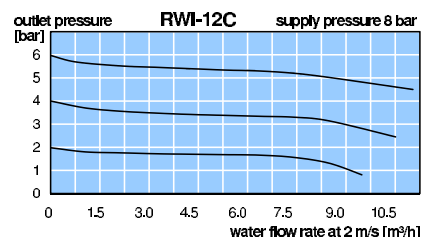
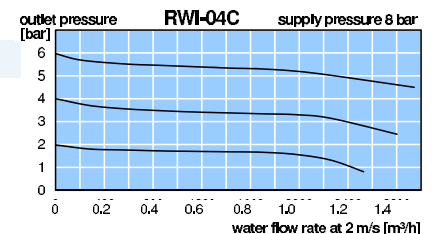
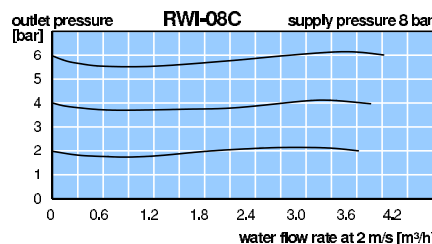
NPT	connection thread	RWI-...N
Elastomer	CR: C FKM: V	RWI-...V
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.	RWI-...X

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}



RWI



*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

* Product group



Order example:
RWI-10A

Special



9

Description

Drinking water



Media

Pressure difference

Gauge port

Mounting position

ATEX

PED

Temperature range

Material

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 DN15 up to DN25 have the same constructions dimensions as D06F from Honeywell, according to DVGW up to DN32.

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.

1 bar, between inlet and outlet pressure

G $\frac{1}{4}$ on both sides of the body for outlet pressure, ports are closed with screw plugs.

any, preferably vertical

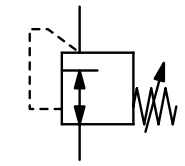
according to ATEX2014/34/EU, EN1127, EN13463 for zone 1, 2, 21 and 22

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

drinking water



R $\frac{1}{2}$ " up to R2 $\frac{1}{2}$ "
0.2 ... 2 / 20 bar

Dimensions			Flow rate	K _{vs} -	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		B*

Regulator with male thread

gunmetal, NBR/Buna-N
drinking water: RWA-...C

RWA

137	154	27	1,3	2.9	DN15	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	DN20	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	DN25	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	DN32	1 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



DN15-32

RWA-04B/C/E



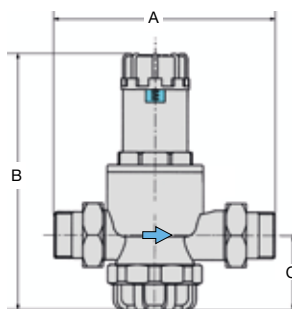
DN15-32

RWA-04A

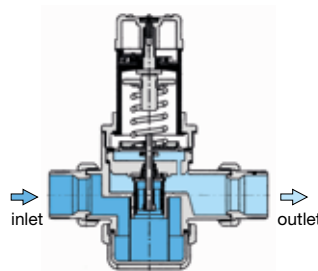


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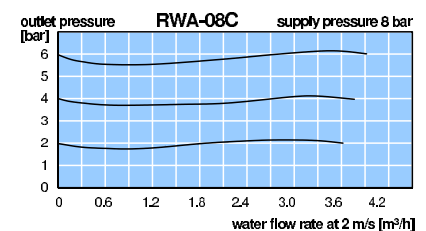
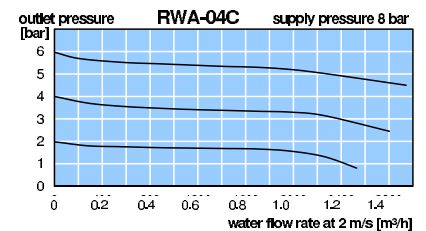
RWA-04F/G



RWA



cross-section



* Product group

*1 at 2 m/s water speed

*2 for compressed air the flow is 70 times greater

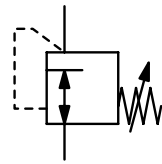
PDF CAD
www.aircom.net



Order example:
RWA-04A

Material							
Regulator	RW	RWA-..A	RWA-..B	RWA-..C	RWA-..E	RWA-..F	RWA-..G
Nominal size	DN	DN15-65	DN15-65	DN15-65	DN15-65	DN15-100	DN15-65
Body	all	gunmetal CnSn5ZN5Pb2-C-GS / CC499K (Rg5)					
Spring cage	< DN32	PA	Ms	PA	Ms	Ms (< DN25)	
	> DN40	Rg	GG		GG	GG (> DN32)	
Seals	all	NBR/Buna N				NBR/Buna-N	
Diaphragm	< DN25	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
	> DN32	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
Inner valve	< DN32	Ms, SS, Ho			Ms, SS, Ho (< DN25 Ms)		
	> DN40	Ms, SS			Ms, SS		
Reg. assembly	< DN32	cartridge				valve seat	
removable	> DN40	valve seat				valve seat	
Legend:	Ms: brass	SS: stainless steel	Rg: gunmetal	GG: grey cast iron	Ho: Hostaform C	NBR/Buna-N: nitrile rubber	

drinking water



R1½" up to R2½"
0.2 ... 2 / 20 bar

Dimensions			Flow rate	Kvs-	Nominal Connection	Pressure		Order
A	B	C	recommended	value	size	thread	inlet	outlet
mm	mm	mm	(m³/h)*1	(m³/h)*2	DN	R	max. bar	bar

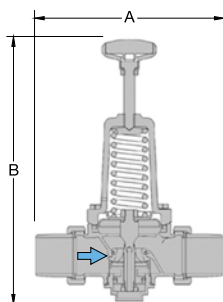
Regulator with male thread							gunmetal, NBR/Buna-N drinking water: RWA-..C	RWA
210	370	59	9,0	9.0	DN40	1½"	16	0.2 ... 2
	301	51					25	0.5 ... 4
	293	51					25	1.5 ... 6
	361	51					25	1.5 ... 10
	361	51					25	1.5 ... 12
	386	51					25	2.0 ... 20
210	372	61	14	13	DN50	2"	16	0.2 ... 2
	372	61					25	0.5 ... 4
	294	53					25	1.5 ... 6
	363	53					25	1.5 ... 10
	364	53					25	1.5 ... 12
	388	53					25	2.0 ... 20
273	394	68	24	20	DN65	2½"	16	0.2 ... 2
	324						25	0.5 ... 4
	324						25	1.5 ... 6
	392						25	1.5 ... 10
	384						25	1.5 ... 12
	408						25	2.0 ... 20

Special options, add the appropriate letter

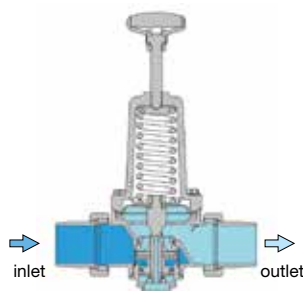
NPT	connection thread	RWA-..N
Elastomer	CR: C	RWA-..V
for different media	FKM: V	RWA-..X
	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.	

Accessories, enclosed

pressure gauge	Ø 50 mm, 0... ^{*3} bar, G¼	G½ MA5002-..^{*3}
	Ø 63 mm, 0... ^{*3} bar, G¼	up to G¾ MA6302-..^{*3}



RWA



cross-section

*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

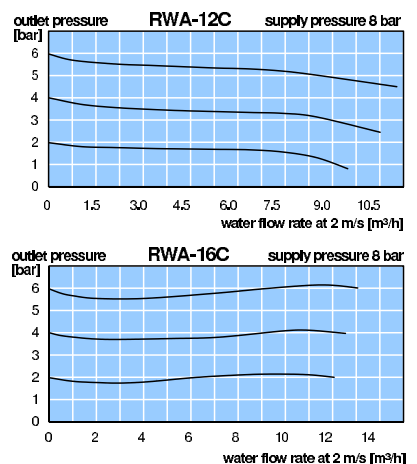
Gauges: see chapter for measuring devices

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* Product group



Order example:
RWA-12A



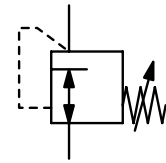
Special



9

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	particularity 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	G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.
Mounting position	any, preferably vertical
ATEX	according to ATEX2014/34/EU, 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

drinking water



DN8 up to DN125
0.2 ... 2/20 bar

Dimensions				Flow rate recommended (m³/h)*1	Kvs- value (m³/h)	Nominal size DN	Pressure		Order number
A	B	C	D				inlet max. bar	outlet bar	
mm	mm	mm	mm						



Pressure regulator with flange

gunmetal, NBR/Buna N, w/o gauge
drinking water: RWF-...C

RWF

130	178	48	80	0.2	0.5	DN8	25	0.8 ... 8	RWF-02D
							40	1.5 ... 20	RWF-02G
				0.2	0.5	DN10	25	0.8 ... 8	RWF-03D
							40	1.5 ... 20	RWF-03G
130	175	48	95	1.3	2.9	DN15	16	0.2 ... 2	RWF-04A
	187						25	0.5 ... 4	RWF-04B
	189							1.5 ... 6	RWF-04C
	174							1.5 ... 10	RWF-04E
	178							1.5 ... 12	RWF-04F
	254							2.0 ... 20	RWF-04G
150	183	53	105	2.3	3.9	DN20	16	0.2 ... 2	RWF-06A
	193						25	0.5 ... 4	RWF-06B
	195							1.5 ... 6	RWF-06C
	190							1.5 ... 10	RWF-06E
	203							1.5 ... 12	RWF-06F
	263							2.0 ... 20	RWF-06G
160	185	58	115	3.6	5.4	DN25	16	0.2 ... 2	RWF-08A
	197						25	0.5 ... 4	RWF-08B
	199							1.5 ... 6	RWF-08C
	194							1.5 ... 10	RWF-08E
	213							1.5 ... 12	RWF-08F
	264							2.0 ... 20	RWF-08G
180	197	70	140	5.8	6.1	DN32	16	0.2 ... 2	RWF-10A
	210						25	0.5 ... 4	RWF-10B
	210							1.5 ... 6	RWF-10C
	205							1.5 ... 10	RWF-10E
	223							1.5 ... 12	RWF-10F
	275							2.0 ... 20	RWF-10G
200	386	75	150	9.0	9.0	DN40	16	0.2 ... 2	RWF-12A
	316						25	0.5 ... 4	RWF-12B
	316							1.5 ... 6	RWF-12C
	388							1.5 ... 10	RWF-12E
	377							1.5 ... 12	RWF-12F
	401							2.0 ... 20	RWF-12G



DN8-25

RWF-02...-08D/G



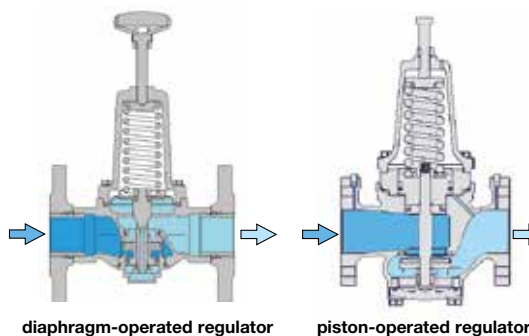
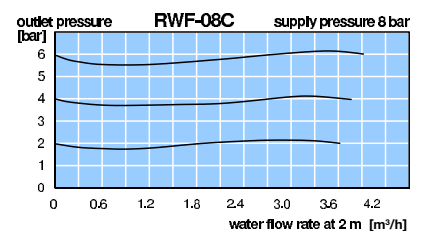
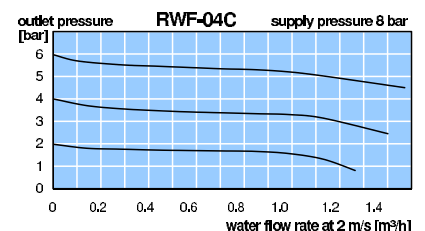
DN32-50

RWF-10...-16G



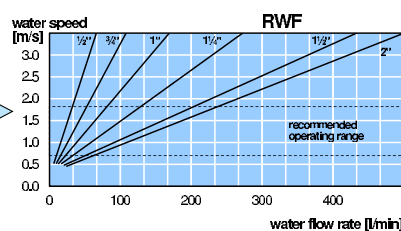
DN80

RWF-24A
accessories: pressure gauge



diaphragm-operated regulator

piston-operated regulator



*1 at 2 m/s water speed

* for compressed air the flow is 70 times greater

* Product group

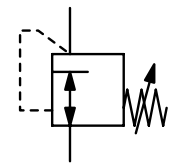
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Order example:
RWF-02D

Material								
Regulator	RW	RWF-...A		RWF-...B	RWF-...C	RWF-...E	RWF-...F	RWF-...G
Nominal size	DN	DN8-10	DN15-80	DN15-125	DN15-125	DN15-125	DN15-100	DN8-80
Body	all	gunmetal CnSn5Zn5Pb2-C-GS / CC499K (Rg5)						
Spring cage	< DN32 > DN40	Ms (< DN25) -	PA Rg	Ms	PA	Ms	Ms (< DN25) GG (> DN32)	
Seals	all	NBR/Buna-N						
Diaphragm	< DN25 > DN32	CR	NBR/Buna-N				piston / NBR/Buna-N piston / NBR/Buna-N	
Inner valve	< DN32 > DN40	Ms -	Ms, SS, Ho Ms, SS			Ms, SS, Ho (< DN25 Ms) Ms, SS		
Reg. assembly removable	< DN32 > DN40	cartridge					valve seat 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



DN8 up to DN125
0.2... 2/20 bar

Dimensions				Flow rate	K _{vs} -	Nominal	Pressure		Order	
A	B	C	D	recommended	value	size	inlet	outlet	number	B*
mm	mm	mm	mm	(m³/h)*1	(m³/h)	DN	max. bar	bar		

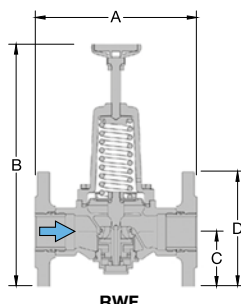
Pressure regulator with flange						gunmetal, NBR/Buna N, w/o gauge drinking water: RWF-..C	RWF			
230	394	83	165	14	13	DN50	16	0.2 ... 2	2	RWF-16A
324							25	0.5 ... 4	4	RWF-16B
324								1.5 ... 6	6	RWF-16C
396								1.5 ... 10	10	RWF-16E
384								1.5 ... 12	12	RWF-16F
411								2.0 ... 20	20	RWF-16G
290	420	93	185	24	20	DN65	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	DN80	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	DN100	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	DN125	16	0.5 ... 4	4	RWF-40B
	540							1.5 ... 6	6	RWF-40C
	542							3.0 ... 10	10	RWF-40E

Special options, add the appropriate letter

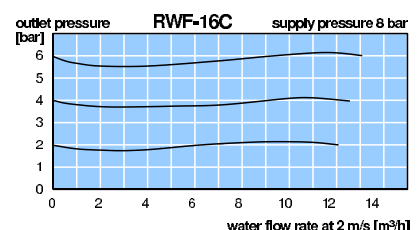
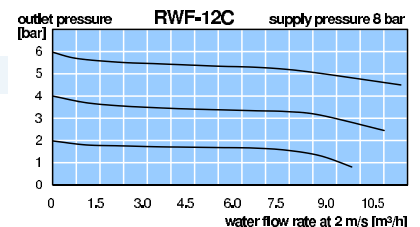
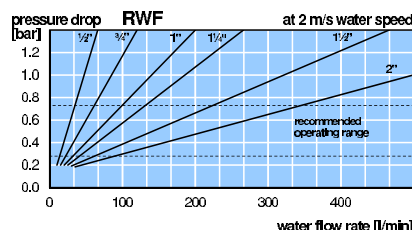
Elastomer	EPDM: E	CR: C	FKM: V	RWF-.. V
flange connection	ANSI			RWF-.. F2
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.			RWF-.. X

Accessories, enclosed

pressure gauge Ø 63 mm, vertical 0...*2 bar, G1/4 MT6302-..*2



RWF



*1 at 2 m/s water speed * for compressed air the flow is 70 times greater
*2 02 = 0...0.2 bar, 04 = 0...0.4 bar, 06 = 0...0.6 bar, 10 = 0...1.0 bar, 16 = 0...1.6 bar, 25 = 0...2.5 bar

Gauges: see chapter for measuring devices

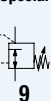
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* Product group



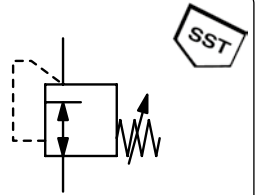
Order example:
RWF-16A

Special



9

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable.
Medium	With stainless-steel dirt-trap / strainer
Supply pressure	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Minimum press. difference	see chart, max. 40 bar
Adjustment	$P_1 : P_2 = 1$ bar
Relieving function	with hexagon socket, with locknut
Gauge port	non-relieving
Mounting position	G $\frac{1}{4}$ on both sides of the body, one screw plug supplied
Flange	any, preferably vertical
Temperature range	according DIN 1092, overall length according DIN 558-1
Material	0 °C to 190 °C / 32 °F to 374 °F for FKM for media and ambient temperature
	0 °C to 130 °C / 32 °F to 266 °F for EPDM for media and ambient temperature
	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L
	Elastomer and seals: FKM / FPM, optionally EPDM



**DN 15 up to DN 50
liquids or gases**

Dimensions			K _v - value	Flow rate water	Supply pressure	Mounting flange	Pressure range	Order number	
A	B	C							
mm	mm	mm	(m ³ /h)*1	l/min*2	max. bar	DN	bar		

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	DN15	0.2 ... 2	RAF-04A
	118				25		0.5 ... 4	RAF-04B
	118				25		1.5 ... 6	RAF-04C
	118				25		1.5 ... 10	RAF-04D
	136				40		2.0 ... 20	RAF-04F
150	137	105	3.9	65	25	DN20	0.2 ... 2	RAF-06A
	118				25		0.5 ... 4	RAF-06B
	118				25		1.5 ... 6	RAF-06C
	118				25		1.5 ... 10	RAF-06D
	137				40		2.0 ... 20	RAF-06F
160	150	115	5.4	90	25	DN25	0.2 ... 2	RAF-08A
	118				25		0.5 ... 4	RAF-08B
	118				25		1.5 ... 6	RAF-08C
	118				25		1.5 ... 10	RAF-08D
	137				40		2.0 ... 20	RAF-08F
180	150	140	6.1	102	25	DN32	0.2 ... 2	RAF-10A
	118				25		0.5 ... 4	RAF-10B
	118				25		1.5 ... 6	RAF-10C
	118				25		1.5 ... 10	RAF-10D
	137				40		2.0 ... 20	RAF-10F



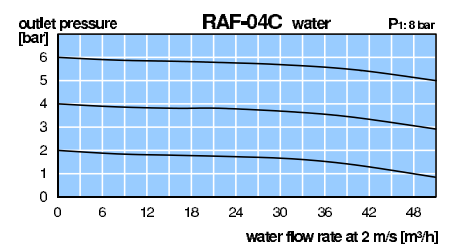
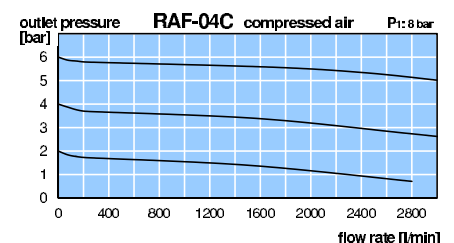
RAF-04...-10A



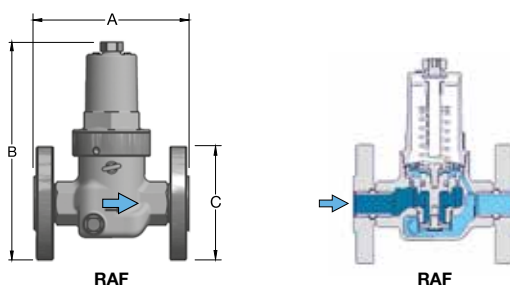
RAF-04...-10B/C/D



RAF-04...-10F



* Product group



RAF

RAF

*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

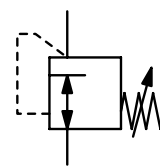
Gauges: see chapter for measuring devices

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Order example:
RAF-04A

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable.
Medium	With stainless-steel dirt-trap / strainer
Supply pressure	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Minimum press. difference	see chart, max. 40 bar
Adjustment	P ₁ : P ₂ = 1 bar
Relieving function	with hexagon socket, with locknut
Gauge port	non-relieving
Mounting position	G¼ on both sides of the body, one screw plug supplied
Flange	any, preferably vertical
Temperature range	according DIN 1092, overall length according DIN 558-1
Material	0 °C to 190 °C / 32 °F to 374 °F for FKM for media and ambient temperature
	0 °C to 130 °C / 32 °F to 266 °F for EPDM for media and ambient temperature
	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L
	Elastomer and seals: FKM / FPM, optionally EPDM



**DN 15 up to DN 50
liquids or gases**

Dimensions			K _v - value	Flow rate water	Supply pressure	Mounting flange	Pressure range	Order number	C*
A	B	C							
mm	mm	mm	(m³/h)*1	l/min*2	max. bar	DN	bar		

Regulator with flange

for liquids, supply pressure max. 25/40 bar
non-relieving, 1.4408 / V4A / 316L, FKM

RAF

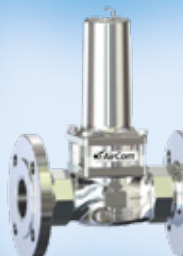
200	269	150	9.0	150	25	DN40	0.2 ... 2	RAF-12A
	219				25		0.5 ... 4	RAF-12B
	219				25		1.5 ... 6	RAF-12C
	219				25		1.5 ... 10	RAF-12D
	247				40		2.0 ... 20	RAF-12F
230	269	165	13	216	25	DN50	0.2 ... 2	RAF-16A
	219				25		0.5 ... 4	RAF-16B
	219				25		1.5 ... 6	RAF-16C
	219				25		1.5 ... 10	RAF-16D
	247				40		2.0 ... 20	RAF-16F



RAF-12/-16A



RAF-12/-16B/C/D



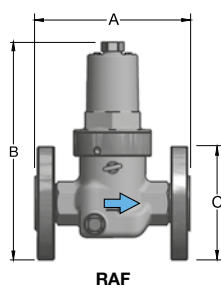
RAF-12/-16F

Special options, add the appropriate letter

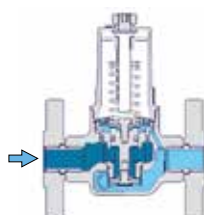
EPDM Elastomer membrane and seals, FDA approval **RAF-...TD**

Accessories, enclosed

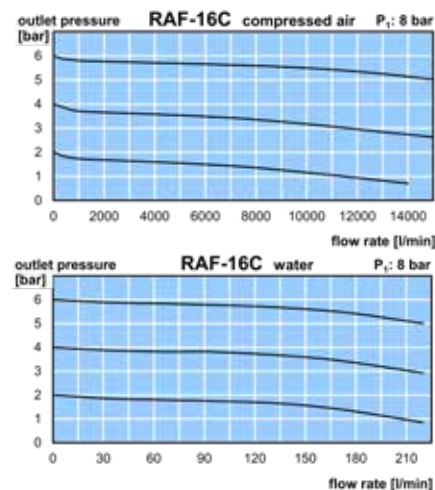
SST pressure gauge Ø 50 mm, 0...*3 bar, G¼, for DN 15 **MS5002-...*3**
Ø 63 mm, 0...*3 bar, G¼, and all the rest of them **MS6302-...*3**



RAF



RAF



*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

PDF CAD
www.aircom.net



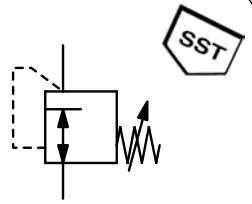
Order example:
RAF-12A

Special



9

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	$P_1 : P_2 = 1 \text{ bar}$
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



**G $\frac{1}{2}$ up to G2
liquids or gases**

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

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	DN15	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	DN20	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	DN25	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	DN32	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



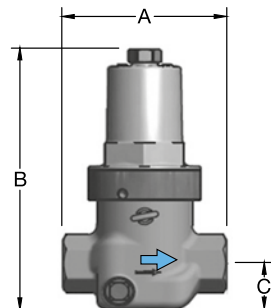
RAI-04...-10A



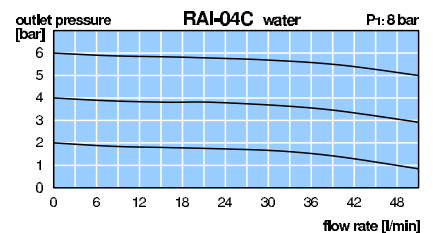
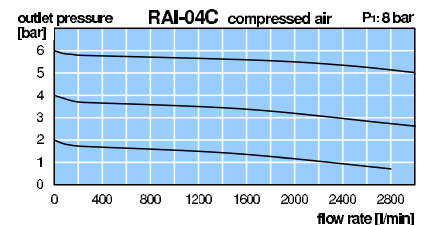
RAI-04...10B/C/D



RAI-04...-10D



RAI



*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

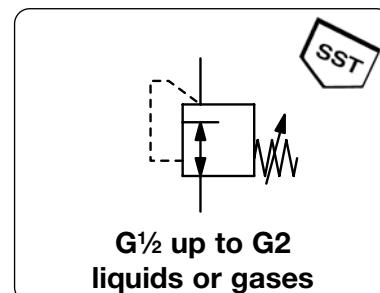
* Product group

PDF CAD
www.aircom.net



Order example:
RAI-04A

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			K _v -value	Flow rate	Supply pressure	Nominal size	Connection thread	Pressure-range	Order number	
A	B	C	(m³/h)*1	l/min	max. bar	DN	G	bar		
mm	mm	mm								C*

Regulator with female thread						for liquids, supply pressure max. 25/40 bar non-relieving, 1.4408 / V4A / 316L, FKM		RAI		
150	306	37	9,0	150	25	DN40	G1½	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	216	25	DN50	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	



RAI-12/-16A



RAI-12/-16B/C/D

Special options, add the appropriate letter

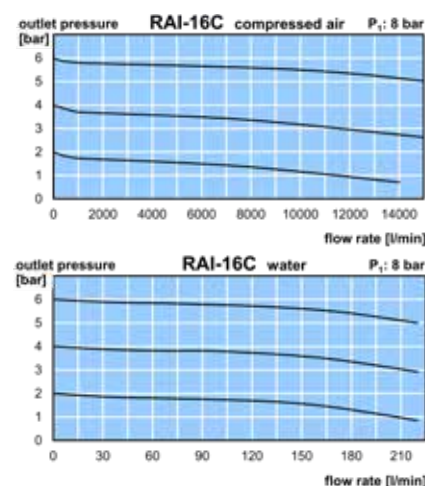
EPDM Elastomer	membrane and seals, FDA approval	RAF- . . TD
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Accessories, enclosed

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



RAI-12/-16F



*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

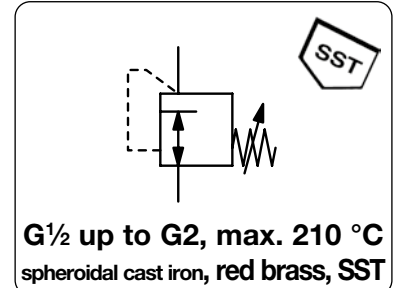
* Product group



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						
mm	mm	mm	DN	(m³/h)	bar	G	bar	

Pressure regulator for steam								RU
supply pressure max. 10 / 19 bar, non-relieving, spheroidal cast iron								
83	190	60	15	1.5	19	G1/2	0.14 ... 1.7 1.4 ... 4.0 3.5 ... 8.6	RUG-04A RUG-04B RUG-04C
96	190	60	20	2.5	19	G3/4	0.14 ... 1.7 1.4 ... 4.0 3.5 ... 8.6	RUG-06A RUG-06B RUG-06C
108	190	60	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	G1 1/2	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



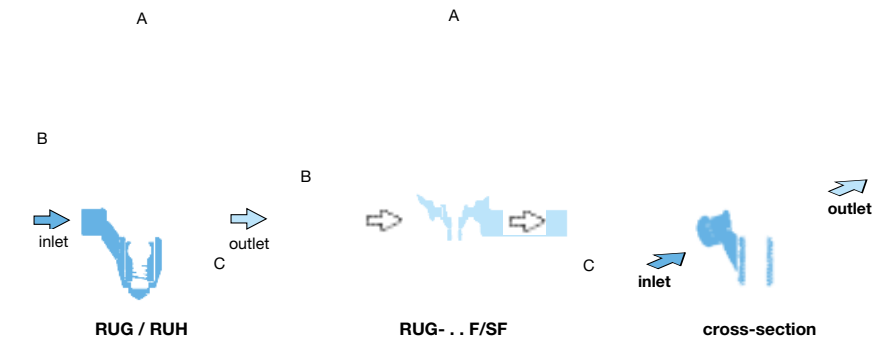
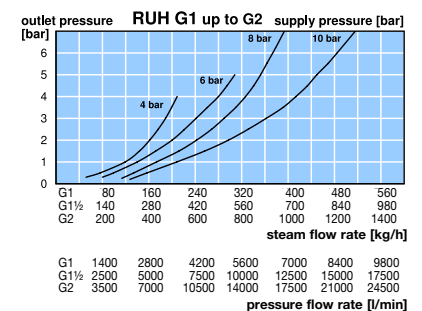
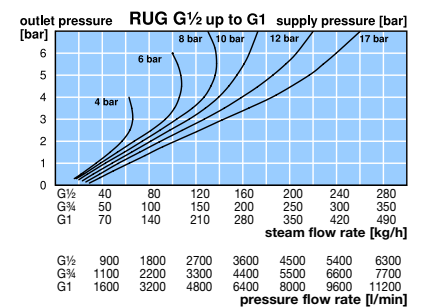
RUG-04A



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



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

* Product group

PDF CAD
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Order example:
RUG-04A

PROPORTIONAL PRESSURE REGULATORS

PRINCIPLE	DESCRIPTION	ACCURACY max.	PRESSURE RANGE bar	CONNECTION	SERIES	SEITE
CONTROL VALVE	on PCB	± 0.2 %	0 ... 0.005 / 10	G $\frac{1}{8}$	PM	10.02
high accuracy	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	proven, many options	± 0.5 %	0 ... 0.1 / 1	G $\frac{1}{8}$ - G1	PR	10.09
very robust	for flow applications	± 0.5 %	0 ... 6 / 50	G $\frac{3}{8}$	PF	10.12
	digital control, also SST	± 0.5 %	0 ... 0.1 / 50	G $\frac{1}{8}$ - G1	PP	10.17
	programmable	± 0.5 %	0 ... 1 / 12	G $\frac{1}{8}$ - G $\frac{3}{8}$	PD	10.19
WITHOUT ELECTRIC	PWM-controlled	< 1%	0 ... 6 / 16	G $\frac{1}{4}$ - G1	PG	10.13
FLAPPER/NOZZLE	integrated booster, Atex	± 0.5 %	0.2 ... 1 / 8	$\frac{1}{4}$ "NPT	PT6	10.24
highly sensitive						
PIEZO-OPERATED	high accurate, Atex	± 0.25 %	0.2 ... 1 / 8	$\frac{1}{4}$ "NPT	PT7	10.25
very fast	minimal power consumption	± 0.2 %	0 ... 0.2 / 16	G $\frac{1}{8}$ a. G $\frac{1}{4}$	PRE	10.14
MOTORISED REGUL.	failfreeze	± 1 %	0.14 ... 1.8 / 8	$\frac{1}{4}$ "NPT	P180	10.27
HIGH PRESSURE	proportional magnet	± 0.5 %	0 ... 30 / 50	G $\frac{1}{4}$	PP0	10.17
	control valves	± 0.5 %	0 ... 40 / 70	G $\frac{1}{8}$	PQH	10.21
	proportional magnet	± 3 %	0 ... 30 / 80	G $\frac{1}{4}$	PHP	10.23
ATEX	control valves	± 1 %	0 ... 2 / 6	G $\frac{1}{8}$	PCEX	10.20
	flapper nozzle	± 0.5 %	0.2 ... 1 / 8	$\frac{1}{4}$ "NPT	PT6	10.24
	piezo-operated	± 0.25 %	0.2 ... 1 / 8	$\frac{1}{4}$ "NPT	PT7	10.25
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
	piezo-operated	± 0.2 %	-1 ... 1 / +10	G $\frac{1}{8}$ a. G $\frac{1}{4}$	PRE	10.14
	digital control	± 0.5 %	-1 ... 0	G $\frac{1}{8}$ - G1	PP	10.17
IO-LINK	digital control	± 1.5 %	0 ... 3 / 10	G $\frac{1}{4}$ - G $\frac{1}{2}$	PIO	10.26
SETPOINT	with 10-speed-potentiometer				PPB	10.28
BOOSTER/PROP.-VENTIL-KOMB.	normal loop				BP1	10.30
	with double loop				BP2	10.31



10

Description

Media

Fail freeze

Second loop

Supply voltage

Impedance

Monitor signal

Electrical connection

Power consumption

Linearity / Hysteresis

Temperature influence

Temperature range

Material

Proportional pressure regulator 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

constant outlet pressure at voltage drop

0 ... 10 V, impedance 4.7 kΩ,

15 ... 24 V DC, residual ripple < 10%, with reverse voltage protection

0 ... 10 V / 4.7 kΩ, 4 ... 20 mA / 100 Ω,

0 ... 10 V at max. 10 mA

terminal strip for 2.5 mm²

3.6 W regulating, 0.5 W non-regulating

< 0.15% FS

< 1% FS at 0 °C to 50 °C / 32 °F to 122 °F

0 °C to 70 °C / 32 °F to 158 °F

Ports:

brass

Transducer: aluminium and silicon

Air consumption

Repeatability

Adjustment

Mounting position

Elastomer:

Valves:

without constant bleed

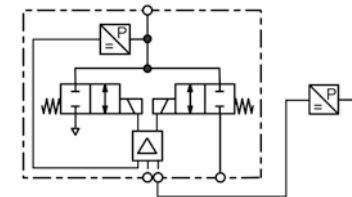
< 0.02 FS

zero point and span

any, vibration-resistant

FKM

nickel-plated brass



with single or double loop

Dimensions			Flow rate	Supply pressure	Accuracy	Connection thread	Pressure range	Order number	
A	B	C	l/min*1	max. mbar/bar	%	G	mbar/bar		E*
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	G1/8	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	G1/8	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	G1/8	0 ... -1 bar	PM1DE-V0
				2 bar			-1 ... +1 bar	PM1DE-V1

Special options, add the appropriate letter

double loop

4-20 mA

flow 100 l/min

panel mounting

mounting for manifolds

second loop feedback 0 ... 10 V
supply signal, jumper selectable command
increased flow rate
on plane level
connections downwards

PM2

PM . . I . .

PM HF

PM . P . .

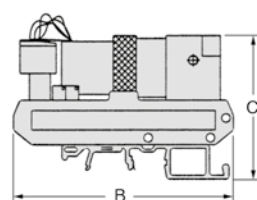
PM . M . .

Accessories, enclosed

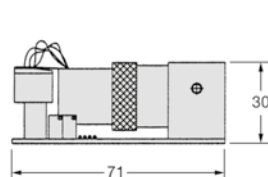
manifold block

for 2 to 7 valves

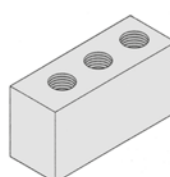
number of valves added to order number **SBM-**



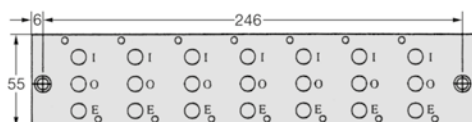
PM . D for DIN rail



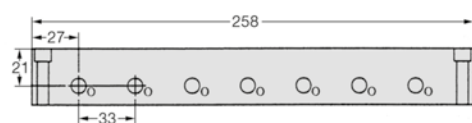
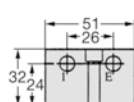
PM . P for panel mounting



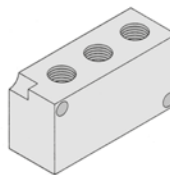
PM . D for DIN rail



PM . M for manifold block



manifold block for 2 to 7 valves



PM . P for panel mounting



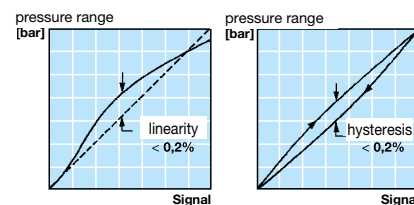
PM . D
DIN rail mounting



PM . P
panel mounting

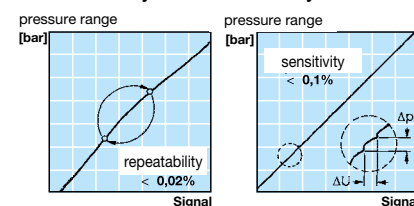


PM . M
mounting on manifold block



linearity

hysteresis



repeatability

sensitivity

*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request

For further details about double loop see PQ2

PDF CAD
www.aircom.net

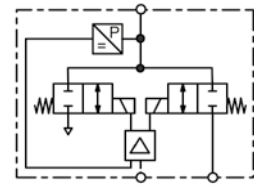
* Product group



Order example:
PM1DE-A5

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



accurate to 0.2%

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	
	Transducer: aluminium and silicon	Valves: nickel-plated brass	

Pneumatic features

Media	dry, un lubricated 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, Option X58: < 2 l/min

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

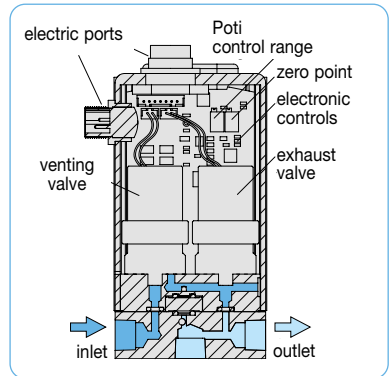
Accuracy

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)

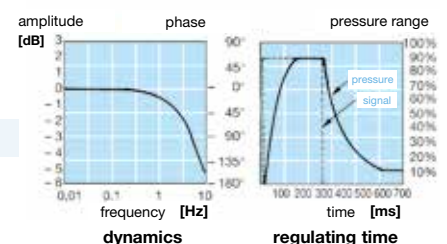
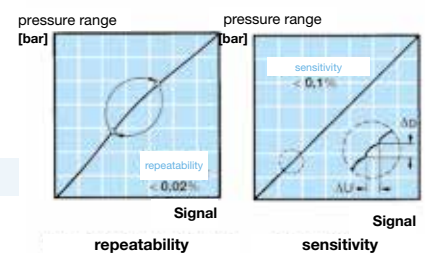
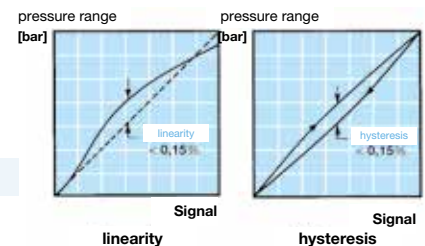
Adjustment

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".

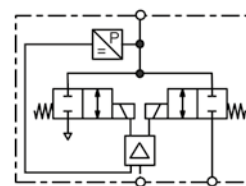
*1 at 7 bar supply pressure and 3 bar outlet pressure



cross-section PQ



Description	The pneumatic proportional pressure regulator 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: $\pm 0.15\%$ FS Response sensitivity: $< 0.1\%$ FS Repeatability: $\pm 0.02\%$ FS Accuracy over all: $\pm 0.2\%$ FS



G $\frac{1}{8}$
0 ... 10 mbar/35 bar

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						

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	on request	10 mbar	0.2	G $\frac{1}{8}$	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
				1000 mbar			0 ... 600 mbar	PQ1EE-C6
51	106	8	35	2 bar	0.2	G $\frac{1}{8}$	0 ... 1 bar	PQ1EE-01
				3 bar			0 ... 2 bar	PQ1EE-02
				7 bar			0 ... 4 bar	PQ1EE-04
				7 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
				38 bar			0 ... 25 bar	PQ1EE-25
				38 bar			0 ... 30 bar	PQ1EE-30
				38 bar			0 ... 35 bar	PQ1EE-35
51	106	8	35	0 bar	0.2	G $\frac{1}{8}$	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

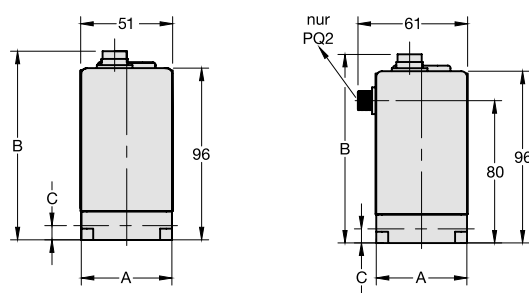
Accessories, enclosed

coupling socket	M16x0,75, 7-pin with 2 m cable	straight	PRK-A2L
		angular	PRK-C2L
mounting bracket	made of steel		PQKT-01

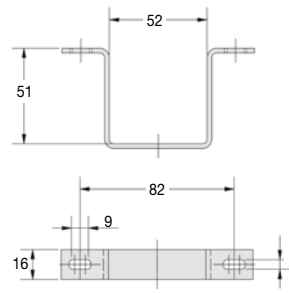


PRK-A

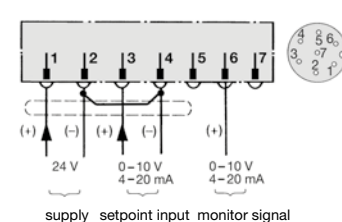
PRK-C



PQ1 und PQ2



PQKT-01



connection diagram for supply and signal

*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

Technical details: see previous page

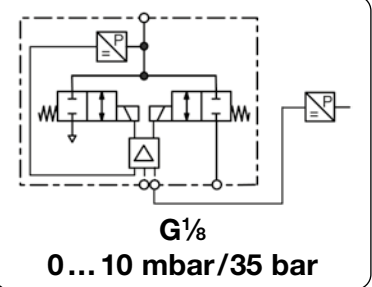
PDF CAD
www.aircom.net

* Product group



Order example:
 PQ1EE-A5

Description	The pneumatic proportional pressure regulator 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 $\frac{1}{8}$	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
				1 000 mbar			0 ... 600 mbar	PQ2EE-C6
51	106	8	35	2 bar	0.2	G $\frac{1}{8}$	0 ... 1 bar	PQ2EE-01
				3 bar			0 ... 2 bar	PQ2EE-02
				7 bar			0 ... 4 bar	PQ2EE-04
				7 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 $\frac{1}{8}$	0 ... -1 bar	PQ2EE-V0
				2 bar			-1 ... +1 bar	PQ2EE-V1



PQ2



combination example:
booster with proportional pressure regulator 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	PQ2HF
continuous regulation*	improved characteristic curve through proportional inlet valve, max. 10 bar	PQ2X58
declining curve	inverted outlet	PQ2X59

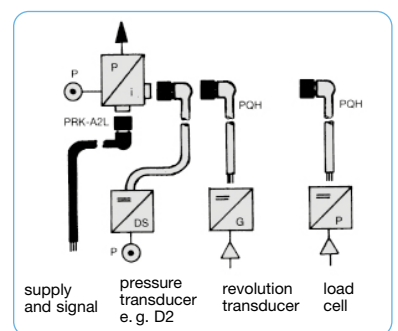
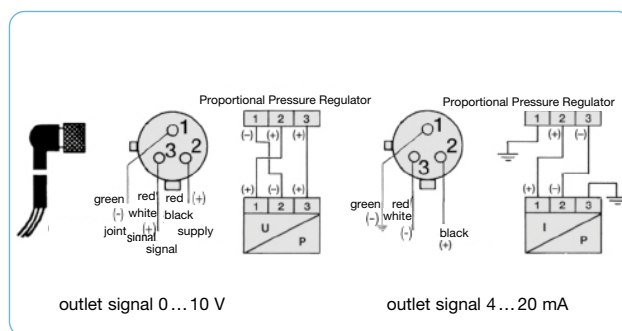
Accessories, enclosed

coupling socket	M16x0.75, 7-pin with 2.0 m cable, supply and signal, straight	PRK-A2L
coupling socket	1/2" UNF, 3-pin with 0.9 m cable, for second loop, angular	PRK-C2L
coupling socket	1/2" UNF, 3-pin with 0.9 m cable, for second loop, straight	PQH-L1
coupling socket	1/2" UNF, 3-pin with 0.9 m cable, for second loop, angular	PQH-L2
mounting bracket	made of steel	PQKT-01



PRK-A

PRK-C

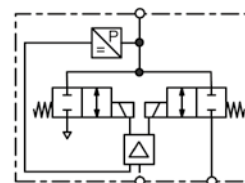


*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request
*3 air consumption

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	

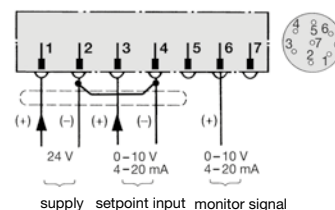


Pneumatic features

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
Monitor signal	0-10 V, optionally 4-20 mA
Security	constant outlet pressure at voltage drop



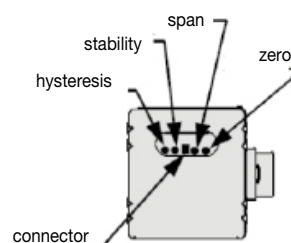
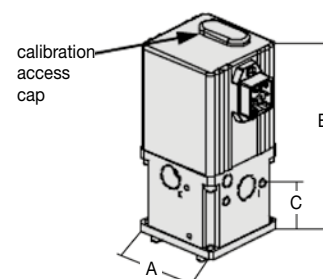
connection diagram for supply and signal

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".



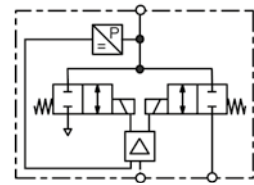
PROPORTIONAL PRESSURE REGULATOR WITH HIGH ACCURACY AND HIGH FLOW PQ3...PQ6

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	Supply pressure	Accuracy	Connection thread	Pressure range	Order number	E*
A	B	C	l/min*1	max. bar	%	G/NPT	bar		
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	1	0,25	1/4" NPT	0...0,1	PQ3EE-C1
				1			0...0,5	PQ3EE-C5
				2			0...1,0	PQ3EE-01
				3			0...2,0	PQ3EE-02
				7			0...4,0	PQ3EE-04
				7			0...6,0	PQ3EE-06
				9			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	1	0,4	1/2" NPT	0...0,1	PQ4EE-C1
				1			0...0,5	PQ4EE-C5
				2			0...1,0	PQ4EE-01
				3			0...2,0	PQ4EE-02
				7			0...4,0	PQ4EE-04
				7			0...6,0	PQ4EE-06
				9			0...8,0	PQ4EE-08
				15			0... 10	PQ4EE-10
77	175	65	2000	1	0,4	3/4" NPT	0...0,1	PQ6EE-C1
				1			0...0,5	PQ6EE-C5
				2			0...1,0	PQ6EE-01
				3			0...2,0	PQ6EE-02
				7			0...4,0	PQ6EE-04
				7			0...6,0	PQ6EE-06
				9			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- . .

Accessories, enclosed

coupling socket	M16x0.75, 7-pin with 2 m cable	straight	PRK-A2L
		angular	PRK-C2L
mounting bracket	made of steel	for PQ3	PQKT-01
mounting bracket	made of steel	for PQ4/PQ6	PQKT-02



PRK-A

PRK-C

*1 at 8 bar inlet pressure and 6 bar outlet pressure

Technical details: see previous page

PDF CAD
www.aircom.net

* Product group



Order example:
PQ3EE-C1

Proport.
pressure
10

Description

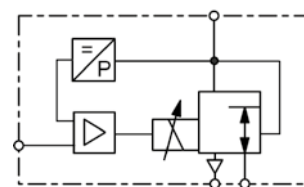
The pneumatic proportional pressure regulator controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact monoblock assembly with proportional solenoid valve, electronic regulator and internal pressure transducer.

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 regulator via connector pin number 5.

Pressure transducer Open transducers: 100 mbar, 500 mbar, 1/5/10/16/20/30/50 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.



G $\frac{1}{8}$ up to G1

General technical features

Description	3-port/2-way pressure regulator 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 (G $\frac{1}{8}$) and aluminium (G $\frac{1}{4}$, G $\frac{1}{2}$ 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 6 bar inlet pressure and 5 bar outlet pressure
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without air consumption

Electrical features

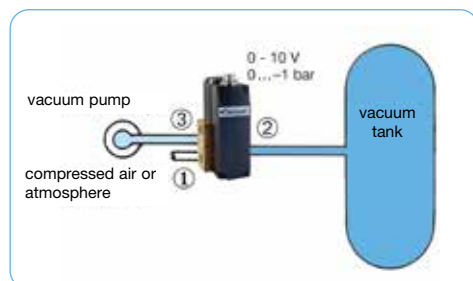
Supply voltage	24 V DC + 15% - 10%, residual ripple max. 10%
Power consumption	12 W at G $\frac{1}{8}$, 22 W at G $\frac{1}{4}$, 30 W at G $\frac{1}{2}$, 44 W at G1
Current consumption	0.5A at G $\frac{1}{8}$, 1.0A at G $\frac{1}{4}$, 1.25A at G $\frac{1}{2}$, 1.7A at G1
Command signal	0 ... 10 V, 0 ... 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

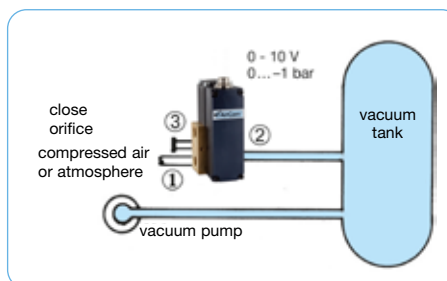
Adjustment

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



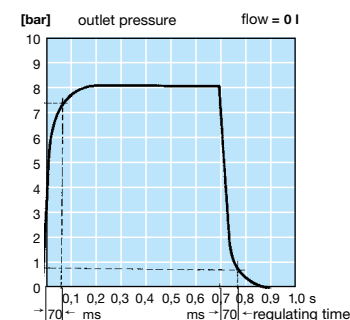
Downstream regulation (V1)

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.

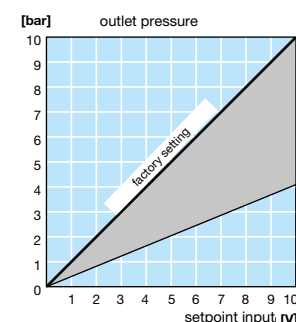


Upstream regulation (V2)

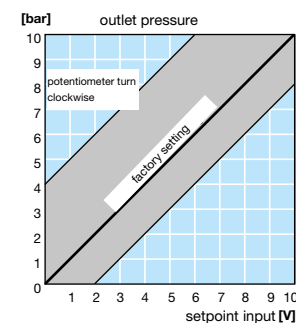
Upstream installation is preferred if rapid evacuation of a tank or system is required. A filter is recommended at orifice ①.



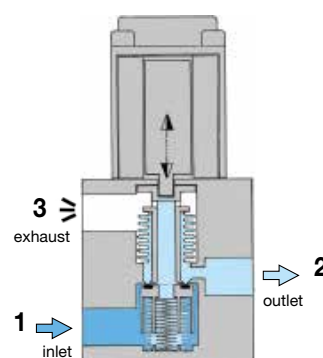
regulating time, step function



slope, range adjustment



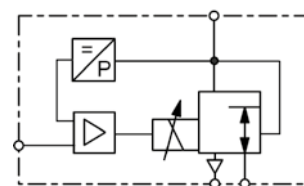
zero point, adjustment



cross-section

Technical features

• Pressure range	0 ... -1.0 bar to 0 ... 50 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, 1/5/10/16/20/30/50 bar	• Power consumption	12 / 22 / 30 / 44 W
• Flow rate	250 / 820 / 1700 / 6500 l/min	• Exhaust	full nominal size



G $\frac{1}{8}$ up to G1
0 ... 100 mbar/50 bar

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

Proportional pressure regulator

0-10 V input signal, supply voltage 24 V DC, with coupling socket

PR

35	80	63	3	0.18	210	-1	G $\frac{1}{8}$	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
						12		0 ... 6.0	PRA00-0600
						12		0 ... 10	PRA00-1000
						22		0 ... 20	PRA00-2000
52	105	74	6	0.6	700	-1	G $\frac{1}{4}$	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
						12		0 ... 6.0	PR000-0600
						12		0 ... 10	PR000-1000
						18		0 ... 16	PR000-1600
						22		0 ... 20	PR000-2000
						40		0 ... 30	PR000-3000
						60		0 ... 50	PR000-5000
70	150	101	12	1.2	1400	-1	G $\frac{1}{2}$	0 ... -1.0	PR100-00V1
						2		0 ... 1.0	PR100-0100
						12		0 ... 6.0	PR100-0600
						12		0 ... 10	PR100-1000
						14		0 ... 12	PR100-1200
96	190	115	20	4.8	5600	-1	G1	0 ... -1.0	PR200-00V1
						2		0 ... 1.0	PR200-0100
						12		0 ... 6.0	PR200-0600
						12		0 ... 10	PR200-1000
						14		0 ... 12	PR200-1200

*1 at 6 bar supply pressure and 5 bar outlet pressure

Technical details: see previous page

PDF CAD
www.aircom.net

* Product group



Order example:
PRA00-00V1



PRA



PR0



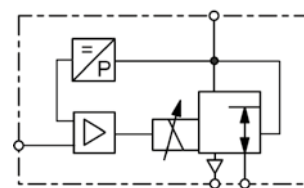
PR1



PR2

Technical features

• Pressure range	0 ... 1.0 bar to 0 ... 50 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, 1/5/10/16/20/30/50 bar	• Power consumption	12 / 22 / 30 / 44 W
• Flow rate	250 / 820 / 1700 / 6500 l/min	• Exhaust	full nominal size



G¹/₈ up to G1
0 ... 100 mbar/50 bar

Special options, add the appropriate letter or number

input signal	0-20 mA		PR .. 1-....
	4-20 mA		PR .. 2-....
	8 bit digital with hold function		PR .. 3-....
	Profibus DP	from G ¹ / ₄ on	PR .. 8-....
feedback signal	0-10 V		PR . 1-....
	0-20 mA		PR . 2-....
	4-20 mA		PR . 3-....
external feedback signal	0-10 V		PR . 4-....
	0-20 mA		PR . 5-....
	4-20 mA		PR . 6-....
deviant pressure range	indicate on order		PR ... -XX. .
for vacuum	Bypass version	G ¹ / ₈ and G ¹ / ₄	PR ... - . V2
		G ¹ / ₂	PR1. . . . V2
		G1	PR2. . . . V2
for absolute pressure			PR ... - . 0A
protection class IP65	special cable box, PRK-IP65		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	nly valve body, max. 20 bar	G ¹ / ₄ only	PR ... - . 19
for oxygen	specially cleaned, FKM elastomer		PR ... - . 15



example: combination PR with booster

Accessories, enclosed

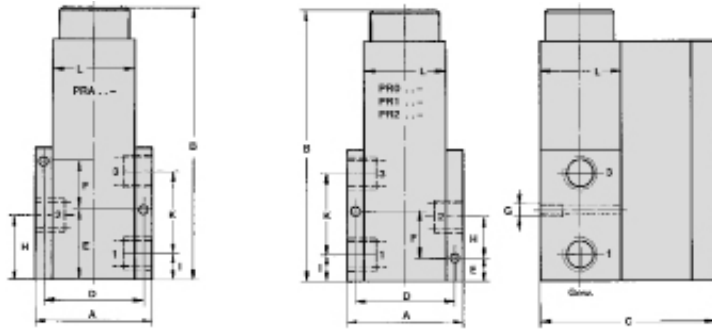
coupling socket	7-pin with 2 m cable	straight	PRK-A2L
	7-pin with 5 m cable	straight	PRK-A5L
	7-pin with 2 m cable, IP65	straight	PRK- I 2L
	7-pin with 2 m cable	angular	PRK-C2L
	7-pin with 5 m cable	angular	PRK-C5L
other cable length	e.g. 10 m available		



PRK-A

PRK-C

DIMENSIONS AND CONNECTION DIAGRAM "AIRTRONIC"®



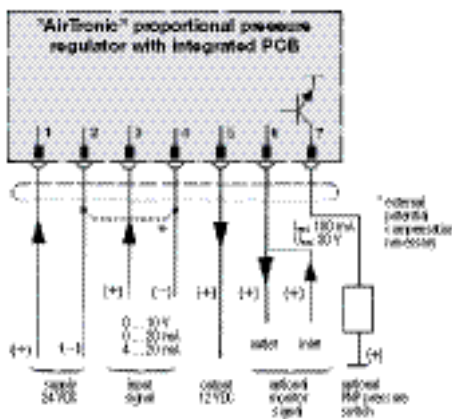
1: inlet
2: outlet
3: exhaust

Proport. regulator	thread	A	B	C	D	E
PRA ...	G 1/8	35	80	63	29	18
PR0 ...	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
PR0 ...	20	M 4	16	11*	34	36
PR1 ...	28	M 6	23	15	48.5	45
PR2 ...	33	M 8	30	20	60	60

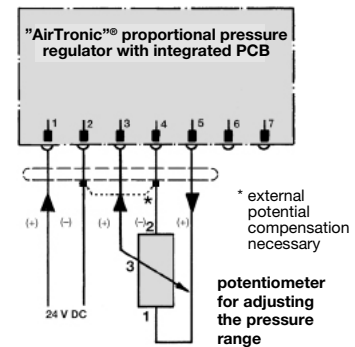
* 14 mm from 30 bar pressure range on

"AIRTRONIC"® PROPORTIONAL PRESSURE REGULATOR WITH INTEGRATED PCB



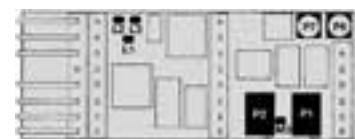
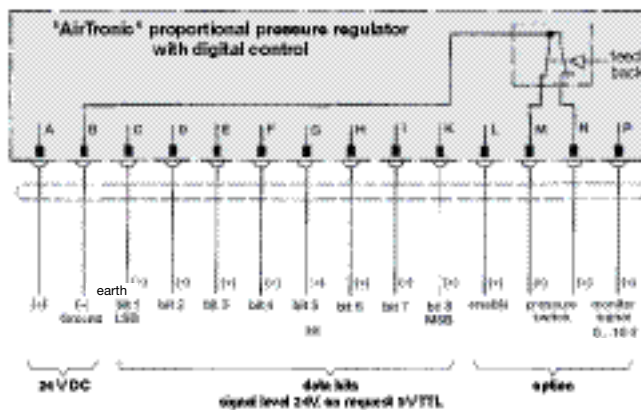
pin	4-wire	7-wire
1	white	grey
2	brown	blue
3	yellow	yellow
4	green	green
5	-	brown
6	-	white
7	-	pink

pin numbers seen from solder pin side



"AIRTRONIC"® CONNECTION DIAGRAM

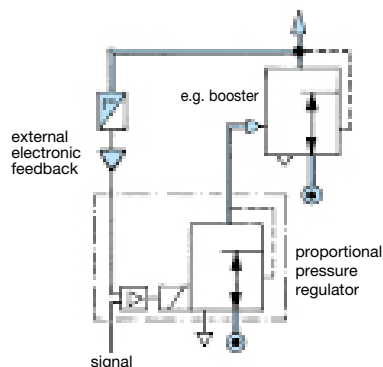
CONNECTION DIAGRAM WITH POTENTIOMETER



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

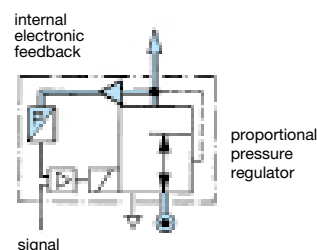
CONNECTION DIAGRAM FOR DIGITALLY CONTROLLED PROPORTIONAL PRESSURE REGULATOR

ADJUSTMENT OF THE PROPORTIONAL REGULATOR



EXTERNAL ELECTRONIC FEEDBACK

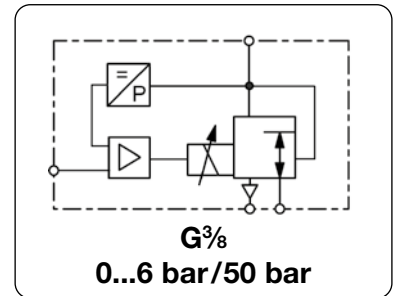
0 ... 10 V or 0/4 ... 20 mA



INTERNAL ELECTRONIC FEEDBACK

as standard

Description	The pneumatic proportional regulator 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, PR 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		E*
mm	mm	mm								

Proportional pressure regulator										0-10 V command signal, supply voltage 24 V DC, without M12 coupling socket	PF
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		



PF

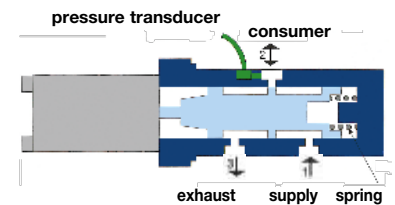
Special options, add the appropriate letter or number

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

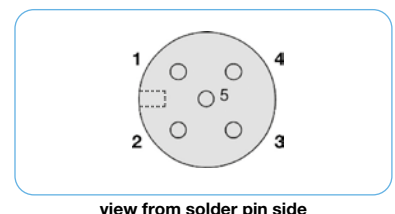
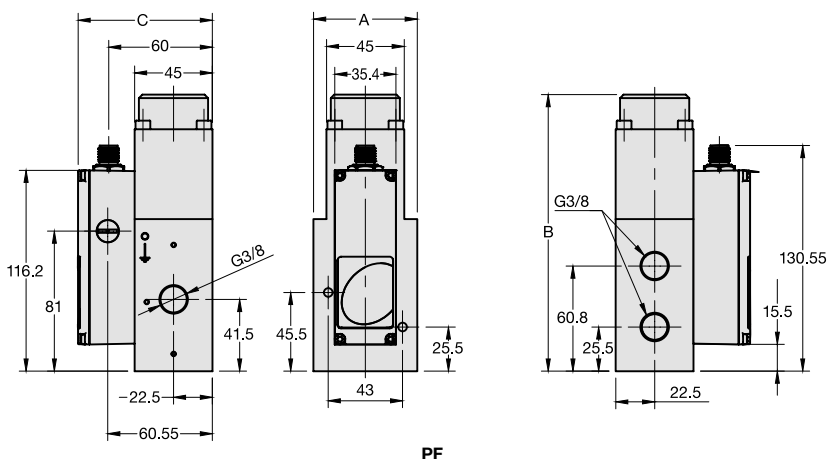


Accessories, enclosed

PR adapter	with USB plug and 1 m cable	PDUSB
software	basic version "light"	PDSOFT1*2
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.



pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
4	analog ground	
5	digital pressure switch signal	black
housing	EMC shield	grey

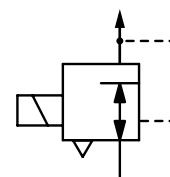
connection diagram

*1 at 6 bar supply pressure and 5 bar outlet pressure
*2 You do not need any software to use the valve!

* Product group



Description	Proportional pressure regulator without integrated control electronics and without internal pressure sensor. The setpoint is given to the solenoid as a 24V PWM signal. The output pressure of the proportional pressure controller can be measured with an external sensor. This turns an „open“ control loop into a closed control loop.
Media	dry, lubricated or non-lubricated and 50 µm filtered compressed air or neutral gases
Signal voltage	24 V DC +/-10%
PWM frequency	G¼: 330 to 1000 Hz G½ and G1: 330 to 700 Hz
Rated current	DN6: 1000 mA (24 W); DN12: 1400 mA (34 W); DN20: 1800 mA (44 W)
Electrical connector	Coupling socket according to DIN 43650
Accuracy	depending on the quality of the external sensor and the design of the control loop, < 1% possible
Regulating time	1s over the control range, 70 ms over 90% of the range at 0 liter volume
Mounting position	vertical
Temperature range	Ambience: -10 °C bis +60 °C / 14 °F to 140 °F
Material	Body: Aluminium Inner valve: stainless steel and brass Elastomer: NBR/Buna-N



G¼ to G1

Dimensions	Nominal	K _v -	Flow	P1	Connection	Pressure	Order
A B C	size	value	rate	max.	thread	range	number
mm mm mm	DN	(m³/h)	l/min*1	bar	G	bar	E*

Proportional pressure regulator						without electronics				PG
52	115	35	6	0.6	700	8	G1/4	0 ...	6	PG2-0600
						16		0 ...	16	PG2-1600
70	151	45	12	1.2	1400	12	G1/2	0 ...	12	PG4-1200
96	188	60	20	4.8	5600	12	G1	0 ...	10	PG8-1000



PG2

Special options, add the appropriate letter

FKM elastomers

PG . - . . . V



PG4

Accessories, enclosed

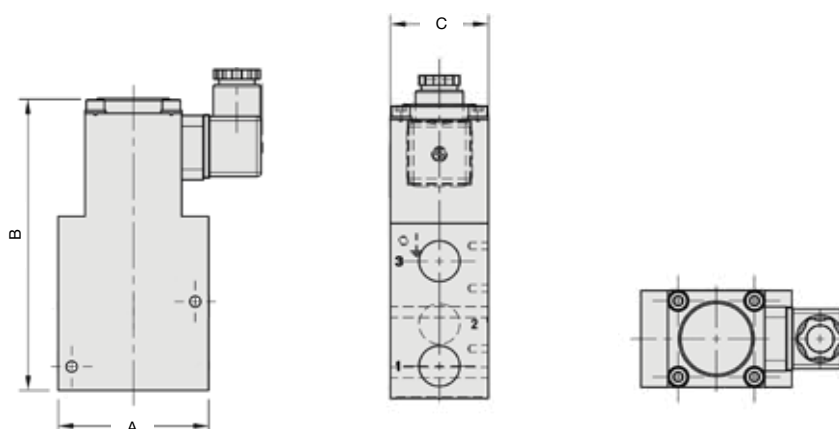
Plug amplifier

Electrical connection M12, 5-pin
Configuration via PC interface and programming adapter
or alternatively via switches integrated in the line socket.
Supply voltage: 24 V DC Rated current: max. 1.1 A
command signal: 0-10V
command signal: 4-20mA

for PG2 PVY-02U
for PG2 PVY-02I



Plug amplifier
PVY-02.



PG4

- 1: Input
- 2: Output
- 3: Exhaust



Description

Piezo-operated proportional pressure regulator 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
- almost no power consumption necessary for regulation
- extremely quick regulating operations
- low-noise regulation especially for medical and laboratory technology
- particularly suitable for portable devices in conjunction with battery operation
- ideal for limited space conditions

Piezo element

Small and light design

PRE1

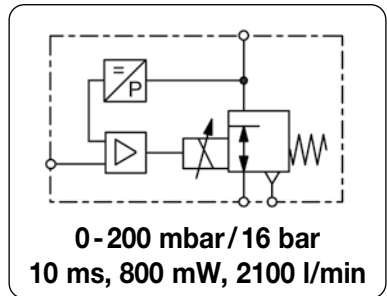
DN 2.5, 350 l/min, coupling socket M8x1, 3-pin,
monitor signal optionally 0... P_{2max} $\triangleq$ 0...10 V,
DN 6, 1600 l/min, coupling socket M12x1.5, 5-pin
monitor signal standard 0... P_{2max} $\triangleq$ 0...10 V,

monitor signal, 4-pin
max. 1 mA, $R_a > 1k\Omega$

PRE2

DN 2.5, 350 l/min, coupling socket M8x1, 3-pin,
monitor signal optionally 0... P_{2max} $\triangleq$ 0...10 V,
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, PRE1 IXEF1022 PRE2 Grivity Gvx-65H 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-U.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.

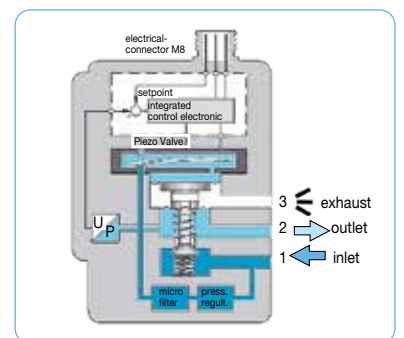
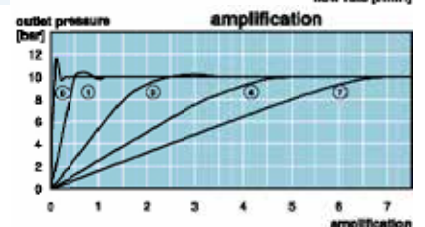
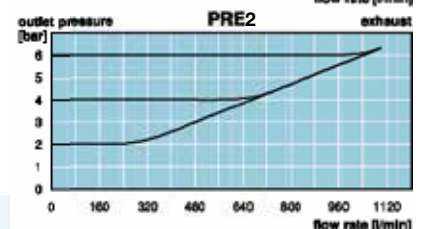
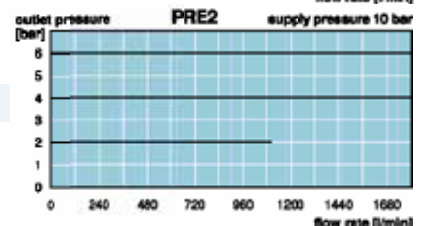
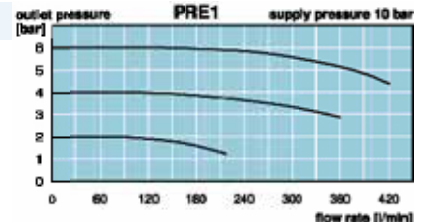
Note For long connection lines shielding is to be used. Pay attention to voltage drops.
As the case may be, current signal is preferable.

Accuracy

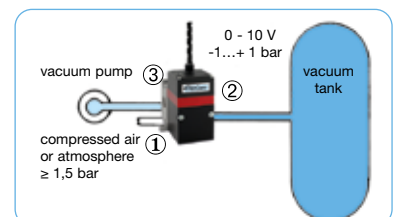
Linearity	< 0.5% FS, at 0.2 bar range	< 1 % FS
Hysteresis	< 0.2% FS, at 0.2 bar range	< 0.5% FS
Response sensitivity	< 0.1% FS, at 0.2 bar range	< 0.5% FS at PRE1 < 0.2% FS at PRE2
Repeatability	< 0.2% FS, at 0.2 bar range	< 0.5% FS
Response time	10 ms	
Over all accuracy	$\pm$ 0.2% FS (Monitor signal $\pm$ 1.5 % FS)	

Adjustment

Zero point	calibration only by factory
Range	calibration only by factory



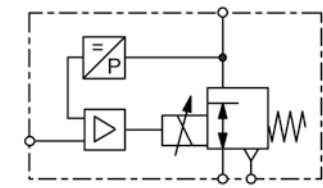
cross-section PRE1



PRE2-V1 for vacuum

Technical features

• Highly dynamic	10 ms, critical frequency 43 Hz	• Linearity	< 0.5% or 1% FS
• Low power consumption	400 mW / 800 mW nominal power	• Hysteresis	< 0.2% or 0.5% FS
• No self-heating	due to low power consumption	• Response sensitivity	< 0.1% or 0.5% FS
• Battery operation	due to low power consumption	• Repeatability	< 0.2% or 0.5% FS
• For portable devices	up to 3 bar pressure range	• Failsafe	exhaust at power breakdown
• No over-oscillation	adjustable closed loop amplification	• Protection class	IP 30 or IP 65
• No resonance oscillation	adjustable closed loop amplification	• Two-wire system	for signal 4...20 mA



0...200 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
mm	mm	mm						

Proportional press. regl.							supply voltage 24 V DC, constant bleed, with straight coupling socket and 5 m cable	PRE	PRE
36	61	53	2.5	100	G $\frac{1}{8}$	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 $\frac{1}{4}$	-1... 1		PRE2-I01V1	PRE2-U01V1
			10	1500		-1... 4		PRE2-I04V1	PRE2-U04V1
				1500		-1... 6		PRE2-I06V1	PRE2-U06V1
			12	1700		-1... 10		PRE2-I10V1	PRE2-U10V1
			2.5	500		0... 0.5		PRE2-IA5	PRE2-UA5
				900		0... 1		PRE2-I01	PRE2-U01
			7.0	1100		0... 2		PRE2-I02	PRE2-U02
				1100		0... 3		PRE2-I03	PRE2-U03
			10	1500		0... 4		PRE2-I04	PRE2-U04
				1500		0... 5		PRE2-I05	PRE2-U05
				1500		0... 6		PRE2-I06	PRE2-U06
			12	1700		0... 10		PRE2-I10	PRE2-U10
			17	2400		0... 16		PRE2-I16	PRE2-U16



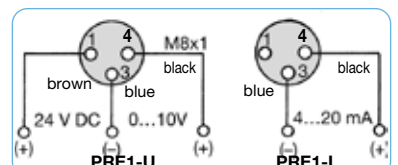
PRE1



PRE2

Special options, add the appropriate letter

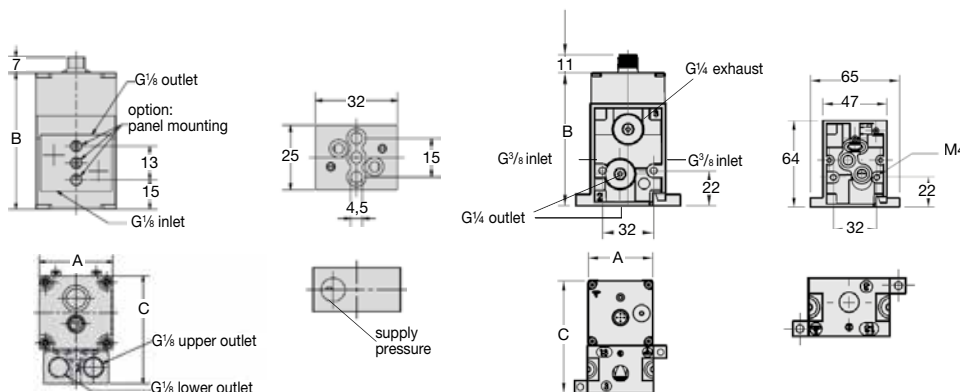
monitor signal	0-10 V, standard at PRE2	for PRE1-U	PRE1-...R
flange connection	without manifold		PRE-...F
w/o coupling socket	and without cable		PRE-...H
mounting clips	for DIN rail		PRE-...C
deviant pressure ranges			PRE-...XX
for oxygen*2	specialty cleaned		PRE-...15



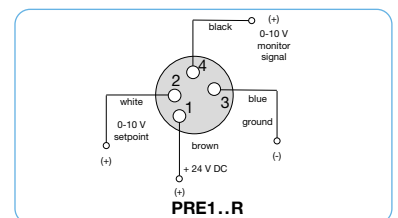
connection diagram

Accessories, enclosed

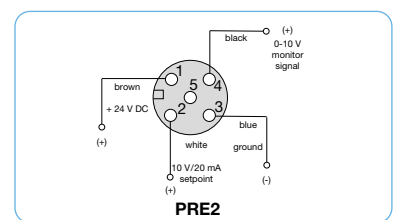
coupling socket	with 5 m cable, angular	M8x1, 3-pin	for PRE1	KM08-C3-5
		M8x1, 4-pin	for PRE1-R	KM08-C4-5
		M12x1.5, 5-pin	for PRE2	KM12-C5-5



*1 at open outlet
*2 by PRE1 no tapped exhaust on the manifold



connection diagram



connection diagram

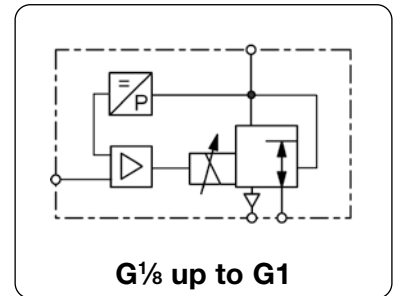
Technical details: see previous page

PDF CAD
www.aircom.net

* Product group

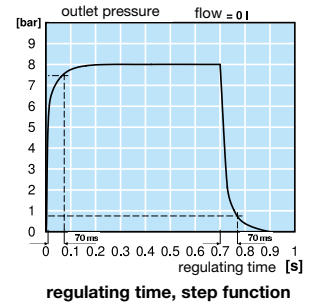
Order example:
PRE1-IA1

Description	The pneumatic proportional regulator 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 regulation 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, PR 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 6 bar supply pressure and 5 bar outlet pressure
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	< ± 0.5% FS
Hysteresis	< ± 1.0% FS
Repeatability	± 0.5% FS
Response sensitivity	± 1.0% FS

Adjustment and parameter settings

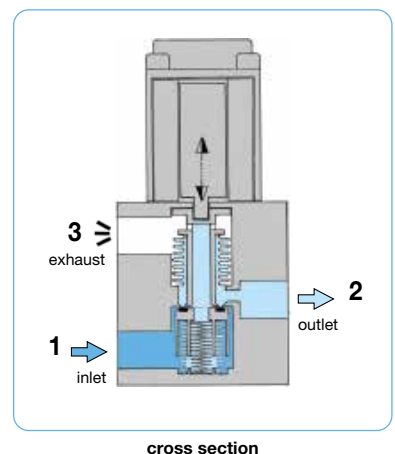
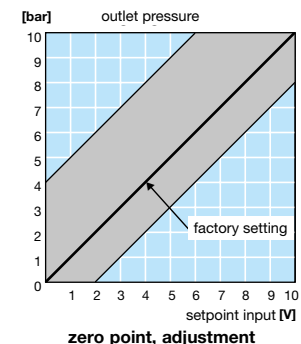
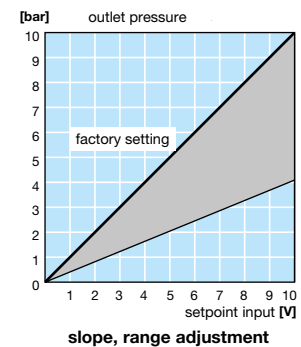
Zero point / range	Zero point and range can be calibrated percentagewise.
Control mode / Amplification	Through the software different control modes may be chosen. All parameters of P/Pi/PID controllers can be tuned.
Diagnosis	A diagnostic tool including data recording is available within the software.
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.

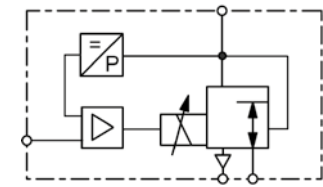
Downstream regulation for vacuum regulators (V3)

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	• Linearity	< ± 0.5% FS
• Command signal	0-10 V, 0-20 mA, 4-20 mA	• Hysteresis	< ± 1.0% FS
• Output signal	0-10 V, 0-20 mA, 4-20 mA	• Response sensitivity	± 1.0% FS
• Regulating time	< 1 s	• Repeatability	± 0.5% FS
• Pressure sensor	100 / 500 mbar, 1 / 5 / 10 / 16 / 20 / 30 / 50 bar	• Rated input	12 / 22 / 30 / 44 W
• Flow rate	250 / 820 / 1700 / 6500 l/min	• Relief capacity	full nominal size



G $\frac{1}{8}$ up to G1
0 ... 100 mbar/50 bar

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		E*
mm	mm	mm								

Proportional pressure regulator 0-10 V command signal, supply voltage 24 V DC, with coupling socket PP

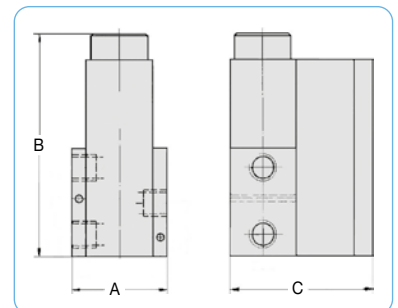
35	83	57	3	0.18	210	-1	G $\frac{1}{8}$	0...-1.0	PPA00-00V3
						2		0... 0.1	PPA00-A100
						2		0... 0.5	PPA00-A500
						2		0... 1.0	PPA00-0100
						8		0... 3.0	PPA00-0300
						12		0... 6.0	PPA00-0600
						12		0... 10	PPA00-1000
						18		0... 16	PPA00-1600
						22		0... 20	PPA00-2000
						30		0... 25	PPA00-2500
52	105	68	6	0.6	700	-1	G $\frac{1}{4}$	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 $\frac{1}{2}$	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



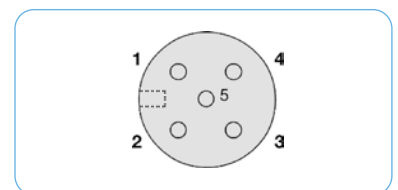
PPA



PP0



dimensions



view from solder pin side

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					PP0A	
body made of stainless steel	P ₂ = max. 20 bar, body / inner parts, 1.4304, EPDM, G¼ and G½				PPSS	
body made of aluminium	valve body only, max. 20 bar				G¼ only	PP019
for oxygen	specially cleaned, FKM elastomer					PP15
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V					PPKU
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA					PPKI

Accessories, enclosed

PR adapter	with USB plug and 1 m cable	PDUSB
software	basic version "light"	PDSOFT1*2
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
adapter cable	M12x1, 5-pin with 0.2 m cable	PRK-PR-PP

*1 at 6 bar supply pressure and 5 bar outlet pressure
*2 You do not need any software to use the valve!

Technical details: see previous page

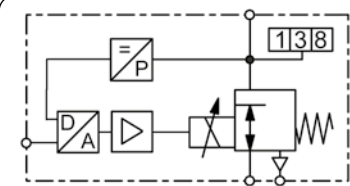
PDF CAD
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* Product group



Order example:
PPA00-00V3

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, PR 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.



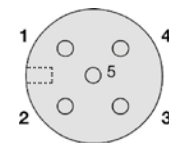
G¹/₈ to G³/₈ or flange programmable

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



view from solder pin side

Electrical features

Supply voltage	24 V DC ± 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 kΩ 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

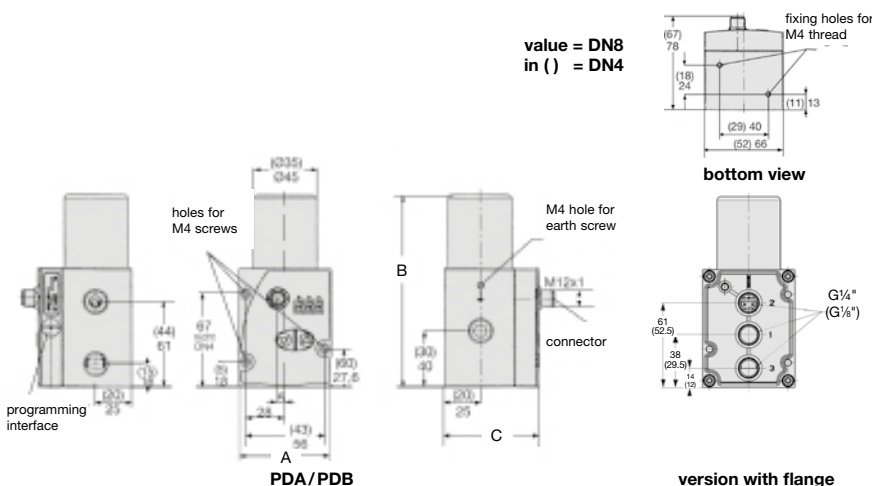
pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

Accuracy

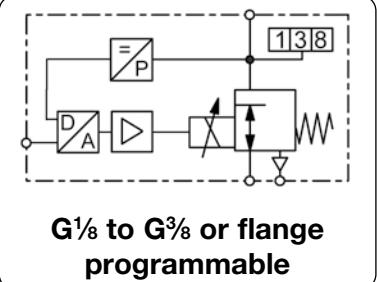
Linearity/Hysteresis	< 1,0% FS	Response sensitivity	< 0,5% FS
Repeatability	< 0,5% FS	Minimum setpoint	100 mV (0.2 mA / 4.2 mA)
Minimum outlet pressure	1% FS	Over all accuracy	± 0,5% FS

Adjustment and parameter settings

Zero point / range	Zero point and range can be calibrated percentage-wise.
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, PR 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	Repeatability	< 0.5% FS
Linearity/Hysteresis	< 0.5% FS / < 1% FS	Protection class	IP65
Mounting position	any	ambient:	0 °C to 50 °C / 32 °F to 122 °F
Temperature range	fluid: 0 °C to 60 °C / 32 °F to 140 °F	Inner valve:	POM
Material	Body: aluminium Elastomer: NBR/Buna-N		



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

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	G $\frac{1}{8}$	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	G $\frac{1}{4}$	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	G $\frac{1}{4}$	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	G $\frac{3}{8}$	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



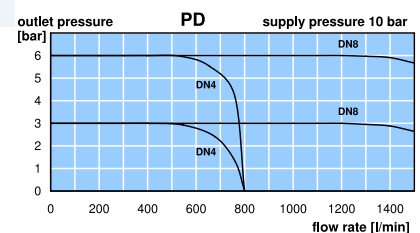
programming via PC

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

PR adapter	with USB plug and 1 m cable	PDUSB
software	basic version "light"	PDSOFT1 *2
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
*2 You do not need any software to use the valve!

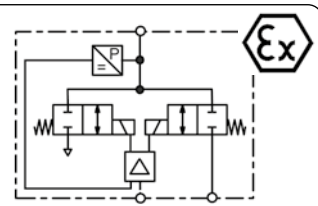
Technical details: see previous page

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Order example:
PDA41-010

Description	Piezo-operated proportional pressure regulator 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 2014/34/EU for use in potentially explosive atmosphere of group IIC, temperature classification T4.		
Power consumption	< 200 mW	Ignition protection type:	II1G Ex ia IIC T4; II1D Ex D20 T135°C
Linearity/Hysteresis	< 1 % FS	Fail-safe feature	exhaust at power breakdown
Mounting position	any	Repeatability	< 0.5 % FS
Air consumption	The pilot valve has an air consumption of 1.6 l/min	Protection class	IP 65
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		



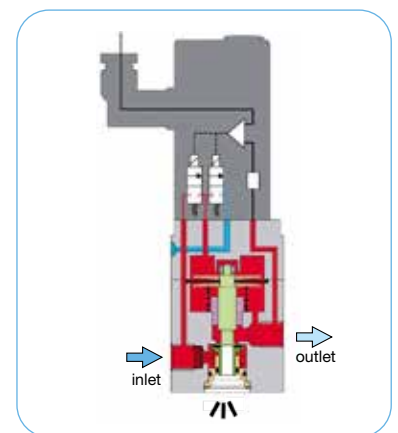
G¹/₈, accurate to 1% with constant bleed

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

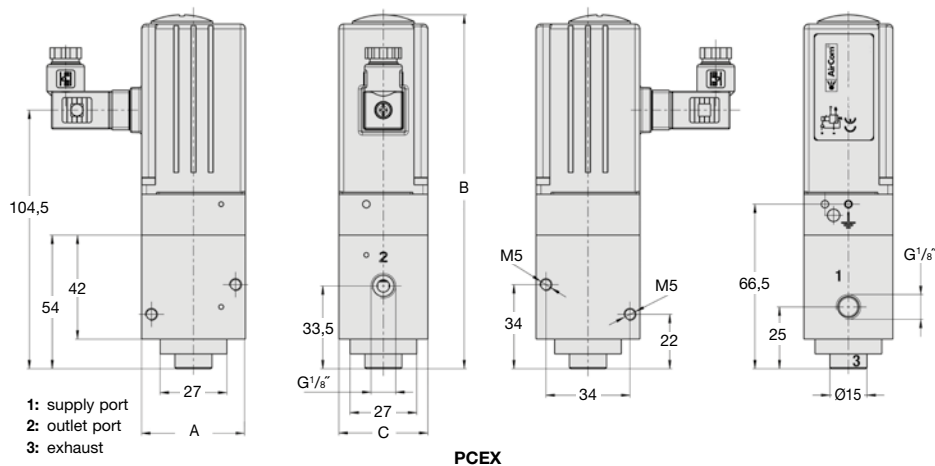
Proportional pressure regulator									4-20 mA input signal, ATEX with coupling socket, with constant bleed	PCEX
42	143	36	4	0.5	550	2.5 / 3.0	G ¹ / ₈	0 ... 2		PCEX-02
						3.5 / 5.0		0 ... 3		PCEX-03
						4.5 / 6.0		0 ... 4		PCEX-04
						5.5 / 8.0		0 ... 5		PCEX-05
						6.5 / 8.0		0 ... 6		PCEX-06



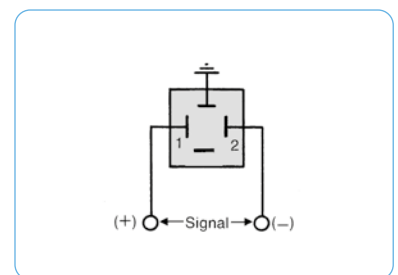
PCEX



cross-section



PCEX



connection diagram

*1 at 6 bar supply pressure, 5 bar outlet pressure, equal exhaust forward flow

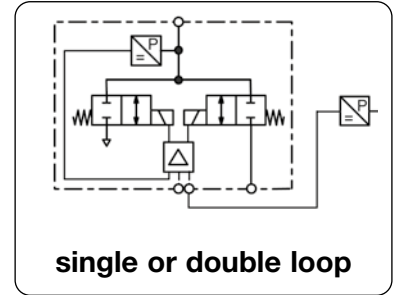
* Product group

PDF CAD
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Order example:
PCEX-02

Description	Proportional pressure regulator 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 (985 mA) regulating, 2.4 W (100 mA) 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	Mounting position any, vibration-resistant	
	Transducer: silicon	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	(m³/h)	l/min*1	max. bar		G	bar		E*

Proportional pressure regulator									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

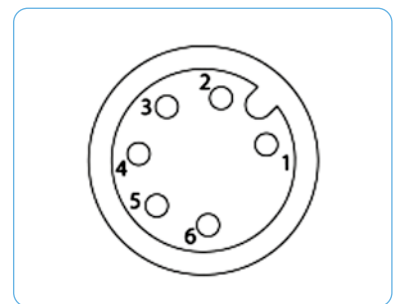
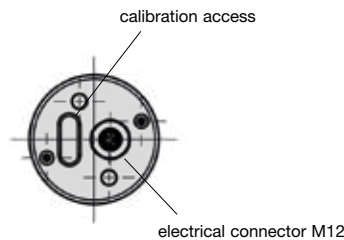
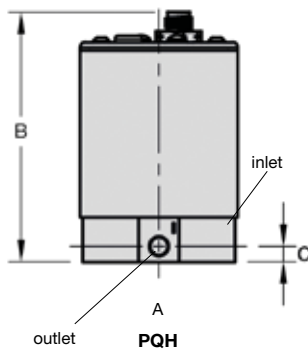
Proportional pressure regulator									0-10 V input, monitor- and feedback signal, with coupling socket, supply volt. 24 V DC, double loop	PQH2
76	122	15	0.016	280	75	0.5	G $\frac{1}{8}$	0 ... 40		PQH2EE-40
								0 ... 50		PQH2EE-50
								0 ... 60		PQH2EE-60
								0 ... 70		PQH2EE-70



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

For further details about double loop see end of the chapter

PDF CAD
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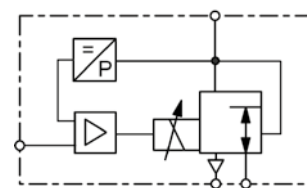
* Product group



Order example:
PQH1EE-40

Technical features

• Pressure range	0...30 bar to 0...80 bar	• Linearity / Hysteresis	± 3% FS
• Command signal	0-10 V, 0-20 mA, 4-20 mA	• Response sensitivity	± 3% FS
• Output signal	0-10 V, 0-20 mA, 4-20 mA	• Repeatability	± 3% FS
• Regulating time	< 1 s	• Protection class	IP65
• Flow rate	40 l/min	• Relief capacity	full nominal size



G_{1/4}
0 ... 30 / 80 bar

General technical features

Design	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 60 °C / 32 °F to 140 °F, media- and ambient temperature
Material	Body: aluminium Inner valve: stainless steel Seals: FPM, NBR/Buna-N, TPS

Pneumatic features

Media	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart
Flow rate	up to 40 l/min, at 6 bar supply pressure and 5 bar outlet
Nominal size	DN 1.0, DN 1.2
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 connector	M12, 5-pin, with coupling socket
Power consumption	max. 24 W
Current consumption	max. 1000 mA
Command Signal	0-10 V, 0-20 mA, 4-20 mA
Impedance	100 kΩ at voltage signal 250 Ω at current signal
Feedback signal	0-10 V, 0-20 mA, 4-20 mA
Pressure switch	adjustable via software

Accuracy

Linearity / Hysteresis	± 3% FS
Response sensitivity	± 3% FS
Regulating time	< 1 s
Repeatability	± 3% FS
Over all accuracy	± 3% FS

Adjustment

Zero point	The zero point and the end value can be changed in %
Types of regulation/reinforcement	Different types of regulation can be set in the software. P, PI and PID valves can be changed with all individual parameters.
Diagnosis	A diagnostic tool is available in the software.
Characteristic curve	The characteristic curve can be adjusted upwards and downwards, the standard is upwards.

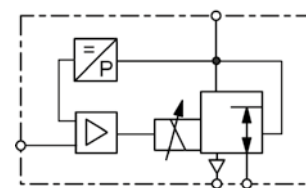


Description

The 3-port/2-way proportional high-pressure valve regulates the output pressure proportionally to the electrical input signal in a closed loop. The output pressure is transformed into an electrical signal and compared to the command signal. If the output pressure rises above the pre-selected set point as a result of a pressure increase the valve exhausts to the desired pressure. The digital control system offers the advantage of a quick adjustment of the control parameters during installation or commissioning. The valve does not consume air. At absence of input signal or supply voltage the valve exhausts.

Software

Visualization: Set point, outlet pressure, control parameters, Pressure switch signal
 Scope Function: Swing-in behaviour can be recorded and read immediately.
 Data can be accessed.
 Parameterization: Setpoint, zero point, control limit, ramp function
 Valve diagnostics: Custom or factory-specific setting. Optimization of the controller.



G $\frac{1}{4}$
0 ... 30 / 80 bar

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

Proportional pressure regulator						0-10 V input signal, Supply 24 V DC, with coupling socket		PHP	
72	105	52	1.0	0.035	40	40	G $\frac{1}{4}$	0 ... 30	PHP00-3000
						50		0 ... 40	PHP00-4000
						60		0 ... 50	PHP00-5000
						70		0 ... 60	PHP00-6000
						80		0 ... 70	PHP00-7000
						90		0 ... 80	PHP00-8000



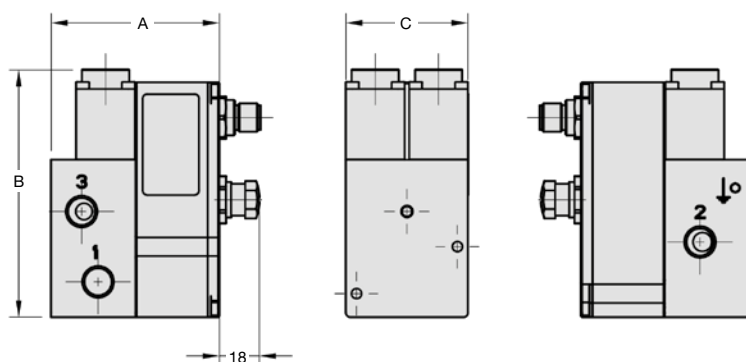
PHP

Special options, appropriate letter or number

setpoint input	0-20 mA	PHP. 1-
	4-20 mA	PHP. 2-
feedback output	0-10 V	PHP1.-
	0-20 mA	PHP2.-
	4-20 mA	PHP3.-
nominal size DN1,2	K _v value 0.048, V=54 l/min	to PHP...-5000 PHP.-...X101

Accessories, enclosed

PR module	USB programming module with 1 m cable	PHPUSB
Software	Basic version "Light"	PHPSOFT1 ²
coupling socket	M12x1, 5-pin with 2 m cable, 5 x 0.25 angular	KM12-C5-2

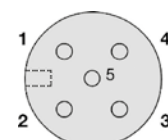


PHP

- 1: supply port
- 2: outlet port
- 3: exhaust

*1 at 6 bar supply pressure and 5 bar outlet pressure

*2 You do not need any software to use the valve!



view from solder pin side

Pin	Description
1	supply voltage
2	input signal
3	Power supply negativ
4	feedback signal
5	pressure switch
Body	emc shielding

Connection plan

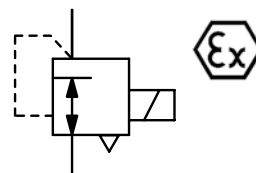
* Product group

PDF CAD
www.aircom.net



Order example:
 PHP00-3000

Description	The proportional pressure regulator 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



accurate 0.5% or 1%

Dimensions			Flow rate	Supply pressure	Command signal	Pressure range	Order number	
A	B	C	l/min*1	max. bar	V/mA	bar		E*
mm	mm	mm						

Proportional pressure regulator 0-10 V							1/4" NPT, depending on pressure range air consumption 2...8 l/min	PT600
57	93	13	250	8	0-10 V	0.2 ... 1		PT600-B100
						0.2 ... 2		PT600-B200
57	132	13	300	10	0-10 V	0 ... 2		PT600-0200
						0 ... 4		PT600-0400
						0 ... 8		PT600-0800

Proportional pressure regulator 4-20 mA							1/4" NPT, depending on pressure range air consumption 2...8 l/min	PT602
57	93	13	250	8	4-20 mA	0.2 ... 1		PT602-B100
						0.2 ... 2		PT602-B200
57	132	13	300	10	4-20 mA	0 ... 2		PT602-0200
						0 ... 4		PT602-0400
						0 ... 8		PT602-0800

Special options, change the appropriate number

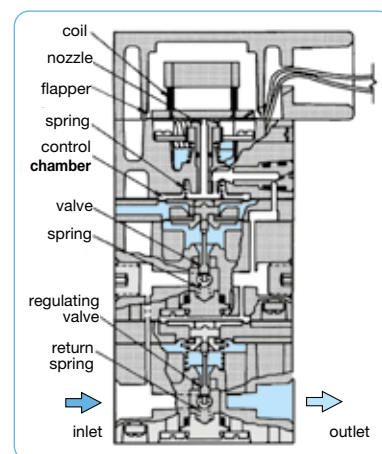
-i-Atex	Atex II 1G Ex ia IIC T4	4-20 mA only	PT602-...01
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Accessories, enclosed

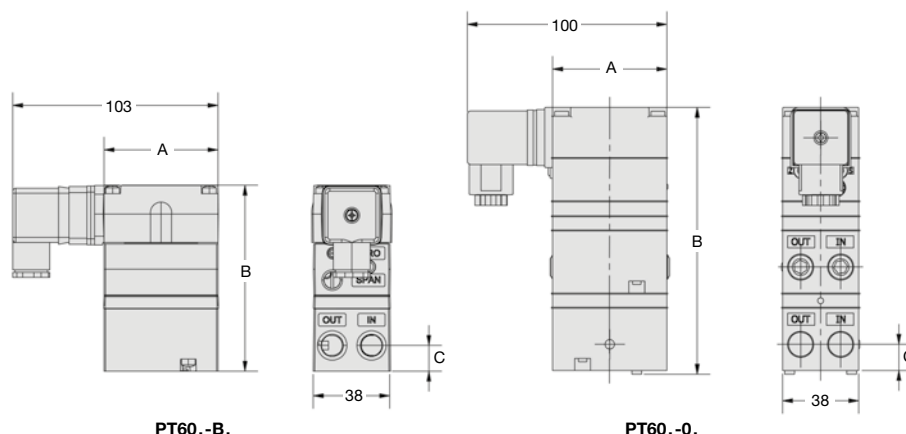
mounting bracket	made of steel, for standard version	SA-PT1
	made of steel, for Din rail	SA-PT2
isolate transmitter	Ex ia II C, E/A: 0-20 mA, 24 V DC, EX 1-32	KFD2-CD



PT60.-0.

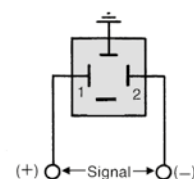


cross-section



PT60.-B.

PT60.-0.



connection diagram

* Product group

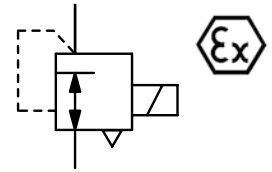
PDF CAD
www.aircom.net



Order example:
PT600-B100

PROPORTIONAL PRESSURE REGULATOR WITH PIEZO ELEMENT AND ELECTRICAL FEEDBACK PT7

Description	The proportional pressure regulator 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 pressure regulator 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		
	Response sensitivity	< 0.2% FS	
	Repeatability	< 0.1% FS	
	Vibration sensitivity	< 1% FS, for 10 g and 15...500 Hz	
	Mounting position	any	
	Protection class	IP 65	
	Elastomer:	NBR/Buna-N	
	Inner valve:	stainless steel, brass, zinc-plated steel	



**accurate to 0.25%
piezo-controlled**

Dimensions			Flow rate	Supply pressure	Command signal	Pressure range	Order number
A	B	C					
mm	mm	mm	l/min*1	max. bar	V/mA	bar	

Proportional pressure regulator 0-10 V $\frac{1}{4}$ " 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 pressure regulator 4-20 mA $\frac{1}{4}$ " 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

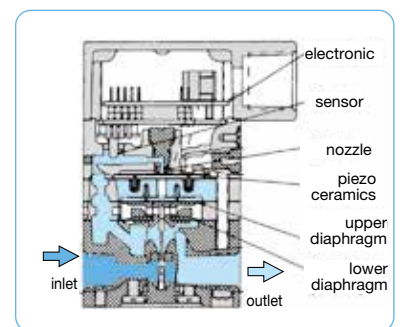
-i-Atex	Atex II 1G Ex ia IIB T4	4-20 mA only	PT782-...01
-d-Atex	Atex ds IIC T6	max. 2 bar	4-20 mA only PT782-...0E

Accessories, enclosed

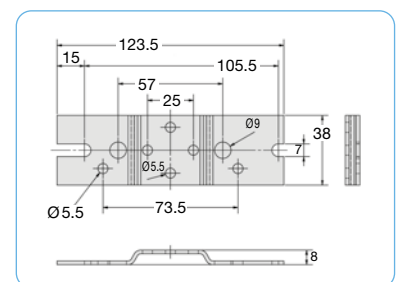
mounting bracket	made of steel, for standard version	SA-PT1
	made of steel, for DIN rail	SA-PT2
mounting clip	made of steel, Atex version, explosion-proof	SA-PT3
isolate transmitter	Ex ia II C E/A: 0...20 mA, 24 V DC, EX 1-32	KFD2-CD



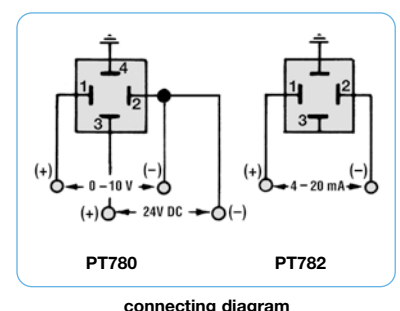
PT78.-0.



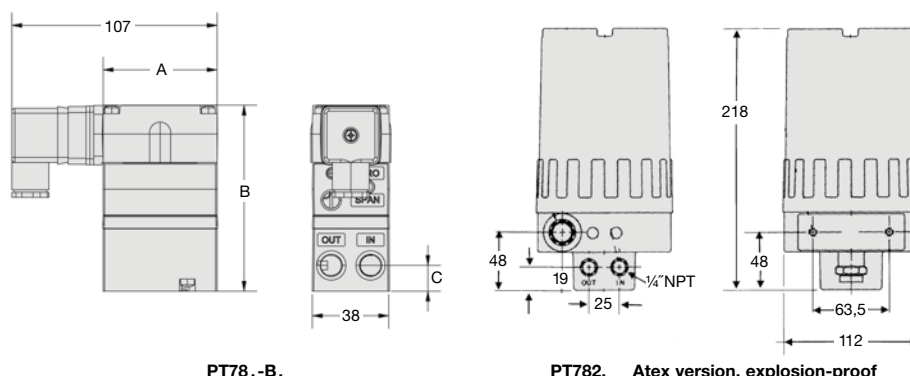
cross-section



SA-PT1



connecting diagram



PT78.-B.

PT782, Atex version, explosion-proof

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

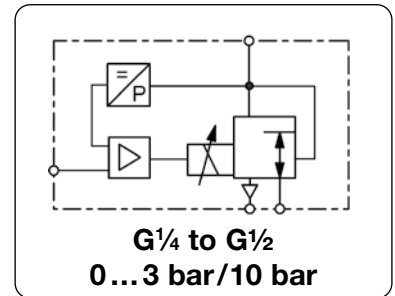
PDF CAD
www.aircom.net



Order example:
PT780-B100

Proport.
pressure
10

Description	The pneumatic proportional pressure regulator controls the outlet pressure in a complete closed loop servo system in proportion to an digital IO-Link command signal. By using the IO-Link Master the valve can be adapted to special applications and optimize the the response time, the overshoot and the precision of the valve. The valve has no constant bleed. At absence of input signal or supply voltage the pressure of the valve stands.		
Media	dry, lubricated, unlubricated and 50 µm filtered compr. air or non-corrosive gases		
Command signal	Digital command signal in 1mbar steps (0-10000 = 0-10 bar)		
Hysteresis	1,5% FS	Supply voltage 24 VDC	Control IO-Link (Class A)
Linearity	1,5% FS	Electrical connector M12, 5-pin	Software: IODD (necessary)
Repeatability	1,5% FS	Protection class IP65	
Minimum Command signal	0,5% FS	Current consumption 180 mA	
Minimum Outlet Pressure	1,0% FS	Power consumption 3,8 W (< 1W if regulated)	
Temperature range	0-60 °C Media and Ambient		
Material	Body: aluminium Inner valve: POM (Polyacetal)		
Mounting position	any, preferably perpendicular		
			Elastomer: NBR



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

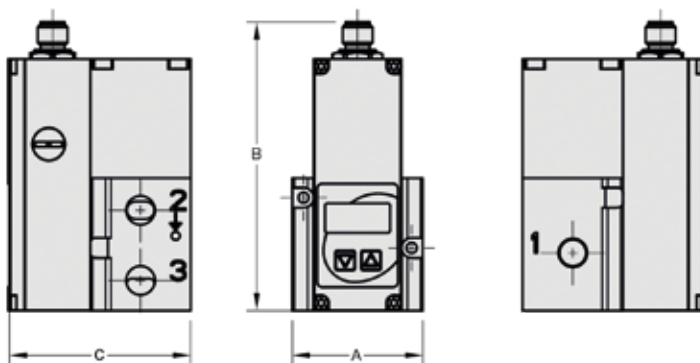
Proportional pressure regulator							Supply 24 V DC via IO-Link master without coupling socket		PIO	
52	115	73	0.43	28,2	470	4	G $\frac{1}{4}$	0... 3	PIO2-03	
						7	G $\frac{1}{4}$	0... 6	PIO2-06	
						11	G $\frac{1}{4}$	0... 10	PIO2-10	
66	129	89	1.2	78	1300	4	G $\frac{3}{8}$	0... 3	PIO3-03	
						7	G $\frac{3}{8}$	0... 6	PIO3-06	
						11	G $\frac{3}{8}$	0... 10	PIO3-10	
66	144	102	4.8	312	5200	4	G $\frac{1}{2}$	0... 3	PIO4-03	
						7	G $\frac{1}{2}$	0... 6	PIO4-06	
						11	G $\frac{1}{2}$	0... 10	PIO4-10	



PIO

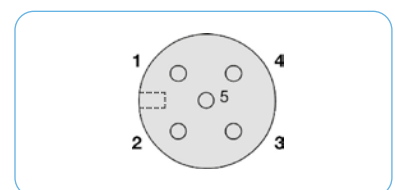
Special options, add the appropriate letter or number

Display	PIO-... B
for oxygen	PIO-... 15



- 1: inlet
2: outlet
3: exhaust

PIO



view from solder pin side

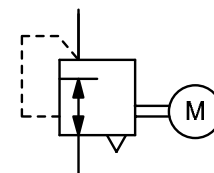
Pin	Description
1	24V supply voltage
2	not occupied
3	supply ground
4	C/Q
5	not occupied
Housing	EMC shield

connection plan

*1 To use the valve, you need the IODD
P1 = at least 1 bar higher than the maximum outlet pressure

* Product group

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,		
Relief capacity	1/4" NPT on both sides of the body		
Gauge port	Body: zinc die-cast		
Material	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	



1/4" NPT, 280 l/min

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
					30		0.14 ... 4.0
					50		0.14 ... 8.0



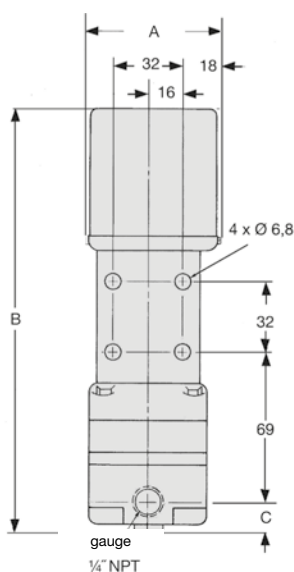
P180

Special options, add the appropriate letter

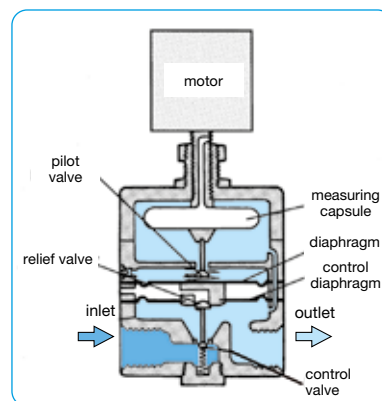
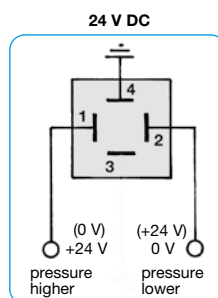
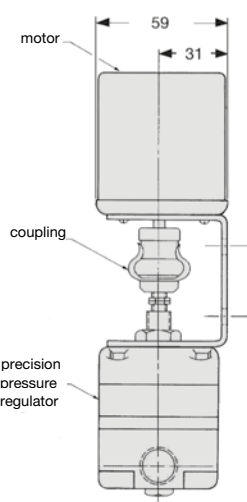
higher exhaust	two times greater than standard	P180-02 . H
DIN connector	connection with DIN plug 30x30 mm	P180-02 . D

Accessories, enclosed

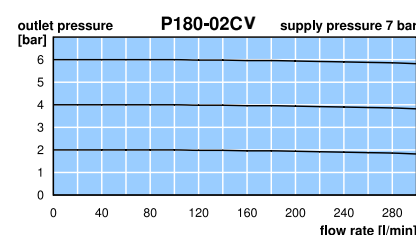
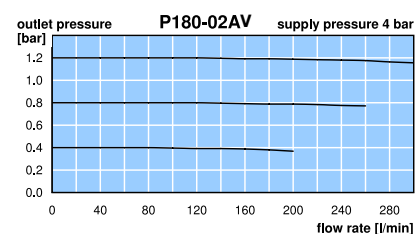
pressure gauge	Ø 50 mm, 0 ... *2 bar, G1/4, connecting parts necessary	MA5002-..*2
gauge connecting parts	adapter 1/4" NPT - R1/4 f	VP-0202N



P180



cross-section



*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

Description

regulators.

The series line of potentiometers are designed for use as a command signal for control pressure

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 pressure regulators of Series PQ and PM.

For all other pressure regulators, 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

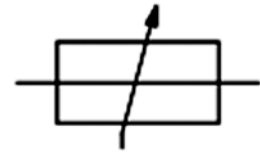
± 0.25% FS

Mounting position

any

Temperature range

0 °C to 70 °C / 32 °F to 158 °F



with 10-turn-potentiometer

Dimensions

F H G
mm mm mm

Output

signal
V / mA

Order

number



Setpoint Potentiometer

supply voltage 15 - 24 V DC

PPB

85 55 40

0-10 V

PPB-U

85 55 40

4-20 mA

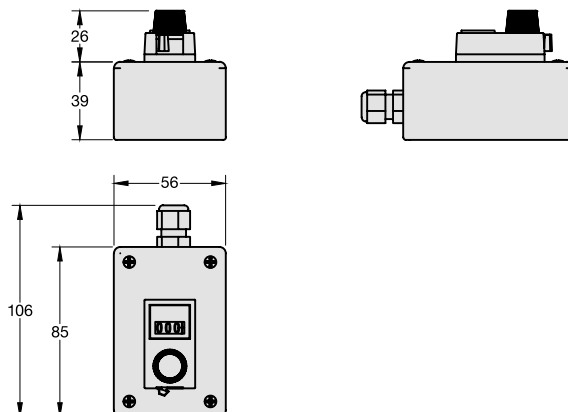
PPB-I



PPB-U



PPB-I



PPB

Pin	Description	3-pin cable
1	voltage supply 24V DC	black
2	analogue setpoint	white
3	supply earth	green

connecting plan

* Product group



Order example:
PPB-U

PDF CAD
www.aircom.net

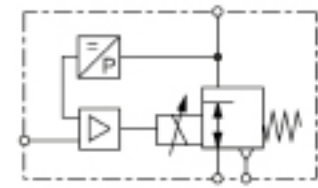
VOLUME BOOSTER-PROPORTIONAL PRESS. REGL.-COMBINATIONS

What are volume booster / proportional pressure regulator combinations used for?

Combinations of volume boosters and proportional pressure regulator lend themselves for electronically regulating high volume flows. On the one hand common proportional pressure regulator 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 pressure regulator 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 pressure regulator 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 pressure regulator 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 pressure regulator. The proportional pressure regulator 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

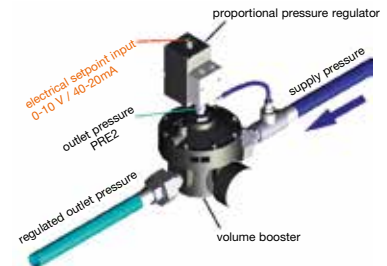
Construction type	The volume booster / proportional pressure regulator combinations are delivered completely assembled and calibrated.
Mounting position	preferred horizontal (see figure)
Protection class	IP 54 with ordinary coupling socket as standard, optionally IP 65 for some devices (see according product information sheets)
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for all proportional pressure regulator, for booster ranges refer to according product sheets

Pneumatic features

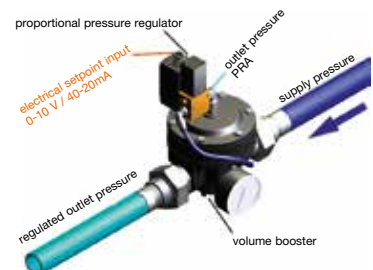
Command signal	The proportional pressure regulator may only be fed with dry and 5 µm filtered compressed air. The pneumatic command signal must always be air!
Media	Preferred dry, 5 µm filtered compressed air for supply of the proportional pressure regulator. The volume boosters can operate with air 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 pressure regulator has to be separately supplied with compressed air with regard to the valve's maximum inlet pressure.
Exhaust	The proportional pressure regulator 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

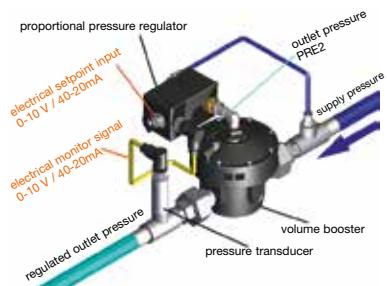
Supply voltage	All valves have to be supplied with 24 V DC.
Power consumption	see according product information sheets
Setpoint input	0-10 V as standard, optionally 4-20 mA for all valves
Monitor signal	A feedback signal is not reasonable for the single loop version because here only the pressure of 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

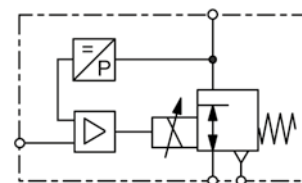


PQ2, R450 with double loop

General operational description:

The volume booster and proportional pressure regulator 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 pressure regulator 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 pressure regulator only refers to its own outlet pressure within the pilot chamber. The outlet pressure performance is dependent of the volume booster's accuracy.



**G $\frac{1}{4}$ 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.press.reg.	Order number of combination	E*
--------------------	---------------------------	---------------------------	------------------------	--------------------------------	--------------------------------	----

R750 with PRE1, for compressed air or non-corrosive gases setpoint 0-10 V, P₁ max. 17 bar

1000	G $\frac{1}{4}$	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 $\frac{1}{2}$	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 $\frac{1}{2}$	0... 10	R119-04J	PPA00-1000	BP1U119-04	
9000	G $\frac{3}{4}$	0... 10	R119-06J	PPA00-1000	BP1U119-06	
10000	G1	0... 10	R119-08J	PPA00-1000	BP1U119-08	
12000	G1 $\frac{1}{2}$	0... 10	R119-12J	PPA00-1000	BP1U119-12	
42000	G2	0... 10	R119-16J	PPA00-1000	BP1U119-16	
44000	G2 $\frac{1}{2}$	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 $\frac{1}{2}$	0...0,2	RGB4-04J	PRE1-UA2	BP1UGB4-04	
2800	G1	0...0,2	RGB4-08J	PRE1-UA2	BP1UGB4-08	
5600	G1 $\frac{1}{2}$	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 $\frac{1}{2}$	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 $\frac{1}{2}$	0... 15	R120-04J2	PPA00-1600	BP1U120-04	
4200	G $\frac{3}{4}$	0... 15	R120-06J2	PPA00-1600	BP1U120-06	
5000	G1	0... 15	R120-08J2	PPA00-1600	BP1U120-08	
1200	G $\frac{1}{2}$	0... 50	R120-04J5	PP000-5000	BP1U120-04J5	
4200	G $\frac{3}{4}$	0... 50	R120-06J5	PP000-5000	BP1U120-06J5	
5000	G1	0... 50	R120-08J5	PP000-5000	BP1U120-08J5	
14000	G1 $\frac{1}{2}$	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...-....	
---------	--------------	--------------	--



BP1U750-02



BP1U119-16



BP1UZ-08



BP1U120-08J5

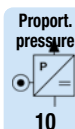
Gauges: see chapter for measuring devices
Further details: see chapter for single devices

PDF CAD
www.aircom.net

* Product group



Order example:
BP1U750-02

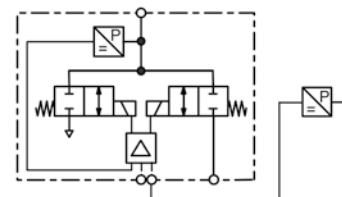


10

General operational description:

The volume booster and proportional pressure regulator 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 pressure regulator 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 pressure regulator. The pressure regulator 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 bar	Sensor	Part number Booster	Prop.press.reg.	Order number of combination	E*
--------------------	---------------------------	---------------------------	--------	------------------------	-----------------	--------------------------------	----

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



BP2U450-0406

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



BP2U200-0806

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



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



BP2UZ-08

Special options, add the appropriate letter

4-20 mA input signal BP2I...-....



PROPORTIONAL FLOW VALVES AND MEASUREMENT DEVICE

Prop.-V.



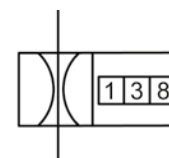
11

	DESCRIPTION	DN/ Ø	FLOW RATE l/min	CONNECTION thread	SERIES	PAGE
MEASURING DEVICE	portable		0.02 ... 0.1 / 450	G¼ u. G½	VGM	11.02
	portable, hand-operated		0.02 ... 0.1 / 450	G¼ u. G½	VGR	11.03
	for many gases		0.10 ... 0.2 / 5000	G¼ - G1	PVM	11.06
	with proportional regulator		0.10 ... 0.2 / 5000	G¼ - G½	PVR	11.07
PROP. FLOW VALVES	w/o power consumption	0.2 /.../ 1.5	0 ... 3 / 24	M5	PVK	11.08
	for air and water	0.1 /.../ 20	0 ... 0.3 / 1185	G⅛ - G1	PV21...PV40	11.10
	pulse-width-modulated, mini	0.2 /.../ 0.8	0 ... 1 / 20	Flansch	PV202	11.12
	stainless steel	1.2 / 7.1	0 ... 70 / 420	G⅛ - G⅜	PV202-S	11.12
	for water	12.5	0 ... 35 / 37	G¾ u. G½	PV203	11.12
	motorised, for liquids	15 / 20	0 ... 1000 / 3500	G½ - G1	P8	11.14
	flow valve, Y-type	15 /.../ 65	0 ... 77 / 1233	G½ - G2½	PVE	11.15
NEEDLE VALVES	compact	Ø 1.0 - 6.5	0 ... 0,3 / 425	G¼ u. G½	VR6	11.04
	Edelstahl, miniatur	Ø 3.0 - 4.5	0 ... 32	Nippel	NV30	20.02
QUETSCHVENTILE	POM or Aluminium			G¾ - G3, DN150	Q	11.13
	stainless steel			G¼ - G2	QE	15.36



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, 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%**



**VGM-G_{1/4}
mass flow meter**



**VGM-G_{1/2}
mass flow meter**

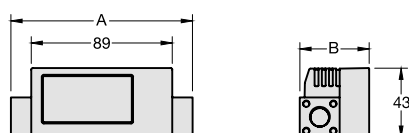
Specific gas calibration			
gas species			max. l/min
nitrogen	07	N ₂	450
oxygen	15	O ₂	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H ₂	300
carbon dioxide	03	CO ₂	150
propane	16	C ₃ H ₈	80
methane	13	CH ₄	100

Dimensions			Operating pressure	Accuracy	Connection thread	Flow rate	Order number
A	B	C	max. bar	%	G	ml/min / l/min	
mm	mm	mm					

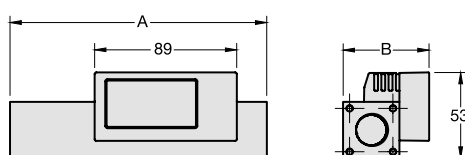
Mass flow meter						w/o manual control valve, LCD-Display, battery mode, portable, aluminium, FKM	VGM*1
114	44	12.5	10	2	G _{1/4}	2 ... 100 ml/min	VGM-A1
				2		4 ... 200 ml/min	VGM-A2
				2		10 ... 500 ml/min	VGM-A5
				2		0.02 ... 1 l/min	VGM-B1
				2		0.04 ... 2 l/min	VGM-B2
				2		0.1 ... 5 l/min	VGM-B5
				2		0.2 ... 10 l/min	VGM-C1
				2		0.4 ... 20 l/min	VGM-C2
				2		1 ... 50 l/min	VGM-C5
160	54	17.5	10	2	G _{1/2}	2 ... 100 l/min	VGM-D1
				2		4 ... 200 l/min	VGM-D2
				3		4 ... 300 l/min	VGM-D3
				3		9 ... 450 l/min	VGM-D4

Special options, add the appropriate letter oder number

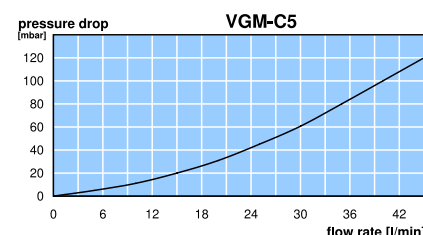
deviant volume flow	indicate on order	VGM-XX
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply	VGM- . . G2
stainless steel body	electropolished throughout	VGM- . . S
EPDM elastomer	for VGM-A1 to -C5	VGM- . . E
24 V DC supply	cable attached on the device, length 2 m, with free ends	VGM- . . 2
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front	VGM- . . T
1% accuracy	for G _{1/4}	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 . .



VGM-A/-B/-C



VGM-D



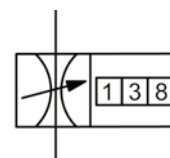
* Product group

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

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		
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		
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		
Turndown ratio	1:50 (Eco) or 1:1000 (Special)		
Flow regulation	manual fine adjustment by 15 turns		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: aluminium, optionally electropolished stainless steel 316		
	Operating pressure	max. 10 bar	
	Response time	500 ms at 99% accuracy	
	Protection class	IP 50	
	Mounting position	any, horizontal from 5 bar on	
	Warm-up time	< 1 sec. for full accuracy	
		Elastomer: FKM, optionally EPDM	



**2 ... 100 ml/min/450 l/min
compressed air or gases
accurate to 2%**

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	G $\frac{1}{4}$	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
				2		0.2 ... 10 l/min	VGR-C1
				2		0.4 ... 20 l/min	VGR-C2
				2		1 ... 50 l/min	VGR-C5
160	54	17.5	10	2	G $\frac{1}{2}$	2 ... 100 l/min	VGR-D1
				2		4 ... 200 l/min	VGR-D2
				3		4 ... 300 l/min	VGR-D3
				3		9 ... 450 l/min	VGR-D4



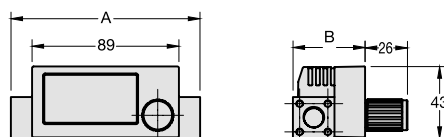
**VGR-G $\frac{1}{4}$
mass flow meter
with manual control valve**



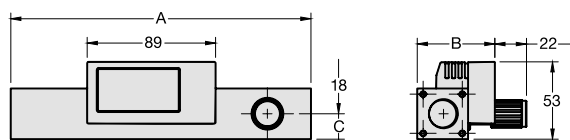
**VGR-G $\frac{1}{2}$
mass flow meter**

Special options, add the appropriate letter oder number

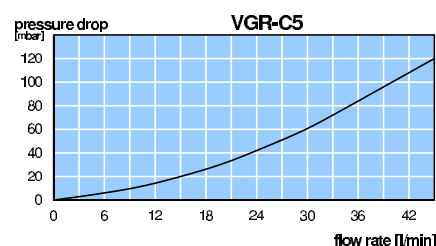
deviant volume flow	indicate on order	VGR-XX
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply	VGR- . . G2
stainless steel body	electropolished throughout	VGR- . . S
EPDM elastomer	for VGR-A1 to -C5	VGR- . . E
24 V DC supply	cable attached on the device, length 2 m, with free ends	VGR- . . 2
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front	VGR- . . T
1% accuracy	for G $\frac{1}{4}$	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 . .



VGR-A/-B/-C



VGR-D



* Product group

Calibration or test chart: see chapter for technical informations
*1 Note: indicate media, supply and outlet pressure on order

PDF CAD
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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. 40 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	-40 °C to 100 °C / -40 °F to 212 °F		
Material	Body: anodized aluminium, optionally stainless steel	Elastomer: FKM, optionally EPDM	
	Inner valve: nickel-plated brass, optionally stainless steel	Knob: plastic	



Ø 1/6.5 mm
compressed air or liquids

Dimensions			Needle size mm	K _v -value (m³/h)	Flow rate		Connection thread G	Order number	D*
A	B	C			water l/min*2	air l/min*1			
mm	mm	mm	mm						

Precision needle valve					with straight pass, right-hand closing, with knob, aluminium/brass/FKM, supply: max. 40 bar			VR	
54	64	10	1.0	0.0007	0... 0.01	0... 0.3	G¼	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	G½	VR6-04A	
			6.5	1.00	0... 16	0... 425		VR6-04B	



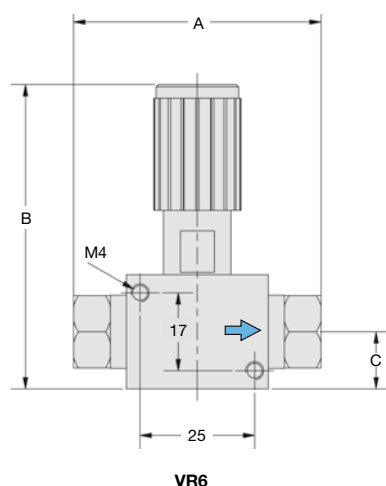
VR6-02

Special options, add the appropriate letter

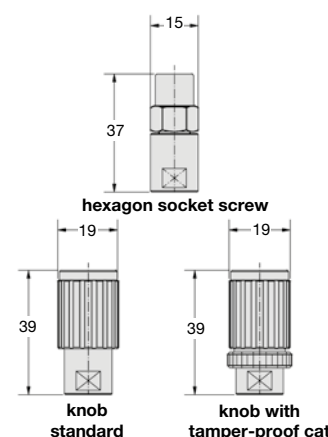
stainless steel body	body and valve made of stainless steel 316	for G¼	VR6-02.S
EPDM elastomer	SST body only	for G¼	VR6-02.SE
FFKM elastomer	SST body only	for G¼	VR6-02.SX29
amper-proof cap	on valve with knob, standard		VR6-02.T
hexagon socket screw	and locknut		VR6-02.I



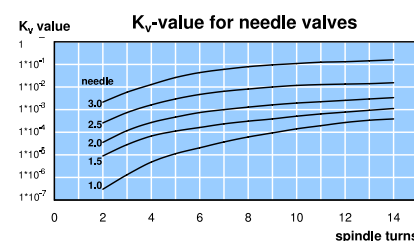
VR6-04



VR6



Options

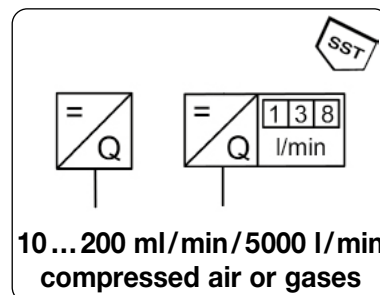


*1 at 1 bar operating pressure and open outlet
*2 at 1 bar pressure difference



Technical features

- Benefits:**
- suitable for nearly all gases and gas mixtures
 - compact robust design with protection class IP65
 - no moving parts
 - short response time
 - low sensitivity to dirt and humidity
 - optionally available with multifunctional TFT display

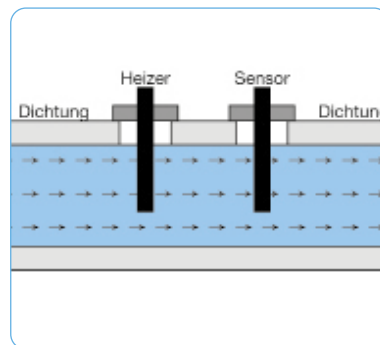


Prop.-V.

11

General technical features

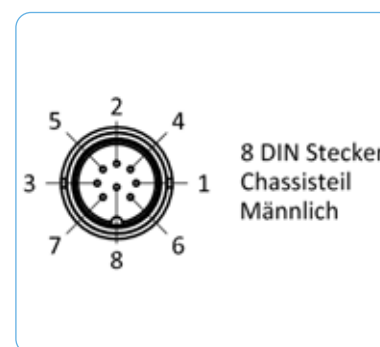
Mounting position	horizontal
Protection class	IP65 (with and without display)
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium, optionally stainless steel 316L Elastomer: Viton®, optionally EPDM or Kalrez® Sensor: stainless steel 316L strainer: stainless steel Flow straightener: stainless steel



functional principle

Pneumatic features

Media	compressed air as well as virtually all gases and mixtures of gases*1
Operating pressure	max. 10 bar device body made of aluminium max. 20 bar device body made of stainless steel
Differential pressure	device-dependent
Mass flow rate	up to 10.000 l/min on request



PVM and PVR connection plan

Electrical features

Supply voltage	+15 ... 24 VDC ±10%
Current consumption	PVM: approx. 75 mA at 0 % flow, approx. 125 mA at 100 % flow PVR: approx. 325 mA at 0 % flow, approx. 375 mA at 100 % flow add 30 mA for display, if applicable
Signal ranges	0...10 V DC / 0...5 V DC, wahlweise 0...20 mA / 4...20 mA
Impedance	> 10 kΩ at voltage signal, < 375 Ω at current signal
Connection	round connector 8-pin DIN (male)- and RS232 output
EMC	according to CE

Accuracy

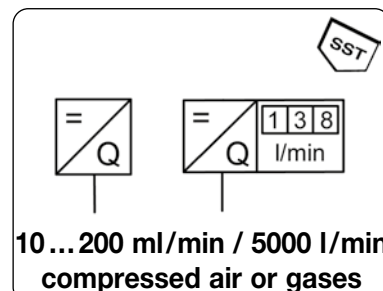
Linearity / Hysteresis	1% v.M. zzgl 0,5% v.E.
Repeatability	< ± 0.2 % v.E.
Pressure sensitivity	> ± 0.3% FS/bar typ. (air)
Temperature sensitivity	± 0.2 % / °C v.l. (air)
Mounting sensitivity	< 0.2 % at 90° deviation from horizontal at 1 bar typical (air)
Operating time	0.9 s bei 63% of the range
Tightness	< 2 x 10 ⁻⁸ mbar l/s He

model gas	PVM/PVR34 - PVM/ PVR38	PVM/PVR 31 & PVM/ PVR32
air/nitrogen	1.00	1.00
argon	2.02	1.50
CO ₂	1.13	0.86
helium	on request	on request
hydrogen	on request	on request
NH ₃	0.74	0.82
N ₂ O	1.08	0.83
C ₂ H ₂	0.68	0.66
C ₃ H ₈	0.62	0.58
C ₃ H ₆	0.51	0.43
CH ₄	0.61	0.77
CO	1.04	1.01
C ₂ H ₄	0.75	0.7
NO	1.01	1.00
HCL	1.53	1.12

conversion factors for max. flow rate
for other gases



Description	Mass flow meter directly measuring flow according to constant temperature anemometer principle.		
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	Operating press. max. 10 bar	Differential press. device dependent
Material	Body: aluminium, optionally SST 316L Sensor: stainless steel 316L	Elastomer: Viton®, optionally EPDM or Kalrez® strainer: stainless steel	



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

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	117	15	10	G1/4	10 ... 200 ml/min 25 ... 500 ml/min 50 ... 1 000 ml/min	PVM31-22 PVM31-52 PVM31-13
95	117	15	10	G1/4	0.10 ... 2 l/min 0.35 ... 5 l/min	PVM31-23 PVM32-53
95	114	15	10	G1/4	1 ... 10 l/min 1 ... 20 l/min 1 ... 50 l/min	PVM34-14 PVM34-24 PVM34-54
95	122	16	10	G1/2	0.4 ... 20 l/min 4 ... 200 l/min	PVM36-24 PVM36-25
117	136	25	10	G1/2	2 ... 100 l/min 20 ... 400 l/min 20 ... 1 000 l/min	PVM37-15 PVM37-45 PVM37-16
143	164	37,5	10	G1	10 ... 500 l/min 100 ... 2 000 l/min 100 ... 4 000 l/min 150 ... 5 000 l/min	PVM38-55 PVM38-26 PVM38-46 PVM38-56



PVM31



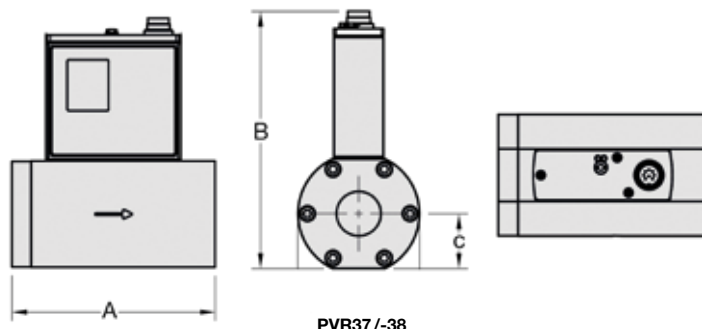
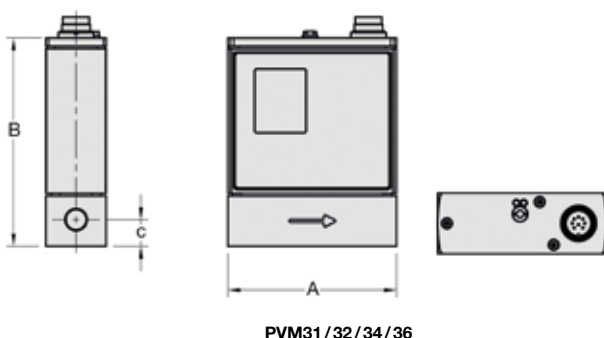
PVM37/38

Special options, add the appropriate letter oder number

deviating volume flow rate						PVM ... XX
special calibration	range or gas to be indicated on order					PVM ... Y
monitor signal	0-10 V					PVM ... U
stainless steel body	316L, P ₁ max. 20 bar					PVM ... S
EPDM elastomer						PVM ... E
Kalrez elastomer						PVM ... K
free of oil and grease	for oxygen and different gases					PVM ... L
carbon dioxide CO ₂	03	argon Ar:	05	nitrogen N ₂ :		PVM ... 07
helium He:	09	hydrogen H ₂ :	11	methane CH ₄ :		PVM ... 13
oxygen O ₂ :	15	propane C ₃ H ₈ :	16	nitrous oxide N ₂ O:		PVM ... 17

Accessories, enclosed

coupling socket	M16x1, 8-pin	straight	KM16-A8-0
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*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor

*2 only possible with PVM 31 (max. 1 l/min) and PVM 32 (max. 5 l/min).

*3 Note: indicate media, supply and outlet pressure, temperature on order

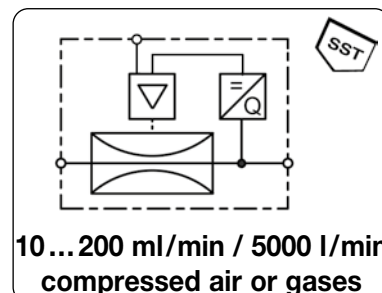
PDF CAD
www.aircom.net

* Product group



Order example:
PVM31-22

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	PVR31/32/34/36: mass flow meter and meter in the same housing PVR 37: mass flow meter and meter together at the measuring bob PVR38: 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 Operating press. max. 10 bar Differential press. device dependent		
Material	Body: aluminium, optionally SST 316L Sensor: stainless steel 316L	Elastomer: Viton®, optionally EPDM or Kalrez® strainer: stainless steel	



Prop.-V.
11

Dimensions			K _v -value (m³/h)	Operating pressure max. bar	Connection thread G	Mass flow ml/min*1 / l/min*1	Order number	E*
A	B	C						
mm	mm	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	117	15	0.066	10	G¼	10 ... 200 ml/min 100 ... 500 ml/min 100 ... 1000 ml/min 100 ... 2000 ml/min	PVR31-22 PVR31-52 PVR31-13 PVR31-23	
95	117	15	0.066	10	G¼	0.05 ... 1 l/min 0.35 ... 5 l/min 0.50 ... 7 l/min	PVR32-13 PVR32-53 PVR32-14	
95	114	15	0.066	10	G¼	0.50 ... 10 l/min 1.00 ... 20 l/min 2.50 ... 50 l/min	PVR34-14 PVR34-24 PVR34-54	
95	122	16	0.17	10	G½	1 ... 20 l/min 4 ... 50 l/min 5 ... 200 l/min	PVR36-24 PVR36-54 PVR36-25	
145	136	25	0.35	10	G½	5 ... 100 l/min 10 ... 200 l/min 20 ... 400 l/min	PVR37-15 PVR37-25 PVR37-45	
on request			1.5	10	G1	10 ... 500 l/min 100 ... 1000 l/min 100 ... 2000 l/min 100 ... 5000 l/min	PVR38-55 PVR38-16 PVR38-26 PVR38-56	



PVR31



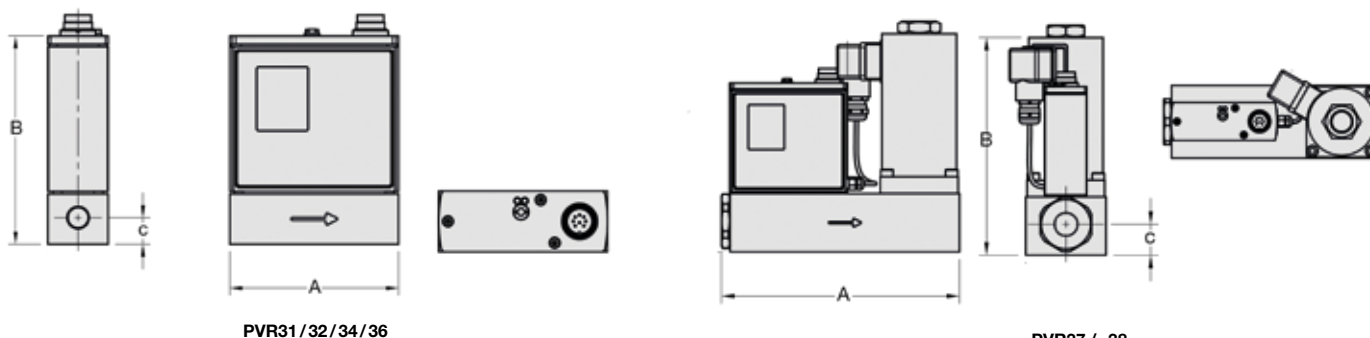
PVR37

Special options, add the appropriate letter oder number

deviating volume flow rate						PVM ... XX
special calibration	range or gas to be indicated on order					PVR ... Y
setpoint /monitor signal	0-10 V					PVR ... U
stainless steel body	316L, P ₁ max. 20 bar					PVR ... S
EPDM elastomer						PVR ... E
Kalrez® elastomer						PVR ... K
free of oil and grease	for oxygen and different gases					PVR ... L
carbon dioxide CO ₂	03	argon Ar:	05	nitrogen N ₂ :	07	PVR ... 07
helium*2 He:	09	hydrogen*2 H ₂ :	11	methane CH ₄ :	13	PVR ... 13
oxygen O ₂ :	15	propane C ₃ H ₈ :	16	nitrous oxide N ₂ O:	17	PVR ... 17

Accessories, enclosed

coupling socket	M16x1, 8-pin	straight	KM16-A8-0
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PVR31 / 32 / 34 / 36

PVR37 / -38

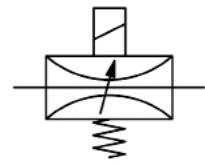
*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor.
*2 only possible with PVR 31 (max. 1 l/min) and PVR 32 (max. 5 l/min).

*3 Note: indicate media, supply and outlet pressure, temperature on order





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 Inner valve: stainless steel and brass		Elastomer: NBR/Buna-N, optionally FKM or EPDM		



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	(m³/h)	l/min*	max. bar	M5	
mm	mm	mm						

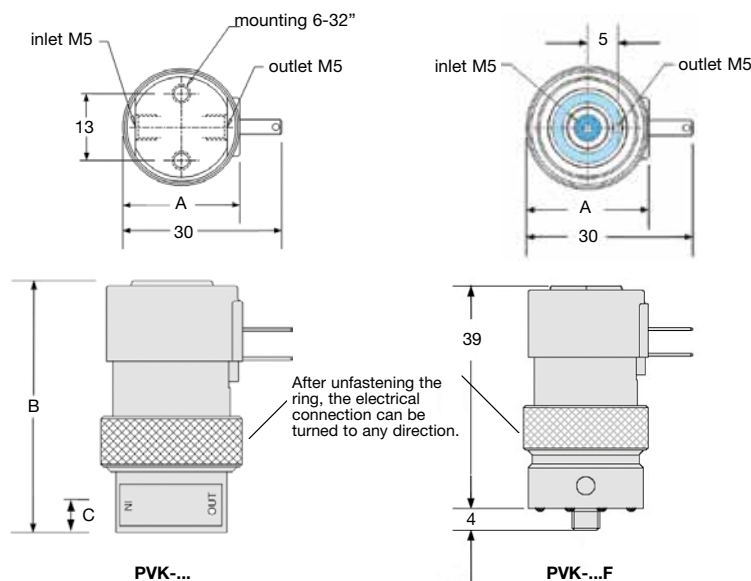
Volume flow regulator M5								PVK
0-10 V DC, 2-port/2-way valve for compressed air or non corrosive gases, with terminal lug, brass, NBR/Buna-N								
20	40	5	0.2	0.03	0...3	1.7	M5	PVK-092
						3.5		PVK-093
						7.0		PVK-097
20	40	5	0.3	0.07	0...7	1.7	M5	PVK-132
						3.5		PVK-133
						7.0		PVK-137
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

Special options, add the appropriate letter

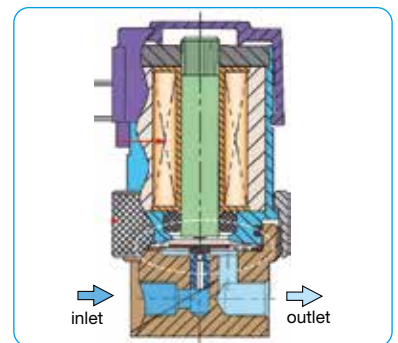
0 - 5 V	input signal max. 6.2 V,	0 - 370 mA,	13 Ω	PVK-. . .A
0 - 20 V	input signal max. 25 V,	0 - 92 mA,	218 Ω	PVK-. . .C
flange connection	for panel mounting			PVK-. . .F
FKM elastomer				PVK-. . .V
EPDM elastomer				PVK-. . .E

Accessories, enclosed

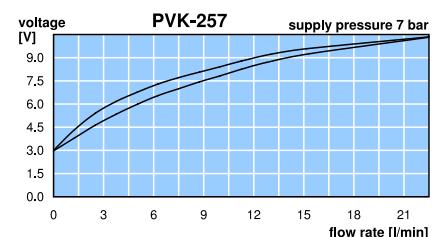
manifold block for valve with flange connection, for 2, 4 ... 12 valves



*1 at max. current consumption and max. operating pressure



cross section

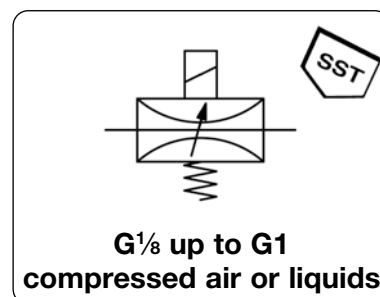


* Product group





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!

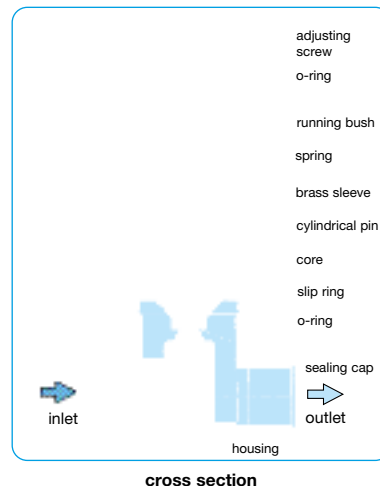


General technical features

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: FKM	Inner valve: brass and stainless steel Control housing: plastic	

Pneumatic features

Media	compressed air, non-corrosive gases or liquids, max. viscosity 21 mm²/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 $\Delta p = 1$ bar



Electrical features

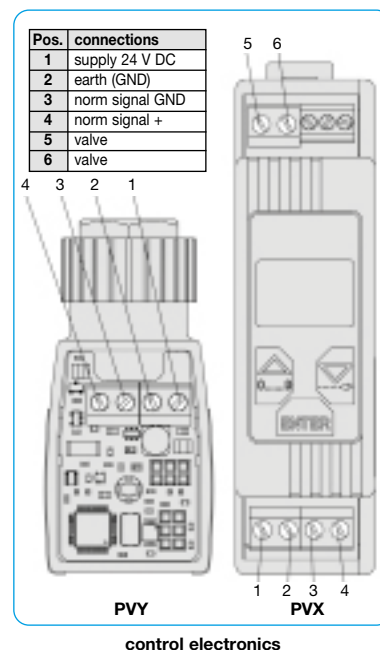
Supply voltage	24 V DC ± 10%, residual ripple max. 5%, with reverse voltage protection							
Power consumption	electronic	PV21	PV21	PV22	PV34	PV40-04	PV40-06	PV40-08
	1 W	2 W to DN 0.6	5 W from DN 0.8 on	9 W	16 W	8 W	10 W	15 W
Command signal	0-5 V, 0-10 V, 0-20 mA or 4-20 mA selectable							
Impedance	> 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 $\geq$ 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

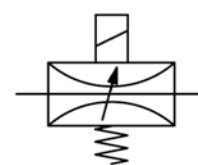
Zero point	The zero point can be decreased or increased.
Range	The range can be decreased or increased.
Ramp	The ramping potentiometer adjusts the time delay with a range of 0 to 10 s in order to dampen sudden changes of the setpoint. Increasing and decreasing ramps have the same delay.
Zero point switch	Using a DIP switch, the zero point switch can be activated or deactivated. It is not necessary to have another switch-off valve.



* Product group



Technical features	
• Media	compressed air, non-corrosive gases or liquids, except for PV40*3
• 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 < 0.25% FS, < 0.5% FS at PV22
• Repeatability	
• 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



G¹/₈ up to G1
compressed air or liquids

Dimensions			Nominal K _v -		Flow rate		Operating		Differ.-Connection		Order
A	B	C	size	value	water	air	pressure	press.	thread	number	
mm	mm	mm	DN	(m³/h)	l/min*1	l/min*2	max. bar	max. bar	G		E*

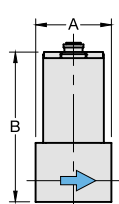
Proportional flow valve									without electronics, brass, FKM, for compressed air, vacuum or liquids			PV
25	50	7	0.1	0.00025	0...	0.004	0...	0.27	10	10	G ¹ / ₈	PV21-01
25	50	7	0.2	0.001	0...	0.017	0...	1.0	10	10	G ¹ / ₈	PV21-02
25	50	7	0.3	0.002	0...	0.033	0...	2.2	10	10	G ¹ / ₈	PV21-03
25	50	7	0.4	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



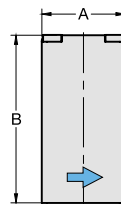
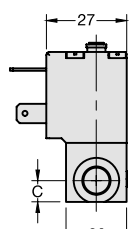
PV21



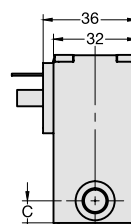
PV22



PV21



PV22

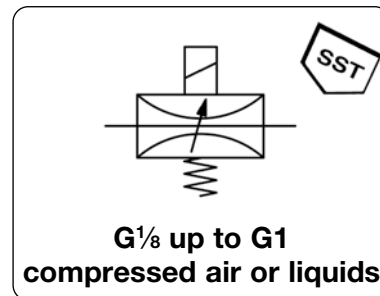


*1 at max. operating pressure and Δp = 1 bar *2 at pressure drop from 6 bar down to 5 bar
*3 PV40 is not suitable for compressed air and vacuum as it is pilot operated

* Product group



- Media - Signal range - Pressure range - Orifice - Flow rate - Adjustment - Zero switch-off	Technical features compressed air, non-corrosive gases or liquids, except for PV40*3		- Linearity - Hysteresis - Response sensitivity - Repeatability - Regulating time - Protection class - Impedance		< 10% FS < 5% FS < 0.1% FS at DN < 0.8 mm < 0.25% FS at DN ≥ 0.8 mm < 1% FS at PV40 < 0.25% FS, < 0.5% FS at PV22 depending on type: < 15 ms, < 20 ms, < 50 ms or < 200 ms IP65 with plug > 20 kΩ at V, < 200 Ω at mA
	0-5 V, 0-10 V, 0-20 mA, 4-20 mA				
	vacuum...2 / 16 bar				
	DN 0.1 ... DN 20				
	max. 1185 l/min for air, max. 90 l/min for water				
	zero point, range and ramp				
	ensures reliable closure of the valve				



Dimensions			Nominal K _v -size		Flow rate		Operating pressure		Differ.-Connection		Order number	
A	B	C	size	value	water	air	max. bar	max. bar	thread	G		
mm	mm	mm	DN	(m ³ /h)	l/min*1	l/min*2						

Proportional flow valve											PV
without electronics, brass, FKM, for compressed air, vacuum or liquids											
55	105	11	4.0	0.45	0... 7.5	0... 485	8	4	G ³ / ₈		PV34-40
55	105	11	4.0	0.45	0... 7.5	0... 485	8	8	G ³ / ₈		PV34-40B
55	105	11	6.0	0.80	0... 13.3	0... 860	4	2	G ¹ / ₂		PV34-60
55	105	11	6.0	0.80	0... 13.3	0... 860	4	4	G ¹ / ₂		PV34-60B
55	105	11	8.0	1.10	0... 18.3	0... 1185	2	1	G ¹ / ₂		PV34-80
55	105	11	8.0	1.10	0... 18.3	0... 1185	2	2	G ¹ / ₂		PV34-80B
50	89	12	10	1.4	0... 25.0*3	-	10		G ¹ / ₂		PV40-04
58	110	14	13	2.5	0... 45.0*3	-	10		G ³ / ₄		PV40-06
80	155	16	20	5.0	0... 90.0*3	-	10		G1		PV40-08



PV34



PV40

Special options, add the appropriate letter

stainless steel body	SST 316, W.-No. 1.4401	for PV21 to PV34	PV...S
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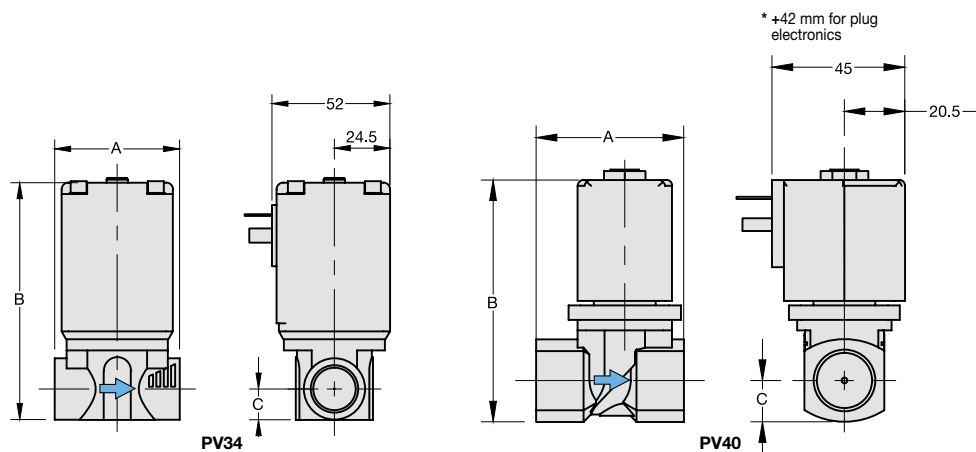
Accessories, enclosed

plug electronics	24 V DC, 0-5 V, 0-10 V, 0/4 mA-20 mA	for PV22 to PV40	PVY-06
clip-on electronics	24 V DC, 0-5 V, 0-10 V, 0/4 mA-20 mA	for PV21	PVX-01
		for PV22 to PV40	PVX-02
coupling socket	according to DIN 43650 form B	for PV21	2285-0
	according to DIN 43650 form A	for PV22 to PV40	2286-0



PVY

PVX



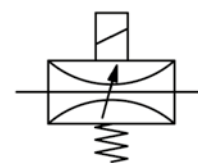
PV34

PV40

*1 at max. operating pressure and Δp = 1 bar *2 at pressure drop from 6 bar down to 5 bar
*3 PV40 is not suitable for compressed air and vacuum as it is pilot operated



Description	The proportional flow valve can be controlled either by 24 V DC or optionally by a plug amplifier with switchable signals.		
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
	IP 65 with coupling socket (Pg 9P or PG 11P)	Operating pressure	see chart, max. 12 bar
	-10 °C to 90 °C / 14 °F to 194 °F	Mounting position	any
Viscosity max.		PV202, G$\frac{1}{4}$ / G$\frac{3}{8}$	PV203, G$\frac{3}{8}$ / G$\frac{1}{2}$
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
		brass/SST, PTFE, FKM	brass/SST, PTFE, NBR/Buna-N



SST

DN 1.2 up to DN 12.5
compressed air or liquids

Dimensions	Media	Nominal	K _v -	Flow	Supply	Connection	Order
A B C	A: air W: water	size DN	value (m ³ /h)	rate l/min*1	max. bar	thread G	number
mm mm mm							



Proportional flow valve

24 V DC, direct control, without amplifier,
with coupling socket, made of brass

PV202 / PV203

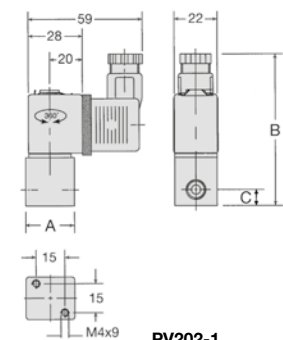
25	78	8	A	1.2	0.05	0... 70	8.0	G $\frac{1}{8}$	PV202-1-12
				1.6	0.07	0...110	6.0		PV202-1-16
				2.4	0.13	0... 70	4.0		PV202-1-24
				3.2	0.18	0...105	2.5		PV202-1-32
40	95	20	A/W*3	1.2	0.05	0... 60	16	G $\frac{1}{4}$	PV202-2-12
				2.4	0.12	0...110	8.0		PV202-2-24
				3.2	0.24	0...170	4.0		PV202-2-32
				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 $\frac{3}{8}$	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 $\frac{3}{8}$	PV203-3-125W
				12.5	2.10	0... 37*2	10	G $\frac{1}{2}$	PV203-4-125W

Special options, add the appropriate letter

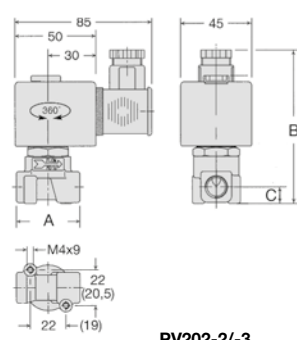
for water or oil		for PV202, G $\frac{1}{4}$ and G $\frac{3}{8}$	PV202-.-.W
stainless steel body	NPT connection thread, FKM elastomere	for PV202	PV202-.-.S
12 V DC	voltage signal		PV0.-.-.12V

Accessories, enclosed

plug amplifier	24 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	for PV202, G $\frac{1}{8}$	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 $\frac{1}{8}$	PVY-08
		for all others	PVY-09



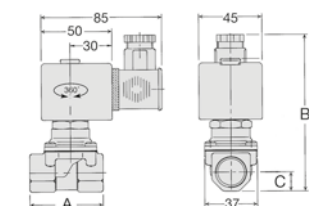
PV202-1



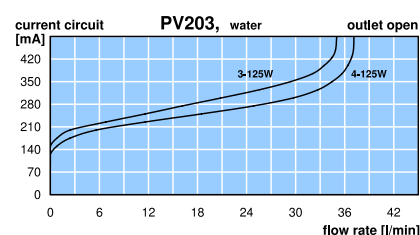
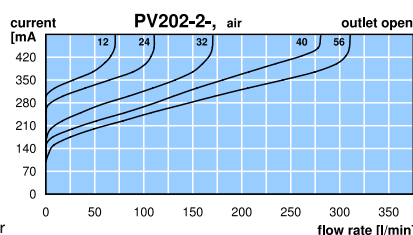
PV202-2/-3



cross-section



PV203-3/-4



*1 for compressed air at operating pressure 6 bar and $\Delta p = 1$ bar
*2 flow rate for water since valve is pilot-controlled
*3 for liquids add W to order number of type PV202-2/-3

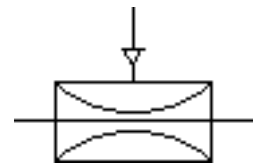
* Product group

PDF CAD
www.aircom.net



Order example:
PV202-1-12

Description	The 2-port/2-way 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 to 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.		
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		



DN10 up to DN150

Dimensions	Nominal size	Volume of control chamber	Pilot port	Operating pressure	Connection thread	Order number
A mm	Ø mm	DN	I	G	max. bar	G / flange

Flow control valve						operating pressure max. 4 bar, pilot pressure max. 2.5 bar above operating pressure	Q
80	44	10	0.03	G $\frac{1}{4}$	4	G $\frac{3}{8}$	QP10 -03NR
95	50	15	0.04	G $\frac{1}{4}$	4	G $\frac{1}{2}$	QP15 -04NR
110	58	20	0.05	G $\frac{1}{4}$	4	G $\frac{3}{4}$	QP20 -06NR
125	65	25	0.07	G $\frac{1}{4}$	4	G1	QP25 -08NR
140	83	32	0.10	G $\frac{1}{4}$	4	G1 $\frac{1}{4}$	QP32 -10NR
150	95	40	0.13	G $\frac{1}{4}$	4	G1 $\frac{1}{2}$	QP40 -12NR
200	100	50	0.23	G $\frac{1}{4}$	4	G2	QS50 -16NR
240	134	65	0.49	G $\frac{1}{4}$	4	G2 $\frac{1}{2}$	QS65 -20NR
290	154	80	0.95	G $\frac{1}{4}$	4	G3	QS80 -24NR
280	220	100	1.80	G $\frac{3}{8}$	4	flange	QS100-FLNR
350	250	125	3.30	G $\frac{3}{8}$	4	flange	QS125-FLNR
420	285	150	6.40	G $\frac{3}{8}$	4	flange	QS150-FLNR

QP made of POM, DN10 - DN25



QP made of POM, DN32 - DN40



QS50 made of aluminium with POM thread



QS100 made of aluminium die-cast

Special options, add the appropriate letter

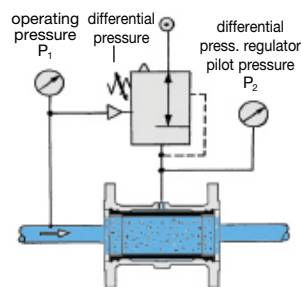
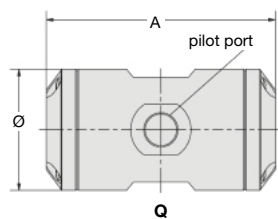
flange connection	according to DIN 2532, PN10	from G1 $\frac{1}{4}$ on	Q ... -FL ...
sleeve NR	natural rubber, black	80 °C / 176 °F	Q ... - ... NR
sleeve NRL	rubber, suitable for food, black	70 °C / 158 °F	Q ... - ... NL
sleeve NRLH	rubber, suitable for food, light	70 °C / 158 °F	Q ... - ... NH
sleeve 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



closing sequence



solenoid valve control



constant cross section at changing pressure

signal ↓



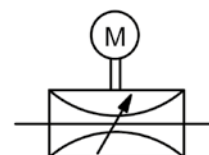
cross section



Prop.-V.

11

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 EN 61000-6-3, EN 61000-6 and 2014/30/EU.	
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 Mounting position: vertical upwards ± 60 °C



G¹/₂ up to G1
compressed air or liquids

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	
mm	mm	mm							

Proportional flow valve					DC motor type 50, with potentiometer, 120 Ncm, 24 V DC, switching time 5 s*2			P8	
65	147	13	15	1.1	0...20	0...1000	16	G ¹ / ₂	P822-50
65	147	13	20	3.4	0...60	0...3000	6	G ¹ / ₂	P82A-50
95	164	24	20	4.4	0...70	0...3500	6	G ³ / ₄	P823-50
95	164	24	20	4.4	0...70	0...3500	6	G1	P824-50

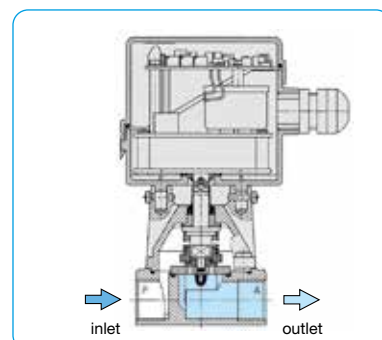
Special options, add the appropriate letter

cartridge installation instead of thread for DN 15 P825-..

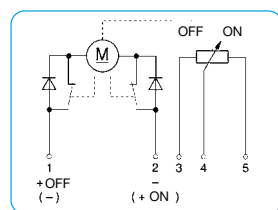


P8

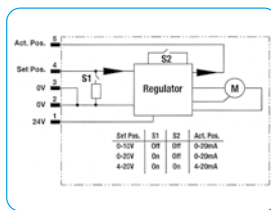
Description	Figure-No.	Watt	Δp max./Torque	Switching time*2
DC motor w/ potentiometer, 120 Ncm	①	1,5 W	10 bar/120 Ncm f. G ¹ / ₂	10-14 s
DC motor w/ potentiometer, 120 Ncm	①	1,5 W	6 bar/120 Ncm f. G ³ / ₄ , G1	10-14 s
DC motor w/ controllerr	②	3,8 W	16 bar/220 Ncm f. G ¹ / ₂	10-11 s
AC motor 50 Hz	③	3,0 W	6 bar/120 Ncm f. G ³ / ₄ , G1	10 s
stepper motor	④	5,0 W	6 bar/120 Ncm f. G ³ / ₄ , G1	10 s
FKM elastomer				P82...V
EPDM elastomer				P82...E
free of grease and oil				P82...L
			specifically cleaned, suitable for oxygen	



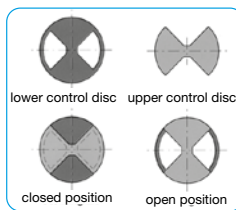
cross-section



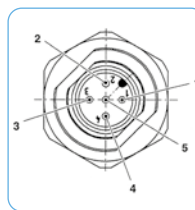
① DC motor w/ potentiometer 15



② with position controller 51



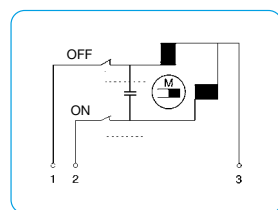
control disc



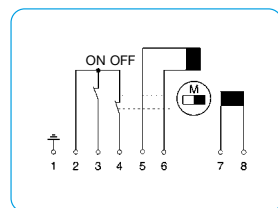
pin configuration 50

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

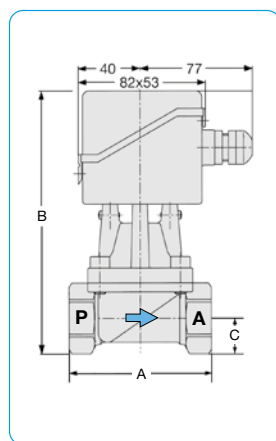
connection diagram



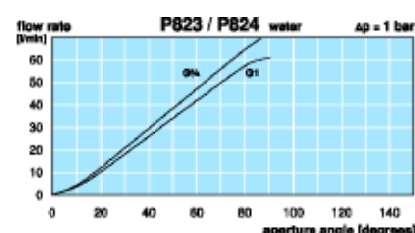
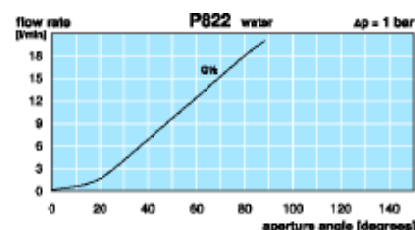
③ synchronous motor 36



④ stepper motor 38



P8



* Product group

*1 at 6 bar supply pressure and Δp = 1 bar

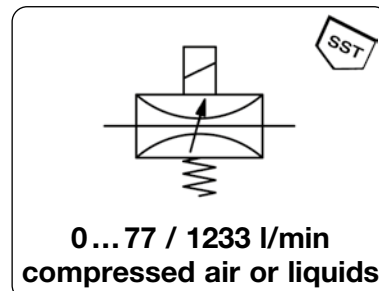
*2 subject to supply pressure

PDF CAD
www.aircom.net



Order example:
P822-50

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 $\frac{1}{8}$ electrical: 0-10 V, optionally 4-20 mA, supply 24 V DC $\pm 10\%$, power consumption 150 mA/3.6 W analog position feedback signal 0-10 V / 4-20 mA (after automatic balance)		
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		
Mounting position	any		
Linearity / Hysteresis	< 2% FS		
Failsafe	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 Proportional valve body: aluminium, PA and FV		
	Protection Class	IP 66	
	Repeatability	< 1.0% FS	
		Cone seal: PTFE	



Dimensions			Nominal	K _v -	Supply	Flow rate		Connection	Order
A	B	Ø*1	size	value	max.	water	air	thread	number
mm	mm	mm	DN	(m ³ /h)	bar	l/min	l/min	G	

Volumenstromregler						2/2-Wege, NC, Bronze, Steuerdruck 4...8 bar, für Luft oder Wasser, 0-10 V DC, 24 V DC, failsafe				PVE
65	155	63	15	4.6	10	0 ...	14	5 000	G $\frac{1}{2}$	PVE1-04B
75	185	63	20	7.1	16	0 ...	118	7 700	G $\frac{3}{4}$	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 $\frac{1}{4}$	PVE1-10D
110	298	125	32	22	16	0 ...	367	23 800	G1 $\frac{1}{4}$	PVE1-10E
120	245	63	40	29	4	0 ...	483	31 400	G1 $\frac{1}{2}$	PVE1-12C
120	262	90	40	29	8	0 ...	483	31 400	G1 $\frac{1}{2}$	PVE1-12D
120	314	125	40	44	16	0 ...	733	47 600	G1 $\frac{1}{2}$	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 $\frac{1}{2}$	PVE1-20D
190	352	125	65	74	6	0 ...	1 233	80 000	G2 $\frac{1}{2}$	PVE1-20E

Special options, add the appropriate letter

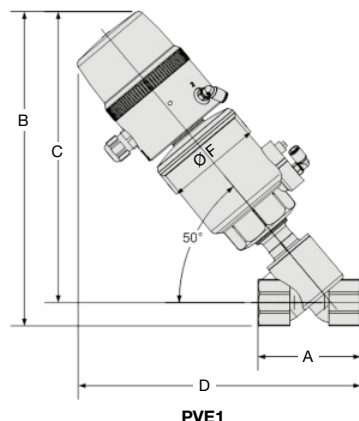
fail freeze	if supply voltage fails, outlet pressure will be frozen	PVE... .3
SST body	stainless steel 316L, material no. 1.4401	PVE... .S
4-20 mA	input signal	PVE... .I
for oxygen *2	specially cleaned, with oxygen grease, for G $\frac{1}{2}$ to G2	PVE... .15
cascade control	double loop, 0-10 V	PVE... .KU
	double loop, 4-20 mA	PVE... .KI
	double loop, frequency input	PVE... .KF
electr. connection M12	with coupling socket	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

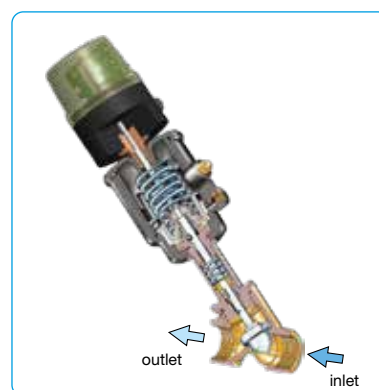
PVE with cascade control	
1	24 V DC supply voltage
2	GND (earth) supply
3	+ setpoint (0-10 V / 4-20 mA)
4	GND (earth) setpoint
5	external signal input
6	
7	+24 V DC ON/OFF output signal

connecting plan

Øhead*1	thread.	C	D	ØF
63 mm	$\frac{1}{2}$	169	170	85
	$\frac{3}{4}$	170	175	85
	1	172	179	85
	1 $\frac{1}{4}$	204	217	85
	1 $\frac{1}{2}$	215	224	85
	2	224	249	85
90 mm	1	189	197	118
	1 $\frac{1}{4}$	221	236	118
	1 $\frac{1}{2}$	232	243	118
	2	241	267	118
	2 $\frac{1}{2}$	257	299	118
125 mm	1 $\frac{1}{4}$	273	284	156
	1 $\frac{1}{2}$	283,5	291	156
	2	293	315	156
	2 $\frac{1}{2}$	308	347	156



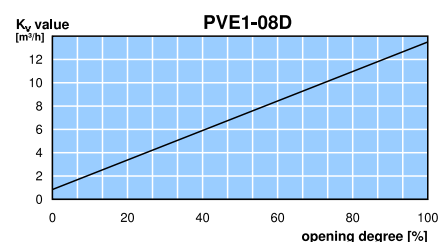
PVE1
with 2-port/2-way valve



cross section



parabolic piston enables stroke-proportional K_v value change



*1 Ø of pilot head

*2 max. 15 bar operating pressure and 60 °C / 140 °F media temperature

* Product group



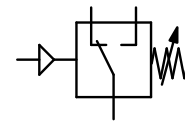
PRESSURE SWITCHES

	DESCRIPTION	PRESSURE RANGE			CONNECTION	SERIES	PAGE
		bar			thread		
PRESSURE	many variations	0,1	... 1	/ 200	G $\frac{1}{8}$ m u. G $\frac{1}{4}$ m	DS16...DS18	12.02
	low pressure, handwheel	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m u. G $\frac{1}{4}$ m	DSP	12.03
	low pressure, plastic	0.003	... 0.03	/ 7	$\frac{1}{8}$ "NPTm	F4200	12.04
	small hysteresis	0.014	... 0.14	/ 7	$\frac{1}{8}$ "NPTm	F4300	12.05
VACUUM	mit Handrad	-0.005	... -0.02	/ -0,7	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ a	DSP-V	12.03
	Kunststoff	-0.001	... -0.01	/ -1	$\frac{1}{8}$ "NPTm	F4200-X	12.04
	auch flanschbar	-0.007	... -0.17	/ -1	$\frac{1}{8}$ "NPTm	F4300-X	12.05
DIFFERENTIAL PRESS.	with handwheel	5	... 20	/ 50 mbar	nipple	DSP-W	12.03
ATEX	gas, EXII 2G Ex ia T4	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ m	DSP-EX	12.03
PNEUM. SIGNAL	pressure	0.07	... 0.35	/ 7	$\frac{1}{8}$ "NPTm	PP700/PP701	12.06
	vacuum	-0.03	... 0.17	/ -0,85	$\frac{1}{8}$ "NPTm	VP700/VP701	12.06
STAINLESS STEEL	many options	0.3	... 1.5	/ 200	G $\frac{1}{4}$ m	DS18	12.02
	low pressure, handwheel	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ m	DSP	12.03



12

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	DS16: NO contact, optionally NC contact	DS17/18: SPDT switch	
Contact load	DS16: 2 A at 42 V DC,	DS17: 4 A at 42 V DC,	DS18: 4 A at 250 V AC
Electrical connector	DS16: screw terminal,	DS17/18: spade terminal 6.3 x 0.8 mm, optionally also for 16	
Hysteresis	DS16: 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, optionally stainless steel at DS18 Elastomer: NBR/Buna-N, optionally EPDM or FKM		



0,1 ... 1/200 bar

Pressure transmission by	Overpressure protection < bar	Measuring tolerance ± bar	Measurement range bar	Order number
--------------------------	-------------------------------	---------------------------	-----------------------	--------------

Pressure switch G1/4m, 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

Pressure switch G1/4m, 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

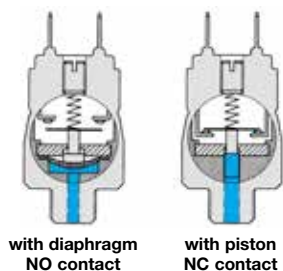
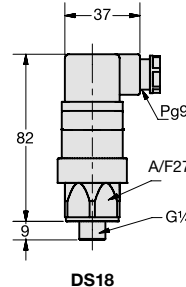
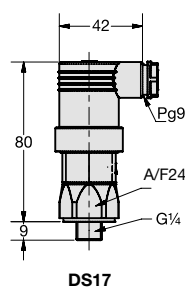
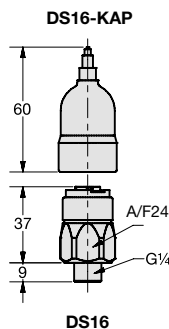
Pressure switch G1/4m, SPDT 250V		steel, NBR/Buna-N, with coupling socket		DS18
diaphragm	100	0.2	0.3 ... 1.5	DS18-A
	300	1.0	1.0 ... 10	DS18-C
	300	3.0	10 ... 50	DS18-D
	300	5.0	10 ... 100	DS18-E
piston	600	5.0	50 ... 200	DS18-H

Special options, add the appropriate letter

EPDM elastomer			DS1.-.E
FKM elastomer			DS1.-.V
free of oil and grease	suitable for oxygen, max. 10 bar		DS1.-.L
NC contact	instead of normally open contact	for DS16	DS1.-.1
spade terminal	6.3 x 0.8 mm, galvanised	for 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 DS16	DS16-KAP
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with diaphragm NO contact

with piston NC contact

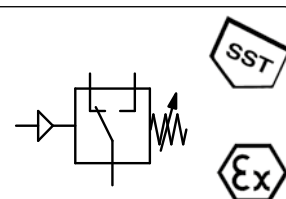
* Product group

PDF CAD
www.aircom.net



Order example:
DS16-A

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	Hysteresis	see chart
Contact load	2 A at 24 V DC, 6 A at 250 V AC	Vibration resistance	20 g
Electrical connector	AMP spade terminal, 6.3 x 8 mm, according to DIN 46244	Switching time	30 ms
Life cycle	10 ⁶ switching cycles	Protection class	IP 65 w/ coupling socket
Certifications	VDI, TÜV design test, optionally Atex		
Mounting position	any, but indication needed for switch point < 100 mbar		
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 G¹/₄ male, for low pressure DSP-D

Pressure switch G ¹ / ₄ male	wetted sections: brass and NBR/Buna-N, scale toleranz 10%	DSP-D
68 45	0.5 3 mbar	DSP-DB2
	0.5 5 mbar	DSP-DB5
	0.5 10 mbar	DSP-DC1
	1.0 20 mbar	DSP-DC2
	1.0 50 mbar	DSP-DC5
	10 150 mbar	DSP-D01
	10 250 mbar	DSP-D02
	10 500 mbar	DSP-D03
	25 0.5 / 2 bar*	DSP-D06
	25 0.5 / 2 bar*	DSP-D09
	25 0.5 / 2 bar*	DSP-D12



DSP-D09

Pressure switch G¹/₄ male DSP-V

Pressure switch G ¹ / ₄ male	wetted sections: brass and NBR/Buna-N, scale toleranz 10%	DSP-V
68 45	0.5 -5 ... -20 mbar	DSP-V02
	0.5 -10 ... -50 mbar	DSP-V05
	0.5 -25 ... -100 mbar	DSP-V10
	0.5 -50 ... -125 mbar	DSP-V12
	1.0 -75 ... -200 mbar	DSP-V20
	1.0 -100 ... -300 mbar	DSP-V30
	1.0 -200 ... -500 mbar	DSP-V50
	1.0 -300 ... -700 mbar	DSP-V70



DSP-W

Differential press. switch, nipple Ø 6.5 DSP-W

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	DSP-W20
	0.1 5 mbar	DSP-W50



DS-KAP5

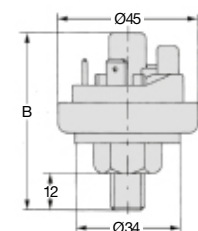
DS-KAP4

Special options, add the appropriate letter

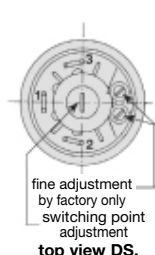
factory-set pressure		DSQ-...
G¹/₈ male	pressure port thread, (not for DSP-W)	DSP-...1
stainless steel port	pressure port thread, 1.4401, (not for DSP-W)	DSP-...S
FKM elastomer	max. 130 °C / 266 °F	DSP-...V
EPDM elastomer		DSP-...E
increased overpressure	max. 4 bar for pressure measurement range < 1 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-i-Atex	II 1/2G Ex ia IIB T4 and II 1/2G Ex ia IIC T4	DSP-...SEX

Accessories, enclosed

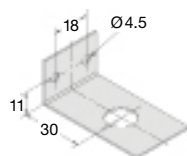
mounting bracket	made of steel, including nut	for G ¹ / ₄	BW14-01
protection cap	angular, cable feedthrough Ø 5 mm	IP44	DS-KAP4
	angular, high-strength cable gland Pg 9	IP54	DS-KAP5
		IP65	DS-KAP6



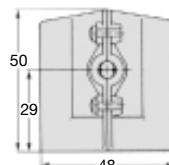
DSP/ DSQ



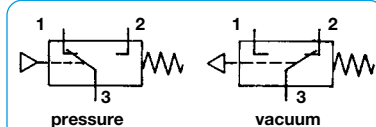
top view DS.



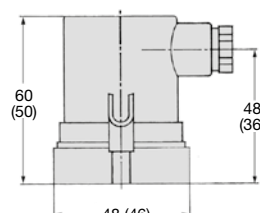
BW14-01



DS-KAP4



pin configuration



DS-KAP5 (-KAP6)

* 0.5 bar at the beginning, 2 bar at the end of the pressure range

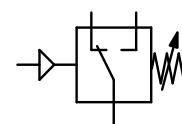
* Product group

PDF CAD
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Order example
DSP-DB2

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	
	Diaphragm: polyurethane	Media non-contact parts: nylon, carbon fibre nylon, acetal	



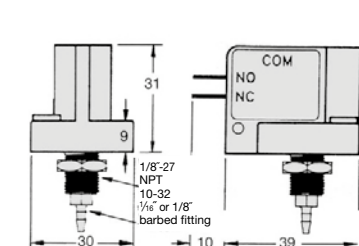
3 ... 30 mbar / 7 bar
-1 ... -10 mbar / -1 bar

Description	Contact load	Hysteresis typical	Hysteresis max.	Over-pressure max. bar	Measurement range bar	Order number
	max. A	mbar	mbar			

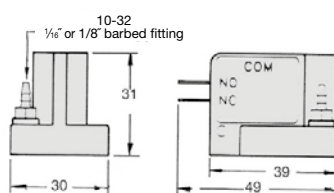
Pressure and Vacuum Switch						pressure port 1/8" NPT male with nylon nipple Ø 1/16", and covering cap, SPDT switch	F4200
pressure switch	3	3	10	1	0.003 ... 0.03		F4200- 0,5PT
	10	7	20	2	0.014 ... 0.14		F4200- 2PT
	10	30	50	2	0.035 ... 0.35		F4200- 5PT
	10	70	110	3	0.035 ... 1.0		F4200- 15PT
	10	120	160	4	0.035 ... 2.1		F4200- 30PT
	10	240	350	8	0.035 ... 4.2		F4200- 60PT
	10	400	500	8	0.070 ... 7.0		F4200-100PT
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

Special options, add or change the appropriate letter

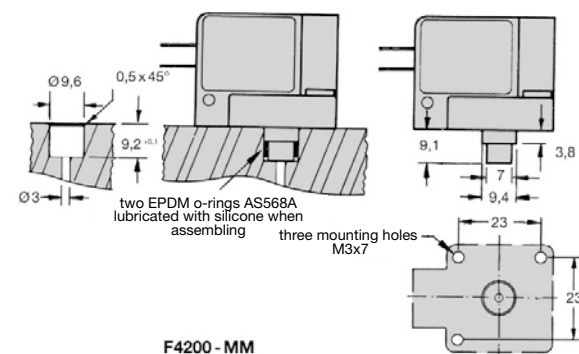
flush mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4200-...FM
panel mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4200-...PM
manifold mounting		F4200-...MM
barbed fittings	for FM and PM, made of nylon, Ø 1/16", Ø 2 mm nylon, Ø 1/8", Ø 4 mm polysulphone, Ø 1/16", Ø 2 mm polysulphone, Ø 1/8", Ø 4 mm	F4200-...B80 Stand. F4200-...B85 F4200-...P80 F4200-...P85 F4200-...1B F4200-...X F4200-...L
gold contact		
factory-set switchpoint	± 5%, indicate on order	
free of oil and grease	specially cleaned, suitable for oxygen	



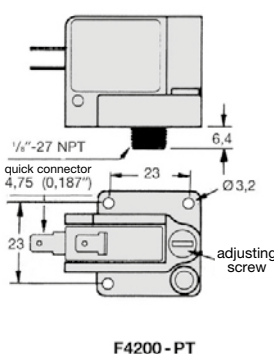
F4200 - PM



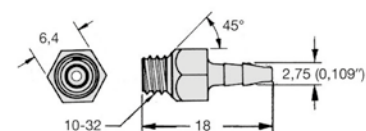
F4200 - FM



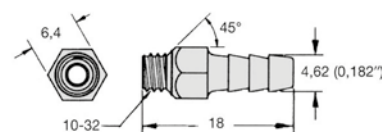
F4200 - MM



F4200 - PT



B80 / P80



B85 / P85

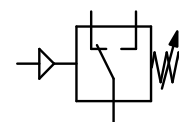
* Product group

PDF CAD
www.aircom.net



Order example:
F4200-0,5PT

Description	Pressure and vacuum switch with electrical outlet signal and low hysteresis. 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 or 4 A at 230 V AC, see chart		
Electrical connector	0.110" (2.8 mm) quick connector for Molex/ETC 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	
	Diaphragm: polyurethane	Media non-contact parts: nylon, carbon fibre nylon, acetal	



14 ... 140 mbar / 7 bar
-7 ... -170 mbar / -1 bar

Switches



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Description	Contact load	Hysteresis typical	Hysteresis max.	Over-pressure max. bar	Measurement range bar	Order number
	max. A	mbar	mbar	max. bar	bar	



Pressure / vacuum switch, low hysteresis

pressure port 1/8" NPT male, w. covering cap, SPDT switch

F4300

pressure switch	3	7	14	2	0.014 ... 0.14	F4300- 2PT
	4	14	24	2	0.035 ... 0.35	F4300- 5PT
	4	30	41	3	0.035 ... 1.0	F4300- 15PT
	4	40	70	4	0.035 ... 2.1	F4300- 30PT
	4	100	170	8	0.035 ... 4.2	F4300- 60PT
	4	140	240	8	0.070 ... 7.0	F4300-100PT
vacuum switch	4	10	20	-1	-0.007 ... -0.17	F4300-X 5PT
	4	20	34	-1	-0.015 ... -0.34	F4300-X10PT
	4	34	50	-1	-0.050 ... -1.00	F4300-X30PT



F4300-...PT



F4300-...FM



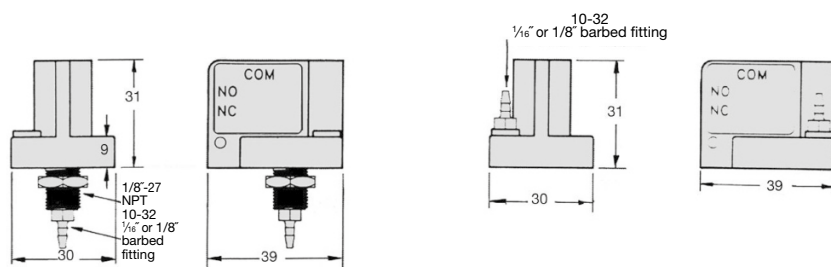
F4300-...PT



F4300-...MM

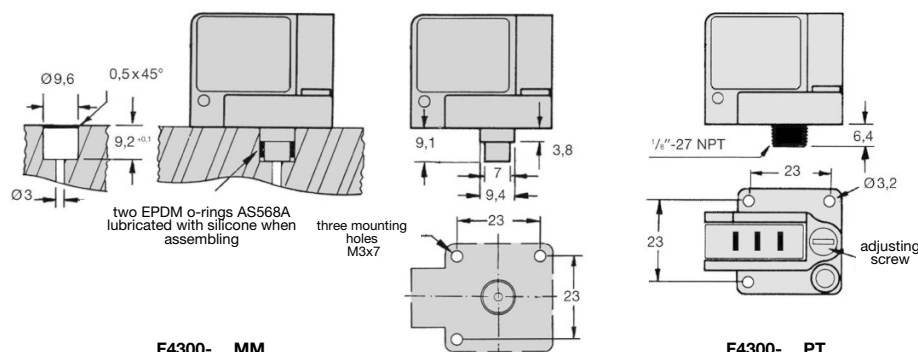
Special options, add or change the appropriate letter

flush mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4300-...FM
panel mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4300-...PM
manifold mounting		F4300-...MM
barbed fittings	for FM and PM, made of nylon, Ø 1/16", Ø 2 mm	F4300-...B80 Stand.
	nylon, Ø 1/16", Ø 4 mm	F4300-...B85
	polysulphone, Ø 1/16", Ø 2 mm	F4300-...P80
	polysulphone, Ø 1/8", Ø 4 mm	F4300-...P85
gold contact	0.1 A at 125 V AC	F4300-...1B
factory-set switchpoint	± 5%, indicate on order	F4300-...X
free of oil and grease	specially cleaned, suitable for oxygen	F4300-...L



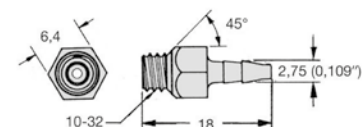
F4300-...PM

F4300-...FM

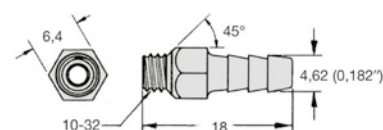


F4300-...MM

F4300-...PT



B80 / P80



B85 / P85

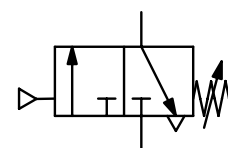
* Product group

PDF CAD
www.aircom.net



Order example:
F4300-2PT

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	Mounting position	any
	Diaphragm: polyurethane	Spring:	stainless steel
		Media non-contact parts:	nylon, carbon fibre nylon, acetal



70 ... 350 mbar / 7 bar
-30 ... -170 / -850 mbar

Description	Supply pressure of switching valve	Hysteresis typical mbar	max. mbar	Over-pressure max. bar	Measurement range bar	Order number
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Switch with pneumatic output, NO

1/8" NPT male, supply pressure 1.4...8 bar

PP / VP700

pressure switch	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP700- 5PT
		20	40	4	0.07 ... 1.0	PP700- 15PT
		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
vacuum switch	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP700- 5PT
		20	40	-1	-0.03 ... -0.34	VP700- 10PT
		35	70	-1	-0.07 ... -0.85	VP700- 30PT

Switch with pneumatic output, NC

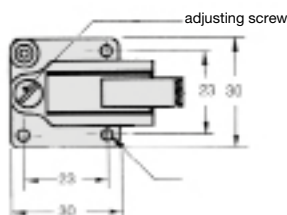
1/8" NPT male, supply pressure 1.4...8 bar

PP / VP701

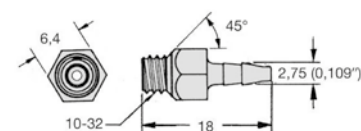
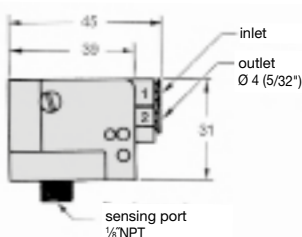
pressure switch	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP701- 5PT
		20	40	4	0.07 ... 1.0	PP701- 15PT
		20	70	4	0.07 ... 2.1	PP701- 30PT
		35	140	8	0.20 ... 4.2	PP701- 60PT
		50	240	8	0.35 ... 7.0	PP701-100PT
vacuum switch	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP701- 5PT
		20	40	-1	-0.03 ... -0.34	VP701- 10PT
		35	70	-1	-0.07 ... -0.85	VP701- 30PT

Special options, add or change the appropriate letter

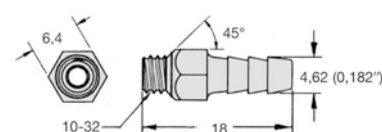
flush mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... FM
panel mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... PM
manifold mounting			.P70.-... MM
barbed fitting	for FM and PM,	nylon, Ø 1/16", Ø 2 mm	.P70.-... B80 Stand.
		nylon, Ø 1/8", Ø 4 mm	.P70.-... B85
		polysulphone, Ø 1/16", Ø 2 mm	.P70.-... P80
		polysulphone, Ø 1/8", Ø 4 mm	.P70.-... P85
free of grease and oil	specialy cleaned, suitable for oxygen		.P70.-... L



PP / VP70



B80 / P80



B85 / P85

*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)

* Product group



PRESSURE TRANSDUCER

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
for gases and liquids, also vacuum	0 ... 50 mbar / 1000 bar	G1/8a - G1/2a	D1	13.02
for high temperature, accurate to 0.1%	0 ... 50 mbar / 1000 bar	G1/4m u. G1/2m	DA	13.04
for differential pressure, also vacuum	0 ... 6 mbar / 1 bar	G1/8	D3	13.05
elekt. signal with pressure indicator	-1 ... 1 mbar / 10 bar	G1/8a	DSB/DSC	13.06



Description

Media

Supply voltage

Electrical connector

Output signal

Repeatability

Temperature sensitivity

Ambient temperature

Media temperature

Shock resistance

Material

The operating pressure is converted into a proportional electrical signal by a stainless steel relative pressure sensor, amplified and reported as an analog current or voltage signal.
compressed air, natural gases or liquids

8-35 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA: max. power consumption 25 mW

$\leq \pm 0,2\%$ FS

$\leq \pm 1$ % FS

0 °C bis 80 °C

0 °C bis 80 °C

100 g (11 ms)

Body: Stainless steel 316L

Coupling socket: polyacrylamide 50% GF UL 94 V-0

with reverse voltage protection, max. current consumption 4 mA

Protection class IP65

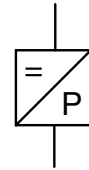
0-10 V: max. power consumption 8 mW

Long-term stability $\leq \pm 0,5\%$ FS

Vibration resistance 10 g

O-Ring: NBR

Measuring cell: Stainless steel 316L



**0,5% precise
Compr. air or liquids**

Dimensions			Under-pressure	Over-pressure	Measurement range	Order number
B	Ø	SW	max. bar	max. bar	bar	(4-20 mA)
mm	mm	mm				



Miniature Pressure Transducer

G1/4 male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket

D1

47	29	27	-1	3.0	-1 ...	0 bar	D1A-V00
				3.0	-1 ...	1.5 bar	D1A-V015
				6.0	-1 ...	3 bar	D1A-V03
				10	-1 ...	5 bar	D1A-V05
				18	-1 ...	9 bar	D1A-V09
				30	-1 ...	15 bar	D1A-V15
				48	-1 ...	24 bar	D1A-V24
				3.0	0 ...	1 bar	D1A-01
				3.2	0 ...	1.6 bar	D1A-016
				5.0	0 ...	2.5 bar	D1A-025
				8.0	0 ...	4 bar	D1A-04
				12	0 ...	6 bar	D1A-06
				20	0 ...	10 bar	D1A-10
				32	0 ...	16 bar	D1A-16
				50	0 ...	25 bar	D1A-25
				80	0 ...	40 bar	D1A-40
				60	0 ...	60 bar	D1A-60
				200	0 ...	100 bar	D1A-D1
				400	0 ...	200 bar	D1A-D2
				600	0 ...	300 bar	D1A-D3
				800	0 ...	400 bar	D1A-D4
				1200	0 ...	600 bar	D1A-D6

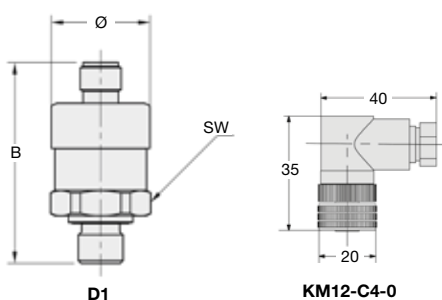


D1



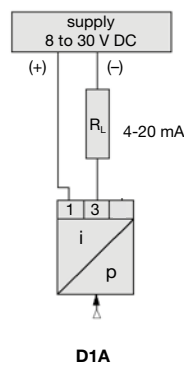
KM-A4-0

coupling socket / cable	
pin	colour
1	brown
2	white
3	blue
4	black

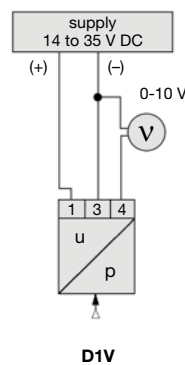


D1

KM12-C4-0



D1A



D1V



Top view

Description

Media

Supply voltage

Electrical connector

Output signal

Repeatability

Temperature sensitivity

Ambient temperature

Media temperature

Shock resistance

Material

The operating pressure is converted into a proportional electrical signal by a stainless steel relative pressure sensor, amplified and reported as an analog current or voltage signal.
compressed air, natural gases or liquids

8-35 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA: max. power consumption 25 mW

≤ ± 0,2% FS

≤ ± 1 % FS

0 °C bis 80 °C

0 °C bis 80 °C

100 g (11 ms)

Body: Stainless steel 316L

Coupling socket: polyacrylamide 50% GF UL 94 V-0

with reverse voltage protection, max. current consumption 4 mA

Protection class IP65

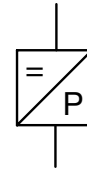
0-10 V: max. power consumption 8 mW

Long-term stability ≤ ± 0,5% FS

Vibration resistance 10 g

O-Ring: NBR

Measuring cell: Stainless steel 316L



**0,5% precise
Compr. air or liquids**

Dimensions			Under-	Over-	Measurement	Order
B	Ø	SW	pressure	pressure	range	number
mm	mm	mm	max. bar	max. bar	mbar	(4-20 mA)



Miniature Pressure Transducer

G1/4 male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket

D1

47	29	27	-0.2	0.2	-50 ...	50 mbar	D1A-B5V
			-0.2	0.2	-50 ...	0 mbar	D1A-VB5
			-0.2	0.2	-100 ...	0 mbar	D1A-VC16
			-1.0	1.0	-160 ...	0 mbar	D1A-VC25
			-1.0	1.0	-250 ...	0 mbar	D1A-VC3
			-1.0	1.0	-400 ...	0 mbar	D1A-VC4
			-1.0	3.0	-600 ...	0 mbar	D1A-VC6
			-0.2	0.2	0 ...	50 mbar	D1A-B5
			-0.2	0.2	0 ...	100 mbar	D1A-C1
			-1.0	1.0	0 ...	160 mbar	D1A-C16
			-1.0	1.0	0 ...	250 mbar	D1A-C25
			-1.0	1.0	0 ...	400 mbar	D1A-C4
			-1.0	3.0	0 ...	600 mbar	D1A-C6

Special options, add the appropriate letter or number

0-10 V output signal

deviant measurement range

on demand

Absolute pressure measuring range Measuring range from 0 ... 25 bar

G½a

Connection thread

D1V ...

D1 . - XX

D1 . . . A

D1 . . . 04

Accessories, enclosed

coupling socket 4-pin	M12x1, straight	KM12-A4-0		
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5



D1



KM-A4-0

DMU



13



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-D4/D6 max. 850 bar and DAA-E1 max. 1500 bar
Supply voltage	9...33 V DC at current signal, 15...30 V DC at voltage signal, 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
Repeatability	< 0.1% FS
Long-term stability	< 0.1% FS, < 0.5% FS at version up to 500 mbar
Temperature sensitivity	< 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
Response time	1 ms for 10...90% of pressure range
Vibration resistance	10 g at 5...500 Hz
Mounting position	any
Material	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 mm	Ø mm	A/F mm	%	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



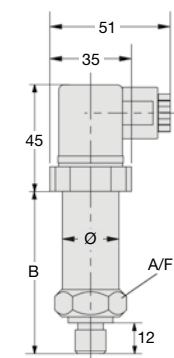
DAA-C1H



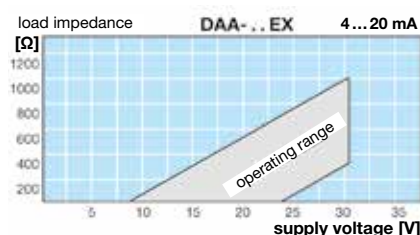
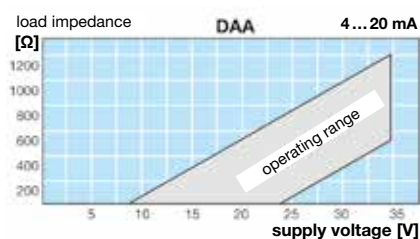
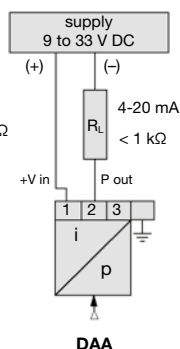
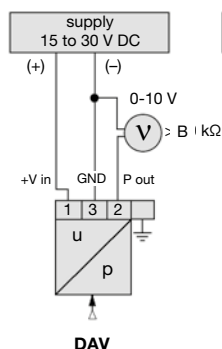
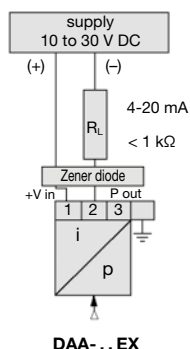
DA-..T

Special options, add the appropriate letter or number

0-10 V output signal	not for 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
-Atex version	II 1G Ex ia IIC T6	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



version	B (mm)
standard	73
standard 150 °C	100
Ex	122
Ex, T3	149



* Product group

Test chart: see chapter "Technical information"

PDF CAD
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Order example:
DAA-B5H

Description

Media

Supply voltage

Electrical connector

Output signal

Input resistance/load

Current consumption

Linearity/Hysteresis

Long-term stability

Temperature sensitivity

Shock resistant

Vibration resistance

Media temperature

Material

The differential pressure between port P+ and P- is converted into a proportional electrical signal by a silicon pressure sensor, amplified and output as an analog current or voltage signal.

compressed air or non-corrosive gases

14-32 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA / 800 Ohm 2-wire, optional 0-10 V / 10 kOhm 3-wire

800 Ohm (4-20 mA); 10 kOhm (0-10 V)

Signal output current: max. 25 mA; signal output voltage: max. 7 mAA

$\leq \pm 0.35\%$ v.E. (at > 160 mbar); $\leq \pm 1.0\%$ v.E. (at 40-160 mbar); $\leq \pm 2.0\%$ v.E. (at < 40 mbar)

$\leq \pm 0.2\%$

$\leq \pm 0.3\%$ (10 K at < 10 mbar); $\leq \pm 0.25\%$ (10 K < 20 mbar); $\leq \pm 0.15\%$ (10 K at < 250 mbar);

$\leq \pm 0.08\%$ (10 K at > 250 mbar)

100 g (11 ms)

10 g by 20-2000 Hz

-25 ... 125 °C / -13 ... 257 °F

Body: aluminium (silver anodized)

Sensor: Silicon, RTV, Ceramic Al₂O₃

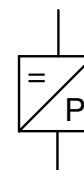
Protection class

IP67 according to DIN EN60529

Temperature range

-25 ... 85 °C

Sealing ring: PUR



**0,3% precise
compr. air or gases**

Dimensions			Overpressure on both connections max. mbar	Measurement range mbar / bar	Order number (4-20 mA)	E*
A	B	C				
mm	mm	mm				

Differential pressure transducer

G1/8, 2-wire, with angular
coupling socket

D3

40	56	5	100	0 ... 6 mbar	D3A-A6
				-6 ... 6 mbar	D3A-A6V
				0 ... 10 mbar	D3A-B1
				-10 ... 10 mbar	D3A-B1V
			200	0 ... 25 mbar	D3A-B25
				-25 ... 25 mbar	D3A-B25V
			350	0 ... 70 mbar	D3A-B7
				-70 ... 70 mbar	D3A-B7V
			1000	0 ... 350 mbar	D3A-C35
				-350 ... 350 mbar	D3A-C35V
			3000	0 ... 1 bar	D3A-01
				-1 ... 1 bar	D3A-V1

Special options, add the appropriate letter or number

0-10 V output signal

D3V-..

deviant measurement range on demand

D3.-XX

Accessories, enclosed

coupling socket 4-pin M12x1, straight **KM12-A4-0**

socket with cable 2 m, straight **KM12-A4-2**

5 m, straight **KM12-A4-5**

angular **KM12-C4-2**

angular **KM12-C4-5**



D3

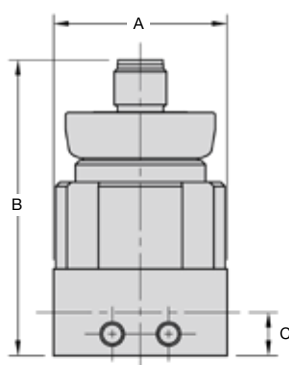


KM-A4-0

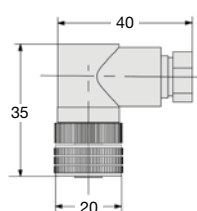
Transducer



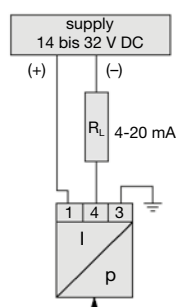
13



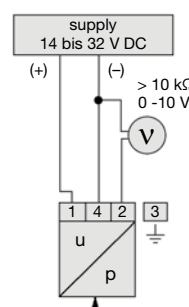
D3



KM12-C4-0

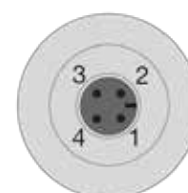


D3A



D3V

pin	colour
1	brown
2	white
3	blue
4	black



Top view

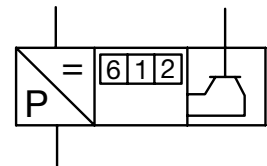
* Product group

PDF CAD
www.aircom.net



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	adjustable from 0% to 100% of set switching point	
Switching output	DSC	1x PNP as at DSB and 1x analogue output signal 1...5 V, output impedance < 500 Ω	
Hysteresis		Linearly	
Repeatability		< 0.2% FS	
LED display		Switching frequency	
Error display		200 Hz	
Certifications		Mounting position	
Temperature range		any	
Material		Shock resistance	
		10 g	
		Protection class	
		IP 65	
		Connection thread:	
		nickel-plated brass	



**-1 ... 0/10 bar
output PNP/1-5V**

Dimensions	Digital display	Over-pressure	Output signal	Measurement	Order number
B	Ø	max. bar	type	range	
mm	mm		PNP/analog	bar	

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
			15			0 ... 10	DSB-10
						-1 ... 10	DSB-V10
						0 ... 12	DSB-12
44	16	without	2	1x PNP/1x analog	250	0 ... -1	DSC-V1
						-1 ... +1	DSC-V2
			15			-1 ... 10	DSC-V10



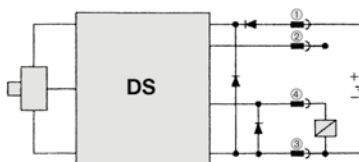
DSB with digital display



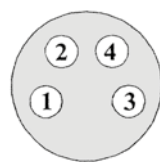
DSC

Accessories, enclosed

coupling socket	M8x1, 4-pin with 5 m cable	straight	KM8-A4-5
		angular	KM8-C4-5

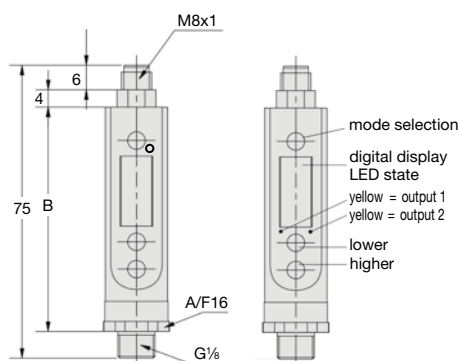
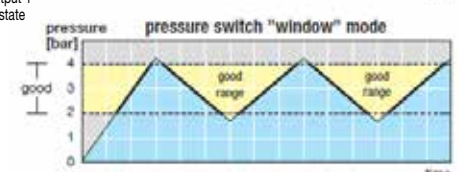
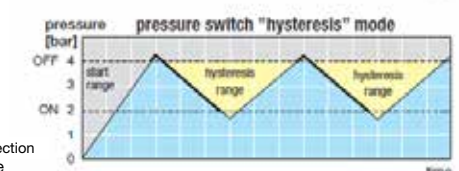
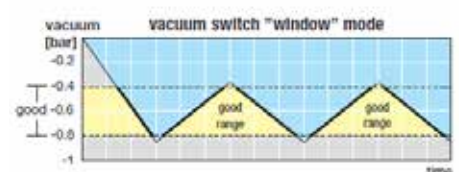
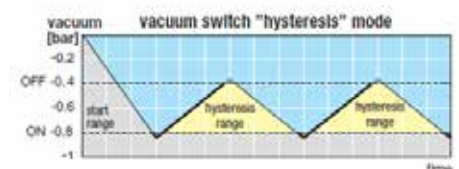


connection diagram

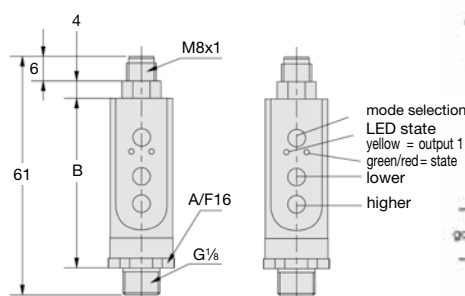


PIN configuration according to DIN EN 50044

pin	colour	configuration
1	brown	24 V DC (+)
2	white	outlet 2 / analog
3	blue	24 V DC (-)
4	black	outlet 1 / digital



DSB



DSC

* Product group

PDF CAD
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Order example:
DSB-V1

YOU NEED HELP?

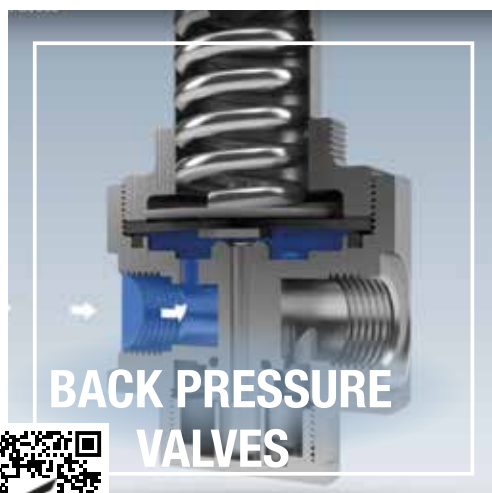
We have some videos on our YouTube channel for minor problems or for functionalities. For example, you want to know how to make your filter fit for use?

Then we have the right video for that!

You need help choosing the right repair kit - we will be happy to advise you!



YOUTUBE-CHANNEL

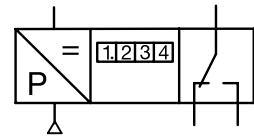


MEASURING DEVICES

DESCRIPTION		DESCRIPTION	CONNECTION	SERIES	PAGE
		bar	thread		
DIGITAL DISPLAY	mounting, auch ext. Sensor	0 ... 1 mbar / 10 bar	4 mm tube	MKA	14.02
	portable, hand-operated press. gauge	0 ... 1 mbar / 10 bar	4 mm tube	MHA	14.03
ANALOGUE DISPLAY	male thread, Ø 23 mm	0 ... 4 / 16 bar	M5 and G $\frac{1}{8}$	MA	14.04
	male thread, Ø 40 mm	0 ... 1 / 16 bar	G $\frac{1}{8}$	MA	14.04
	male thread, Ø 50 mm	0 ... 1 / 60 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	MA	14.04
	male thread, Ø 63 mm	0 ... 60 mbar / 100 bar	G $\frac{1}{4}$	MA	14.04
STAINLESS STEEL	male thread, Ø 40 mm	0 ... 2.5 / 16 bar	G $\frac{1}{8}$ and G $\frac{1}{4}$	MS	14.05
	male thread, Ø 50 mm	0 ... 2.5 / 60 bar	G $\frac{1}{4}$	MS	14.05
	male thread, Ø 63 mm	0 ... 25 mbar / 60 bar	G $\frac{1}{4}$	MS	14.05



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+/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. ± 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



0... 1 mbar / 1000 bar
pressure, vacuum, differential pressure

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... 20 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... 200 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

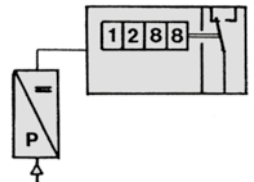


MKA, with integrated pressure transducer



MKA-00, with external pressure transducer

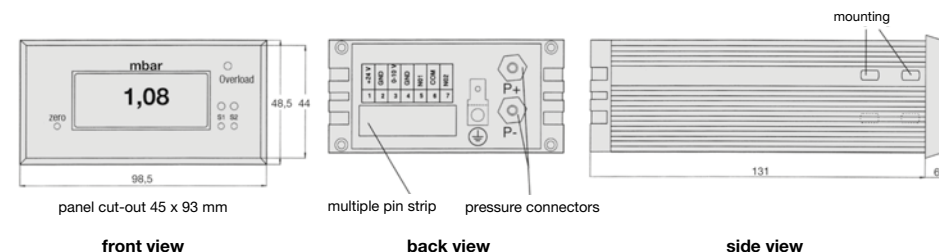
Digital gauge for external sensor				0...10 V input signal, supply voltage 24 V DC, 3½-digit display	MKA*2
96	48	137	e.g. for pressure transducer		MKA-00



MKA-00, with external pressure transducer

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 kPa	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

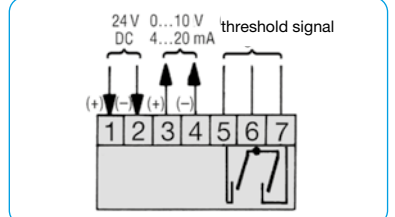


*1 Handshake on/off, Baudrate 9600

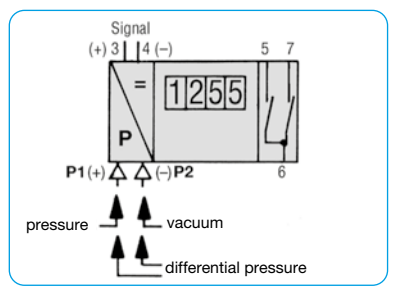
*2 indicate pressure range by order

Calibration or test chart: see chapter "Technical Information"
Pressure transducers: see chapter "Pressure Transducers"

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electrical connection

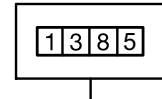


pneumatical connection

* Product group

Order example:
MKA-A1

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		
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 greater than 1 bar, 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, max. ± 1999, 12 mm tall, black numbers, low battery display at low voltage, red LED lights up at overpressure, then measurement is faulty		
Output signal	optionally 0...1 V		
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		
Long-term stability	< 0.1% FS per year at > 20 mbar		
Temperature sensitivity	see chart, at 0 to 50 °C / 32 to 122 °F		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Housing: plastic		
	Hysteresis	< 0.1% FS	
	Impedance:	> 2 kΩ terminal for 2.5 mm 2-pin jack plug	
	Repeatability	see chart	
	Resolution	0.05% FS	
	Protection class	IP 54	



positive pressure, vacuum and differential pressure

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 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... 20 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... 200 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

Gauges



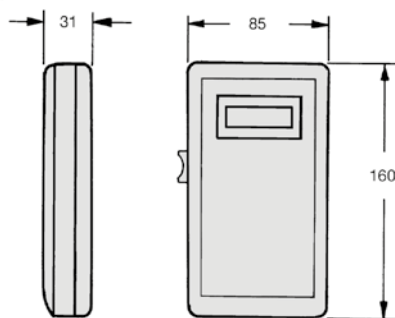
14

Special options, add the appropriate letter

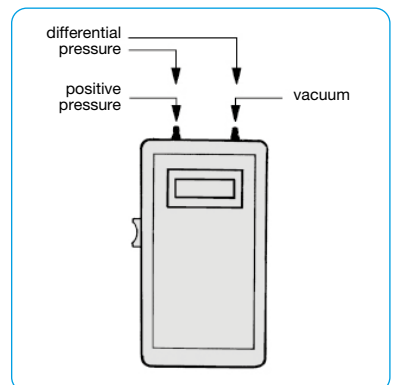
linearity < 0.2% FS	from 100 mbar on	MHA- . .B
0-1 V output signal	at electrical connector	MHA- . .N
P _a indication	< 20 mbar: indication P _a > 20 mbar: indication kP _a	MHA- . .P
zero point fine adjustment	in the front	MHA- . .E
deviant measurement range	to be indicated on order	MHA-XX

Accessories, enclosed

protective bag	for belt attachment	MHT
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MHA



connection diagram

* Product group

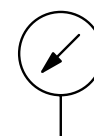
Calibration or test chart: see chapter "Technical Information"

PDF CAD
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Order example:
MHA-A1

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	



with male thread
-1 ... 0 bar; 0 ... 60 mbar/100 bar

Dimensions Ø A mm	Principle R: Bourdon tube K: capsule tube	Indicator accuracy % FS	Display range bar/mbar	Order number G½	Order number M5 / G¼	B*
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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



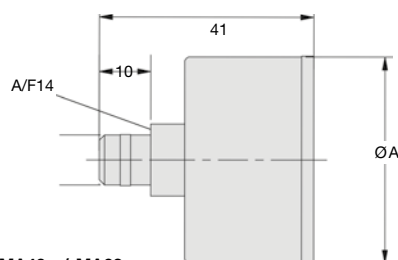
MA6302-10

Special options, add the appropriate number

for oxygen

specially cleaned

MA . . . - . . 15



MA40.. / MA63..

* Product group

PDF CAD
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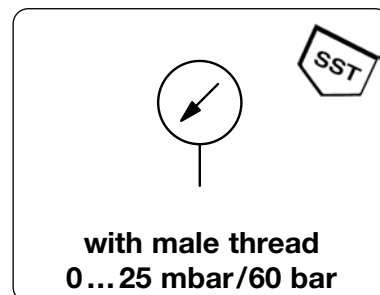


Order example:
MA2301-04

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 G½ or G¾, 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	
Material	ambient max. 60 °C / 140 °F	
	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
Ø A	R: Bourdon tube K: capsule tube	% FS	bar/mbar	G½	G¾
mm					



Pressure gauge		male thread on central back	MS40	MS40/50/63
40	R	1.6	0 ... 2.5 0 ... 4 0 ... 6 0 ... 10 0 ... 16	MS4001-02 MS4001-04 MS4001-06 MS4001-10 MS4001-16
50	R	1.6	0 ... 2.5 0 ... 4 0 ... 6 0 ... 10 0 ... 16 0 ... 25 0 ... 60	MS5002-02 MS5002-04 MS5002-06 MS5002-10 MS5002-16 MS5002-25 MS5002-60
63	K	1.6	0 ... 25 mbar 0 ... 60 mbar 0 ... 100 mbar 0 ... 160 mbar 0 ... 250 mbar 0 ... 400 mbar 0 ... 600 mbar	MS6302-B2 MS6302-B6 MS6302-C1 MS6302-C2 MS6302-C3 MS6302-C4 MS6302-C6
63	R	1.6	0 ... 1 0 ... 2.5 0 ... 4 0 ... 6 0 ... 10 0 ... 16 0 ... 25 0 ... 60	MS6302-01 MS6302-02 MS6302-04 MS6302-06 MS6302-10 MS6302-16 MS6302-25 MS6302-60



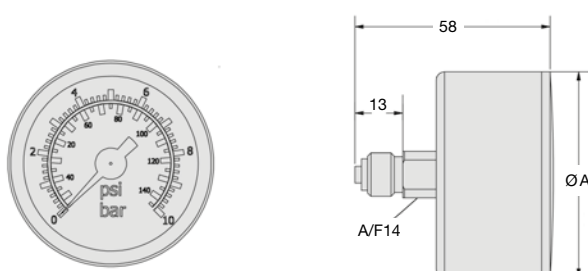
Gauges

1385

14

Special options, add the appropriate number

for oxygen specially cleaned MS....15



MS

* Product group

PDF CAD
www.aircom.net



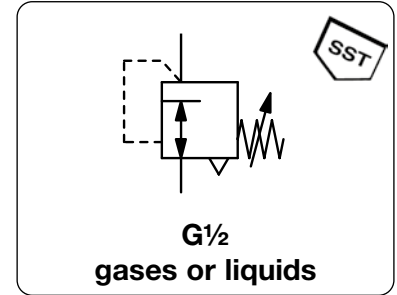
Order example:
MS4001-02

STAINLESS STEEL DEVICES

	DESCRIPTION	PRESSURE RANGE	CONNECTION	SERIES	PAGE
		bar	thread		
PRESSURE REGULATOR	Midi-Series	0.2 ... 4.0 / 17	G½	R10-S	15.02
	Midi-Series	0.2 ... 1.8 / 9	G¼	R364-S	15.03
	many variations, also FDA	0.1 ... 1.5 / 50	G⅜ - DN100	R3000	15.04
	with flange	0.2 ... 3 / 16	DN15 - DN50	REF	15.08
	also FDA	0.2 ... 3 / 16	G¼ - G2	REA	15.09
	Tri-Clamp	0.2 ... 1.5 / 8	ASME-BPE ½" -1½"	RTC	15.10
	Tri-Clamp, low pressure	0.005 ... 0.045/ 1.2	ASME-BPE ½" -1½"	RTCN	15.11
	precise, also FDA	0.02 ... 1.5 / 10	G¼ u. G½	R3150	15.12
	low pressure	0.005 ... 0.045/ 1,5	G¼ - G2	R3100	15.13
VOLUME BOOSTER	for many gases	1 ... 15 / 60	G¼ - G2	R3000-J	15.18
	precise	0 ... 10	¾"NPT u. 1"NPT	R601	15.21
	with ratio	3 ... 42 / 104	½"NPT u. ¾"NPT	RH3-JS1	6.14
	pressure reducer	0.1 ... 24 / 99	G1	RLE	6.15
BACK PRESSURE REG.	für viele Gase	0.1 ... 1.5 / 50	G⅜ - G2	D3000	15.22
	Niederdruck	0.005 ... 0.045/ 1,5	G¼ - G2	D3100	15.26
HIGH PRESSURE REG.	for many gases	1 ... 8 / 200	G¼ - G1¼	RH3000	15.16
	regulator P1: 690 bar	0.3 ... 35 / 414	¼"NPT	HP300-S	4.16
	regulator P1: 414 bar	0.7 ... 104 / 172	¼"NPT	HP400-S	4.16
	regulator P1: 300 bar	0.1 ... 1.7 / 35	¼"NPT	HP500-S	4.17
	regulator P1: 260 bar	0.7 ... 21 / 104	½"NPT u. ¾"NPT	RH3-S	4.18
FRL SERVICE UNITS	FR, for many gases, also FDA	0.2 ... 3 / 50	G⅜ - G2	B3000	15.29
	filter, also FDA	max. 50	G⅜ - G2	F3000	15.33
	filter	max. 220	G¼ - G1	FH3	15.35
	filter	max. 500	¼"NPT - 2"NPT	FB	15.36
	lubricator	max. 50	G⅜ - G2	L3000	15.38
	FRL	0.2 ... 3 / 15	G⅜ - G2	C3002, C3003	15.39
PINCH VALVES	2/2-solenoid valve	max. 4	G¼ - G2	QE	15.37
MOUNTING FLANGES	single or mounted	bis PN100 / ANSI	G½ - G3	F / VS	15.41



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	number	
mm mm mm		(m ³ /h)	m ³ /h*1 l/min*1	G	bar	

Stainless steel pressure regulator								supply pressure max. 21 bar	R10-S
60	124	35	relieving for compressed air	2.6	144	2400	G½	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	G½	0.2 ... 4.0	R10-04BSK
								0.3 ... 9.0	R10-04CSK
								0.5 ... 17	R10-04DSK



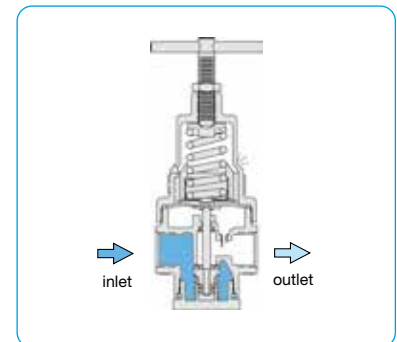
R10-S

Special options, add the appropriate letter

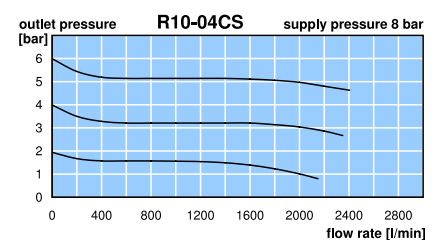
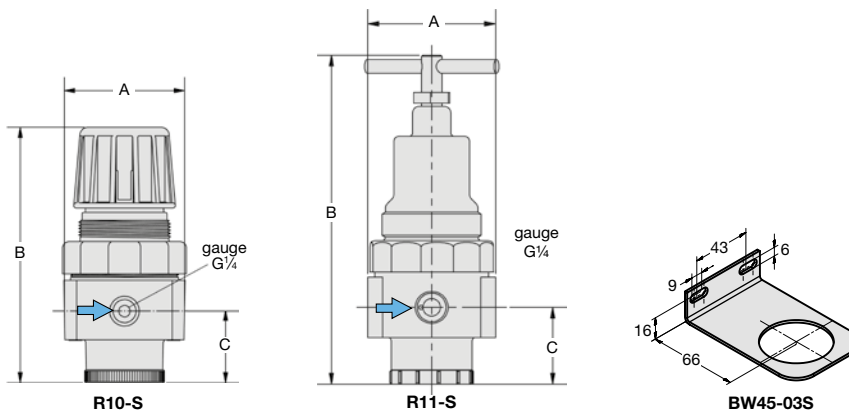
NPT	connection thread	R1.-0...N
spring cage made of SST	incl. SST-adjusting screw, total height= 154 mm	R11-04...

Accessories, enclosed

pressure gauge	Ø 50 mm, 0 ... *2 bar, G $\frac{1}{4}$	MS5002-..*2
mounting bracket		BW45-03S
mounting nut		M45X1,5S

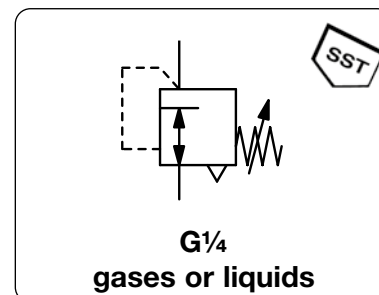


cross section



*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
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*1	l/min*1			
mm	mm	mm		(m ³ /h)			G	bar	

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 0.2 ... 4.0 0.3 ... 9.0	R364-02AS R364-02BS R364-02CS
35	75	13	non-relieving for liquids	0.4	0,4	6	G $\frac{1}{4}$	0.2 ... 1.8 0.2 ... 4.0 0.3 ... 9.0	R364-02ASK R364-02BSK R364-02CSK



R364-S

Special options, add the appropriate letter

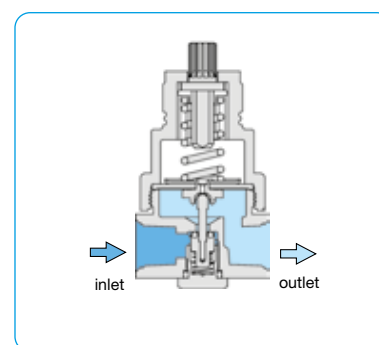
free of oil and grease specially cleaned

R3.4-0 . . . L

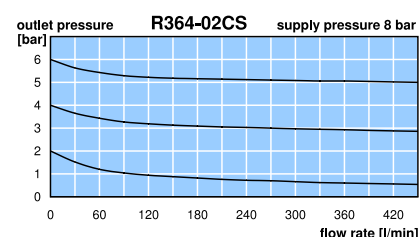
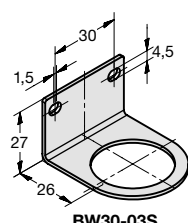
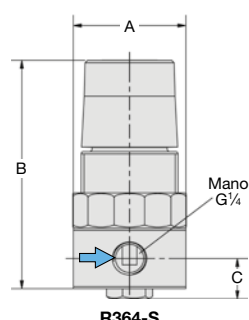
Accessories, enclosed

pressure gauge	Ø 40 mm, 0 ... *2 bar, G $\frac{1}{4}$
mounting bracket	
mounting nut	made of stainless steel made of plastic

MS4002-..*2
BW30-03S
M30x1,5S
M30x1,5K



cross-section

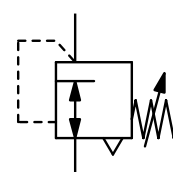


*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 25 = 0...25 bar

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 $\frac{1}{8}$ 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



SST

**G $\frac{1}{8}$ up to G2 / DN100
gases or liquids**

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. 30/50 bar, non-relieving,
PTFE diaphragm and FKM o-ring

R3000

40	88	18	M	0,35	20	330	30	G $\frac{1}{8}$	0,1 ... 1,5	R3000-01AT
									0,2 ... 3,0	R3000-01BT
									0,5 ... 8,0	R3000-01DT
									1,0 ... 15	R3000-01ET
40	88	18	M	0,35	20	330	30	G $\frac{1}{4}$	0,1 ... 1,5	R3000-A2AT
									0,2 ... 3,0	R3000-A2BT
									0,5 ... 8,0	R3000-A2DT
									1,0 ... 15	R3000-A2ET
64	160	38	M	1,4	78	1300	30	G $\frac{1}{4}$	0,1 ... 1,5	R3000-02AT
									0,2 ... 3,0	R3000-02BT
									0,5 ... 8,0	R3000-02CT
									1,0 ... 15	R3000-02DT
									2,0 ... 30	R3000-02ET
									3,0 ... 50	R3000-02FT
64	175	38	K	1,4	78	1300	50		0,1 ... 1,5	R3000-03AT
									0,2 ... 3,0	R3000-03BT
									0,5 ... 8,0	R3000-03CT
									1,0 ... 15	R3000-03FT
109	160	39	M	3,0	168	2800	50	G $\frac{3}{8}$	0,1 ... 1,5	R3000-03AT
									0,2 ... 3,0	R3000-03BT
									0,5 ... 8,0	R3000-03CT
									1,0 ... 15	R3000-03FT
109	178	39	K	3,0	168	2800	50		0,1 ... 1,5	R3000-03AT
									0,2 ... 3,0	R3000-03BT
									0,5 ... 8,0	R3000-03CT
									1,0 ... 15	R3000-03FT
109	160	39	M	3,0	168	2800	50	G $\frac{1}{2}$	0,1 ... 1,5	R3000-04AT
									0,2 ... 3,0	R3000-04BT
									0,5 ... 8,0	R3000-04CT
									1,0 ... 15	R3000-04FT
109	178	39	K	3,0	168	2800	50		0,1 ... 1,5	R3000-04AT
									0,2 ... 3,0	R3000-04BT
									0,5 ... 8,0	R3000-04CT
									1,0 ... 15	R3000-04FT
									2,0 ... 30	R3000-04GT
									3,0 ... 50	R3000-04LT



R3000-01/-A2

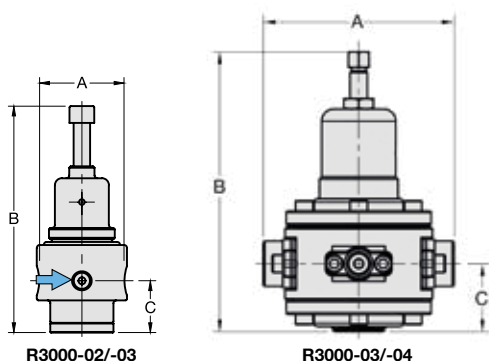


R3000-02



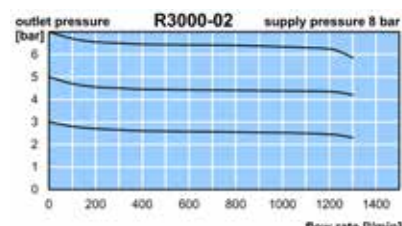
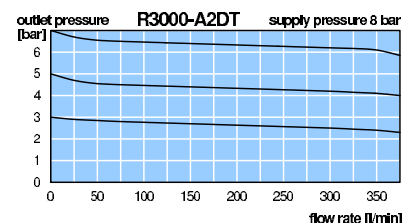
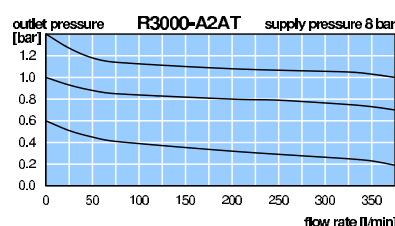
R3000-04

Accessories, see following pages



R3000-02/-03

R3000-03/-04



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

* Product group

PDF CAD
www.aircom.net

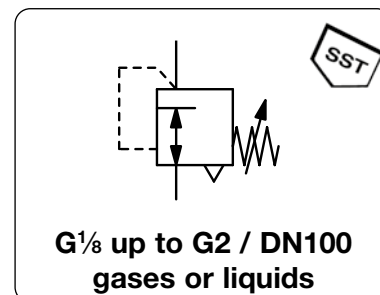


Order example:
R3000-01AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHTOUT, 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 $\frac{1}{8}$ 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

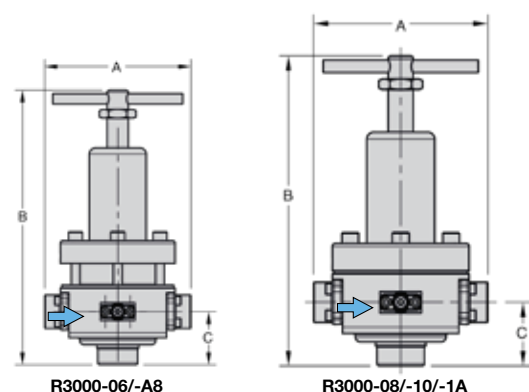


Dimensions	Regul. system	K_v	Flow	P_1	Connection	Pressure	Order
A B C	D: diaphragm	value	rate	max.	thread	range	number
mm mm mm	P: piston	(m ³ /h)	m ³ /h*1 l/min*1	bar	G	bar	

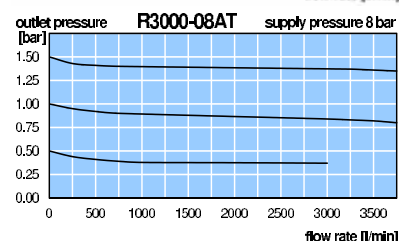
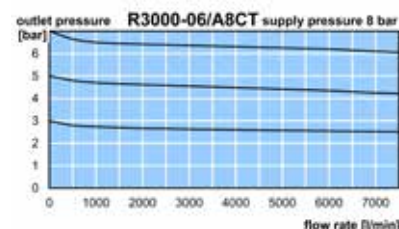
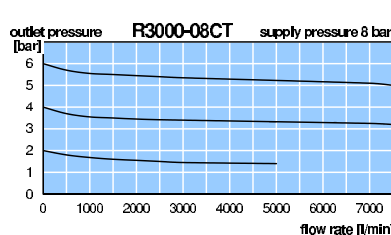
SST Pressure regulator								supply pressure max. 30/50/60 bar, non-relieving, PTFE diaphragm and FKM o-ring		R3000
137	187	51	P	8.4	228	3800	50	G $\frac{3}{4}$	0.1 ... 1.5	R3000-06AT
									0.2 ... 3.0	R3000-06BT
									0.5 ... 8.0	R3000-06CT
									1.0 ... 15	R3000-06FT
									2.0 ... 30	R3000-06GT
									3.0 ... 50	R3000-06LT
137	187	51	P	8.4	228	3800	50	G1	0.1 ... 1.5	R3000-A8AT
									0.2 ... 3.0	R3000-A8BT
									0.5 ... 8.0	R3000-A8CT
									1.0 ... 15	R3000-A8FT
									2.0 ... 30	R3000-A8GT
									3.0 ... 50	R3000-A8LT
165	287	60	D	9.7	480	8000	60	G1	0.1 ... 1.5	R3000-08AT
									0.2 ... 3.0	R3000-08BT
									0.5 ... 8.0	R3000-08CT
									1.0 ... 15	R3000-08FT
165	302	60	P	9.7	480	8000	60		2.0 ... 30	R3000-08GT
165	311	60							3.0 ... 50	R3000-08LT
269	287	60	D	6.0	480	8000	60	G1 $\frac{1}{4}$	0.1 ... 1.5	R3000-10AT
									0.2 ... 3.0	R3000-10BT
									0.5 ... 8.0	R3000-10CT
									1.0 ... 15	R3000-10FT
269	302	60	P	9.7	480	8000	60		2.0 ... 30	R3000-10GT
269	311	60							3.0 ... 50	R3000-10LT
269	287	60	D	9.7	480	8000	60	G1 $\frac{1}{2}$	0.1 ... 1.5	R3000-1AAT
									0.2 ... 3.0	R3000-1ABT
									0.5 ... 8.0	R3000-1ACT
									1.0 ... 15	R3000-1AFT
269	302	60	P	9.7	480	8000	60		2.0 ... 30	R3000-1AGT
269	311	60							3.0 ... 50	R3000-1ALT



Accessories, see following pages



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



* Product group

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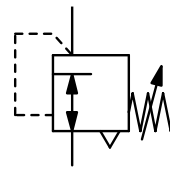


Order example:
R3000-06AT

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	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
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



SST

**G $\frac{1}{8}$ up to G2 / DN100
gases or liquids**

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. 30/50 bar, non-relieving,
PTFE diaphragm and FKM o-ring

R3000

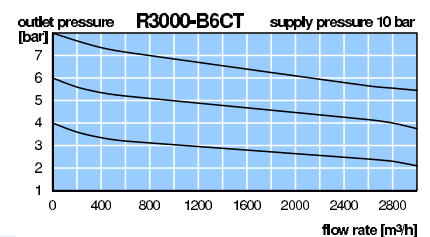
174	393	126	P	25	1380	23000	30	G1½	0.1 ... 1.5	R3000-12AT
									0.2 ... 3.0	R3000-12BT
									0.5 ... 8.0	R3000-12CT
							50		1.0 ... 15	R3000-12ET
									2.0 ... 30	R3000-12GT
									3.0 ... 50	R3000-12LT
174	393	126	P	25	1380	23000	30	G2	0.1 ... 1.5	R3000-B6AT
									0.2 ... 3.0	R3000-B6BT
									0.5 ... 8.0	R3000-B6CT
							50		1.0 ... 15	R3000-B6ET
									2.0 ... 30	R3000-B6GT
									3.0 ... 50	R3000-B6LT
171	421	128	D	25	1800	30000	30	G2	0.1 ... 1.5	R3000-16AT
									0.2 ... 3.0	R3000-16BT
									0.5 ... 6.0	R3000-16CT
171	417	128	D	25	1800	30000	30		1.0 ... 15	R3000-16DT
405	446	118	D	65	4500	75000	30	DN80	0.1 ... 1.5	R3000-24AT
									0.2 ... 3.0	R3000-24BT
									0.5 ... 6.0	R3000-24CT
405	427	118							1.0 ... 15	R3000-24DT
405	446	118	D	65	5500	90000	30	DN100	0.1 ... 1.5	R3000-32AT
									0.2 ... 3.0	R3000-32BT
									0.5 ... 6.0	R3000-32CT
405	427	118							1.0 ... 15	R3000-32DT



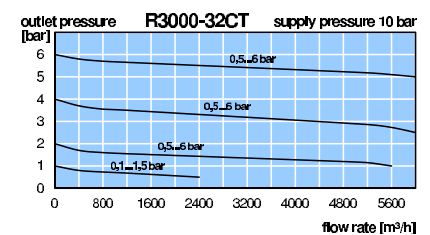
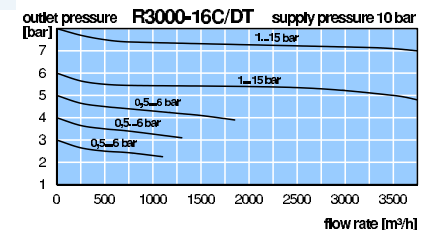
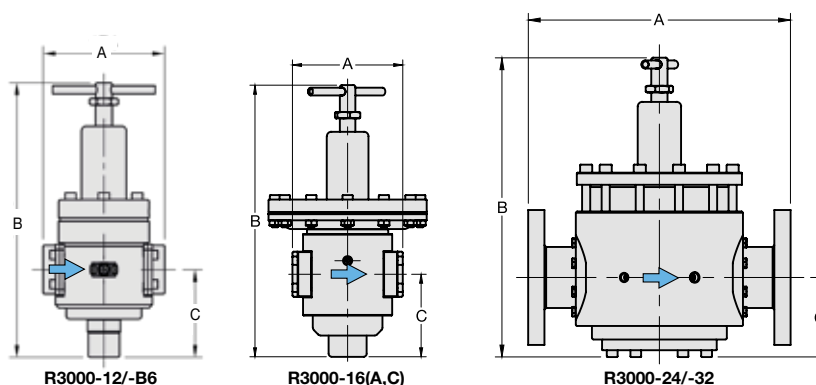
R3000-12/-B6



R3000-16
accessory: gauge



Accessories, see following pages



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

* Product group

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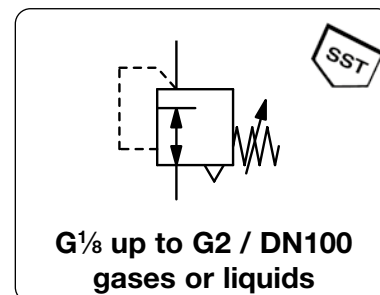


Order example:
R3000-12AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHTOUT, 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	$G\frac{1}{8}$ 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

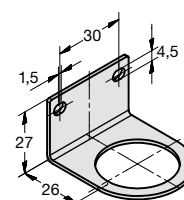


Dimensions	Regul. system	K_v	Flow	P_1	Connection	Pressure	Order
A B C	D: diaphragm	value	rate	max.	thread	range	number
mm mm mm	P: piston	(m³/h)	m³/h*1 l/min*1	bar	G	bar	

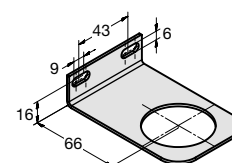


Special options, add the appropriate letter or number

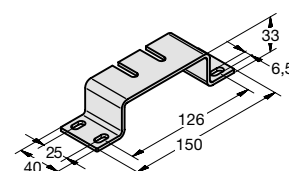
NPT	connection thread	R3000-...N
with T-handle	instead of hexagonal screw	for $G\frac{1}{4}$ (02) to G1 (A8) R3000-...P
relieving		R3000-...R
tapped exhaust		for R3000-01/A2 R3000-...X12
down to -40 °C	low temperature version	from $G\frac{1}{4}$ (02) on R3000-...X51
up to 130 °C	high temperature version	from $G\frac{1}{4}$ (02) on R3000-...X54
spring cowling m. of POM	for $G\frac{1}{8}$ and $G\frac{1}{4}$ (A2)	R3000-...X57
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 $G\frac{1}{4}$ (02) to G1 (A8) R3000-...S
	EPDM o-ring	for $G\frac{1}{4}$ (02) to G1 (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.



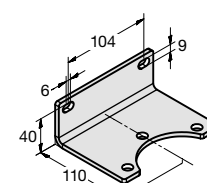
BW30-03S



BW45-03S



BW00-59S



BW00-68S

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		for $G\frac{1}{8}$ and $G\frac{1}{4}$ (A2) M30x1,5SS
mounting bracket		for $G\frac{1}{4}$ (02) to G1 (A8) BW45-03S
mounting nut		for $G\frac{1}{4}$ (02) to G1 (A8) M45x1,5S
mounting bracket		for G1 (08) + $G1\frac{1}{2}$ (1A) BW00-59S
		for $G1\frac{1}{2}$ (12) + G2 (B6) BW00-68S

*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

Gauges: see chapter for measuring devices

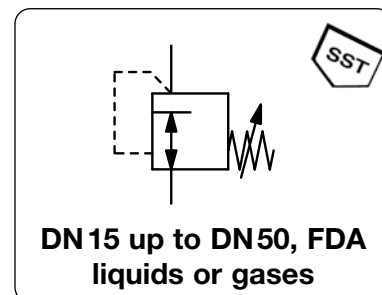
PDF CAD
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* Product group



Order example:
MS4001-02

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 130 °C / 32 °F to 266 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for PTFE, 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	Connection flange	Pressure range	Order number
A	B	C		air	water	max. bar	DN	bar	
mm	mm	mm	(m ³ /h)	l/min*1	l/min*1				

Pressure regulator with flange									REF
for liquids, P _s : max. 8/25 bar, non-relieving, FKM, PN 40									
210	255	95	4.0	4200	66	8	DN 15	0.2...3.0	REF-04B
						25		2.0... 10	REF-04D
						25		6.0... 16	REF-04E
220	260	105	4.0	4200	66	8	DN 20	0.2...3.0	REF-06B
						25		2.0... 10	REF-06D
						25		6.0... 16	REF-06E
220	265	115	4.0	4200	66	8	DN 25	0.2...3.0	REF-08B
						25		2.0... 10	REF-08D
						25		6.0... 16	REF-08E
220	273	115	7.5	8000	125	8	DN 25	0.2...3.0	REF-A8B
						25		2.0... 10	REF-A8D
						25		6.0... 16	REF-A8E
280	290	150	7.5	8000	125	8	DN 40	0.2...3.0	REF-12B
						25		2.0... 10	REF-12D
						25		6.0... 16	REF-12E
320	298	165	7.5	8000	125	8	DN 50	0.2...3.0	REF-16B
						25		2.0... 10	REF-16D
						25		6.0... 16	REF-16E

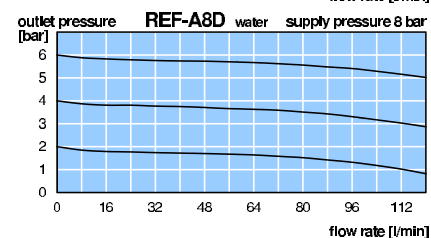
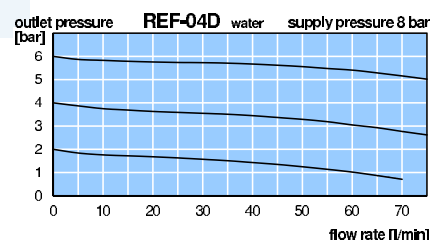
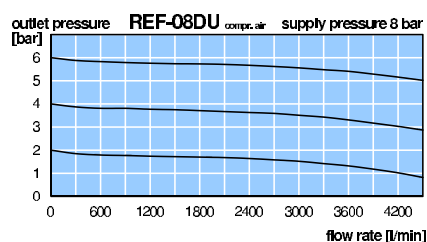
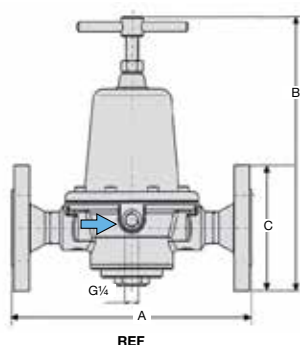


Special Options, add the appropriate letter

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, DN 8 to DN 25, instead of connection thread	RE A
milk pipe connection		RE M

Accessories, enclosed

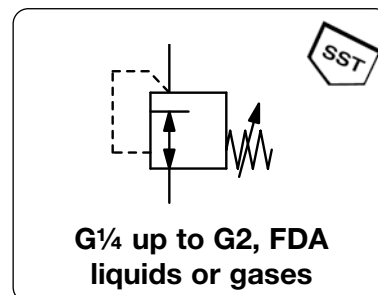
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	for DN 8 to DN 15 (04)	MS5002-...*2
	Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for DN 15 (A4) to DN 50	MS6302-...*2



*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 indicated in clear words

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 130 °C / 32 °F to 302 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for PTFE, 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

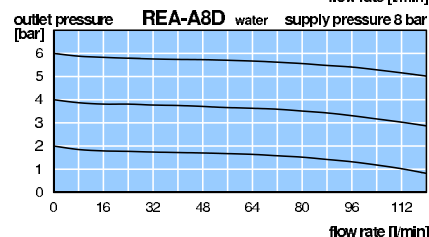
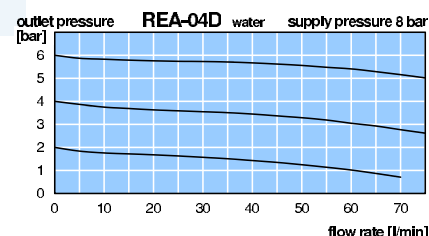
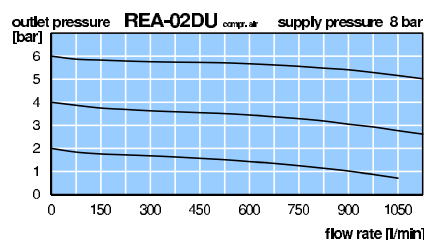
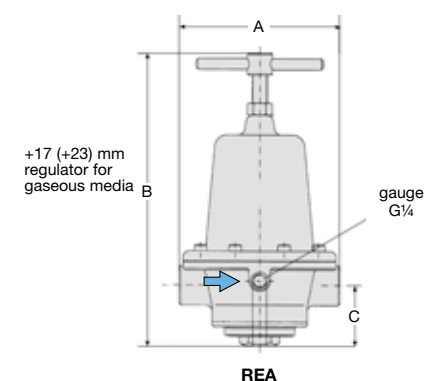


Dimensions			K _v -value	Flow rate air	Flow rate water	Supply pressure	Nom. size	Connection thread	Pressure range	Order number
A	B	C	(m ³ /h)	l/min*1	l/min*1	max. bar	DN	G	bar	
mm	mm	mm								

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
						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
						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
122	240	49	4.0	4200	66	8	DN 15	G $\frac{1}{2}$	0.2...3.0		REA-A4B
						25			2.0... 10		REA-A4D
						25			6.0... 16		REA-A4E
						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
						8	DN 25	G1	0.2...3.0		REA-08B
						25			2.0... 10		REA-08D
						25			6.0... 16		REA-08E
150	250	53	7.5	8000	125	8	DN 25	G1	0.2...3.0		REA-A8B
						25			2.0... 10		REA-A8D
						25			6.0... 16		REA-A8E
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
222	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

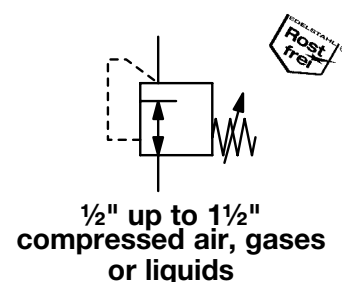


Special options and Accessories, see page 15.10. REF



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

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	no pressure gauge connection, optionally G¼		
Temperature range	-40°C to 175°C / -40°F to 347°F		
Material	Body, bonnet, piston and inner parts: AISI 316L, Main valve spring: 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/h¹	l/min¹			

Tri Clamp Pressure Regulator supply pressure max. 25 bar, EPDM for compressed air, gases, liquids and steam RTC

140	183	57	25	1,4	2200	½"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-04A RTC-04B RTC-04D
140	183	57	25	1,4	2200	¾"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-06A RTC-06B RTC-06D
180	327	77	50,5	8,4	22000	1"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-08A RTC-08B RTC-08D
180	327	75	50,5	8,4	22000	1½"	0,2 ... 1,5 0,3 ... 3,0 0,8 ... 8,0	RTC-12A RTC-12B RTC-12D



RTC-04.M/-06.M



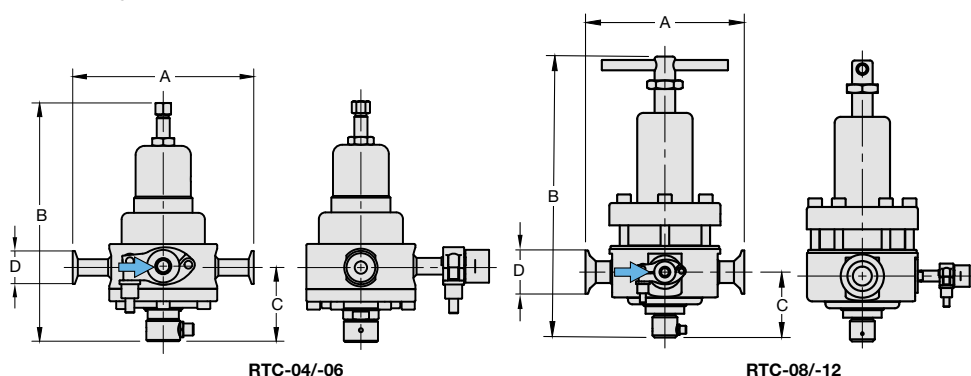
RTC-08/-12

Special Options, add the appropriate letter

FKM o-ring		RTC-... T
EPDM o-ring		RTC-... TD
to 200 °C	FDA approval	RTC-... X68
ammonia	high temperature version	RTC-... 02
nitrogen	NH ₃	RTC-... 07
oxygen	N ₂	RTC-... 15
water	O ₂	RTC-... W
neutral gas	H ₂ O	RTC-... XX
pressure gauge	CO ₂ , Ar, He, H ₂ , CH ₄ , C ₃ H ₈ , N ₂ O	RTC-... M
	G¼	

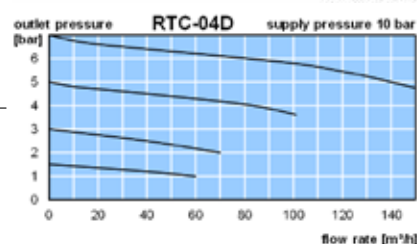
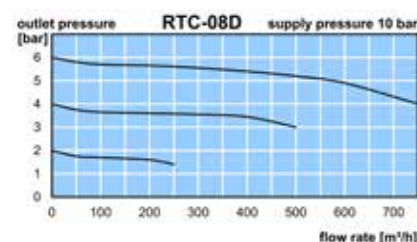
Accessories, enclosed

pressure gauge	Ø 50 mm,	0...*2 bar	G¼	for ½" a. ¾"	MS5002-...*2
	Ø 63 mm,	0...*2 bar	G¼	for 1" a. 1½"	MS6302-...*2
mounting bracket				for ½" a. ¾"	BW45-03S
mounting nut				for ½" a. ¾"	M45x1,5S
mounting bracket				for 1" a. 1½"	BW00-27S



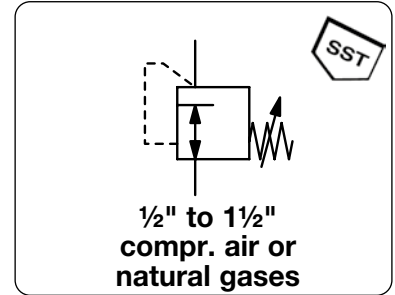
RTC-04/-06

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

Description	Precision low pressure regulator with flange and big spring cage, made of stainless steel. Preferably in pharmaceutical, bio, solar, brewery and food industry, if highest purity, maximum of hygiene and optimal protection against pollution and crosswise contamination is important		
Media	Compressed air or natural gases.		
Surface inside	Electropolished body with roughness Ra <4 µm on inside wetted surfaces.		
Adjustment	by adjusting screw		
Relieving function	non-relieving		
Tightness	Class VI; (IEC 60534-4)		
Temperature Range	-20°C to 80°C		
Material	Body, spring cage and internal parts: SST 316L Mai valve spring: SST 302 Diaphragm: NBR/Buna-N with PTFE coating		
	Mounting position:	any	
	Gauge port:	no pressure gauge connection, optionally G¼	
	Gasket:	EPDM, FKM	
	Adjusting spring:	C85, nickel plated NiP, not in contact with fluid.	



Dimensions			K _v - Value	Supply pressure	Flow rate		Connection ASME- BPE	Pressure Range	Order Number
A	B	C			m³/h¹	l/min¹			
mm	mm	mm	m³/h¹	max. bar				mbar	

Tri Clamp low pressure regulator								Supply pressure max. 7 bar, SST, EPDM for compr. air, natural gases, not relieving	RTCN
140	179	42	0,75	7	60	1000	½"	5 ... 45	RTCN-04A
					78	1300		20 ... 200	RTCN-04C
					78	1300		150 ... 700	RTCN-04D
140	179	42	0,75	7	60	1000	¾"	5 ... 45	RTCN-06A
					78	1300		20 ... 200	RTCN-06C
					78	1300		150 ... 700	RTCN-06D
170	237	66	1,4	7	84	1400	1"	5 ... 45	RTCN-08A
					105	1750		10 ... 120	RTCN-08B
					105	1750		10 ... 400	RTCN-08C
					138	2300		15 ... 700	RTCN-08D
					180	3000		200 ... 1200	RTCN-08E
170	237	66	1,4	7	84	1400	1½"	5 ... 45	RTCN-12A
					105	1750		10 ... 120	RTCN-12B
					105	1750		10 ... 400	RTCN-12C
					138	2300		15 ... 700	RTCN-12D
					180	3000		200 ... 1200	RTCN-12E



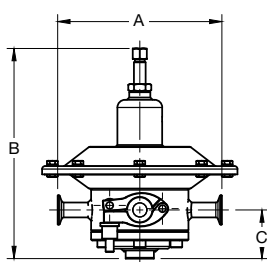
RTCN-04/-06

Special options, add the appropriate letter

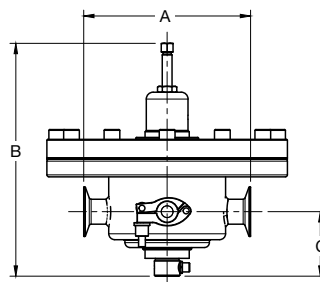
FKM o-ring		RTCN-... T
EPDM o-ring	FDA-approval	RTCN-... TD
up to 200 °C	high temperature version	RTCN-... X68
ammonia	NH ₃	RTCN-... 02
carbon dioxide	CO ₂	RTCN-... 03
nitrogen	N ₂	RTCN-... 07
oxygen	O ₂	RTCN-... 15
nitrous oxide	N ₂ O	RTCN-... 17
natural gas	Ar, He, Hz, CH ₄ , C ₃ H ₆	RTCN-... XX
pressure gauge connection		RTCN-... M

Accessories, enclosed

Pressure gauge	Ø 63 mm, 0...² mbar capsule spring, ¼" bis 600 mbar	MS6302-..²
	Ø 63 mm, 0...² bar bourdon tube, ¼" ab 1 bar	MS6302-..²



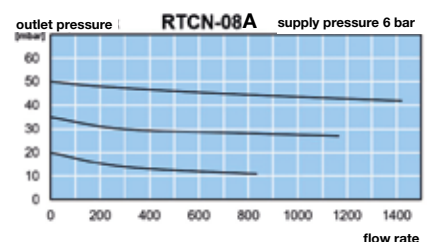
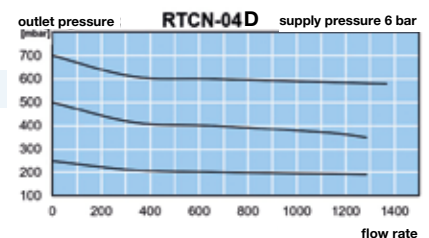
RTCN-04/06



RTCN-08/12

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

*2 B6 = 0...60 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, C6 = 0...600 mbar, 01 = 0 ... 1 bar, 02 = 0 ... 2,5 bar



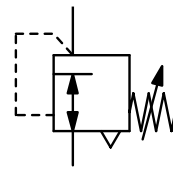
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
RTCN-04A

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	max. 20 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		



**G $\frac{1}{4}$ to G $\frac{1}{2}$, FDA
gases or liquids**

Dimensions			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



Precision pressure regulator supply pressure max. 20 bar, relieving **R3150**

109	160	39	1.4	78	1300	G $\frac{1}{4}$	0.02 ... 1.5	R3150-02A
							0.10 ... 3.0	R3150-02B
							0.10 ... 8.0	R3150-02C
109	160	39	1.4	78	1300	G $\frac{3}{8}$	0.02 ... 1.5	R3150-03A
							0.10 ... 3.0	R3150-03B
							0.10 ... 8.0	R3150-03C
109	160	39	1.4	78	1300	G $\frac{1}{2}$	0.02 ... 1.5	R3150-04A
							0.03 ... 3.0	R3150-04B
							0.05 ... 10	R3150-04C



R3150

Special options, add the appropriate letter or number

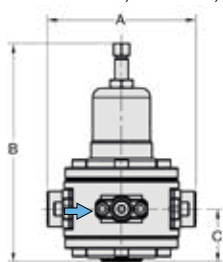
pilot operated	G $\frac{1}{8}$, max. 30 bar, 0...8 bar	R3150-0. J
NPT	connection thread	R3150-0. .N
non-relieving	for liquids	R3150-0. .K
EPDM o-ring		R3150-0. .E
EPDM o-ring	FDA approval	R3150-0. .TD
SST diaphragm	FKM o-ring	R3150-0. .S
	EPDM o-ring	R3150-0. .SE
ammonia	NH ₃	R3150-0. .K02
carbon dioxide	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. .KW

P₁ max. 15 bar

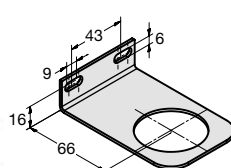
Accessories, enclosed

pressure gauge Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$

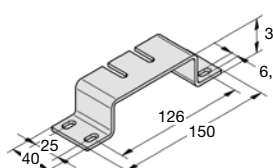
mounting bracket
mounting nut
mounting bracket



R3150



BW45-03S



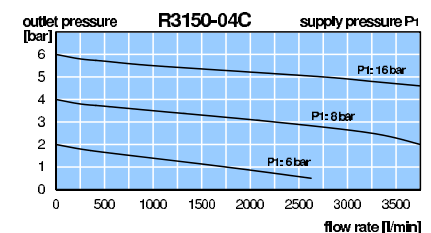
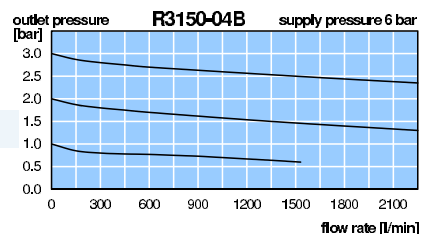
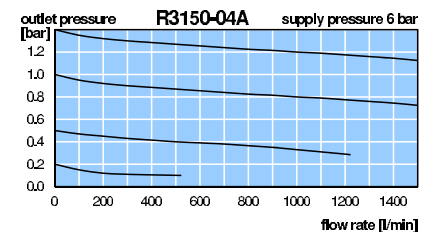
BW00-59S

MS5002-...*2

BW45-03S

M45x1,5S

BW00-59S



*1 see diagram

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

*3 without DVGW-approval

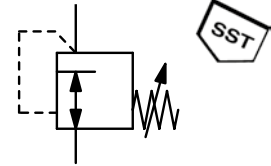
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R3150-02A

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.
Media	compressed air or gases
Supply pressure	see table, max. 10 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	by adjusting screw
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



G $\frac{1}{4}$ up to G2
5 ... 45/1500 mbar

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

Low pressure regulator made of SST, supply pressure max. 6/7/10 bar, non-relieving diaphragm NBR/Buna-N with PTFE coating, FKM o-ring **R3100**

109	181	39	1.4	84	1400	10	G $\frac{1}{4}$	5 ... 45 10 ... 400 20 ... 1000 50 ... 1500	R3100-02A R3100-02C R3100-02D R3100-02E
109	181	39	1.4	84	1400	10	G $\frac{3}{8}$	5 ... 45 10 ... 400 20 ... 1000 50 ... 1500	R3100-03A R3100-03C R3100-03D R3100-03E
109	181	39	1.4	84	1400	10	G $\frac{1}{2}$	5 ... 45 10 ... 400 20 ... 1000 50 ... 1500	R3100-04A R3100-04C R3100-04D R3100-04E
161	234	69	1.4	84	1400	7	G $\frac{3}{4}$	5 ... 45 10 ... 120 10 ... 400 15 ... 700 200 ... 1200	R3100-06A R3100-06B R3100-06C R3100-06D R3100-06E
161	296	53	8.4	576	9600				
161	234	69	1.4	84	1400	7	G1	5 ... 45 10 ... 120 10 ... 400 15 ... 700 200 ... 1200	R3100-08A R3100-08B R3100-08C R3100-08D R3100-08E
161	296	53	8.4	576	9600				



R3100-04

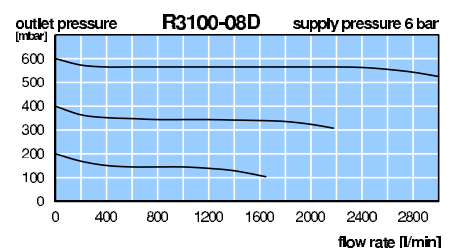
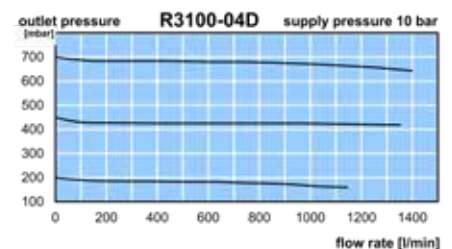
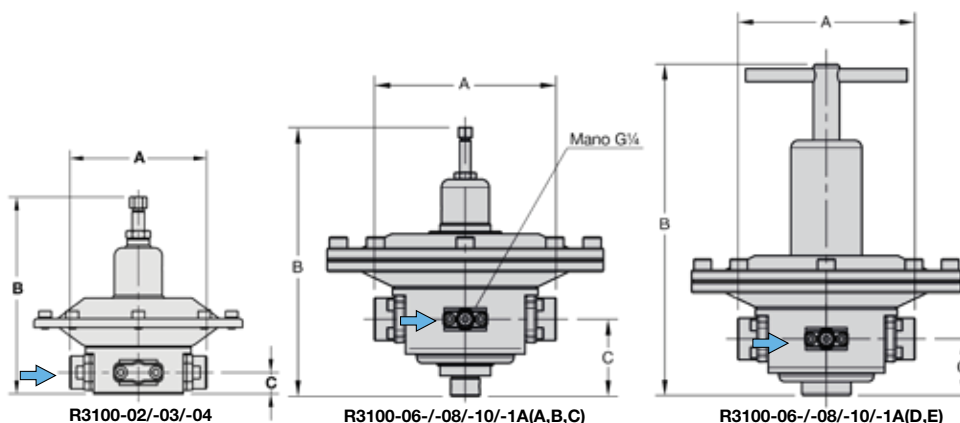


R3100-06/-08/-10/-1A
accessory: gauge

SST

SST

15



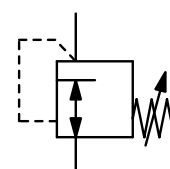
*1 at 6 bar supply pressure and 1 bar / 0.7 bar (-04) outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R3100-02A

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.
Media	compressed air or gases
Supply pressure	see table, max. 10 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	by adjusting screw
Relieving function	non-relieving
Gauge port	G¼ 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 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L / 1.4404



G¼ up to G2
5 ... 45/1500 mbar

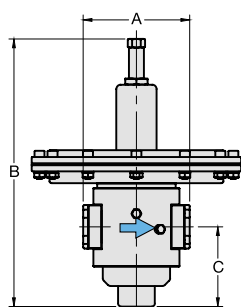
Dimensions			K _v - value	Flow rate		Supply pressure	Connection- thread	Pressure range	Order number
A	B	C		m³/h*	l/min*				
mm	mm	mm	(m³/h)			max. bar	G	mbar	

Low pressure regulator made of SST, supply pressure max. 6/7 bar, non-relieving diaphragm NBR/Buna-N with PTFE coating, FKM o-ring R3100

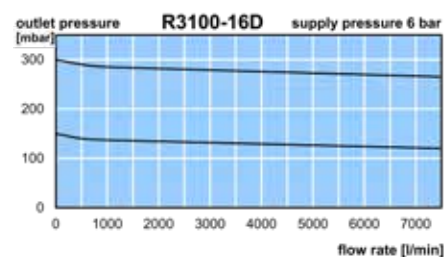
265	234	69	1.4	84	1400	7	G1¼	5 ... 45	R3100-10A
								10 ... 120	R3100-10B
								10 ... 400	R3100-10C
265	296	53	8.4	576	9600			15 ... 700	R3100-10D
								200 ... 1200	R3100-10E
265	234	69	1.4	84	1400	7	G1½	5 ... 45	R3100-1AA
								10 ... 120	R3100-1AB
								10 ... 400	R3100-1AC
265	296	53	8.4	576	9600			15 ... 700	R3100-1AD
								200 ... 1200	R3100-1AE
171	431	97	6.2	420	7000	6	G1½	20 ... 50	R3100-12A
								50 ... 150	R3100-12B
171	467	97						150 ... 300	R3100-12D
171	430	97	25	1470	24500			100 ... 1000	R3100-12E
171	431	97	6.2	420	7000	6	G2	20 ... 50	R3100-16A
								50 ... 150	R3100-16B
171	467	97						150 ... 300	R3100-16D
171	430	97	25	1470	24500			100 ... 1000	R3100-16E



R3100-12/-16



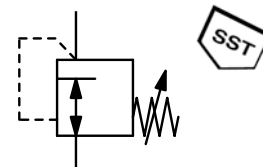
R3100-12/-16



*1 at 6 bar supply pressure and 1 bar / 0.7 bar (-04) outlet pressure



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		
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		



G $\frac{1}{4}$ up to G2
5 ... 45/1500 mbar

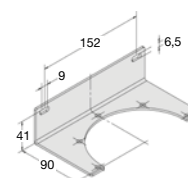
Dimensions			K _v - value	Flow rate	Supply pressure	Connection- thread	Pressure range	Order number
A	B	C						
mm	mm	mm	(m ³ /h)	m ³ /h*1	l/min*1	max. bar	G	mbar

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	R3100- ... X51
up to 130 °C/266 °F	high temperature version	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 *2		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... ^{*3} mbar, G $\frac{1}{4}$, capsule type	up to 600 mbar	MS6302- ..^{*3}
	Ø 63 mm, 0... ^{*4} bar, G $\frac{1}{4}$, Bourdon tube	from 1 bar on	MS6302- ..^{*4}
mounting bracket		for G $\frac{1}{4}$ to G $\frac{1}{2}$	BW00-26S



BW00-26S

*1 at 6 bar supply pressure and 1 bar / 0.7 bar (-04) outlet pressure
*3 B6 = 0...60 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar, C6 = 0...600 mbar

*2 without DVGW-approval
*4 02 = 0...2 bar, 04 = 0...4 bar, 06 = 0...6 bar



STAINLESS STEEL HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE 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. compressed air or non-corrosive gases

Media

Supply pressure

Adjustment

Gauge port

Relief valve

Compensation

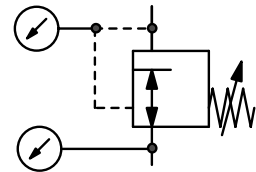
Temperature range

Material

by hexagon head screw at RH3000-02 to -A3; T-handle at RH3000-06 to -10, with locknut
All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
prevents from overpressure, see chart
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.

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



G $\frac{1}{4}$ up to G $\frac{1}{4}$
1 ... 8/200 bar

Dimensions			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	l/min*1	inlet/outlet	bar
mm	mm	mm						

High pressure regulator 220 bar

non-relieving, for compressed air with supply and outlet pressure gauges

RH3000

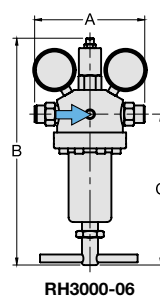
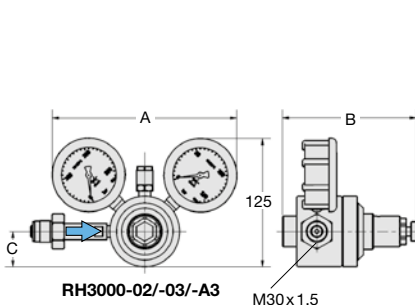
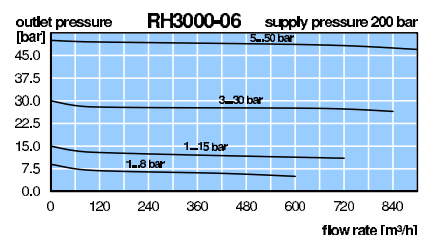
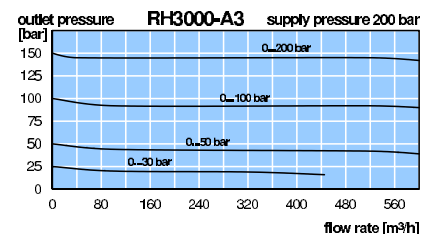
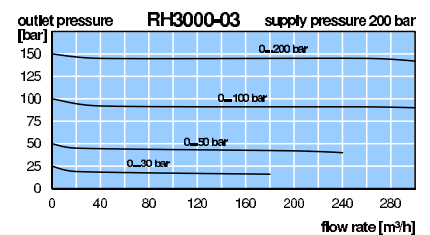
170	159	32	S	0.05	30	500	DIN 477 / G $\frac{1}{4}$ f	1 ... 8	RH3000-02A
			S		45	750		1 ... 15	RH3000-02B
170	172	32	S		60	1000		3 ... 30	RH3000-02C
			S		60	1000		5 ... 50	RH3000-02D
			S		60	1000		10 ... 100	RH3000-02E
			-		60	1000		20 ... 200	RH3000-02F
186	172	40	S	0.15	70	1150	DIN 477 / G $\frac{3}{8}$ f	1 ... 8	RH3000-03A
			S		155	2580		1,5 ... 15	RH3000-03B
			S		210	3500		3 ... 30	RH3000-03C
186	175	46	S		250	4100		5 ... 50	RH3000-03D
					350	5800		10 ... 100	RH3000-03E
					390	6500		20 ... 200	RH3000-03F
186	196	40	-						
178	241	40	S	0.25	370	6170	G $\frac{3}{4}$ f / G $\frac{3}{8}$ f	1 ... 15	RH3000-A3B
178	244	40	S		460	7700		3 ... 30	RH3000-A3C
			S		650	10830		5 ... 50	RH3000-A3D
					680	11300		10 ... 100	RH3000-A3E
					700	11670		20 ... 200	RH3000-A3F
178	196	40	-						
178	241	40	S	0,25	370	6170	G $\frac{3}{4}$ i / G $\frac{1}{2}$ i	1 ... 15	RH3000-04B
178	244	40	S		460	7700		3 ... 30	RH3000-04C
			S		650	10830		5 ... 50	RH3000-04D
			-		680	11300		10 ... 100	RH3000-04E
			-		700	11670		20 ... 200	RH3000-04F
178	196	40	-						
166	345	232	S	1.5	600	10000	G $\frac{3}{4}$ m / G $\frac{3}{4}$ m	1 ... 8	RH3000-06A
			S		720	12000		1 ... 15	RH3000-06B
166	358	245	S		850	14170		3 ... 30	RH3000-06C
			S		1000	16670		5 ... 50	RH3000-06D
			-		1050	17500		10 ... 100	RH3000-06E



RH3000-02



RH3000-03



*1 at 200 bar supply pressure and max. outlet pressure

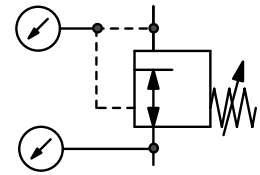
PDF CAD
www.aircom.net



Order example:
RH3000-02A

STAINLESS STEEL HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE 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.		
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	Mounting position any
	Diaphragm:	stainless steel 316	Filter: stainless steel 316
	O-ring:	FKM / PTFE	Valve seat: FKM
			Piston: stainless steel 316



G $\frac{1}{4}$ up to G1 $\frac{1}{4}$
1 ... 8/200 bar

Dimensions			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	l/min*1	inlet/outlet	bar
mm	mm	mm						

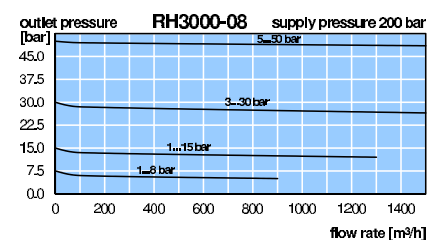
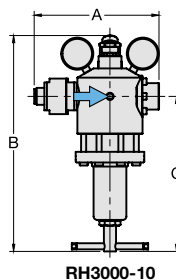
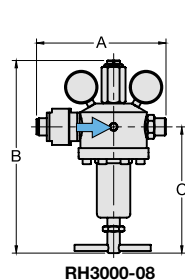
High pressure regulator 220 bar					non-relieving, for compressed air with supply and outlet pressure gauges			RH3000	
253	365	242	S	1,8	1100	18330	G1a / G1 a	1 ... 8	RH3000-08A
			S		1300	21670		1 ... 15	RH3000-08B
253	406	278	S		1500	25000		3 ... 30	RH3000-08C
			S		1650	27500		5 ... 50	RH3000-08D
			-		1850	30830		20 ... 200	RH3000-08F
248	370	270	S	3,1	3850	65830	G1a / G1 $\frac{1}{4}$ i	1 ... 8	RH3000-10A
								1 ... 15	RH3000-10B
								3 ... 30	RH3000-10C
								5 ... 50	RH3000-10D

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
without cylinder connection		RH3000-... X40

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
	for RH3000-08	BW00-35S



*1 at 200 bar supply pressure and max. outlet pressure

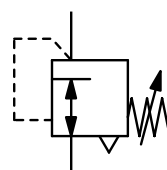
*2 max. 80 bar

*3 without DVGW-approval



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 $\Delta p_{\text{max}} = 25$ 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		
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	Mounting position any



SST

G $\frac{1}{4}$ to G2, FDA gases or liquids

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

Stainless steel booster				supply pressure max. 60 bar, non-relieving, ratio 1:1, PTFE-diaphragm and FKM-o-ring			R3000-J		
64	79	38	M	1.4	78	1300	G $\frac{1}{4}$	15	1...15 R3000-02J2T
64	92	38	K					50	1...50 R3000-02J5T
109	90	39	M	3.0	168	2800	G $\frac{1}{2}$	15	1...15 R3000-04J2T
109	108	39	K					50	1...50 R3000-04J5T
165	137	60	M	9.7	540	9000	G $\frac{3}{4}$	15	1...15 R3000-06J2T
165	172	60	K					50	1...50 R3000-06J5T
165	137	60	M	9.7	540	9000	G1	15	1...15 R3000-08J2T
165	172	60	K					50	1...50 R3000-08J5T
269	137	60	M	9.7	540	9000	G1 $\frac{1}{4}$	15	1...15 R3000-10J2T
269	172	60	K					50	1...50 R3000-10J5T
269	137	60	M	9.7	540	9000	G1 $\frac{1}{2}$	15	1...15 R3000-1AJ2T
269	172	60	K					50	1...50 R3000-1AJ5T



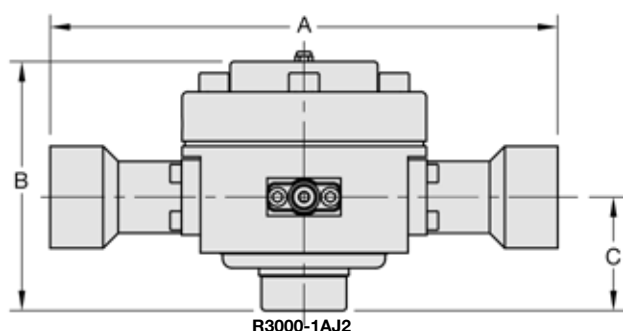
R3000-02J2T
accessory: gauge



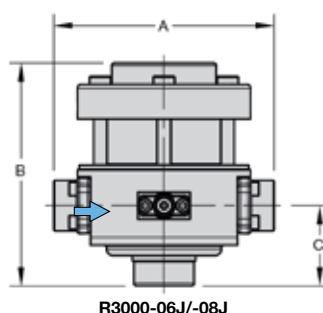
R3000-04J



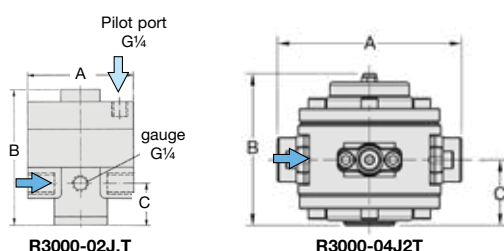
R3000-06J/-08J/-10J/-1AJ2T



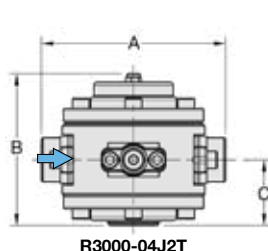
R3000-1AJ2



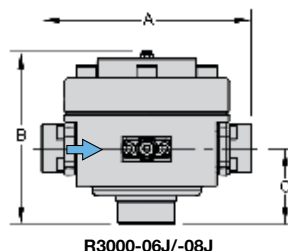
R3000-06J/-08J



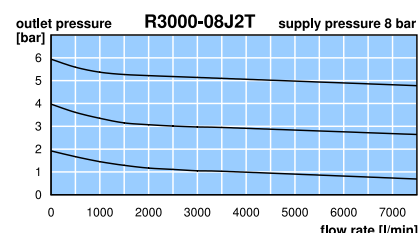
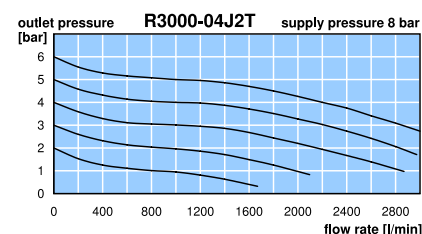
R3000-02J.T



R3000-04J2T



R3000-06J/-08J



*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

Gauges: see chapter for measuring devices

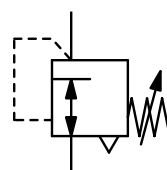
PDF CAD
www.aircom.net



Order example:
R3000-02J2T

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		
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	Mounting position any



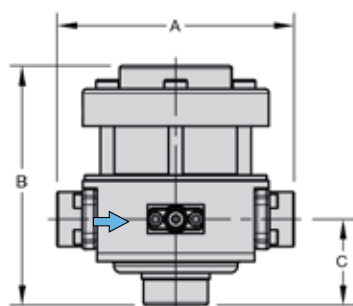
G $\frac{1}{4}$ to G2, FDA
gases or liquids

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

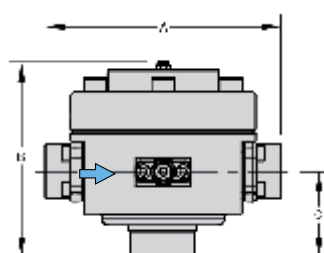
Stainless steel booster					supply pressure max. 60 bar, non-relieving, ratio 1:1, PTFE-diaphragm and FKM-o-ring					R3000-J
174	226	126	K	25.0	1380	23 000	G1½	50	1...15	R3000-12J2T
174	226	126	K					50	1...50	R3000-12J5T
174	226	126	K	25.0	1380	23 000	G2	50	1...15	R3000-B6J2T
174	226	126	K					50	1...50	R3000-B6J5T
171	268	128	K	25.0	1440	24 000	G2	15	1...15	R3000-16J2T



R3000-12J2T



R3000-06J/-08J



R3000-10J/-1AJ2T

*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

Gauges: see chapter for measuring devices

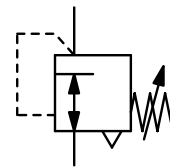
PDF CAD
www.aircom.net



Order example:
R3000-12J2T

SST
SST
15

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		
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	Mounting position any

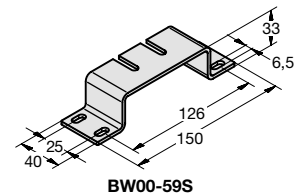


G $\frac{1}{4}$ to G2, FDA gases or liquids

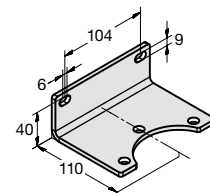
Dimensions	Regulating System	K _v -value	Flow rate	Connection	Pilot pressure	Pressure range	Order number
A B C	D: Diaphragm P: Piston	(m ³ /h)	m ³ /h*1 l/min*1	thread G	max. bar	bar	
mm mm mm							

Special options, add the appropriate letter

diaphragm relieving		for R3000-02J2 to 1A8J2	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	P ₁ max. 15 bar	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 ₈		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.



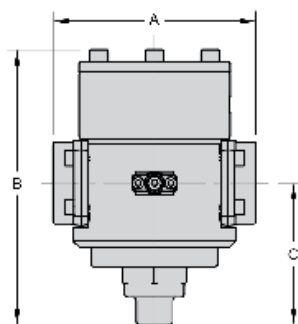
BW00-59S



BW00-68S

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 $\frac{1}{4}$ to G2	MS6302-...*2
mounting bracket		for G $\frac{1}{4}$ and G1	BW00-59S
		for G $\frac{1}{2}$ (12) and G2 (B6)	BW00-68S

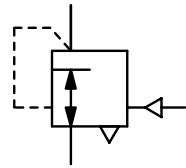


R3000-12J/-B6J

*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



Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The booster is robust, highly accurate and sensitive. The hysteresis between the outlet pressure and the relieving pressure is very small and constant. Caused of the inlet pressure compensation of the control valve the regulator is stable against fluctuations in inlet pressure vibrations due to sudden changes of the volume flow are prevented by damping in the diaphragm chamber.		
Media	compressed air or non-corrosive gases		
Pilot pressure	max. 10 bar	Supply pressure	max. 17 bar
Accuracy	response sensitivity 15 mbar		
Air consumption	no air consumption	Relieving function	relieving, tapped exhaust function ¼ NPT
Relief capacity	4245 l/min at 5 bar outlet pressure and 0.35 bar over pressure		
Gauge port	¼" NPT on both sides of the body		
Temperature range	-40 to 93 °C / -72 to 167.4 °F; optionally to -52 °C / -93.6 °F	Mounting position:	any
Material	Body and inner valve stainless steel 316L		Elastomer: NBR



¾" NPT and 1" NPT
13000 l/min

Dimensions			K _v -value	Flow rate		Connection thread	Supply pressure	Pilot pressure	Order number
A	B	C	(m³/h)	m³/h*1	l/min*1	NPT	max. bar	signal : outlet	
mm	mm	mm							

Booster							Transmission ratio 1:1, inlet pressure max. 17 bar, reversible, without internal air consumption			R601
117	177	45	8	690	11500	¾" NPT	17	0 ... 10		R601-06N
			9	780	13000	1" NPT	17	0 ... 10		R601-08N



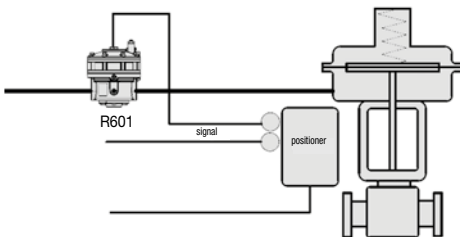
R601

Special options, add the appropriate letter

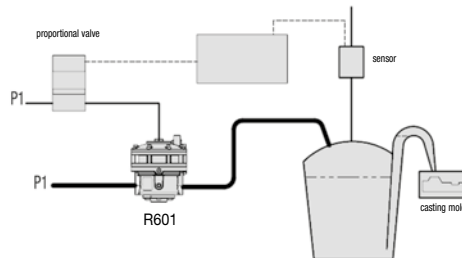
Low temperature option to -52 °C / -93 °F R600-0 . NX51

Accessories, enclosed

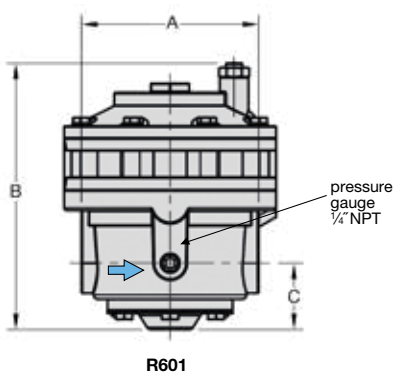
Pressure gauge Ø 63 mm, 0...*2 bar, G¼
Connection part pressure gauge 1/4" NPTa-G1/4
Mounting bracket
MA6302-..*2
VP-0202N
BW00-66S



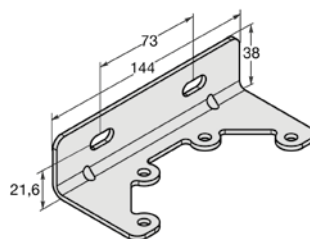
Volume flow booster with single-acting positioner and diaphragm actuator



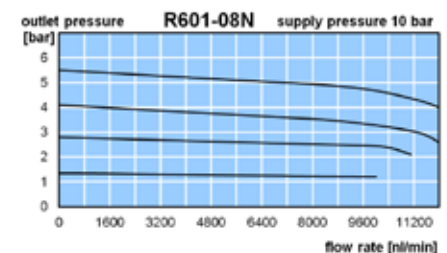
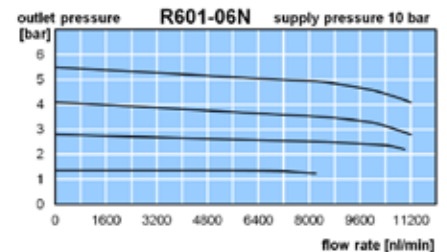
Volume flow booster in a casting plant



R601



BW00-66S



*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

Gauge: see chapter for measuring devices

PDF CAD
www.aircom.net

* Product group



Order example:
R601-06N

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.

Media

compressed air, gases or liquids

System pressure Adjustment

see chart, max. 70 bar
by adjusting screw at D3000-01 to -A6, with locknut
by T-handle at D3000-06 to -16, with locknut
for inlet pressure, G $\frac{1}{8}$ on both sides, all others G $\frac{1}{4}$, screw plugs supplied

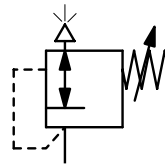
Gauge port

Mounting position

Temperature range

any
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
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

Material



G $\frac{1}{8}$ to G2, FDA
0.1 ... 1.5 / 50 bar

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

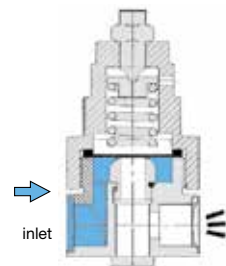
overpressure max. 22.5 / 30 / 70 bar,
PTFE diaphragm and FKM o-ring

D3000

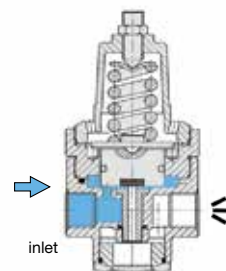
40	83	13	M	400	30	G $\frac{1}{8}$	0,1 ... 1,5 0,2 ... 3,0 0,5 ... 8,0 1,0 ... 15	D3000-01AT D3000-01BT D3000-01DT D3000-01ET
40	83	13	M	400	30	G $\frac{1}{4}$	0,1 ... 1,5 0,2 ... 3,0 0,5 ... 8,0 1,0 ... 15	D3000-A2AT D3000-A2BT D3000-A2DT D3000-A2ET
109	140	17	M	2300	22,5	G $\frac{1}{4}$	0,1 ... 1,5 0,2 ... 3,0 0,5 ... 8,0 1,0 ... 15	D3000-02AT D3000-02BT D3000-02DT D3000-02ET
109	153	17	K	2300	70		2,0 ... 30 3,0 ... 50	D3000-02FT D3000-02GT
109	140	17	M	2300	22,5	G $\frac{3}{8}$	0,1 ... 1,5 0,2 ... 3,0 0,5 ... 8,0 1,0 ... 15	D3000-03AT D3000-03BT D3000-03DT D3000-03ET
109	153	17	K	2300	70		2,0 ... 30 3,0 ... 50	D3000-03FT D3000-03GT
109	140	17	M	2300	22,5	G $\frac{1}{2}$	0,1 ... 1,5 0,2 ... 3,0 0,5 ... 8,0 1,0 ... 15	D3000-04AT D3000-04BT D3000-04DT D3000-04ET
109	153	17	K	2300	70		2,0 ... 30 3,0 ... 50	D3000-04FT D3000-04GT



D3000-02/-03/-04

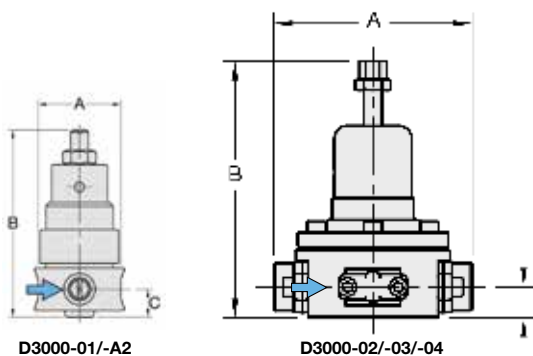


with diaphragm



with piston

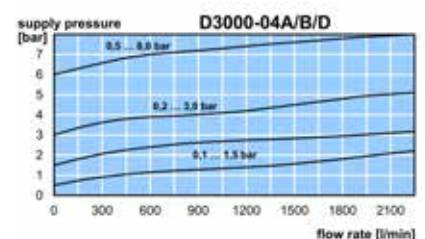
Accessories, see next pages



D3000-01/-A2

D3000-02/-03/-04

*1 at 7 bar overpressure and open outlet



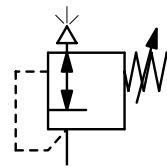
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
D3000-02AT

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. 70 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 $\frac{1}{4}$ on both sides, 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 EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404



SST

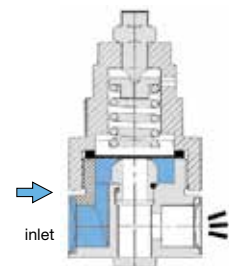
G $\frac{1}{8}$ to G2, FDA
0.1 ... 1.5 / 50 bar

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	

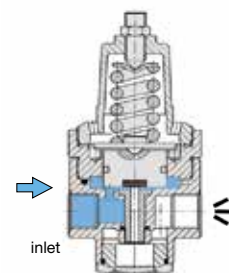
Back pressure regulator					overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring			D3000
165	246	21	M	8000	30	G¾	0,1 ... 1,5	D3000-06AT
							0,2 ... 3,0	D3000-06BT
							0,5 ... 8,0	D3000-06DT
							1,0 ... 15	D3000-06ET
165	270	21	K	8000	65		2,0 ... 30	D3000-06FT
							3,0 ... 50	D3000-06GT
165	246	21	M	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	270	21	K	8000	65		2,0 ... 30	D3000-08FT
							3,0 ... 50	D3000-08GT
269	246	21	M	8000	30	G1¼	0,1 ... 1,5	D3000-10AT
							0,2 ... 3,0	D3000-10BT
							0,5 ... 8,0	D3000-10DT
							1,0 ... 15	D3000-10ET
269	270	21	K	8000	65		2,0 ... 30	D3000-10FT
							3,0 ... 50	D3000-10GT
269	246	21	M	8000	30	G1½	0,1 ... 1,5	D3000-1AAT
							0,2 ... 3,0	D3000-1ABT
							0,5 ... 8,0	D3000-1ADT
							1,0 ... 15	D3000-1AET
269	270	21	K	8000	65		2,0 ... 30	D3000-1AFT
							3,0 ... 50	D3000-1AGT



D3000-06/-08/-10/-1A



with diaphragm



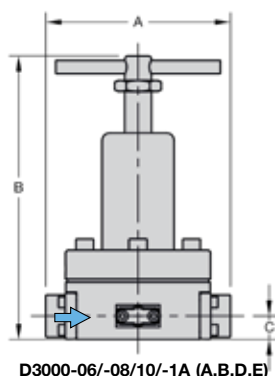
with piston

SST

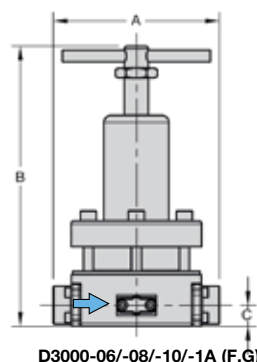
SST

15

Accessories, see next pages

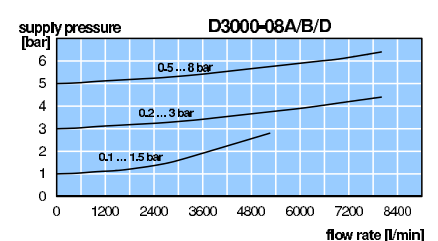


D3000-06/-08/-10/-1A (A,B,D,E)



D3000-06/-08/-10/-1A (F,G)

*1 at 7 bar overpressure and open outlet



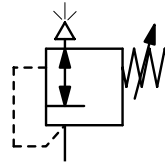
Gauges: see chapter for measuring devices

PDF CAD
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Order example:
D3000-06AT

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. 70 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 $\frac{1}{4}$ on both sides, 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 EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404



G $\frac{1}{8}$ to G2, FDA
0.1 ... 1.5 / 50 bar

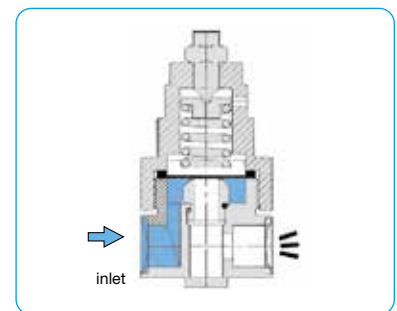
Dimensions			Regul. system	Exhaust	Over-	Connection	Adjustment	Order
A	B	C	D: Diaphragm	rate	pressure	thread	range	number
mm	mm	mm	P: Piston	l/min*1	max. bar	G	bar	

Back pressure regulator					overpressure max. 70 bar, PTFE diaphragm and FKM o-ring	D3000		
174	283	35	M	28 000	70	G1 $\frac{1}{2}$	0.1 ... 1.5	D3000-12AT
							0.2 ... 3.0	D3000-12BT
							0.5 ... 8.0	D3000-12DT
							1.0 ... 15	D3000-12ET
							2.0 ... 30	D3000-12FT
							3.0 ... 50	D3000-12GT
174	283	35	M	28 000	70	G2	0.1 ... 1.5	D3000-16AT
							0.2 ... 3.0	D3000-16BT
							0.5 ... 8.0	D3000-16DT
							1.0 ... 15	D3000-16ET
							2.0 ... 30	D3000-16FT
							3.0 ... 50	D3000-16GT

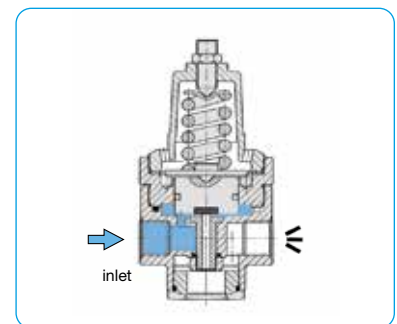
171



D3000-12/-16

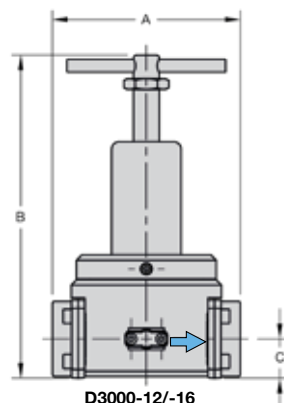


with diaphragm

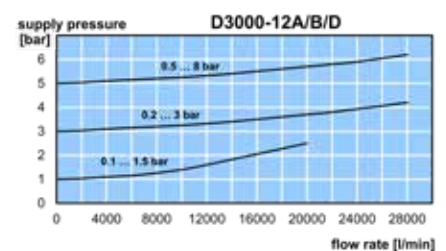


with piston

Accessories, see next page



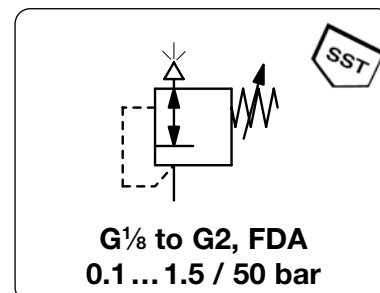
D3000-12/-16



*1 at 7 bar overpressure and open outlet



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. 70 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 $\frac{1}{4}$ on both sides, 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 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

pilot operated	Diaphragm version, control press. max. 15 bar, 1 ... 15 bar	D3000-...J2
pilot operated	Piston version, control press. max. 50 bar, 1 ... 50 bar	D3000-...J5
NPT	connection thread	D3000-...N
down to -40 °C/ -40 °F	low temperature version	D3000-...X51
up to 130 °C/266 °F	high temperature version	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	D3000-...S
	NBR -o-ring	D3000-...SB
	EPDM-o-ring	D3000-...SE
	EPDM-o-ring, FDA-approval	D3000-...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 ₈	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 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 $\frac{1}{4}$ and G $\frac{1}{2}$	BW45-03S
mounting nut			M45x1,5S
mounting bracket		for G $\frac{3}{4}$ to G1½ (1A)	BW00-59S
		for G1½ (12) and G2	BW00-63S

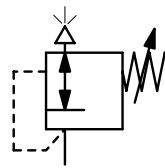
*1 at 7 bar overpressure and open outlet

*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



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. 10 bar
Adjustment	by adjusting screw for D3100-02 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



G $\frac{1}{4}$ and G2
0 ... 45/3000 mbar

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

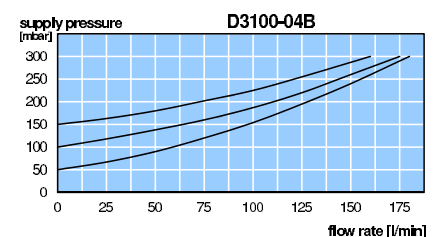
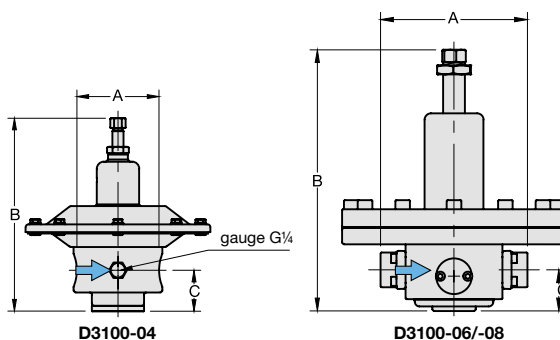
Back pressure regulator				overpressure max. 6/10 bar, PTFE-diaphragm and FKM-o-ring		D3100	
109	181	39	450	10	G $\frac{1}{4}$	0 ... 45	D3100-02AT
			750			0 ... 400	D3100-02BT
			1000			0 ... 1000	D3100-02CT
			1400			0 ... 1500	D3100-02DT
109	181	39	450	10	G $\frac{3}{8}$	0 ... 45	D3100-03AT
			750			0 ... 400	D3100-03BT
			1000			0 ... 1000	D3100-03CT
			1400			0 ... 1500	D3100-03DT
109	181	39	450	10	G $\frac{1}{2}$	0 ... 45	D3100-04AT
			750			0 ... 400	D3100-04BT
			1000			0 ... 1000	D3100-04CT
			1400			0 ... 1500	D3100-04DT
161	290	45	1500	6	G $\frac{3}{4}$	0 ... 300	D3100-06BT
			2300			0 ... 700	D3100-06CT
			3000			0 ... 1200	D3100-06DT
161	290	45	1500	6	G1	0 ... 300	D3100-08BT
			2300			0 ... 700	D3100-08CT
			3000			0 ... 1200	D3100-08DT



D3100-02/-03/-04

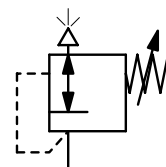


D3100-06/-08/-10/-1A



*1 at 6 bar overpressure and open outlet
*2 B6 = 0...60 mbar, C3 = 0...250 mbar

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. 10 bar
Adjustment	by adjusting screw for D3100-02 to -1A, with locknut by T-handle for D3100-12 and -16, with locknut	Mounting position	any
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, 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



SST

G $\frac{1}{4}$ and G2
0...45/3000 mbar

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

Back pressure regulator			overpressure max. 6/10 bar, PTFE-diaphragm and FKM-o-ring		D3100		
265	290	45	2000	6	G $\frac{1}{4}$	0... 300	D3100-10BT
			4100			0... 700	D3100-10CT
			5000			0...1200	D3100-10DT
265	290	45	2000	6	G $\frac{1}{2}$	0... 300	D3100-1ABT
			4100			0... 700	D3100-1ACT
			5000			0...1200	D3100-1ADT
171	460	128	2500	6	G $\frac{1}{2}$	20... 50	D3100-12AT
			5000			50... 150	D3100-12BT
			7500			150... 300	D3100-12CT
171	420	128	10000			300...3000	D3100-12DT
171	460	128	2500	6	G2	20... 50	D3100-16AT
			5000			50... 150	D3100-16BT
			7500			150... 300	D3100-16CT
171	420	128	10000			300...3000	D3100-16DT



D3100-06/-08/-10/-1A

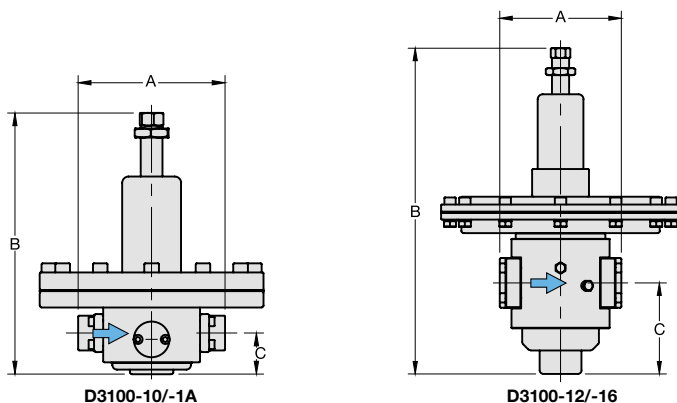


D3100-12/-16

SST

SST

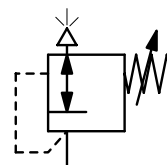
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*1 at 6 bar overpressure and open outlet
*2 B6 = 0...60 mbar, C3 = 0...250 mbar



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 D3100-02 to -1A, with locknut by T-handle for D3100-12 and -16, with locknut	Mounting position	any
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, 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		



G $\frac{1}{4}$ and G2
0 ... 45/3000 mbar

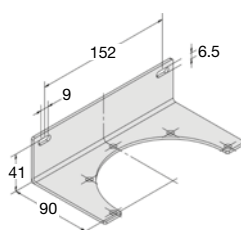
Dimensions			Exhaust rate	Over-pressure	Connection thread	Adjustment range	Order number
A	B	C	l/min*1	max. bar	G	mbar	
mm	mm	mm					

Special options, add the appropriate letter

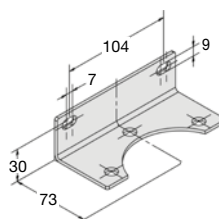
NPT	connection thread	D3100-...N
FKM -o-ring		D3100-...T
EPDM-o-ring		D3100-...TE
EPDM-o-ring	FDA-approval	D3100-...TD
down to -40 °C/ -40 °F	low temperature version	D3100-...X51
up to 130 °C/266 °F	high temperature version	D3100-...X54
ammonia	NH ₃	D3100-...02
carbon dioxide	CO ₂	D3100-...03
argon	Ar	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 ₈	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

Gauges: see chapter for measuring devices

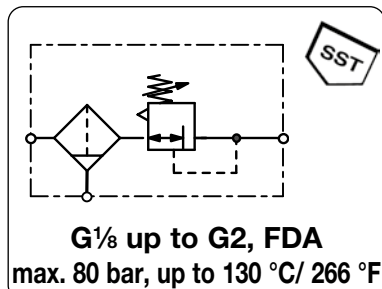
PDF CAD
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Order example:
MS6302-B6

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. 16 bar, 50 bar or 80 bar (only with locking screw)
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	Flow rate	Filter element	Connection thread	Pressure range	Order number
A	B	C						
mm	mm	mm	l	l/min*1	μ m	G	bar	

Filter pressure regulator					with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar			B3000
40	147	83	0,03	200	5	G $\frac{1}{8}$	0.8 ... 8	B3000-01GH
							1.5 ... 15	B3000-01GDH
				280	50		0.8 ... 8	B3000-01H
							1.5 ... 15	B3000-01DH
40	147	83	0,03	200	5	G $\frac{1}{4}$	0.8 ... 8	B3000-A2GH
							1.5 ... 15	B3000-A2GDH
				280	50		0.8 ... 8	B3000-A2H
							1.5 ... 15	B3000-A2DH
64	249	128	0,14	600	5	G $\frac{1}{4}$	0.8 ... 8	B3000-02G
							1.5 ... 15	B3000-02GD
				800	50		0.8 ... 8	B3000-02
							1.5 ... 15	B3000-02D
109	246	125	0,2	2200	5	G $\frac{3}{8}$	0.8 ... 8	B3000-03G
							1.5 ... 15	B3000-03GD
							3.0 ... 30	B3000-03GE
							5.0 ... 50	B3000-03GF
				3000	50		0.8 ... 8	B3000-03
							1.5 ... 15	B3000-03D
							3.0 ... 30	B3000-03E
							5.0 ... 50	B3000-03F
109	246	125	0,2	2200	5	G $\frac{1}{2}$	0.8 ... 8	B3000-04G
							1.5 ... 15	B3000-04GD
							3.0 ... 30	B3000-04GE
							5.0 ... 50	B3000-04GF
							0.8 ... 8	B3000-04
							1.5 ... 15	B3000-04D
							3.0 ... 30	B3000-04E
							5.0 ... 50	B3000-04F



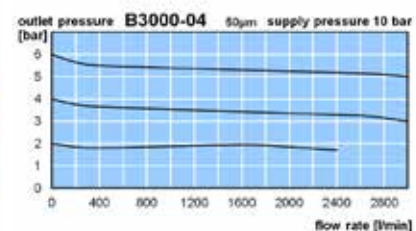
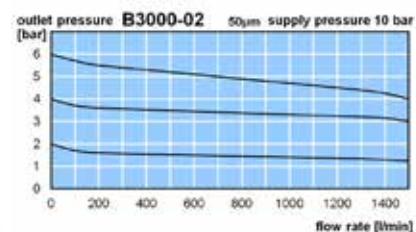
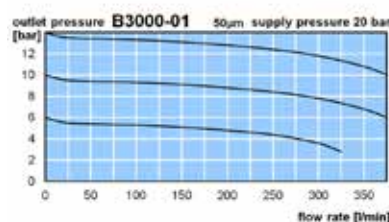
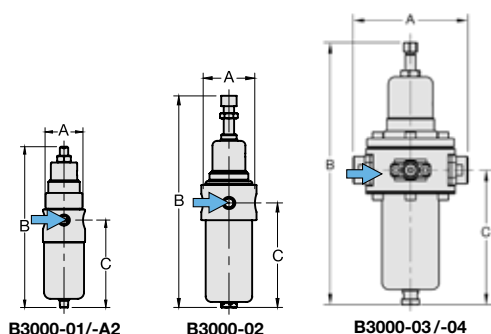
B3000-01/-A2



B3000-02



B3000-03/-04



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

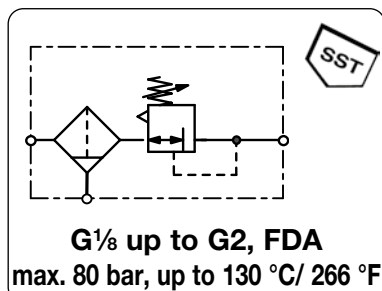
PDF CAD
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Order example:
B3000-01GH

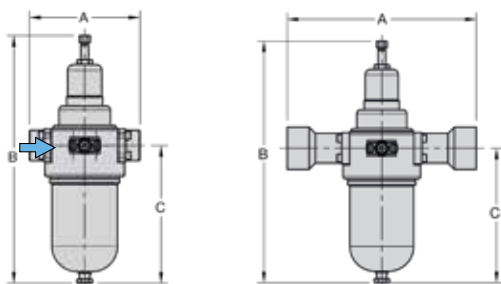
FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G $\frac{3}{4}$ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 16 bar, 50 bar or 80 bar (only with locking screw)
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
Temperature range	automatic drain (max. 16 bar) for G $\frac{1}{4}$ (02) up to G1 -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



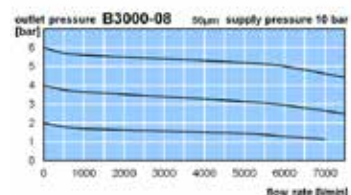
Dimensions			Bowl capacity	Flow rate	Filter element	Connection thread	Pressure range	Order number
A	B	C	l	l/min*1	μ m	G	bar	
mm	mm	mm						

Filter pressure regulator					with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar			B3000
137	304	168	0,5	4500	5	G $\frac{3}{4}$	0.8 ... 8	B3000-06G
							1.5 ... 15	B3000-06GD
							3.0 ... 30	B3000-06GE
							5.0 ... 50	B3000-06GF
							0.8 ... 8	B3000-06
				6000	50	G1	1.5 ... 15	B3000-06D
							3.0 ... 30	B3000-06E
							5.0 ... 50	B3000-06F
							0.8 ... 8	B3000-08G
							1.5 ... 15	B3000-08GD
137	304	168	0,5	4500	5	G1	3.0 ... 30	B3000-08GE
							5.0 ... 50	B3000-08GF
							0.8 ... 8	B3000-08
							1.5 ... 15	B3000-08D
							3.0 ... 30	B3000-08E
				6000	50	G1 $\frac{1}{4}$	5.0 ... 50	B3000-08F
							0.8 ... 8	B3000-10G
							1.5 ... 15	B3000-10GD
							3.0 ... 30	B3000-10GE
							5.0 ... 50	B3000-10GF
137	304	168	0,5	4500	5	G1 $\frac{1}{4}$	0.8 ... 8	B3000-10
							1.5 ... 15	B3000-10D
							3.0 ... 30	B3000-10E
							5.0 ... 50	B3000-10F
				6000	50	G1 $\frac{1}{2}$	0.8 ... 8	B3000-1AG
							1.5 ... 15	B3000-1AGD
							3.0 ... 30	B3000-1AGE
							5.0 ... 50	B3000-1AGF
							0.8 ... 8	B3000-1A
248	304	168	0,5	4500	5	G1 $\frac{1}{2}$	1.5 ... 15	B3000-1AD
							3.0 ... 30	B3000-1AE
							5.0 ... 50	B3000-1AF



B3000-06/-08

B3000-10/-1A



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

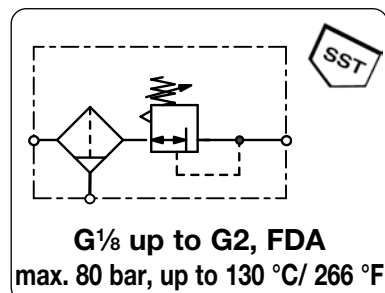
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www.aircom.net



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. 16 bar, 50 bar or 80 bar (only with locking screw)
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
Temperature range	automatic drain (max. 16 bar) for G $\frac{1}{4}$ (02) up to G1 -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						
mm	mm	mm	l	l/min*1	μ m	G	bar	

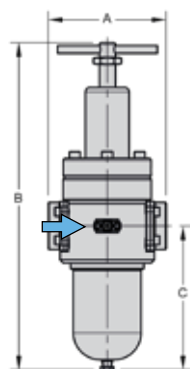
Filter pressure regulator				with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar				B3000
174	483	213	1,0	17500	5	G1 $\frac{1}{2}$	0.8 ... 8	B3000-12G
							1.5 ... 15	B3000-12GD
							3.0 ... 30	B3000-12GE
							5.0 ... 50	B3000-12GF
				23000	50		0.8 ... 8	B3000-12
							1.5 ... 15	B3000-12D
							3.0 ... 30	B3000-12E
							5.0 ... 50	B3000-12F
174	483	213	1,0	17500	5	G2	0.8 ... 8	B3000-16G
							1.5 ... 15	B3000-16GD
							3.0 ... 30	B3000-16GE
							5.0 ... 50	B3000-16GF
				23000	50		0.8 ... 8	B3000-16
							1.5 ... 15	B3000-16D
							3.0 ... 30	B3000-16E
							5.0 ... 50	B3000-16F



B3000-12/-16

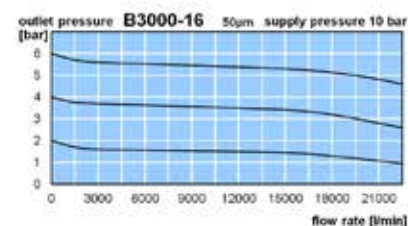


Accessories, see next page

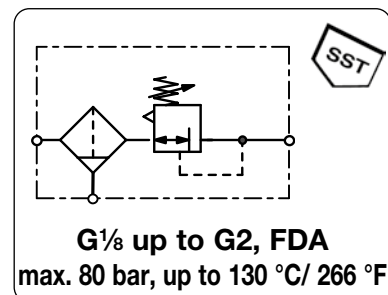


B3000-12/-16

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



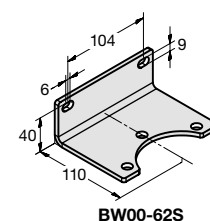
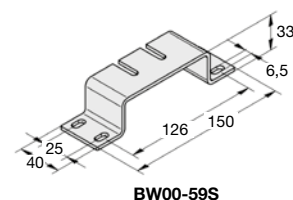
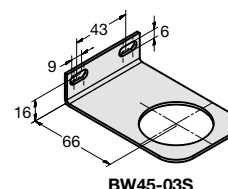
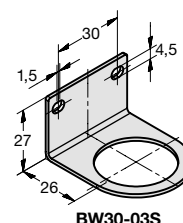
Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G $\frac{1}{8}$ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 30 bar, 50 bar or 80 bar (only with locking screw)
Adjustment	by adjusting 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	Flow	Filter	Connection	Pressure	Order
A B C	capacity	rate	element	thread	range	number
mm mm mm	l	l/min*1	μ m	G	bar	

Special options, add the appropriate letter

NPT	connection thread	for G $\frac{1}{4}$ (02) to G2	B3000-...N
0,1 ... 1,5 bar regulating range			B3000-...A
0,2 ... 3 bar regulating range			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
P ₁ : 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		B3000-...X51
up to 130 °C/ 266 °F	high temperature version		B3000-...X54
spring cage made of POM		for G $\frac{1}{8}$ and G $\frac{1}{4}$ (A2)	R3000-...X57
EPDM-o-ring			B3000-...E
EPDM-o-ring	FDA approval		B3000-...TD
SST diaphragm	not suitable for water	for G $\frac{1}{4}$ (02) to G $\frac{1}{2}$	B3000-...S
ammonia NH ₃		P ₁ max. 15 bar	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 $\frac{1}{2}$	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			M30x1,5SS
mounting bracket		for G $\frac{1}{4}$ (02) to G1 $\frac{1}{2}$ (1A)	BW45-03S
mounting nut			M45x1,5S
mounting bracket		for G $\frac{3}{8}$ to G1 $\frac{1}{2}$ (1A)	BW00-59S
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

*2 04 = 0...4 bar, 10 = 0...10 bar, 16 = 0...16 bar, 60 = 0...60 bar

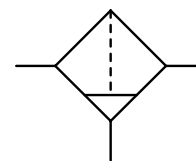
*3 without DVGW-approval



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%
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



SST

G¹/₈ up to G2, max. 80 bar
-40 °C to 130 °C, FDA

Dimensions			Bowl capacity	Flow rate	P ₁ max.	Filter element	Connection thread	Order number
A	B	C						
mm	mm	mm	l	m ³ /h*1	l/min*1	µm	G	

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
109	140	123	0,2	150	2500	50	50	G ³ / ₈	F3000-03 F3000-03G F3000-03I
109	140	123	0,2	150	2500	50	50	G ¹ / ₂	F3000-04 F3000-04G F3000-04I
79	150	130	0,2	150	2500	50	0,01		
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	G1	F3000-08 F3000-08G F3000-08I
241	194	167	0,50	432	7200	50	50	G1 ¹ / ₄	F3000-10 F3000-10G F3000-10I
241	194	167	0,50	432	7200	50	50	G1 ¹ / ₂	F3000-1A F3000-1AG F3000-1AI
174	248	218	1,00	1380	23000	50	50	G1 ¹ / ₂	F3000-12 F3000-12G
174	248	218	1,00	1380	23000	50	50	G2	F3000-16 F3000-16G



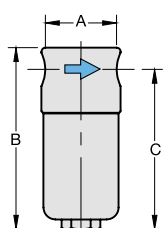
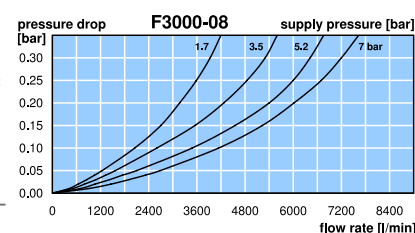
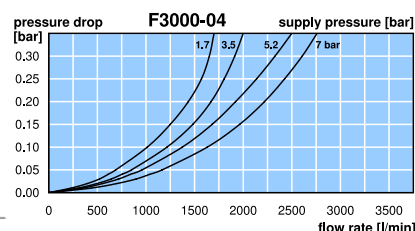
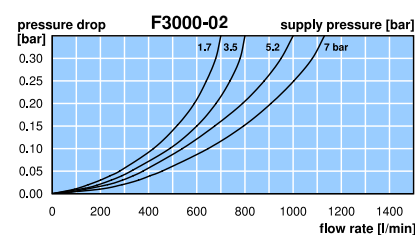
F3000-02



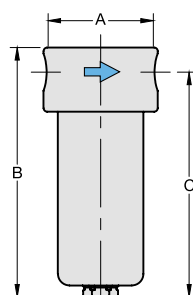
F3000-03/-04

SST

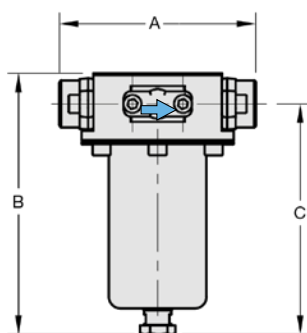
SST
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F3000-01/-A2



F3000-02



F3000-03/-04

*1 at 7 bar operating pressure and 0.33 bar pressure drop

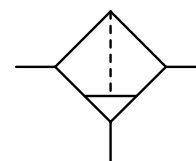
Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

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

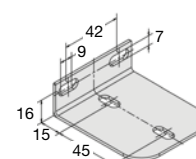


G¹/₈ up to G2, max. 80 bar
-40 °C to 130 °C, FDA

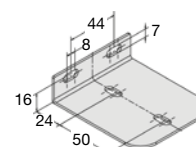
Dimensions			Bowl capacity	Flow rate	P ₁ max.	Filter element	Connection thread	Order number
A	B	C	l	m ³ /h*1	l/min*1	µm	G	
mm	mm	mm						

Special options, add the appropriate letter

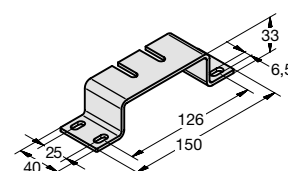
NPT	connection thread	F3000-...N
P₁: max. 80 bar	for G ¹ / ₄ (02) to G2	F3000-...X48
down to -40 °C / -40 °F	low temperature version	F3000-...X51
up to 130 °C / 266 °F	high temperature version	F3000-...X54
manual drain	max. 30 bar	F3000-...H
automatic drain	max. 16 bar	for G ¹ / ₄ (02) to G2 F3000-...R
EPDM-elastomer		F3000-...E
EPDM-elastomer	FDA-approval	F3000-...TD
ammonia	NH ₃	P ₁ max. 15 bar 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.



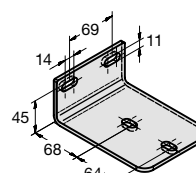
BW00-17S



BW00-18S



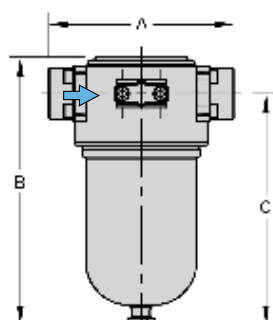
BW00-59S



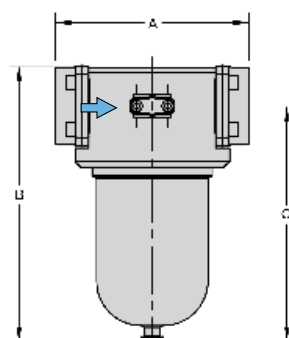
BW00-63S

Accessories, enclosed

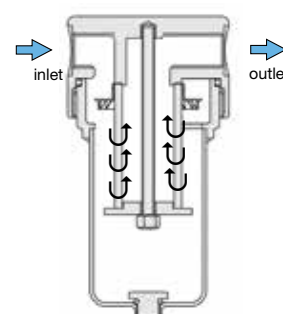
mounting bracket	for G ¹ / ₄ (02)	BW00-17S
	for G ¹ / ₂ (only 04I)	BW00-18S
	for G ³ / ₈ to G1 ¹ / ₂ (1A)	BW00-59S
	for G1 ¹ / ₂ (12) and G2	BW00-63S



F3000-06/-08/-10/1A



F3000-12/-16



cross-section

*1 at 7 bar operating pressure and 0.33 bar pressure drop

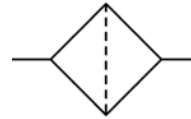
*2 without DVWG-approval

Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
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Order example:
BW00-17S

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	



G $\frac{1}{4}$ up to 1
max. 220 bar

Dimensions			Bowl capacity	Flow rate	Filter element	Connection thread	Order number
A	B	C					
mm	mm	mm	l	m ³ /h*1	l/min*1	G	

SST Filter, up to 220 bar				50 µm / 5 µm		FH3	
70	123	99	0.04	120	2000	5	G $\frac{1}{4}$ FH3-02G
				160	2670	50	G $\frac{1}{4}$ FH3-02
				120	2000	5	G $\frac{3}{8}$ FH3-03G
				160	2670	50	G $\frac{3}{8}$ FH3-03
170	123	99	0.04	120	2000	5	G $\frac{1}{2}$ FH3-04G
				160	2670	50	G $\frac{1}{2}$ FH3-04
204	145	125	0.08	240	4000	5	G $\frac{3}{4}$ FH3-06G
				320	5530	50	G $\frac{3}{4}$ FH3-06
204	145	125	0.08	240	4000	5	G1 FH3-08G
				320	5530	50	G1 FH3-08

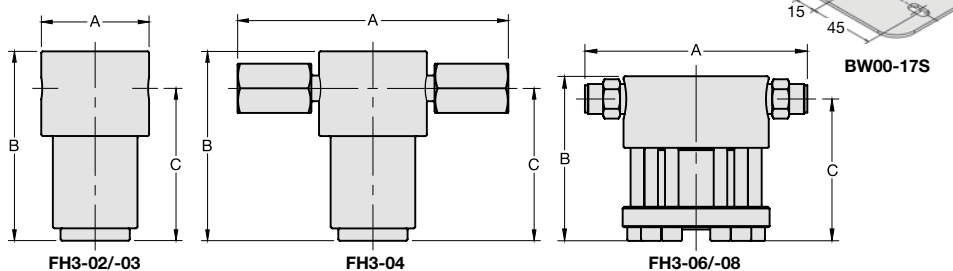
Special options, add the appropriate letter

Coalescing filter	0.01 µm / 99.99 %, brass version	for G $\frac{1}{4}$ to G $\frac{1}{2}$	FH3-...IMS
	0.01 µm / 99.99 %, SST version	for G $\frac{1}{4}$ to G $\frac{1}{2}$	FH3-...I
	0.01 µm / 99.99 %, SST and brass version	for G $\frac{3}{4}$ 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 ₈		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

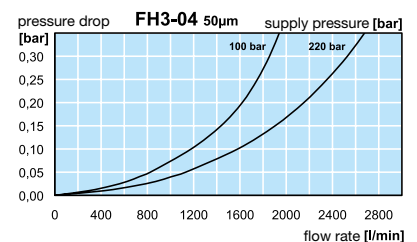
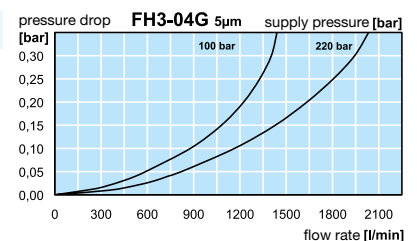
PDF CAD
www.aircom.net



FH3-02/-03/-04

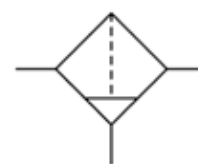


FH3-06/-08



Order example:
FH3-02G

Description	The filter separates oil, water and solid impurities from compressed air, gases and many media used in chemistry, petroleum processing, food industry and medical technology.
Filter element	Fabric of borosilicate fibre A 901 with high-volume fiberglass bed. Coalescing effect based on Brownian motion. With stainless steel jacket and internal draining layer. An arrow indicates flow from inside to outside.
Filtration efficiency	99.99% based on 25 µm particle size, residual oil content ≤ 10 mg/m³, Δp= 0.03
Service life	Large filter volume through folding makes for exceptionally long service life and high capacity for collection of solid particles with low differential pressure.
Filter change	The filter must be changed a differential pressure of 0.35 bar on, or after one year at the latest.
Drainage	without drain as standard, optionally with manual drain
Operating pressure	max. 500 bar
Temperature range	1 °C to 60 °C / 34 °F to 140 °F at coalescing filter and filter element X1 1 °C to 40 °C / 34 °F to 104 °F at filter element XA 1 °C to 25 °C / 34 °F to 77 °F at filter element AC
Material	Body: stainless steel 304, material no. 1.4301 Elastomer: NBR/Buna-N



100/350/500 bar, up to 2" NPT
0.01 up to 25 µm

Dimensions			Bowl		Flow		Connection	Order
A	B	C	Design	Capacity	rate *2		thread	number
mm	mm	mm	made of/with	l	m³/h	l/min	G	

High pressure filter up to 100 bar

w/o manual drain, 99.99% at 25 µm
residual oil content ≤ 10 mg/m³

FB100

60	117	17	stainless steel /	0.04	40	660	3/8" NPT	FB100-03C
79	140	21	w/o manual drain	0.10	100	1660	3/8" NPT	FB100-A3C
78	214	23		0.40	270	4500	1/2" NPT	FB100-04C
78	264	23		0.50	460	7660	1/2" NPT	FB100-A4C
114	270	30		1.20	680	11300	3/4" NPT	FB100-06C
114	420	30		1.90	1200	20000	1" NPT	FB100-08C
174	481	50		2.90	1700	28000	1 1/2" NPT	FB100-12C
174	784	50		5.40	3400	55000	2" NPT	FB100-16C



FB100-03CH
accessory: manual drain

High pressure filter up to 350 bar

w/o manual drain, 99.99% at 25 µm
residual oil content ≤ 10 mg/m³

FB350

60	117	17	stainless steel /	0.04	52	860	1/4" NPT	FB350-02C
79	140	21	w/o manual drain	0.10	130	2160	3/8" NPT	FB350-03C
78	214	23		0.40	351	5850	3/8" NPT	FB350-A3C
78	264	23		0.50	598	9960	1/2" NPT	FB350-04C
114	270	30		1.20	884	14730	3/4" NPT	FB350-06C
114	420	30		1.90	1560	26000	1" NPT	FB350-08C
174	481	50		2.90	2210	36830	1" NPT	FB350-A8C
174	784	50		5.40	4420	73660	1 1/2" NPT	FB350-12C



FB350-04CDH
accessories: pressure gauge and manual drain

High pressure filter up to 500 bar

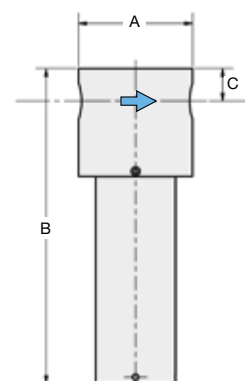
w/o manual drain, 99.99% at 25 µm
residual oil content ≤ 10 mg/m³

FB500

60	117	17	stainless steel /	0.04	56	930	1/4" NPT	FB500-02C
79	140	21	w/o manual drain	0.10	140	2330	3/8" NPT	FB500-03C
113	221	25		0.40	378	6300	3/8" NPT	FB500-A3C
113	271	25		0.50	644	10730	1/2" NPT	FB500-04C

Special options, add the appropriate letter

diff. pressure gauge	without contact, up to 350 bar				FB...D
manual drain	needle valve			up to 350 bar	FB...H
	needle valve			up to 500 bar	FB...H
	Filtration efficiency	Residual oil content	Δp*1		
5 µm filter element	99.99 %	< 5 mg/m³	0.04 bar		FB...X5
1 µm filter element	99.9999 %	< 0.1 mg/m³	0.04 bar		FB...X1
0.01 µm filter element	99.99999 %	< 0.01 mg/m³	0.08 bar		FB...XA
0.01 µm filter element	99.99999 %	< 0.003 mg/m³	0.04 bar		FB...AC



FB

*1 initial pressure drop

*2 at max. operating pressure

Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
FB100-03C

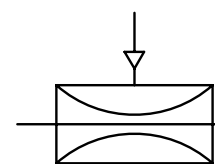
Description	The 2-port/2-way valve functions as a pinch valve in a new design of housing with full flow cross-section. Since the straight valve passage has neither constrictions nor back-points, there is no danger of clogging or blockage. Frictional loss is at a minimum.		
Media	compressed air, gases, 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 Differential pressure: max. 2.5 bar	Pilot pressure: max. 6.5 Closing pressure: $P_1 + 2.5$ bar to 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.		
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	size	capacity	port	pressure	thread	number
mm	DN	l	M5/G	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	G⅜	QE10-03NR
95	44	15	0.04	G½	4	G½	QE15-04NR
110	55	20	0.05	G⅝	4	G¾	QE20-06NR
125	60	25	0.07	G⅝	4	G1	QE25-08NR
140	73	32	0.10	G⅝	4	G1¼	QE32-10NR
150	83	40	0.13	G⅝	4	G1½	QE40-12NR
185	99	50	0.28	G¾	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, chlorosulphonylpolyethylene	not QE06 80°C/176 °F	QE...CS



DN6 up to DN50



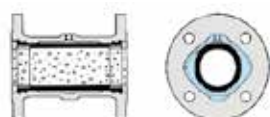
QE10



QE25



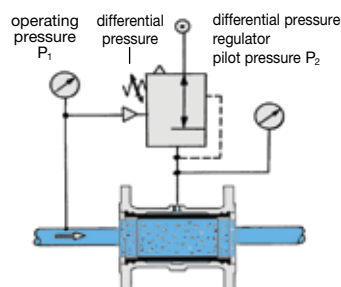
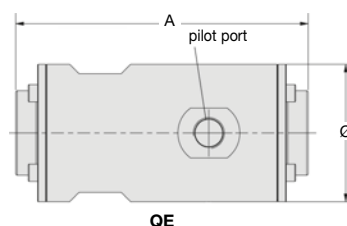
QE40



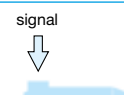
closing process



solenoid valve control



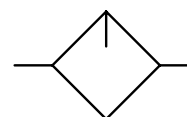
constant cross section at changing operating pressure



cross section



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



G $\frac{1}{4}$ to G2, max. 50 bar
-40 °C / -40 °F to 130 °C / 266 °F

Dimensions			Bowl capacity	Flow rate		Operating pressure	Connection thread	Order number
A	B	C		m ³ /h*1	l/min*1			
mm	mm	mm	l			max. bar	G	

Lubricator			operating pressure max. 50 bar				L3000	
64	174	130	0.14	54	900	50	G $\frac{1}{4}$	L3000-02
109	161	121	0,20	144	2400	50	G $\frac{3}{8}$	L3000-03
				144	2400	50	G $\frac{1}{2}$	L3000-04
137	201	168	0.50	480	8000	50	G $\frac{3}{4}$	L3000-06
				480	8000	50	G1	L3000-08
241	201	168	0.50	480	8000	50	G1 $\frac{1}{4}$	L3000-10
				480	8000	50	G1 $\frac{1}{2}$	L3000-1A
171	278	218	1.00	720	12000	50	G1 $\frac{1}{2}$	L3000-12
				720	12000	50	G2	L3000-16



L3000-02

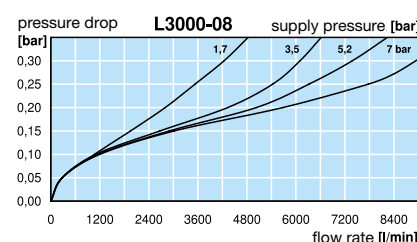
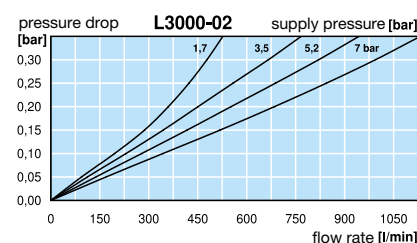


L3000-03/-04



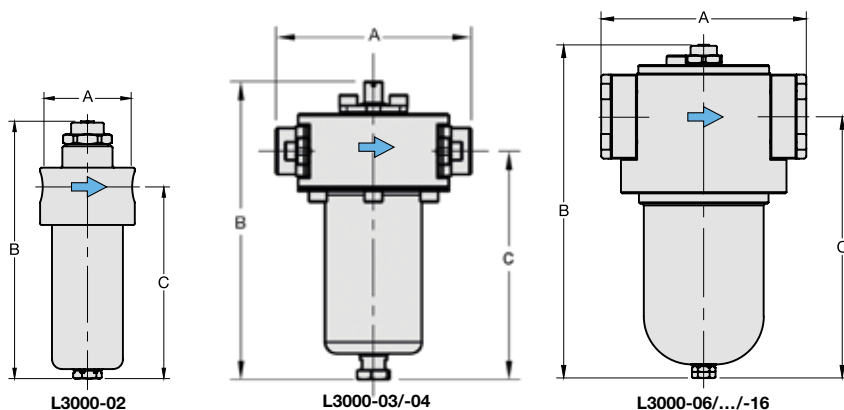
L3000-12

flow rate



Special options, add the appropriate letter

NPT	connection thread		L3000-... N
down to -40 °C / -40 °F	low temperature version	from G $\frac{1}{4}$ on	L3000-... X51
up to 130 °C / 266 °F	high temperature version	from G $\frac{1}{4}$ on	L3000-... X54
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

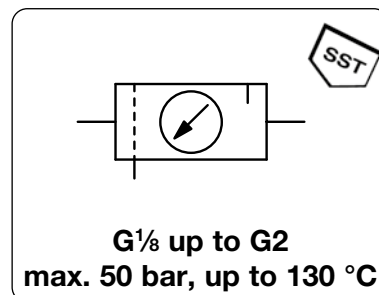
PDF CAD
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Order example:
L3000-02

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		Connection thread G	Order number
A	B	C		m ³ /h*1	l/min*1		
mm	mm	mm					

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
289	304	168		360	6000	G $\frac{3}{4}$ C3002-06
289	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



C3002-02/-03

Special options, add the appropriate letter

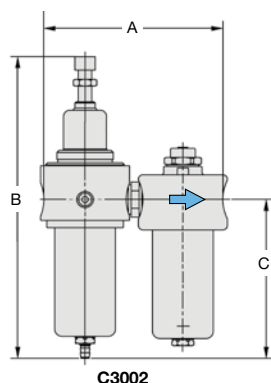
5 μ m filter element				C3002-..G
NPT	connection thread		for G $\frac{1}{4}$ to G2	C3002-..N
pressure range 0.2... 3 bar				C3002-..B
pressure range 1 ...15 bar	P ₁ max. 50 bar			C3002-..D
manual drain	max. 30 bar			C3002-..H
automatic drain	max. 16 bar		for G $\frac{1}{4}$ to G1	C3002-..R
down to -40 °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.



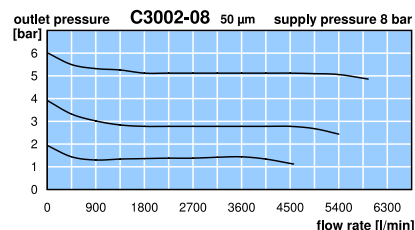
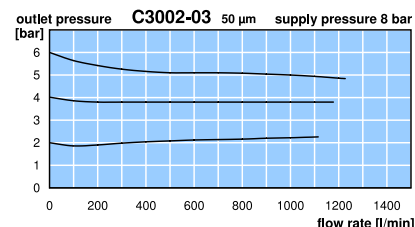
C3002-06/-08/-10/-1A

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



C3002



*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

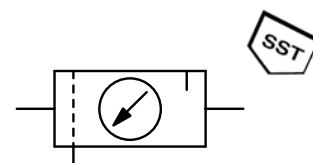
PDF CAD
www.aircom.net



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
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



G $\frac{1}{4}$ up to G2
max. 50 bar, up to 130 °C

Dimensions			Combination existing of	Flow rate m ³ /h*1	l/min*1	Connection thread G	Order number
A	B	C					
mm	mm	mm					

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



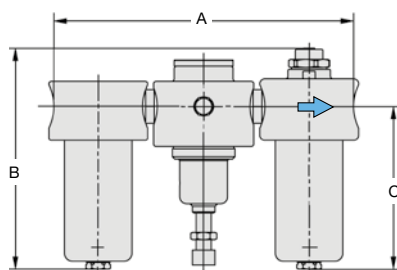
C3003-04

Special options, add the appropriate letter

5 μ m filter element		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

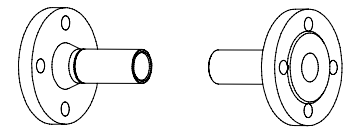
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

 **Order example:**
C3003-02

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	



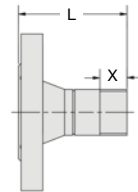
**mounted flange kit
DN15 up to DN80**

Nominal pressure max.	for Devices	Nominal size DN	Screw-In thread G	Order number affic
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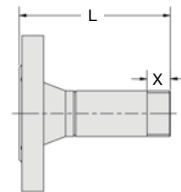
Flange kit, DIN, completely assembled

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
PN100				80	G3	F1
	BM/100	FM	LM/100	15	G½	F6
	CM/100	F3000/100	L3000/100	20	G¾	F6
	C3000/100	R120/100	R3000/100	25	G1	F6
				32	G1¼	F6
				40	G1½	F6
				50	G2	F6
				65	G2½	F6



flange with normal fitting N

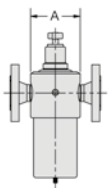


flange with long fitting L

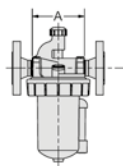
thread	fitting N		fitting L		thread
	PN40	PN100	PN40	PN100	
	L mm		L mm		X mm
G½	75	82	90	97	15
G¾	82	94	112	124	17
G1	82	100	112	130	20
G1¼	94	112	114	132	22
G1½	97	114	117	134	22
G2	100	120	120	140	26
G2½	114	138	124	148	32

Special options

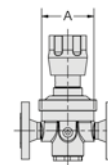
ANSI-flange	150 lbs	F2
	300 lbs	F3
	600 lbs	F4



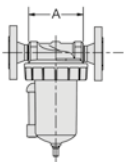
Filter regulator	PN	fitting*
BD	40	N
BM	40/100	N



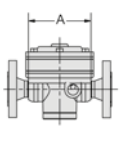
Lubricator	PN	fitting*
L606	40	N
LM	40/100	N
L3000	40/100	N



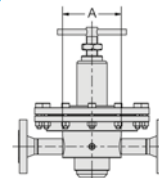
Regulator	PN	fitting*
R119	40	N
R120	40/100	N
R3000	40/100	N



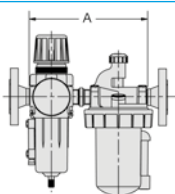
Filter	PN	fitting*
F602	40	N
FM	40/100	N
F3000	40/100	N



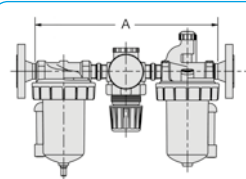
Booster	PN	fitting*
R119-J	40	N
R120-J	40/100	N
R3000-J	40/100	N



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

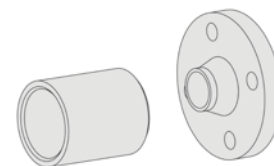


FRL service unit	PN	fitting*
C630	40	N
CM3	40/100	N
C3003	40/100	N

* 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

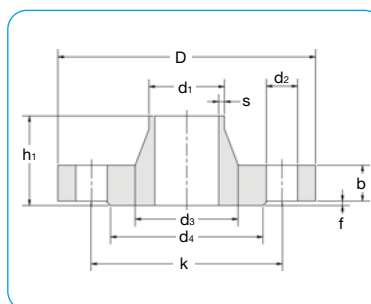


**flanges and fittings
DN8 up to DN65**

d1/s	D	h ₁	b	d ₄	f	k	d ₂	d ₃	Screws	Connection thread Rp	Nominal size DN	Order number
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Welding neck flange, as per DIN EN 1092-1 Form B (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

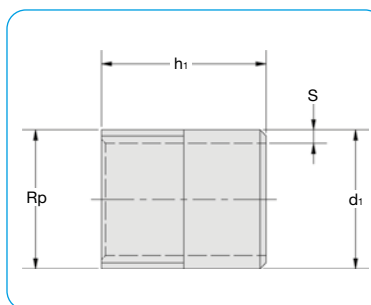
Special options, add the appropriate letter or number

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



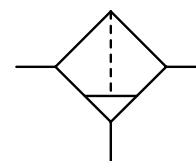
COMPRESSED AIR FILTERS

DESCRIPTION	PRESSURE RANGE max. bar	CONNECTION thread	SERIES	PAGE
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 Ø 4, 6 mm	F400	16.02
„Miniature“-Series	21	G $\frac{1}{8}$ u. 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 $\frac{1}{2}$ - G1	F20	16.07
made of brass, many variations	50	G $\frac{1}{8}$ - G2	FM	16.08
„Standard“-Series, robust	21	G $\frac{3}{4}$ - G2	F602	16.10
Series „D“, made of aluminium	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
Stainless Steel	50	G $\frac{1}{8}$ - G2	F3000	15.32
Stainless Steel	220	G $\frac{1}{4}$ - G1	FH3	15.34
Stainless Steel	500	$\frac{3}{8}$ " NPT - 2" NPT	FB	15.35



16

Description		Micro in-line filter F400
Filter element		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.
Filtration efficiency		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.
Connection		99.999% based on 0.03 µm particle size Operating pressure max. 9 bar 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.
Description		Bronze in-line filter 137
Filter element		Bronze in-line filter for compressed air with coarse impurities.
Operating pressure		90 µm, 20 µm or optionally 5 µm, made of sintered bronze
Drainage		max. 21 bar with or without manual drain

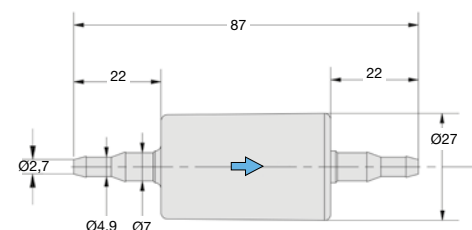


**0.3 µm coalescing
5/20/90 µm**

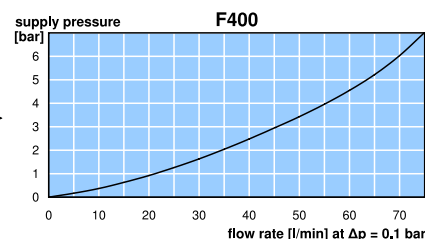
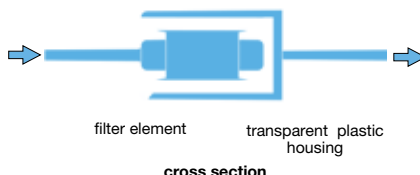
Dimensions			Description	Flow rate		P ₁ max.	Filter element	Connection thread	Order number
A	B	C		m³/h*1	l/min*1				
mm	mm	mm				bar	µm	nipple/G	

Micro in-line filter F400

87	43	Ø 27	borosilicate-micro filter	4.2	70	9	0.3	Ø 4 and Ø 6	F400
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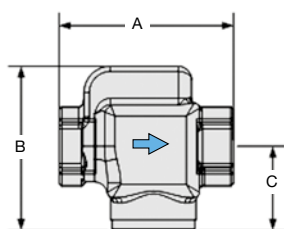
F400



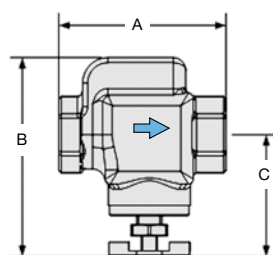
F400

Bronze in-line filter 137

67	63	32	without manual drain	39	650	21	90	G¼	137-02		
				42	700			G¾	137-03		
				44	740			G½	137-04		
		79	48	with manual drain	39	650	21	20	G¼	137-02H	
					42	700			G¾	137-03H	
					44	740			G½	137-04H	
	67	63	32		19	320	21	5	G¼	137-02V	
					21	350			G¾	137-03V	
					22	370			G½	137-04V	
		79	48		39	650	21	90	G¼	137-02A	
					42	700			G¾	137-03A	
					44	740			G½	137-04A	
16	67	63	32		39	650	21	20	G¼	137-02AH	
					42	700			G¾	137-03AH	
					44	740			G½	137-04AH	
	67	63	32		19	320	21	5	G¼	137-02AV	
					21	350			G¾	137-03AV	
					22	370			G½	137-04AV	



137-...



137-...A.

*1 at 7 bar operating pressure and 0.1 bar pressure drop



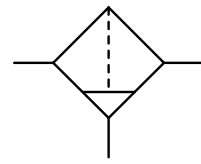
137-04



137-04A



Description	Miniature compressed air filter of small, compact design. Ideal for limited space conditions.
Filter element	20 µm, optionally 5 µm, made of polypropylene
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



G¹/₈ and G¹/₄

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

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



F504-02AH



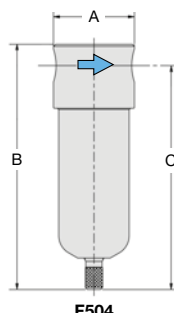
F504-02DH

Special options, add the appropriate letter

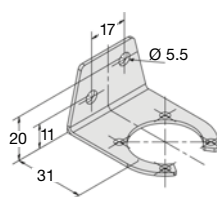
NPT	connection thread	F504-... N
semiautomatic drain	RK500SY, max. 12 bar	F504-... M
automatic drain	RK504SY, max. 12 bar	F504-... R

Accessories, enclosed

mounting bracket	made of steel	BW00-01
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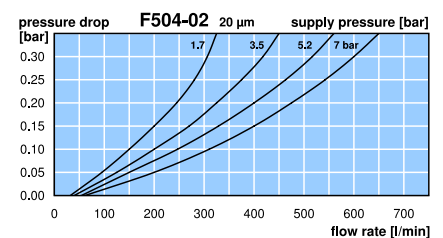
F504



BW00-01



RK500SY



*1 at 7 bar operating pressure and 0.33 bar pressure drop

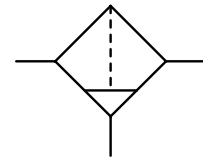
Extensions: see chapter for FRL service units

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Order example:
F504-01AH

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		



**5 to 160 µm, coalescing
activated carbon filter, G $\frac{1}{8}$ - G $\frac{1}{4}$**

Dimensions			Design	Bowl Capacity l	Flow rate m³/h*1 l/min*1	P ₁ max. bar	Filter element µm	Connection thread G	Order number
A	B	C							
mm	mm	mm							

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	G½	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	G¼	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	G¾	F050-03H
					126	2100		5		F050-03G
					16	500		0.01		F050-03C
					150	2500		activated carbon		F050-03A



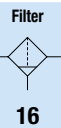
F035



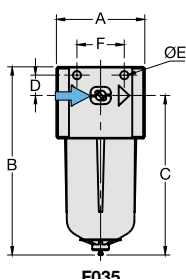
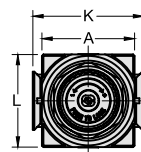
F042



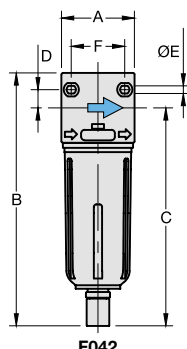
F050



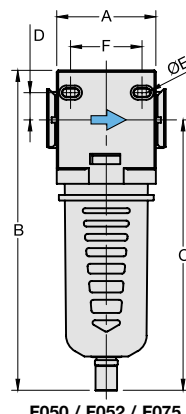
Series	D	ØE	F	K	L
F035	8.5	3.5	20	-	36
F042	10.5	4.5	31	-	42
F050	16.0	5.5	41	63	52



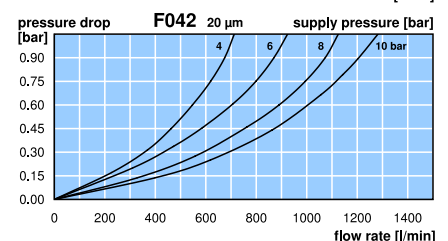
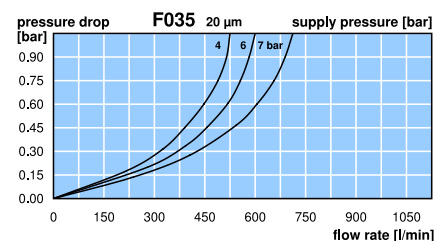
F035



F042



F050 / F052 / F075



*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

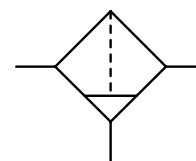
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
F035-01H

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	



5 to 160 µm, coalescing activated carbon filter, G $\frac{1}{8}$ - G1

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	G½	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	G½	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	G¾	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	G1	F095-08H
					750	12500		5		F095-08G



F052



F080



F095

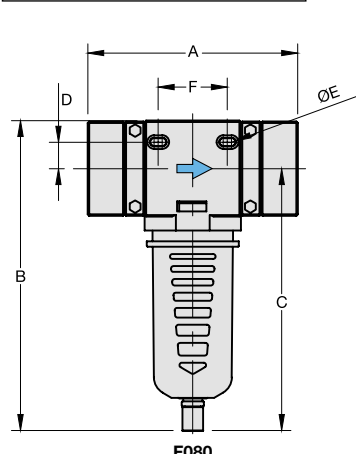
Special options, add the appropriate letter

automatic drain C400200130 for F042 to F095 F0. . -0. . R

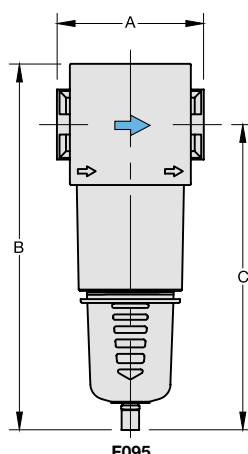
Accessories, enclosed

mounting bracket set made of steel for F095 BW00-02

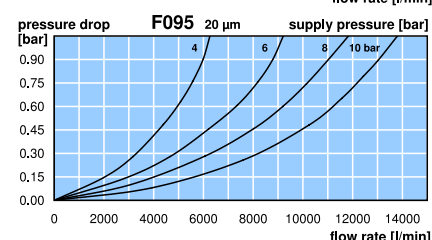
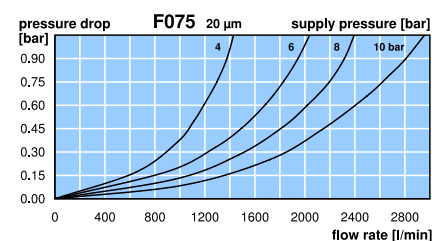
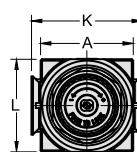
Series	D	Ø E	F	K	L
F052	16.0	5.5	41	63	52
F075	17.5	5.5	45	75	63
F080	17.5	5.5	45	-	63
F095	-	-	-	115	95



F080



F095



*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

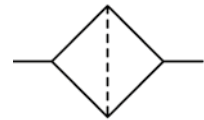
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
F052-04H

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 20 °C / 68 °F	Differential pressure	max. 0.7 bar
Temperature range	5 °C to 50 °C / 41 °F to 122 °F		
Cleaning	with lukewarm water and standard rinsing agent		
Material	Body: polypropylene Bowl: polyester, transparent	Filter element: polyethylene, optionally stainless steel Elastomer: NBR/Buna-N, optionally FKM or EPDM (FDA)	



**G¹/₈ to G³/₄, FDA
for water, gases, vacuum**

Dimensions			Bowl Capacity	Flow rate		Filter element	Connection thread	Order number	D*
A	B	C		Water	Air				
mm	mm	mm	l	l/min*1	l/min*1	µm	G		

Plastic filter				operating pressure max. 10 bar differential pressure 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			



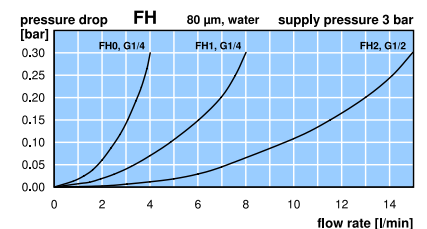
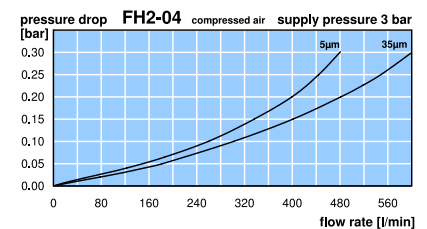
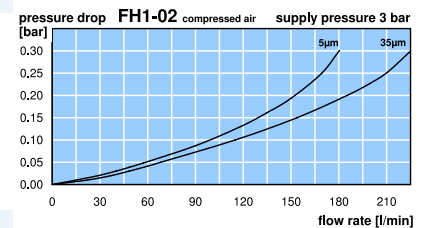
FH1



FH2

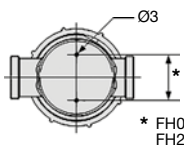
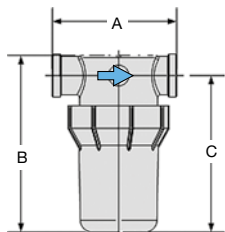
Special options, add the appropriate letter

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				

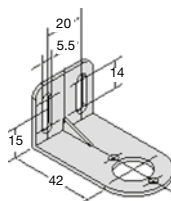


Accessories, enclosed

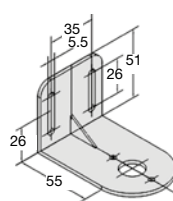
mounting bracket	made of plastic	for FH0 and FH1 for FH2	BW17-01 BW17-02
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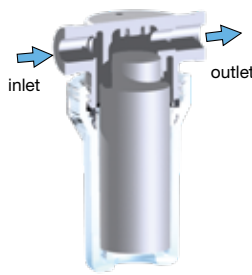
FH



BW17-01



BW17-02



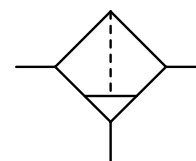
cross-section

*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



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



G½ up to G1

Dimensions			Bowl		Flow	Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	max.	element	thread	number
mm	mm	mm	made of / with	l	m³/h*1	l/min*1	µm	G	

"Maxi" compressed air filter

with manual drain
supply pressure max. 17 bar

F20

89	191	171	metal/sight glass	0.3	288	4800		G½	F20-04WJ F20-04WG
					216	3600			
111	191	171	metal/sight glass	0.3	408	6800	17	G¾	F20-06WJ F20-06WG
					294	4900			
					420	7000		G1	F20-08WJ F20-08WG
					300	5000			



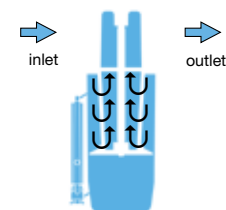
F20

Special options, add the appropriate letter

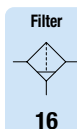
NPT	connection thread	F20-0 .W .N
semiautomatic drain	RK500SY, max. 12 bar	F20-0 .W .M
automatic drain	SA605MD, max. 12 bar	F20-0 .W .R

Accessories, enclosed

mounting bracket set	made of steel	MK20-0100
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cross-section

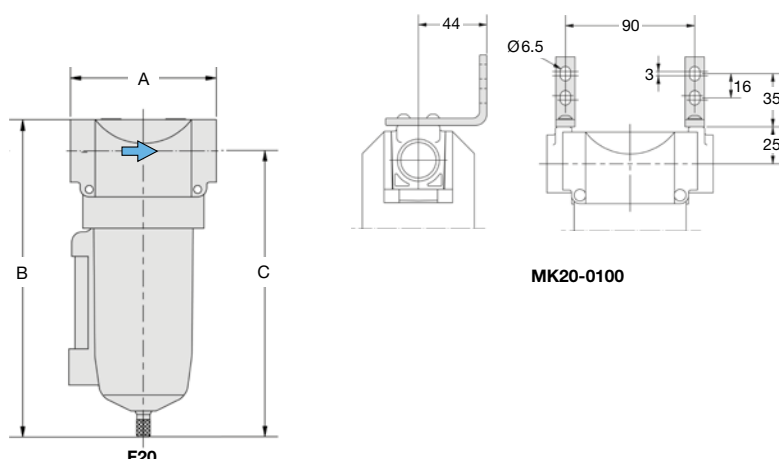


16

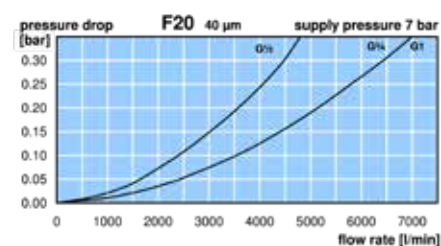


RK500SY

SA605MD



MK20-0100



*1 at 7 bar supply pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

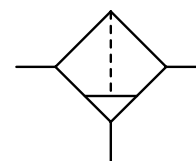


Order example:
F20-04WJ

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)		



G¹/₈ to G2, max. 50 bar
-40 °C to 130 °C / -40 °F to 266 °F

Dimensions			Bowl		Flow		Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	max.	max.	element	thread	number
mm	mm	mm	made of	l	m³/h*1	l/min*1	bar	µm	G	

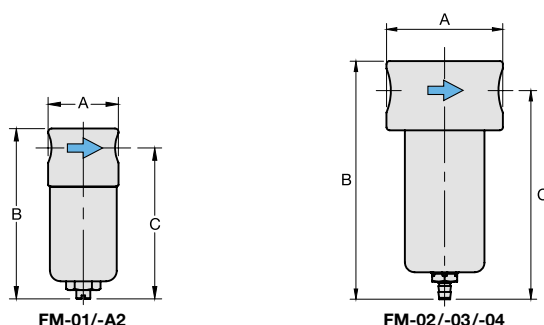
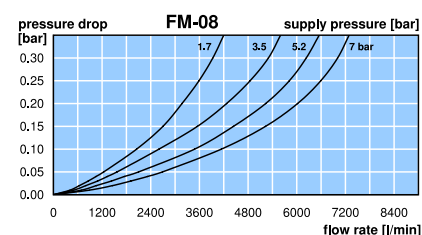
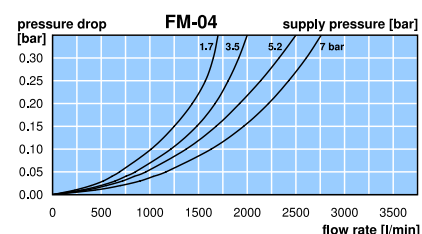
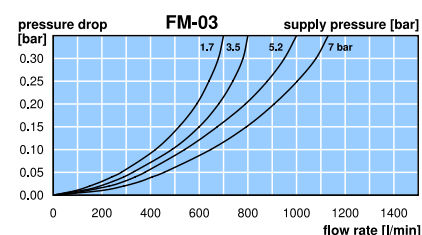
Brass filter			with screw plug, operating pressure max. 50 bar, 50 µm							FM
40	92	81	brass	0.03	45	750	50	50	G ¹ / ₈	FM-01 FM-01G
40	92	81	brass	0.03	45	750	50	50	G ¹ / ₄	FM-A2 FM-A2G
64	140	125	stainless steel	0.14	54	900	50	50	G ¹ / ₄	FM-02 FM-02G FM-02I
64	140	125	stainless steel	0.14	60	1000	50	50	G ³ / ₈	FM-03 FM-03G FM-03I
79	150	130	stainless steel	0.20	150	2500	50	50	G ¹ / ₂	FM-04 FM-04G FM-04I
136	194	167	stainless steel	0.50	432	7200	50	50	G ³ / ₄	FM-06 FM-06G FM-06I
136	194	167	stainless steel	0.50	432	7200	50	50	G1	FM-08 FM-08G FM-08I
247	194	167	stainless steel	0.50	432	7200	50	50	G1 ¹ / ₄	FM-10 FM-10G FM-10I
247	194	167	stainless steel	0.50	432	7200	50	50	G1 ¹ / ₂	FM-1A FM-1AG FM-1AI
174	248	213	stainless steel	1.00	1380	23000	50	50	G1 ¹ / ₂	FM-12 FM-12G
174	248	213	stainless steel	1.00	1380	23000	50	50	G2	FM-16 FM-16G



FM-04



FM-06/-08



*1 at 7 bar operating pressure and 0.33 bar pressure drop

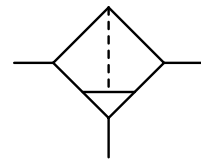
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
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)		

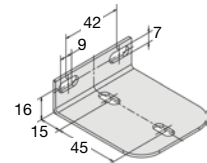


G¹/₈ to G2, max. 50 bar
-40 °C to 130 °C / -40 °F to 266 °F

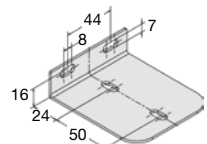
Dimensions			Bowl		Flow		Supply		Filter		Connection		Order	
A	B	C	Design	Capacity	rate	rate	max.	max.	element	element	thread	thread	number	number
mm	mm	mm	made of	l	m ³ /h*1	l/min*1	bar	bar	µm	µm	G	G		

Special options, add the appropriate letter

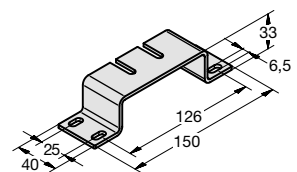
NPT	connection thread													FM-...N
P1: max. 80 bar														FM-...X48
down to -40 °C	low temperature version													FM-...X51
u p to 130 °C	high temperature version													FM-...X54
manual drain	max. 30 bar													FM-...H
automatic drain	made of SST, max. 16 bar													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													FM-...W
flange connection	see chapter for stainless steel devices / flanges													FM-...F.



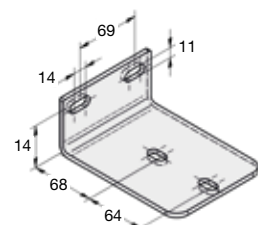
BW00-17S



BW00-18S



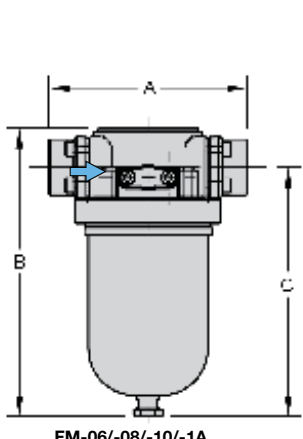
BW00-59S



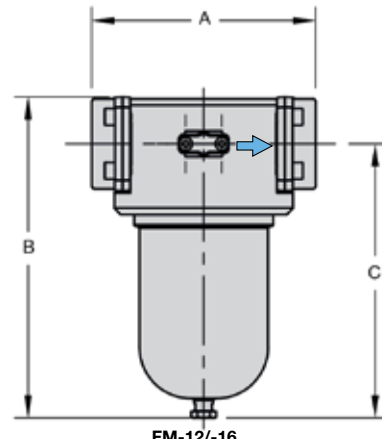
BW00-63S

Accessories, enclosed

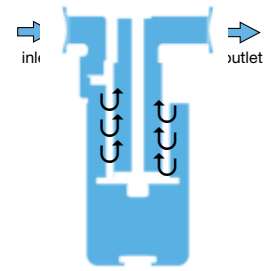
mounting bracket	made of stainless steel	for G ¹ / ₄ (02) and G ³ / ₈ for G ¹ / ₂	BW00-17S BW00-18S
		for G ³ / ₄ to G1 ¹ / ₂ (1A)	BW00-19S
set of brackets	made of stainless steel	for G1 ¹ / ₂ (12) and G2	BW00-63S



FM-06/-08/-10/-1A



FM-12/-16



cross-section

*1 at 7 bar operating pressure and 0.33 bar pressure drop

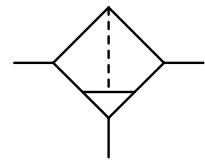
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
BW00-17S

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	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. 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 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: zinc die-cast or steel	Elastomer: NBR/Buna-N



G³/₄ up to G2

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	µm	G	

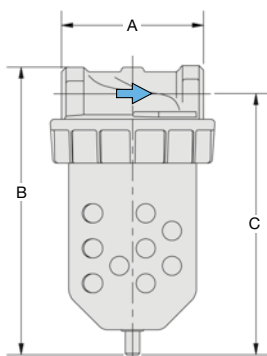
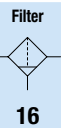
Standard compressed air filter					with manual drain					F602	
116	223	200	metal / sight glass	0.50	426	7 100	17	40	G¾*2	F602-06WJ	
116	295	272	steel	1.00			21			F602-06EJ	
116	223	200	metal / sight glass	0.50	318	5 300	17	5	G¾*2	F602-06WG	
116	295	272	steel	1.00			21			F602-06EG	
116	223	200	metal / sight glass	0.50	588	9 800	17	40	G1	F602-08WJ	
116	295	272	steel	1.00			21			F602-08EJ	
116	223	200	metal / sight glass	0.50	438	7 300	17	5	G1	F602-08WG	
116	295	272	steel	1.00			21			F602-08EG	
132	242	210	metal / sight glass	0.5	660	11 000	17	40	G1¼*2	F602-10WJ	
132	315	283	steel	1.0			21			F602-10EJ	
132	242	210	metal / sight glass	0.5	492	8 200	17	5	G1¼*2	F602-10WG	
132	315	283	steel	1.0			21			F602-10EG	



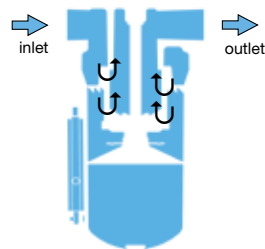
F602-06WJ/-08WJ
metal bowl with sight glass



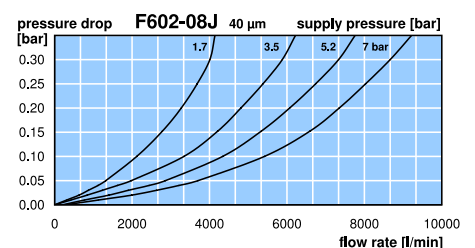
F602-10WJ/-12WJ
metal bowl with sight glass



F602



cross-section



*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 reduced by the next larger filter

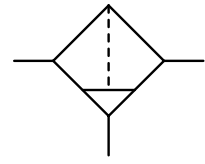
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
F602-06WJ

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	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. 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 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: zinc die-cast or steel	Elastomer: NBR/Buna-N



G³/₄ up to G2

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 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
160	330	281	metal / sight glass	0.5	1 740	29 000	17	40	G2	F602-16WJ
160	407	358	steel	1.0			21			F602-16EJ
160	330	281	metal / sight glass	0,5	1 800	30 000	17	40	G2½	F602-20WJ
160	407	358	steel	1,0			21			F602-20EJ

Special options, add the appropriate letter

automatic drain	SA605MD,	max. 12 bar	for G ³ / ₄ to G2½	F602-....R
	SA602D, SA603D for steel bowl,	max. 18 bar	for G ³ / ₄ to G2½	F602-....Q
	SA702MD,	max. 16 bar	for G ³ / ₄ to G2½	F602-....W
flange connection	see chapter for stainless steel devices / flanges			F602-....F.



F602-10EJ/-12EJ
with steel container

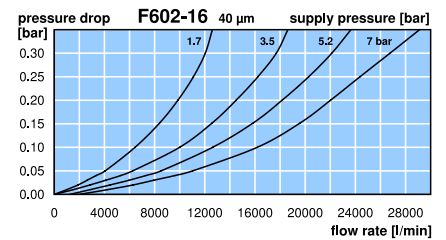
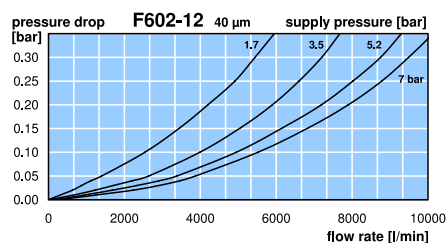


F602-16WJF
with connecting flange



RK602SY

SA605MD



*1 at 7 bar operating pressure and 0.33 bar pressure drop

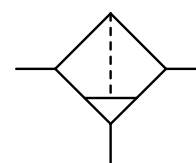
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
F602-12WJ

Description	Good value aluminium regulator of solid design.
Filter element	0.01 µm coalescing filter (to -04), 5 µm and 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 to -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 to -1A) -20 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium Elastomer: NBR/Buna-N



G¹/₈ up to G2
0.01/5/20/50 µm

Dimensions			Bowl		Flow		Supply	Filter	Connection	Order
A	B	C	Design	Capacity	rate	rate	max.	element	thread	number
mm	mm	mm	made of/with	l	m ³ /h*1	l/min*1	bar	µm	G	

Compressed air filter series "D"										FD
							with semiautomatic drain, 99.99 % at 0.01 µm			
40	145	127	metal/sight glass	0.05	21	350	16	50	G ¹ / ₈	FD-01MJ
					16	270	16	5		FD-01MG
			metal/sight glass	0.05	4	70	16	0.01		FD-01MI
40	145	127	metal/sight glass	0.05	24	400	16	50	G ¹ / ₄	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	G ³ / ₈	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	G ¹ / ₂	FD-04MJ
					120	2000	16	5		FD-04MG
			metal/sight glass	0.18	30	500	16	0.01		FD-04MI
130	205	177	metal/sight glass	0.50	420	7000	16	50	G ³ / ₄	FD-06MJ
					318	5300	16	5		FD-06MG
130	205	177	metal/sight glass	0.50	510	8500	16	50	G1	FD-08MJ
					384	6400	16	5		FD-08MG



FD-01/-02

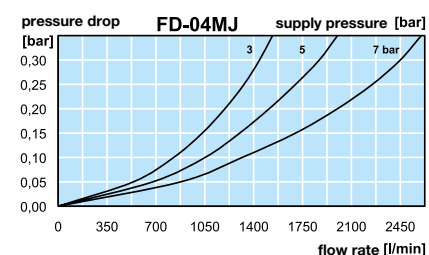
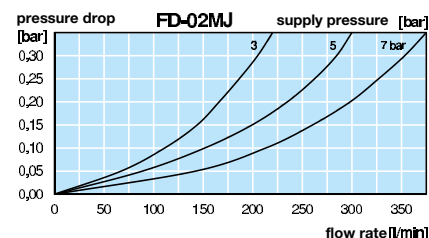
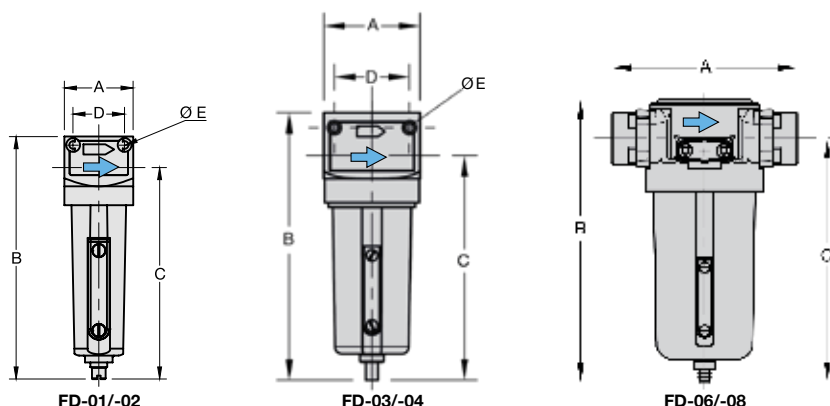


FD-03/-04



FD-06/-08

Type	D	Ø E
FD-01/02	30	4.5
FD-03/04	51	5.5



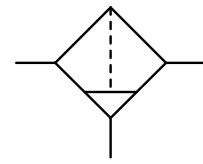
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
FD-01MH

Description	Good value aluminium regulator of solid design.
Filter element	0.01 µm coalescing filter (to -04), 5 µm and 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 to -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 to -1A) -20 °C to 80 °C / -4 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium 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	rate	max.	element	thread	number
mm	mm	mm	made of/with	l	m ³ /h*1	l/min*1	bar	µm	G	

Compressed air filter series "D"

with semiautomatic drain,
99.99 % at 0.01 µm

FD

241	205	177	metal/sight glass	0.5	570	9500	16	50	G1 $\frac{1}{4}$	FD-10MJ
					432	7200	16	5		FD-10MG
241	205	177	metal/sight glass	0.5	600	10000	16	50	G1 $\frac{1}{2}$	FD-1AMJ
					450	7500	16	5		FD-1AMG
174	248	213	stainless steel	1.0	1380	23000	15	50	G1 $\frac{1}{2}$	FD-12MJ
					1050	17500	5			FD-12MG
174	248	213	stainless steel	1.0	1380	23000	15	50	G2	FD-16MJ
					1050	17500	5			FD-16MG



FD-10/-1A



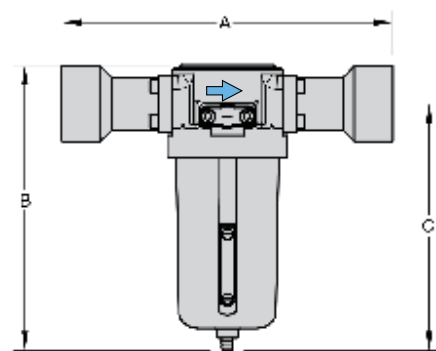
FD-12/-16

Special options, add the appropriate letter

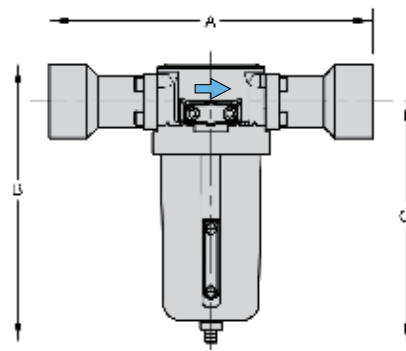
operating pressure 30 bar	metal bowl w/o sight glass, with manual drain	FD- . . N. H
manual drain	max. 16 bar	for G $\frac{1}{8}$ to G1 $\frac{1}{2}$ (1A) FD- H
manual drain	max. 30 bar	for G1 $\frac{1}{2}$ (12) and G2 FD- 1.M.H
automatic drain	draining through float valve, max. 16 bar	for G $\frac{3}{8}$ to G2 FD- R

Accessories, enclosed

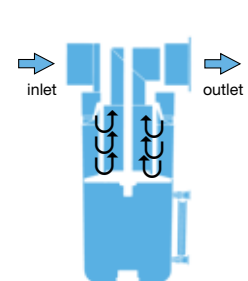
mounting bracket	made of stainless steel	for G $\frac{3}{8}$ to G1 $\frac{1}{2}$ (1A)	BW00-59S
	made of stainless steel	for G1 $\frac{1}{2}$ (12) and G2	BW00-63S



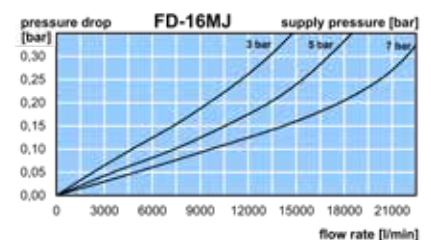
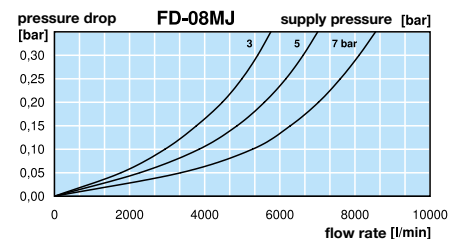
FD-10 /-1A



FD-12/-16



cross-section



*1 at 7 bar operating pressure and 0.33 bar pressure drop

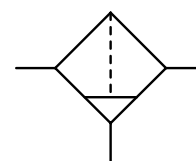
Extensions: see chapter for FRL service units

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/m³
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	



**1 / 3 µm, up to G3
0.1 mg/m³ residual oil**

Dimensions			Bowl		Flow rate		Filter element	Connection	Order number
A	B	C	Design	Capacity	m³/h*1	l/min*1	µm	thread	
mm	mm	mm	of / with	l				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	G1/4	FG-02V
89	293	269	automatic drain	0.8	60	1000		G3/8	FG-03V
89	293	269		0.8	108	1800		G1/2	FG-04V
89	293	269		0.8	132	2200		G3/4	FG-A6V
109	393	359		1.8	180	3000		G3/4	FG-06V
109	393	359		1.8	270	4500		G1	FG-08V
109	540	506		2.7	372	6200		G1 1/4	FG-10V
109	540	506		2.7	432	7200		G1 1/2	FG-1AV
150	576	535		4.9	732	12200		G1 1/2	FG-12V
150	954	913		8.0	1050	17500		G2	FG-16V
188	759	703		10.3	1800	30000		G2 1/2	FG-20V
188	939	903		12.7	2220	37000		G3	FG-24V



FG-04V

Micro fine filter 1 µm with automatic drain, 99,9999% filtration efficiency residual oil ≤ 0.1 mg/m³, max. 16 bar **FG. Z**

69	194	173	aluminium /	0.2	30	500	1	G1/4	FG-02Z
89	293	269	automatic drain	0.8	60	1000		G3/8	FG-03Z
89	293	269		0.8	108	1800		G1/2	FG-04Z
89	293	269		0.8	132	2200		G3/4	FG-A6Z
109	393	359		1.8	180	3000		G3/4	FG-06Z
109	393	359		1.8	270	4500		G1	FG-08Z
109	540	506		2.7	372	6200		G1 1/4	FG-10Z
109	540	506		2.7	432	7200		G1 1/2	FG-1AZ
150	576	535		4.9	732	12200		G1 1/2	FG-12Z
150	954	913		8.0	1050	17500		G2	FG-16Z
188	759	703		10.3	1800	30000		G2 1/2	FG-20Z
188	939	903		12.7	2220	37000		G3	FG-24Z



FG-04Z

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 G1/4

BW00-52

for G3/8 to G3/4 (A6)

BW00-53

for G3/4 (06) to G1 1/2

BW00-54

for G1 1/2 (12) and G2

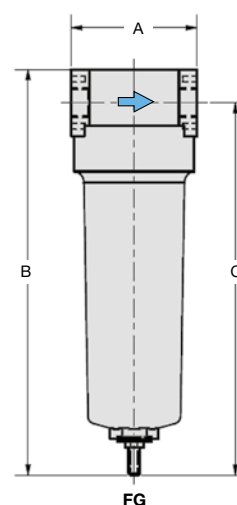
BW00-55

for G2 1/2 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

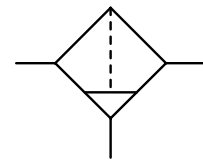
*1 at 7 bar operating pressure and open outlet. Pressure drop in new condition: **20 mbar** on pre-filter and **30 mbar** on universal filter. The maximum permissible flow rate is 10% higher than the indicated value.



FG



	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	



**0.01 µm, up to G3
0.003 mg/m³ residual oil**

Dimensions			Bowl		Flow rate		Filter element	Connection	Order number
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	µm	thread	
mm	mm	mm	of / with	l				G	

Super fine filter 0.01 mg/m³ 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	G1/4	FG-02X
89	293	269	manual drain	0.8	60	1000		G3/8	FG-03X
89	293	269		0.8	108	1800		G1/2	FG-04X
89	293	269		0.8	132	2200		G3/4	FG-A6X
109	393	359		1.8	180	3000		G3/4	FG-06X
109	393	359		1.8	270	4500		G1	FG-08X
109	540	506		2.7	372	6200		G1 1/4	FG-10X
109	540	506		2.7	432	7200		G1 1/2	FG-1AX
150	576	535		4.9	732	12200		G1 1/2	FG-12X
150	954	913		8.0	1050	17500		G2	FG-16X
188	759	703		10.3	1800	30000		G2 1/2	FG-20X
188	939	903		12.7	2220	37000		G3	FG-24X

Activated carbon filter 0.003 mg/m³ residual oil with manual drain, max. 16 bar **FG. A**

69	185	164	aluminium /	0.2	30	500	activated carbon	G1/4	FG-02A
89	284	260	manual drain	0.8	60	1000		G3/8	FG-03A
89	284	260		0.8	108	1800		G1/2	FG-04A
89	284	260		0.8	132	2200		G3/4	FG-A6A
109	384	350		1.8	180	3000		G3/4	FG-06A
109	384	350		1.8	270	4500		G1	FG-08A
109	531	497		2.7	372	6200		G1 1/4	FG-10A
109	531	497		2.7	432	7200		G1 1/2	FG-1AA
150	567	526		4.9	732	12200		G1 1/2	FG-12A
150	945	904		8.0	1050	17500		G2	FG-16A
188	748	694		10.3	1800	30000		G2 1/2	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 G1/4

BW00-52

for G3/8 to G3/4 (A6)

BW00-53

for G3/4 (06) to G1 1/2

BW00-54

for G1 1/2 (12) and G2

BW00-55

for G2 1/2 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.



FG-04X

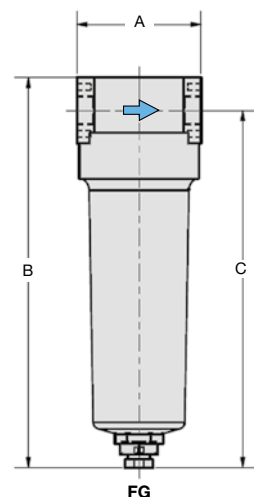


FG-04AD
with differential pressure gauge

Filter



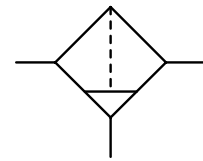
16



FG



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 G1½ and G2 Elastomer: NBR/Buna-N



40/60 bar, up to G2
0.01/5/40 µm

Dimensions			Bowl		Flow rate		Filter element	Connection thread	Order number
A	B	C	Design	Capacity	m³/h*1	l/min*1	µm	G	
mm	mm	mm	made of	l					

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 $\frac{3}{8}$ "	F445-03EL
65	200	168			168	2800		G½"	F445-04EL
92	210	170	metal	0.10	198	3300		G¾"	F445-06EL
80	210	170			210	3500		G1	F445-08EL
150	285	243	metal	0.30	1200	20000		G1½"	F445-12EL
140	285	243			1320	22000		G2	F445-16EL
72	200	168	metal	0.08	126	2100	5	G $\frac{3}{8}$ "	F445-03GL
65	200	168			138	2300		G½"	F445-04GL
92	210	170	metal	0.10	156	2600		G¾"	F445-06GL
80	210	170			168	2800		G1	F445-08GL
150	285	243	metal	0.30	900	15000		G1½"	F445-12GL
140	285	243			1080	18000		G2	F445-16GL
72	200	168	metal	0.08	150	2500	0.01	G $\frac{3}{8}$ "	F445-03IL
65	200	168			162	2700		G½"	F445-04IL
92	210	170	metal	0.10	192	3200		G¾"	F445-06IL
80	210	170			204	3400		G1	F445-08IL
150	285	243	metal	0.30	1140	19000		G1½"	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**

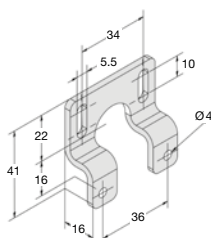
72	185	160	metal	0.08	162	2700	40	G $\frac{3}{8}$ "	F465-03EL
65	185	160			168	2800		G½"	F465-04EL
92	200	170	metal	0.10	198	3300		G¾"	F465-06EL
80	185	160			210	3500		G1	F465-08EL
72	185	160	metal	0.08	126	2100	5	G $\frac{3}{8}$ "	F465-03GL
65	185	160			135	2300		G½"	F465-04GL
92	200	170	metal	0.10	156	2600		G¾"	F465-06GL
80	200	170			168	2800		G1	F465-08GL
72	185	160	metal	0.08	150	2500	0.01	G $\frac{3}{8}$ "	F465-03IL
65	185	160			162	2700		G½"	F465-04IL
92	200	170	metal	0.10	192	3200		G¾"	F465-06IL
80	200	170			204	3400		G1	F465-08IL

Special options, add the appropriate letter

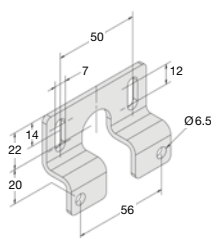
for oxygen specially cleaned **F4.5-...15**

Accessories, enclosed

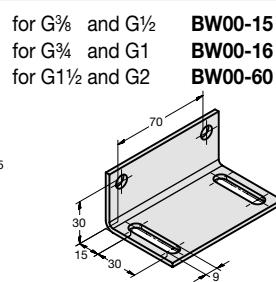
mounting bracket made of steel



BW00-15

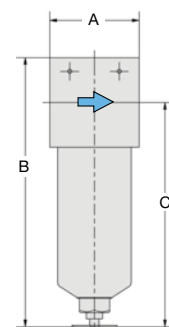


BW00-16



BW00-60

for G $\frac{3}{8}$ " and G½" **BW00-15**
for G¾" and G1 **BW00-16**
for G1½" and G2 **BW00-60**



F445 / F465

*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 reduced from the next bigger filter size

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

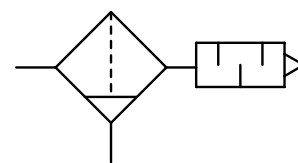
Service life approx. 2500 operating hours, depending on contamination

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



G¼ up to G2

Dimensions				Flow rate	Connection thread	Order number
A	B	ØC	A/F			
mm	mm	mm	mm	m³/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



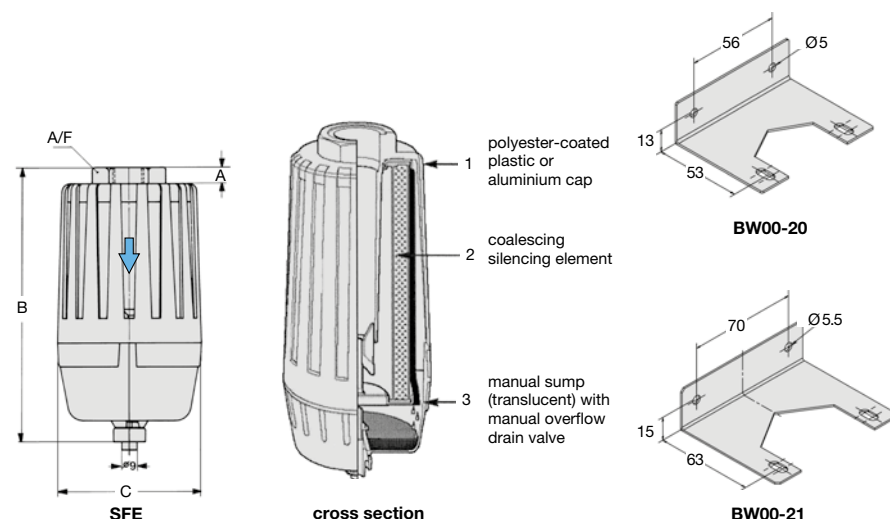
SFE-04



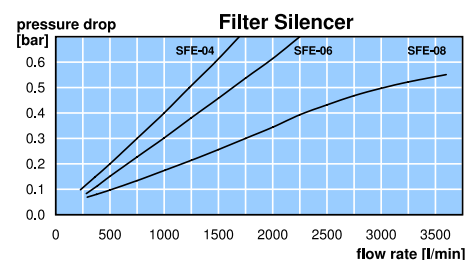
SFE-08

Accessories, enclosed

mounting bracket	made of steel	for G¼ to G¾	BW00-20
		for G1 to G2	BW00-21



filter structure



*1 at 6 bar operating pressure to atmosphere



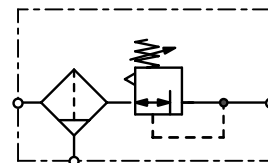
FILTER PRESSURE REGULATORS

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
„Miniatur“-Serie	0.2 ... 1.8 / 9	G $\frac{1}{8}$ and G $\frac{1}{4}$	B548	17.02
brass	0.2 ... 3 / 15	G $\frac{1}{4}$ and G $\frac{1}{2}$	BM	17.03
Stainless steel	0.2 ... 3 / 50	G $\frac{1}{8}$ - G2	B3000	15.28
made of plastic	0 ... 4 / 12	G $\frac{1}{4}$ - G1	B042 ... B095	17.04
„Maxi“-Series, robust, modular	0.2 ... 4 / 17	G $\frac{1}{2}$ - G1	B20, B21	17.05
Series „D“, made of aluminium	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 Spring cage: glass fibre-reinforced plastic Bowl: polyurethane or zinc die-cast	Elastomer: NBR/Buna-N Inner valve: brass	



G $\frac{1}{8}$ and G $\frac{1}{4}$

Dimensions			Bowl		Flow rate		P ₁ max.	Connection thread	Pressure range	Order number	
A	B	C	design	capacity	m ³ /h*1	l/min*1	bar	G	bar		
mm	mm	mm	made of	l							B*

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.
non-relieving	without relieving function	B548-0.... K
semiautomatic drain	RK500SY, max. 12 bar	B548-0....M



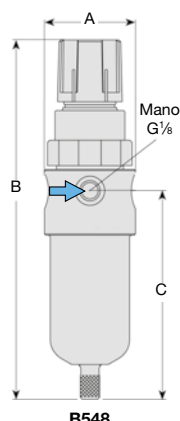
B548-02AHC



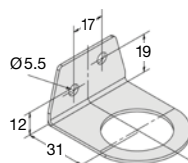
B548-02DHC

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



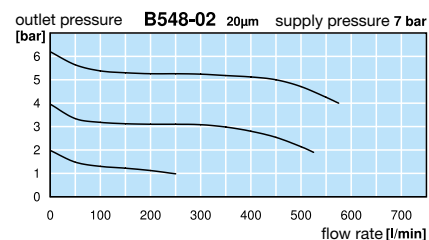
B548



BW30-02



RK500SY



*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

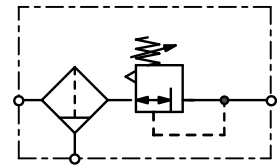
PDF CAD
www.aircom.net

* Product group



Order example:
B548-01AHA

Description	Filter pressure regulator made of solid brass, with bowl without sight glass. The control system is a membrane. compressed air, non-corrosive gases or liquids max. 50 bar (without drain)			Relieving function	relieving, optionally non-relieving by T-handle with locknut at G½
Media				Adjustment	by black plastic knob at size G¼, G½ on both sides of the body, one screw plug supplied
Supply pressure				Filter element	50 µm, optionally 5 µm, made of stainless steel
Gauge port				Bowl	stainless steel version without sight glass
Drainage				Temperature range	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Material	Body: brass	Bowl: stainless steel 316L / material no. 1.4404			
	Diaphragm: NBR/Buna-N with PTFE coating	O-rings: FKM			
	Knob: plastic at sizes G¼, brass at G½	Inner valve: brass and plastic (not at option X54)			



**G¼ up to G½, max. 50 bar
-40 to 130 °C / -40 to 266 °F**

Dimensions			Bowl-		Flow		Connection	Order
A	B	C	Design	Capacity	rate	rate	thread	number
mm	mm	mm	made of	l	m³/h*1	l/min*1	G	

Brass filter regulator with screw plug, relieving, without gauge, 50 µm filter element
supply pressure max. 50 bar, pressure range 0.5...8 bar

BM

64	220	123	stainless steel	0,17	84	1 400	G¼	BM-02
79	247	127	stainless steel	0,28	228	3 800	G½	BM-04



BM-02

Special options, add the appropriate letter

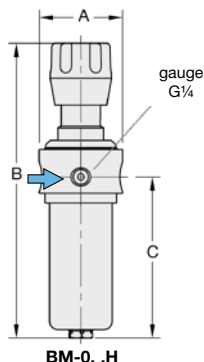
5 µm filter element								BM- . . G
0.2... 3 bar range								BM- . . B
1 ...15 bar range								BM- . . D
manual drain			max. 30 bar					BM- . . H
automatic drain			made of stainless steel, max. 16 bar			for G¼ (02) to G2		BM- . . R
non-relieving			without relieving function					BM- . . K
down to -40 °C / -40 °F			low temperature version					BM- . . X51
up to 130 °C / 266 °F			high temperature version					BM- . . X54
T-handle			instead of adjusting knob				for G¼	BM- . . T
nitrogen	N₂: 07	carbon dioxide	CO₂: 03	argon	Ar: 05			BM- . . 05
helium	He: 09	hydrogen	H₂: 11	methane	CH₄: 13			BM- . . 13
oxygen	O₂: 15	propane	C₃H₈: 16	nitrous oxide	N₂O: 17			BM- . . 17
flange connection			see chapter for stainless steel devices / flanges					BM- . . F.



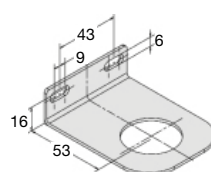
BM-04

Accessories, enclosed

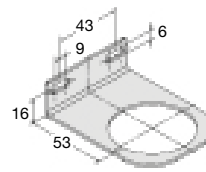
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	MA5002-... *2
gauge -40 °C/-40 °F to 130 °C/266 °F	Ø . . mm, 0...*2 bar, G¼	MS6302-... *2
mounting bracket	made of stainless steel for G¼	BW35-01S
mounting nut		M35x1,5S
mounting bracket	made of stainless steel for G½	BW50-01S
mounting nut		M50x1,5S



BM-02 .H



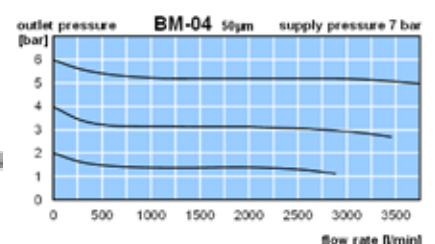
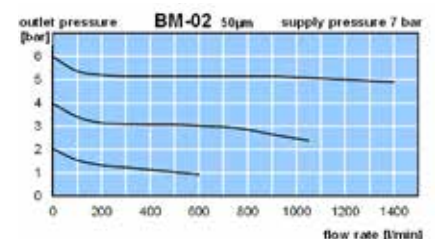
BW35-01S



BW50-01S

*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



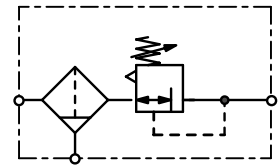
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net



Order example:
BM-02

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		



G $\frac{1}{4}$ up to G1

Dimensions			Bowl		Flow rate		Supply max.	Connection thread	Order number	
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	bar	G		B*
mm	mm	mm	made of/with	l						

Plastic filter regulator										B0
manual drain with semiautomatic drain, relieving, max. 12,5/16 bar w/o gauge, pressure range 0...8 bar, 20 μ m filter element										
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 μ m filter element		B0...0.G.
non-relieving	without relieving function	B0...0...K
0...4 bar regulating range		B095-0...B
0...12 bar regulating range		B095-0...D
automatic drain		B0...0...R

Accessories, enclosed

pressure gauge	Ø 40 mm, 0... ^{*2} bar, G $\frac{1}{8}$	for B042	MA4001-... ^{*2}
	Ø 50 mm, 0... ^{*2} bar, G $\frac{1}{8}$	for B050 to B080	MA5001-... ^{*2}
	Ø 63 mm, 0... ^{*2} bar, G $\frac{1}{4}$	for B095	MA6302-... ^{*2}
mounting bracket	made of steel, mounting nut at the device	for B042	BW30-01
		for B050 to B080	BW42-01
		for B095	BW00-02



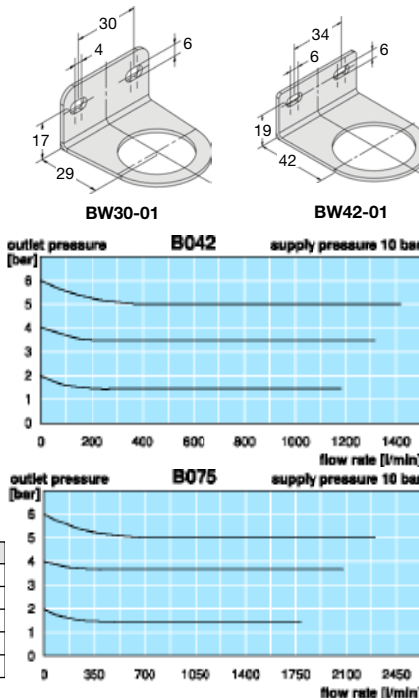
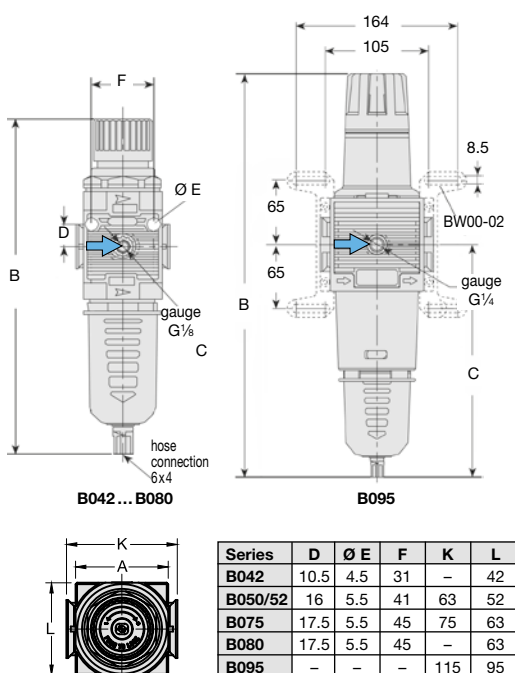
B042



B050



B095



*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

* Product group

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
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Order example:
B042-02HC

COMPRESSED AIR LUBRICATORS

DESCRIPTION	PRESSURE RANGE max. bar	CONNECTION thread	SERIES	PAGE
made of plastic	16	G¼ - G1	L042 ... L095	18.02
„Maxi“-Series, robust, block design	17	G½ - G1	L20	18.03
„Standard“-Series, robust	21	G¾ - G2	L606	18.04
Series „D“, made of aluminium	30	G⅝ - G2	LD	18.05
Brass	50	G¼ and G½	LM	18.06
Stainless Steel	50	G⅝ - G2	L3000	15.37



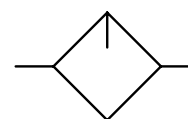
18

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	



G $\frac{1}{4}$ up to G1

Dimensions			Bowl		Flow rate		Operating pressure	Connection thread	Order number	
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	max. bar	G		B*
mm	mm	mm	made of / with	l						

Lubricator, made of plastic					operating pressure max. 12.5 / 16 bar			L0	
42	157	105	plastic	0.04	120	2000	16.0	G $\frac{1}{4}$	L042-02
52	185	127	bowl guard	0.07	120	2000	12.5	G $\frac{3}{8}$	L050-03
52	185	127		0.07	126	2100	12.5	G $\frac{1}{2}$	L052-04
63	227	159		0.14	210	3500	12.5	G $\frac{1}{2}$	L075-04
137	227	159		0.14	216	3600	12.5	G $\frac{3}{4}$	L080-06
95	300	220		0.44	900	15000	12.5	G1	L095-08

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

Accessories, enclosed

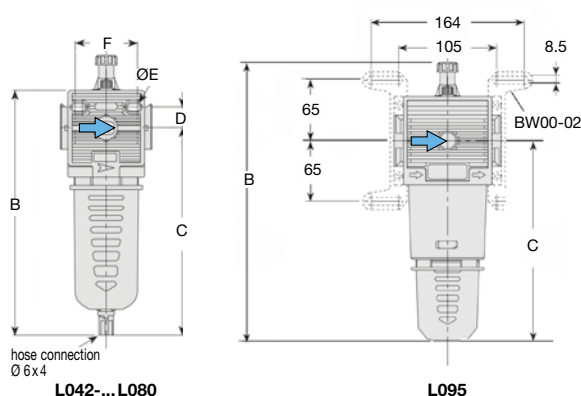
set of brackets	made of steel	for L095	BW00-02
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L042 L052
semiautomatic oil refilling



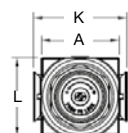
L075 L080



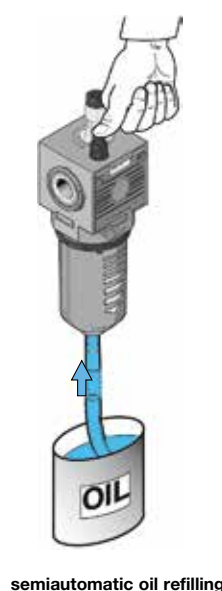
hose connection
Ø 6x4

L042...L080

L095



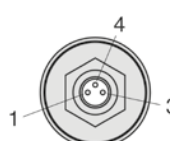
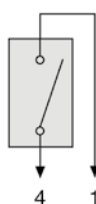
Series	D	Ø E	F	K	L
L042	10.5	4.5	31	—	42
L050/52	16	5.5	41	63	52
L075	17.5	5.5	45	75	63
L080	17.5	5.5	45	—	63
L095	—	—	—	115	95



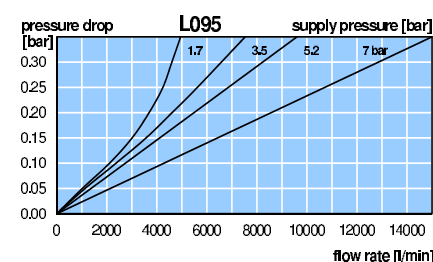
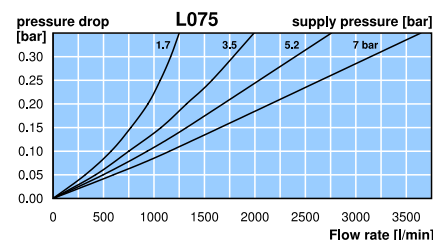
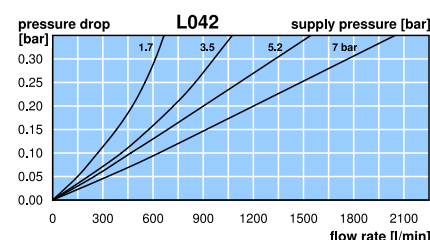
semiautomatic oil refilling



oil level indicator



oil level indicator



*1 at 10 bar operating pressure and 0.33 bar pressure drop

* Product group

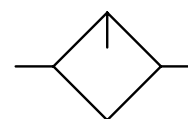
Extensions: see chapter for FRL service units

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:	zinc die-cast	Sight glass: polyurethane
	Bowl:	zinc die-cast	Elastomer: NBR/Buna-N



G½ up to G1

Dimensions			Bowl		Flow rate		Operating pressure	Connection thread	Order number	
A	B	C	Design	Capacity	m³/h*1	l/min*1	max. bar			
mm	mm	mm	made of/with	l				G		A*

"Maxi" lubricator				operating pressure max. 17 bar				L20	
89	229	170	metal/sight glass	0.3	336	5600	17	G½	L20-04W
111	229	170	metal/sight glass	0.3	420	7000		G¾	L20-06W
					438	7300		G1	L20-08W



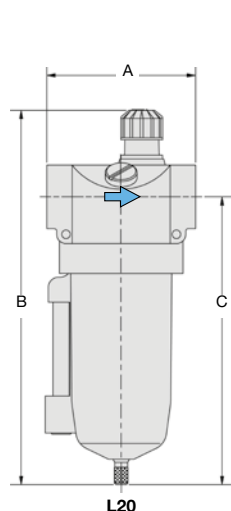
L20

Special options, add the appropriate letter

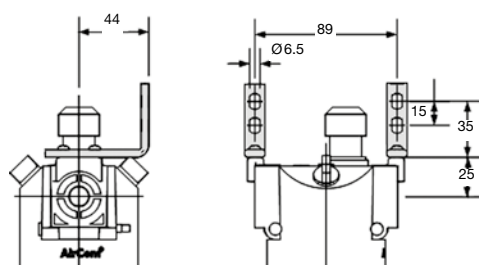
NPT	connection thread	L20-0 . WN
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Accessories, enclosed

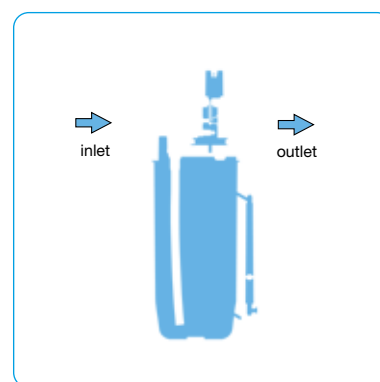
set of brackets	made of steel	MK20-0100
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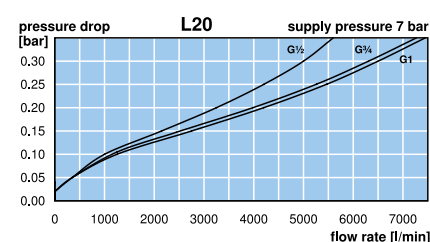
L20



MK20-0100



cross-section



*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

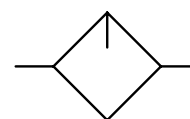
PDF CAD
www.aircom.net

* Product group



Order example:
L20-04W

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	metal version with or without sight glass
Operating pressure	max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	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: zinc die-cast or steel Elastomer: NBR/Buna-N



G $\frac{3}{4}$ up to G1 $\frac{1}{2}$

Dimensions			Bowl design	Bowl capacity	Flow rate		Operating pressure	Connection thread	Order number	A*
A	B	C			m $\frac{3}{2}$ /h*1	l/min*1				
mm	mm	mm	made of/ with	l			max. bar	G		

„Standard“ lubricator									L606
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	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	306	239	steel/sight glass	2.00			17		L606-08G
122	266	194	metal/sight glass	0.50	1020	17000	17	G1 $\frac{1}{4}$ *2	L606-10W
122	355	283	steel	1.00			21		L606-10E
122	300	228	steel/sight glass	2.00			17		L606-10G
122	266	194	metal/sight glass	0.50	1020	17000	17	G1 $\frac{1}{2}$	L606-12W
122	355	283	steel	1.00			21		L606-12E
122	300	228	steel/sight glass	2.00			17		L606-12G



L606-08W



L606-08E
1 I-bowl

L606-08G
2 I-bowl

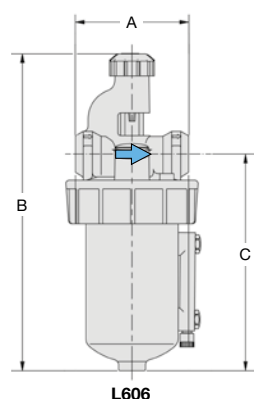
Special options, add the appropriate letter

flange connection see chapter for stainless steel devices / flanges

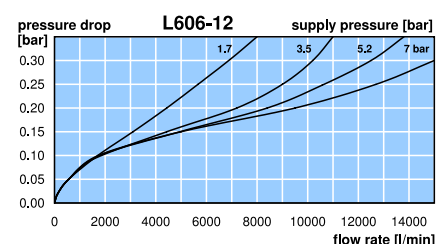
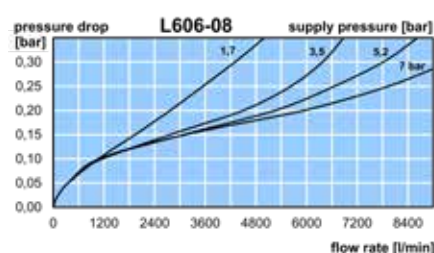
L606-...F.



flange connection



L606



*1 at 7 bar operating pressure and 0.33 bar pressure drop

* Product group

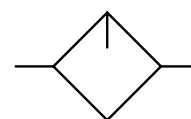
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



Order example:
L606-06W

Description	Good value aluminium compressed air lubricator of solid design lubricating in proportion to flow rate.
Bowl	metal version with or without sight glass
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium or zinc die-cast Elastomer: NBR/Buna-N



G $\frac{1}{8}$ up to G2

Dimensions			Bowl		Flow rate		Operating pressure	Connection	Order number	
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	max. bar	thread		
mm	mm	mm	made of/with	l				G		



Lubricator series "D"

LD

40	161	115	metal/sight glass	0.05	36	600	16	G $\frac{1}{8}$	LD-01M
			metal	0.05			30		LD-01N
40	161	115	metal/sight glass	0.05	40	660	16	G $\frac{1}{4}$	LD-02M
			metal	0.05			30		LD-02N
64	215	137	metal/sight glass	0.18	144	2400	16	G $\frac{3}{8}$	LD-03M
			metal				30		LD-03N
64	215	137	metal/sight glass	0.18	156	2600	16	G $\frac{1}{2}$	LD-04M
			metal				30		LD-04N
130	248	176	metal/sight glass	0.50	420	7000	16	G $\frac{3}{4}$	LD-06M
			metal				30		LD-06N
130	248	176	metal/sight glass	0.50	480	8000	16	G1	LD-08M
			metal				30		LD-08N
241	248	176	metal/sight glass	0.50	540	9000	16	G1 $\frac{1}{4}$	LD-10M
			metal				30		LD-10N
241	248	176	metal/sight glass	0.50	600	10000	16	G1 $\frac{1}{2}$	LD-1AM
			metal				30		LD-1AN
215	316	223	metal/sight glass	1.20	1620	27000	16	G1 $\frac{1}{2}$	LD-12M
			metal				30		LD-12N
215	316	223	metal/sight glass	1.20	1680	28000	16	G2	LD-16M
			metal				30		LD-16N



LD-01M/-02M



LD-03M/-04M



LD-06M/-08M

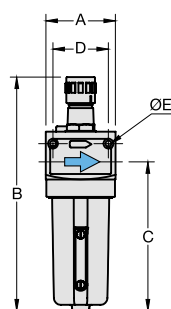


LD-12M/-16M

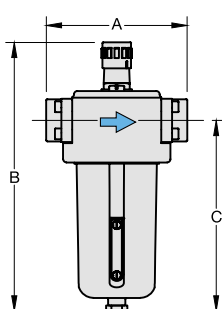
Special options, add the appropriate letter

8 liter bowl	made of stainless steel, max. 30 bar	for G1 $\frac{1}{2}$ (12) and G2	LD- 1.M08
24 liter bowl	made of stainless steel, max. 30 bar	for G1 $\frac{1}{2}$ (12) and G2	LD- 1.M24

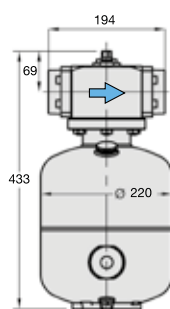
Type	D	Ø E
LD-01/02	30	4.5
LD-03/04	51	5.5



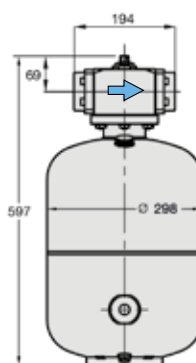
LD-01/...-04



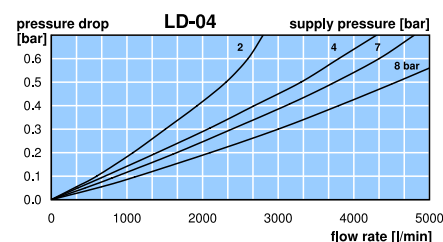
LD-06/...-16



8 liter



24 liter



*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net



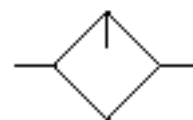
Order example:
LD-01M

Lubricator



18

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 up to G1 brass version without sight glass at G1½ and G2
Operating pressure	max. 50 bar
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version
Material	Body: brass Bowl: stainless steel 316L / material no. 1.4404 Elastomer: FKM Inner valve: brass and plastic (not at high temperature version)



G1½ up to G2, max. 50 bar
-40 °C to 130 °C / -40 °F to 266 °F

Dimensions			Bowl		Flow rate		Operating pressure	Connection thread	Order number
A	B	C	Desing	Capacity	m³/h*1	l/min*1	max. bar	G	
mm	mm	mm	made of	l					

Compressed air lubricator made of brass Operating pressure max. 50 bar LM

64	173	130	stainless steel	0.14	54	900	50	G¼	LM-02
79	175	130	stainless steel	0.20	144	2400	50	G½	LM-04



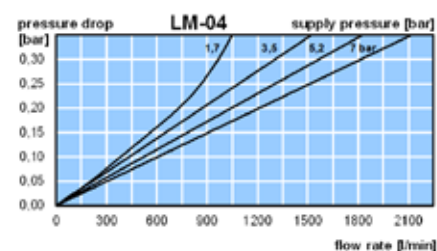
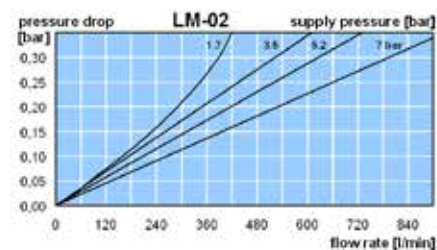
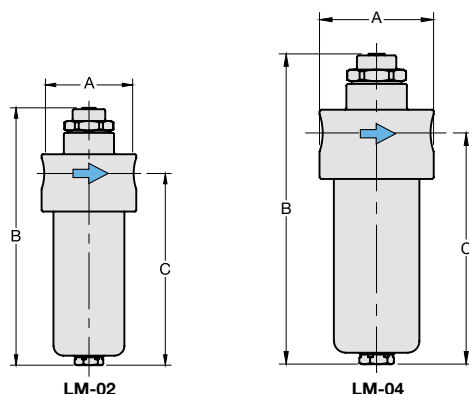
LM-02

Special options, add the appropriate letter or number

up to 130 °C / 266 °F	high temperature version	LM-..X54
flange connection	see chapter for stainless steel devices / flanges	LM-..F.



LM-04



*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:
LM-02

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

Supply pressure

Adjustment

Relieving function

Bowl

Drainage

Temperature range

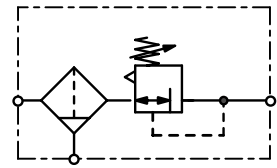
Material

max. 17 bar
by plastic knob with snap-lock at B20, by T-handle with locknut at B21
relieving
metal version with sight glass
manual drain as standard, optionally semiautomatic or automatic drain for max. 12 bar
0 °C to 70 °C / 32 °F to 158 °F
up to 50 °C / 122 °F for semiautomatic or automatic drain version

Gauge port G $\frac{1}{4}$ on both sides of the body, screw plugs supplied
Filter element 40 μ m, optionally 5 μ m, made of polypropylene

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 $\frac{1}{2}$ up to G1

Dimensions			Bowl		Flow rate		Connection	Pressure	Order
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	thread	range	number
mm	mm	mm	made of / with	l			G	bar	

"Maxi" filter regulator					with manual drain, relieving, without gauge, 40 μ m filter element,		without gauge, max. 17 bar		B20
89	289	175	metal/sight glass	0.3	288	4800	G $\frac{1}{2}$	0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B20-04WJB B20-04WJC B20-04WJD
111	289	175	metal/sight glass	0.3	408	6800	G $\frac{3}{4}$	0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B20-06WJB B20-06WJC B20-06WJD
					420	7000	G1	0.2 ... 4.0 0.3 ... 9.0 0.5 ... 17	B20-08WJB B20-08WJC B20-08WJD



B20
with adjusting knob



B21
with T-handle

Special options, add the appropriate letter

T-handle

including locknut, total height 329 mm

B21-0 . W . .

filter element 5 μ m

B20-0 . WG .

NPT

connection thread

B20-0 . W . . N

non-relieving

without relieving function

B20-0 K

semiautomatic drain

RK500SY, max. 12 bar

B20-0 . W . . M

automatic drain

SA605MD, max. 12 bar

B20-0 . W . . R

Accessories, enclosed

pressure gauge

Ø 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

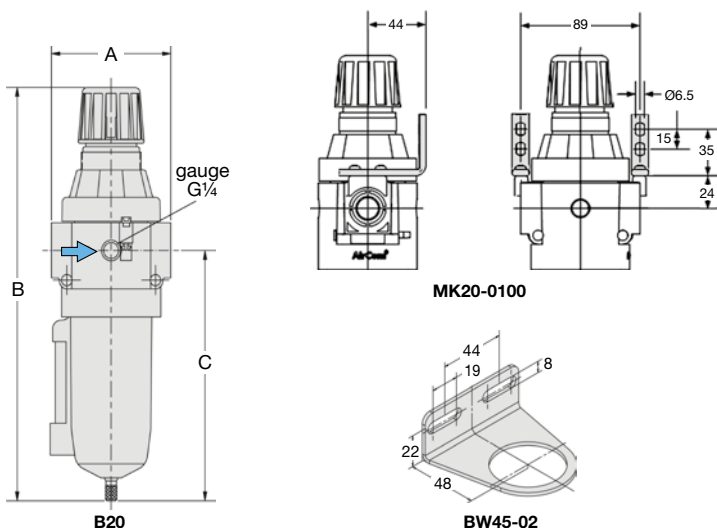
mounting bracket set

made of steel

MK20-0100

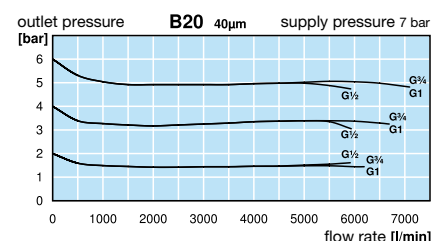
Filter
regulator

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

* Product group

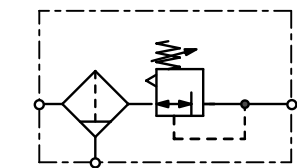
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
B20-04WJB

Description	Low-cost aluminium 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, max. 30 bar for metal bowl without 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	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: zinc die-cast, stainless steel by BD-12 and -16



G $\frac{1}{8}$ up to G2
5/50 μ m, up to 30 bar

Dimensions			Bowl		Flow rate		P ₁ max.	Filter element	Connection thread	Order number
A	B	C	Design	Capacity	m ³ /h*1	l/min*1	bar	μ m	G	
mm	mm	mm	made of/with	l						

Filter pressure regulator										BD
										with semiautomatic drain, relieving, without pressure gauge, pressure range 0.5...8 bar
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	251	149	metal/sight glass	0.18	108	1800	16	50	G $\frac{3}{8}$	BD-03M
			metal	0.18			30			BD-03NH
64	251	149	metal/sight glass	0.18			16		G $\frac{1}{2}$	BD-04M
			metal	0.18			30			BD-04NH
129	310	174	metal/sight glass	0.50	300	5000	16	50	G $\frac{3}{4}$	BD-06M
			metal	0.50			30			BD-06NH
129	310	174	metal/sight glass	0.50			16		G1	BD-08M
			metal	0.50			30			BD-08NH
240	310	174	metal/sight glass	0.50	390	6500	16	50	G1 $\frac{1}{4}$	BD-10M
			metal	0.50			30			BD-10NH
240	310	174	metal/sight glass	0.50			16		G1 $\frac{1}{2}$	BD-1AM
			metal	0.50			30			BD-1ANH



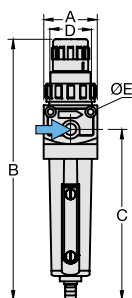
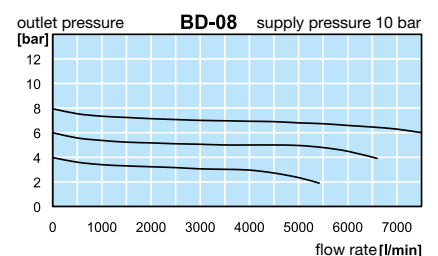
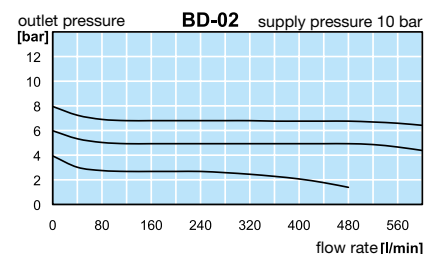
BD-01/-02M



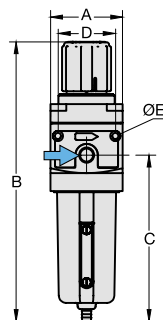
BD-03/-04M



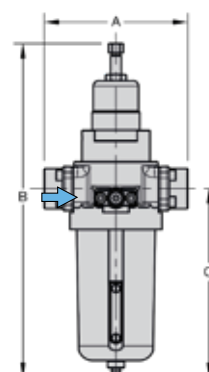
BD-10/-1ANH



BD-01/-02



BD-03/-04



BD-06/-08

Filter
regulator



17

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

* Product group

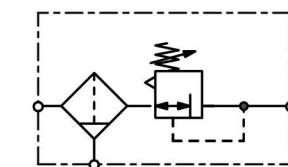
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
BD-01M

Description	Low-cost aluminium 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, max. 30 bar for metal bowl without 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 $\frac{1}{2}$ 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	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: zinc die-cast, stainless steel by BD-12 and -16



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	Capacity	rate	max.	max.	element	thread	number
mm	mm	mm	made of/ with	l	m ³ /h*1	l/min*1	bar	μ m	G	

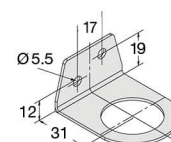
Filter pressure regulator										BD
174	483	213	Metall	1.w0	1380	23 000	30	50	G1 $\frac{1}{2}$	BD-12NH
174	483	213	Metall	1.0	1380	23 000	30	50	G2	BD-16NH



BD-12/-16NH

Special options, add the appropriate letter

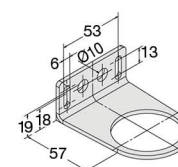
5 μ m filter element	BD-... G
0.3 ... 3 bar regulating range	BD-... B
1 ... 15 bar regulating range	BD-... E
manual drain	max. 16 bar for metal bowls with sight glass BD-... H
automatic drain	max. 16 bar, drainage through float valve for G $\frac{3}{4}$ to G2 BD-... R
flange connection	see chapter for stainless steel devices / flanges BD-... F.



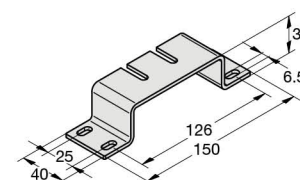
BW30-02

Accessories, enclosed

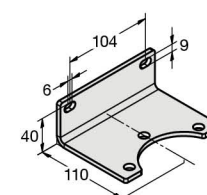
pressure gauge	Ø 40 mm, 0...*2 bar, G $\frac{1}{8}$ Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$ Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$	for G $\frac{1}{8}$ and G $\frac{1}{4}$ for G $\frac{3}{4}$ and G $\frac{1}{2}$ for G $\frac{3}{4}$ up to G2	MA4001-...*2 MA5002-...*2 MA6302-...*2
mounting bracket	made of steel	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 $\frac{3}{4}$ and G $\frac{1}{2}$	BW50-03
mounting nut	made of plastic	for G $\frac{3}{4}$ 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 stainless steel	for G1 $\frac{1}{2}$ (12) and G2	BW00-62S



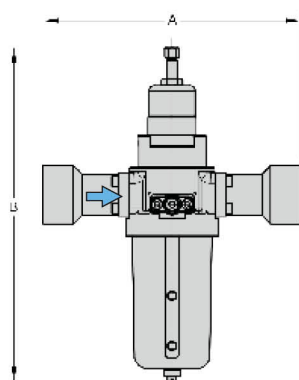
BW50-03



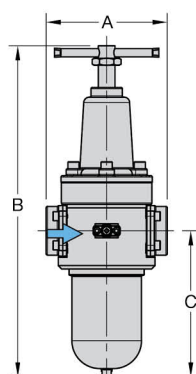
BW00-59S



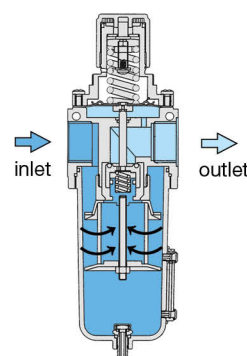
BW00-62S



BD-0/-1A



BD-12/-16



cross-section

*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

* Product group

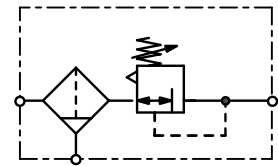
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
BD-12NH

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



1/4" NPT

Dimensions			Bowl		Flow		P ₁	Connection	Pressure	Order	
A	B	C	Design	Capacity	rate	rate	max.	thread	range	number	
mm	mm	mm	made of	l	m³/h*1	l/min*1	bar	NPT	bar		B*

Filter pressure regulator										with manual drain, relieving, with air consumption 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

Special options, add the appropriate letter

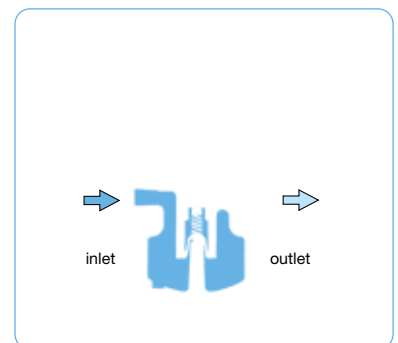
5 µm filter element		B300-02 . G
non-relieving	without relieving function and without air consumption	B300-02 . K
tapped exhaust	1/4" NPT	B300-02 . X12
tamper-proof cap		B300-02 . T
FKM-elastomer		B300-02 . V



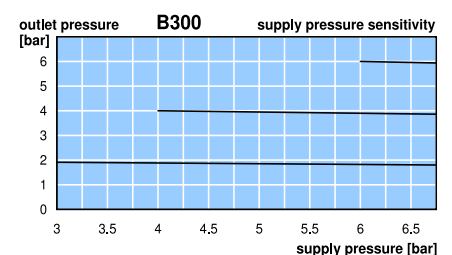
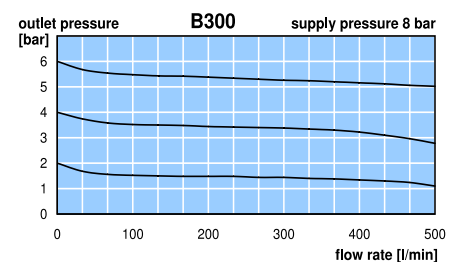
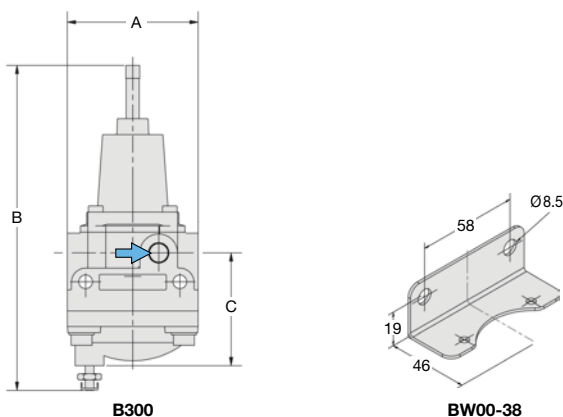
B300

Accessories, enclosed

mounting bracket	mounting at spring cage, made of steel	BW00-38
------------------	--	---------



cross-section



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

* Product group

PDF CAD
www.aircom.net



Order example:
B300-020

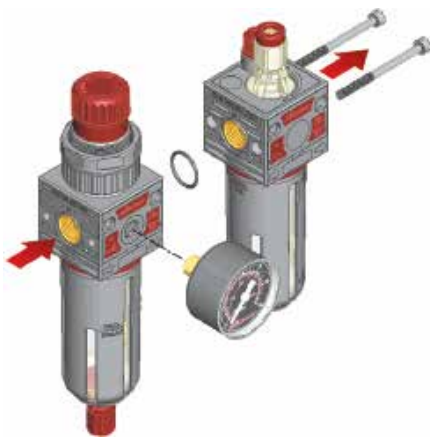
FRL SERVICE UNITS

DESCRIPTION	PRESSURE RANGE bar	CONNECTION	SERIES	PAGE
made of plastic, 2- and 3-part	0 ... 8 / 12	G $\frac{1}{4}$ - G1	C2, C3	19.03
assembly diagrams C2, C3			C35 ... C95	19.04
switch-on and soft start valve C2, C3		G $\frac{1}{4}$ - G $\frac{3}{4}$	A0, S0, V0	19.05
made of brass, 2- and 3-part	0.2 ... 3 / 15	G $\frac{1}{4}$ and G $\frac{1}{2}$	CM	19.06
Stainless steel, 2- and 3-part	0.2 ... 3 / 15	G $\frac{1}{4}$ - G2	C3002, C3003	15.38
„Maxi“-Series, made of metal, robust, 2- and 3-part	0.2 ... 4 / 17	G $\frac{1}{2}$ - G1	C20, C21	19.07
Series „D“, made of alu, 2-part	0.3 ... 3 / 15	G $\frac{1}{8}$ - G2	CD2	19.08
„Standard“-Series, robust	0.2 ... 4 / 17	G $\frac{3}{4}$ - G2	C630	19.09
hose rupture valves, aluminium/stainless steel	max.18	G $\frac{1}{4}$ - G2	281	19.10



19

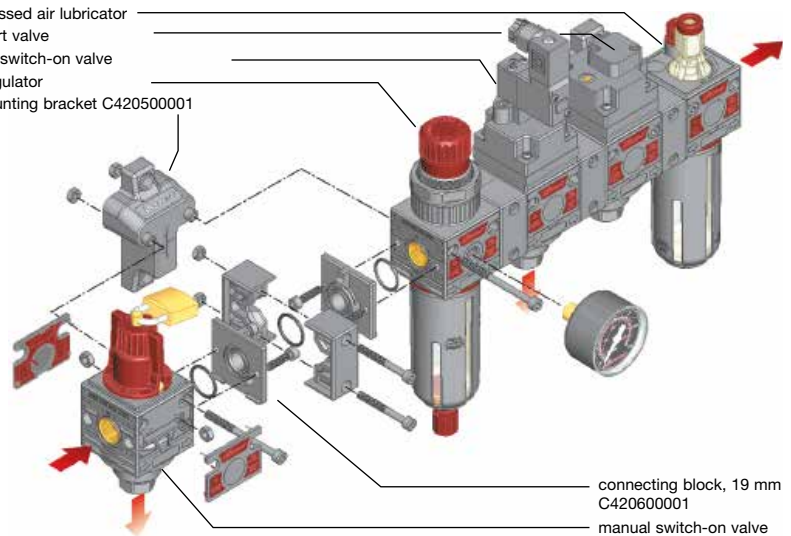
ASSEMBLY DIAGRAMS FOR PLASTIC FRL SERVICE UNITS C2/C3



screw connection of standard FRL service unit with screws, nuts and o-ring
C400500001

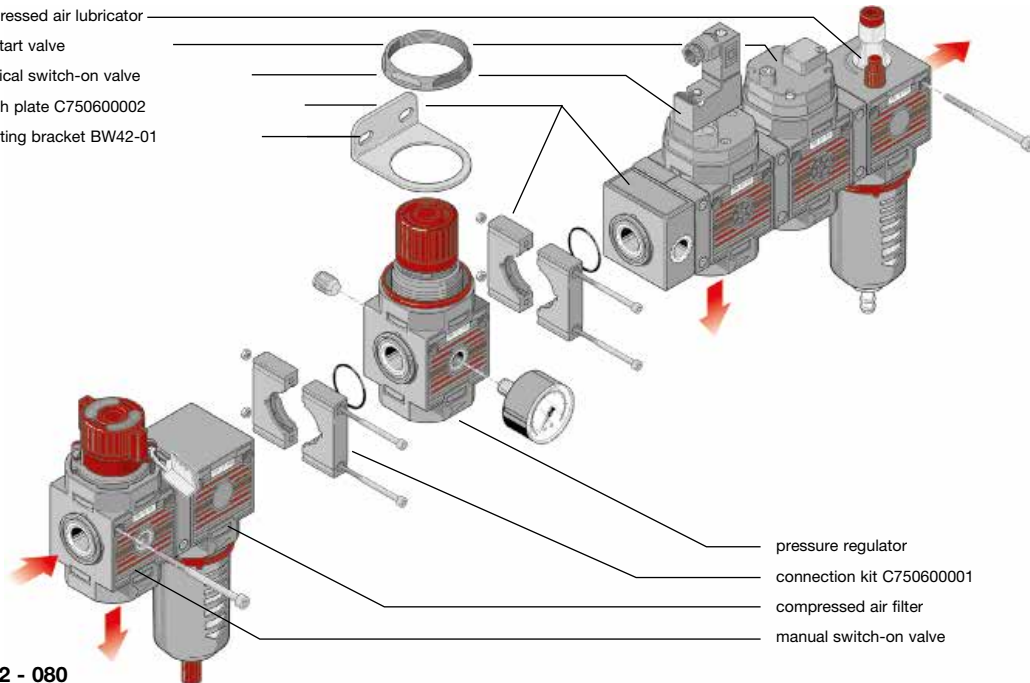
Series 042

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

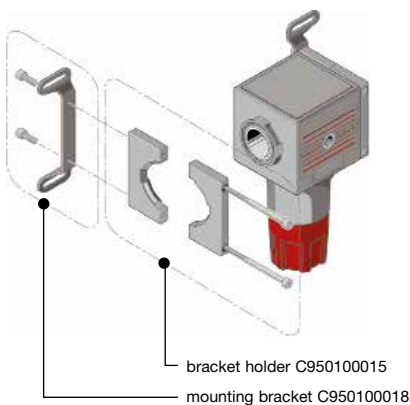
compressed air lubricator
soft start valve
electrical switch-on valve
branch plate C750600002
mounting bracket BW42-01



pressure regulator
connection kit C750600001
compressed air filter
manual switch-on valve

Series 075

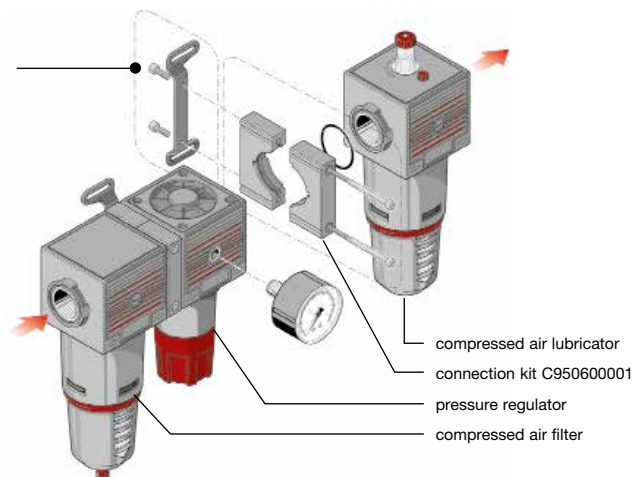
similar to
Series 050 - 052 - 080



bracket holder C950100015
mounting bracket C950100018

Series 095

mounting bracket
C950100018

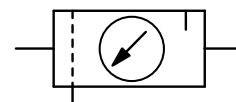


compressed air lubricator
connection kit C950600001
pressure regulator
compressed air filter

FRL
units

19

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 $\frac{1}{8}$ 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.		
	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	Inner valve: brass	
	Bowl: polyamide	Thread insert: brass	
	Elastomer: NBR/Buna-N		

G $\frac{1}{4}$ up to G1

Dimensions				Combination consist of	Bowl design made of / with	Flow rate		Connection thread G	Order number	B*
A	B	C	K			m ³ /h*1	l/min*1			
mm	mm	mm	mm							

FRL unit, 2-partP₁: max. 12.5 / 16 bar, P₂: 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-partP₁: max. 12.5 / 16 bar, P₂: 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 letter5 μ m filter element

C...-0.G.

0...12 bar regulating range

C...-0...D

automatic drain

C400200130

C...-0...R

semiautomatic oil refilling

P_{min.} 3 bar

for C.42 to C.80

C...-0...X65

oil level indicator

P_{max.} 7 bar

max. 115 V / NO

for C.50 to C.95

C...-0...X66

Accessories, enclosed

mounting bracket

made of steel, mounting nut at the device

for C.42

BW30-01

for C.50 to C.80

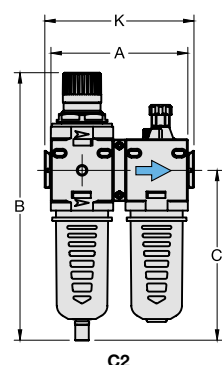
BW42-01

set of brackets

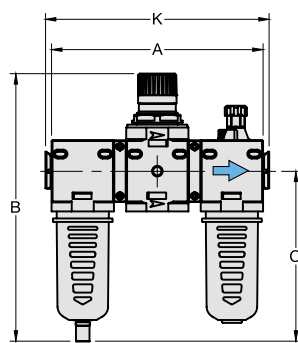
made of steel, mounting nut at the device

for C.95

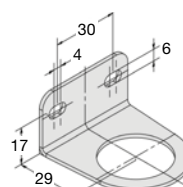
BW00-02



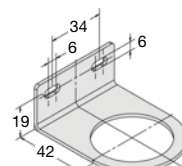
C2



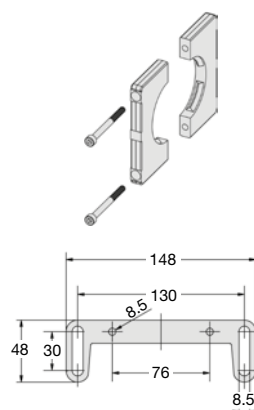
C3



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

PDF CAD
 www.aircom.net

* Product group



Order example:
 C242-02HC

FRL units



19

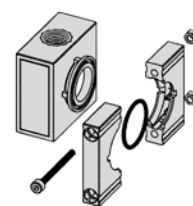
Connection kit

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 : • Mounting using rotary clip and two o-rings. These allow regulators to be connected to other regulators or filters.
- C40 : • Instruments are connected to each other using screws, nuts and o-ring;
• alternatively, a segmented connecting block can be used for instrument connection.
- C50 : • Instrument connection by means of a two-part connecting block.

Branch plate

- C40 : • 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 : • Branch plate with compressed air connection G $\frac{1}{4}$.
Port installation of the branch plate is only possible using connecting blocks.



assembly components

Description

Connection of instruments

for series

Order number

Connection kit

for connecting separate instruments

C...

rotary clips with two o-rings

R+F or R+R or F+F

35

C350100018

screws, nuts and o-ring

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



C350100018

Verbindungssatz



C400500001
C400600001
C400700001

connection kit

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

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

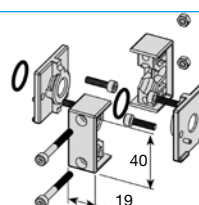
C950100018

bracket holder

required in absence of C9506

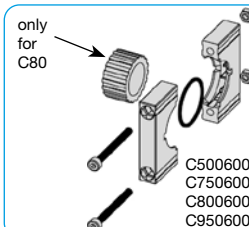
for G1

C950100015



C420600001

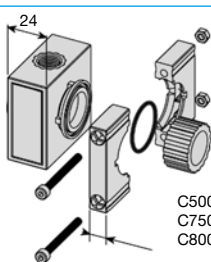
connection kit



only for C80

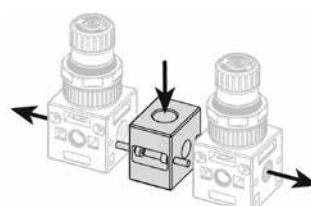
C500600001 width 10.6
C750600001 width 12.5
C800600004 width 12.5
C950600001 width 16.0

connection kit



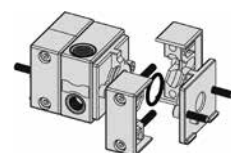
C500500003 width 10.6 mm
C750600002 width 12.6 mm
C800600005 width 12.5 mm

branch plate



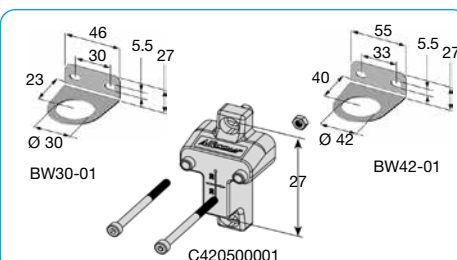
C400500111

supply



C420500003

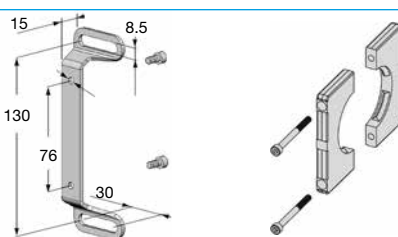
branch plate



BW30-01

BW42-01

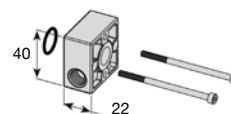
mounting brackets



C950100018

C950100015

wall mounting



C400500102
C400500108
C400500103

branch plate



Manual switch-on

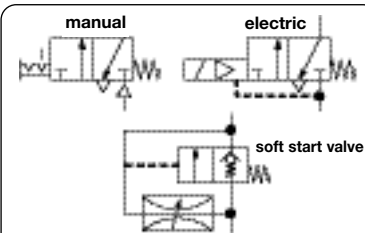
Manual switch-on/off valve which relieves at switch-off. Tapped exhaust with connection thread G $\frac{1}{8}$ or valve G $\frac{1}{4}$. Valve can be protected from unauthorised tampering by provided padlock. Wall mounting is possible through two drilled holes in the body. Maximum supply pressure is 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



V052
manual switch-on valve



S052
electric switch-on valve



A052
soft start valve

Dimensions			Description	Exhaust port	Flow rate		Connection thread	Order number	B*
A	B	C			m ³ /h*1	l/min*1			
mm	mm	mm		G			G		

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

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

Soft start valve

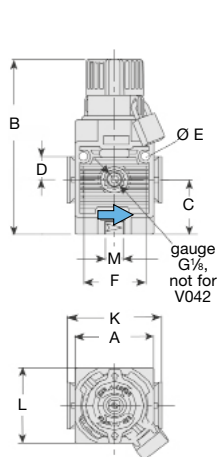
supply pressure 3...10 bar

A0

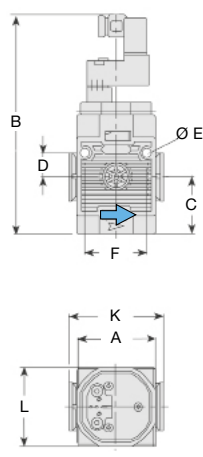
42	105	42	slow pressurizing of the		96	1600	G $\frac{1}{4}$	A042-02
63	108	52	pneumatic plant,		156	2600	G $\frac{3}{8}$	A050-03
63	108	52	delay time adjustable		162	2700	G $\frac{1}{2}$	A052-04
75	117	63			186	3100	G $\frac{1}{2}$	A075-04
137	117	63			192	3200	G $\frac{3}{4}$	A080-06

Special options, add the appropriate letter

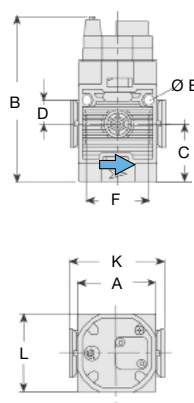
24 V AC, 2 W	input supply voltage	for S0	S0...-0.X
115 V AC, 1 W	input supply voltage	for S0	S0...-0.Y
230 V AC, 1 W	input supply voltage	for S0	S0...-0.Z
pneumatic control	C402600014, instead of electrical operation	for S0	S0...-0.P



V0
manual switch-on valve



S0
electric switch-on valve



A0
soft start valve

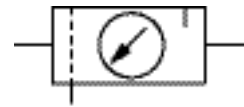
Series	D	Ø E	F	K	L
042	10.5	4.5	31	—	42
050/052	16	5.5	41	63	52
075	17.5	5.5	45	75	63
080	—	—	—	—	137

*1 at 10 bar supply pressure and 1 bar pressure drop

* Product group



Description	Extremely robust FRL service unit made of brass.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 50 bar at CM2, max. 30 bar at CM3, optionally max. 50 bar (all without drain)
Adjustment	by black plastic knob at CM.-02, by T-handle with locknut at CM.-04
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	0 °C to 80 °C / 32 °F to 176 °F FKM 0 °C to 130 °C / 32 °F to 212 °F high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Body: brass Bowl: stainless steel 316L / 1.4404 at G $\frac{1}{8}$ to G1, brass at G $\frac{1}{2}$ and G2 Elastomer: FKM optionally EPDM Knob: plastic at sizes G $\frac{1}{4}$, brass at G $\frac{1}{2}$ Inner valve: brass and plastic (not at option X54)



**G $\frac{1}{8}$ and G $\frac{1}{2}$, max. 50 bar
-20 to 130 °C / -40 to 266 °F**

Dimensions			Combination consisting of	Bowl design made of	Flow rate		Connection thread G	Order number
A	B	C			m ³ /h*1	l/min*1		
mm	mm	mm						

FRL unit, 2-part					P1: max. 50 bar, screw plug,	P2: 0.5...8 bar, relieving,	50 μ m, with pressure gauge	CM2
138	220	123	BM+LM	stainless steel	51	850	G $\frac{1}{4}$	CM2-02
168	247	127			138	2 300	G $\frac{1}{2}$	CM2-04



CM2-04

FRL unit, 3-part					P1: max. 30 bar, screw plug,	P2: 0.5...8 bar, relieving,	50 μ m, with pressure gauge	CM3
212	173	129	FM+R120+LM	stainless steel	51	850	G $\frac{1}{4}$	CM3-02
256	175	130			138	2 300	G $\frac{1}{2}$	CM3-04



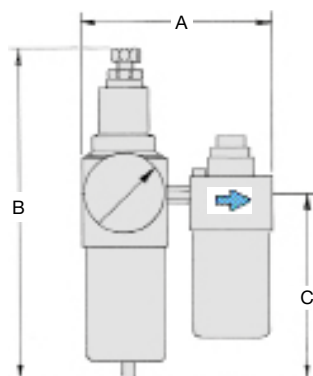
CM3-02

Special options, add the appropriate letter

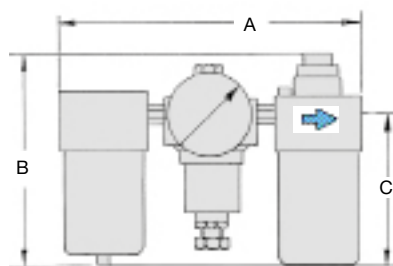
5 μ m filter element		CM . . . G
0.2... 3 bar pressure range		CM . . . B
1 ...15 bar pressure range	P1 max. 50 bar	CM . . . D
manual drain	max. 30 bar	CM . . . H
automatic drain	made of stainless steel, max. 16 bar	CM . . . R
up to 130 °C / 266 °F	high temperature version	CM . . . X54
flange connection	see chapter for stainless steel devices / flanges	CM . . . F.

Accessories, enclosed

mounting bracket	made of stainless steel	for G $\frac{1}{4}$	BW35-01S
mounting nut			M35x1,5S
mounting bracket	made of stainless steel	for G $\frac{1}{2}$	BW50-01S
mounting nut			M50x1,5S



CM2-0. .H



CM3-0. .H

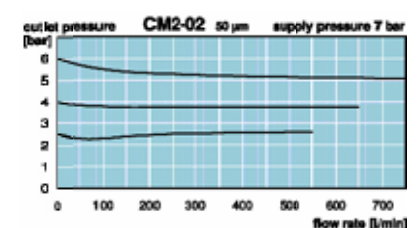
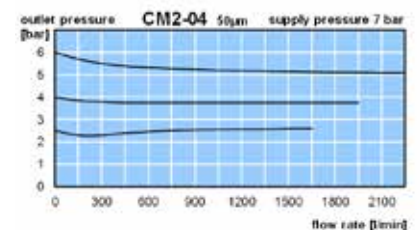
*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

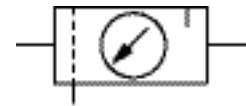
PDF CAD
www.aircom.net



Order example:
CM2-02



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	
Gauge port	G¼ on both sides of the body	Filter element 40 µm, optionally 5 µm, made of polypropylene
Drainage	manual drain as standard,	Bowl metal version with sight glass
Temperature range	0 °C to 70 °C / 32 °F to 158 °F	optionally automatic drain or semiautomatic drain for max. 12 bar
	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



G½ up to G1

Dimensions			Combination consisting of	Bowl design made of / with	Flow rate		Connection thread	Order number	A*
A	B	C			m³/h*1	l/min*1			
mm	mm	mm					G		

FRL unit, 2-part					P1: max. 17 bar, P2: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C20
178	289	175	B+L20	metal / sight glass	276	4600	G½	C20-04BL-W
203	289	175	B+L20	metal / sight glass	276	4600	G½	C20-04BL-W
					390	6500	G¾	C20-06BL-W
					402	6700	G1	C20-08BL-W

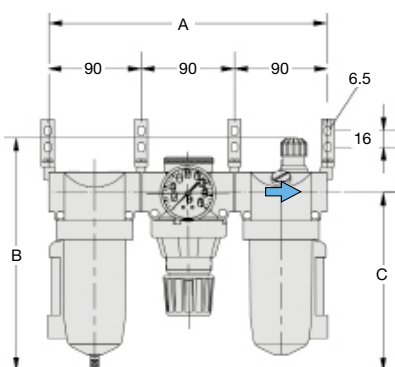
FRL unit, 3-part					P1: max. 17 bar, P2: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge			C20
270	226	171	F+R+L20	metal / sight glass	102	1700	G¼	C20-02FRL-W
					174	2900	G½	C20-03FRL-W
					276	4600	G½	C20-04FRL-W
292	226	171	F+R+L20	metal / sight glass	390	6500	G¾	C20-06FRL-W
					402	6700	G1	C20-08FRL-W

Special options, add the appropriate letter

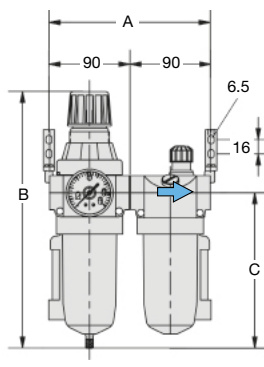
T-handle	including locknut	C21-0 . . . -W
5 µm filter element		C20-0 . . . -WG
NPT	connection thread	C20-0 . . . -WN
0.2... 4 bar pressure range		C20-0 . . . -WB
0.5...17 bar pressure range		C20-0 . . . -WD
semiautomatic drain	RK500SY, max. 12 bar	C20-0 . . . -WM
automatic drain	SA605MD, max. 12 bar	C20-0 . . . -WR

Accessories, enclosed

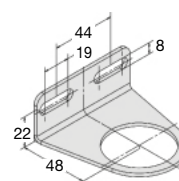
mounting bracket	mounting at the spring cage	BW45-02
mounting nut	made of aluminium	M45x1,5A
mounting bracket set	made of steel, consisting of two mounting brackets	MK20-0100
porting block	tap G¼, for unlubricated compressed air	IK20CP



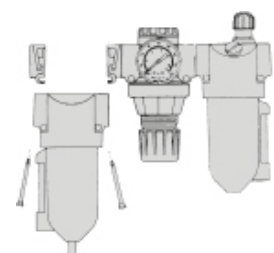
C20- . . FRL mit MK20-0100



C20- . . BL mit MK20-0100



BW45-02



dismantling from fixed piping

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

Further details: see chapter for single devices

PDF CAD
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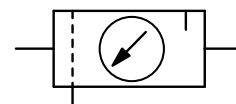
Order example:
C20-04BL-W

FRL units



19

Description	Solid, low-cost FRL service unit made of aluminium 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	semiautomatic drain as standard, optionally automatic (max. 16 bar) or manual drain for max. 30 bar
Drainage	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
Temperature range	-10 °C to 50 °C / -14 °F to 122 °F metal bowl with sight glass, for G $\frac{1}{2}$ to G $\frac{3}{8}$ -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: aluminium Elastomer: NBR/Buna-N Bowl: aluminium



G $\frac{1}{8}$ up to G2

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	l/min*1	G	

FRL unit, 2-part

P₁: max. 16 bar, P₂: 0.8...8 bar, 20 / 50 μ m, semiautomatic drain, relieving, with gauge

CD2

80	201	128	BD+LD	metal/sight glass	50	27	450	G $\frac{1}{8}$ G $\frac{1}{4}$	CD2-01 CD2-02
128	248	148		metal/sight glass	50	108	1800	G $\frac{3}{8}$ G $\frac{1}{2}$	CD2-03 CD2-04
275	314	179		metal/sight glass	50	300	5000	G $\frac{3}{4}$ G1	CD2-06 CD2-08
386	314	179		metal/sight glass	50	300	5000	G1 $\frac{1}{4}$ G1 $\frac{1}{2}$	CD2-10 CD2-1A
355	483	223		metal/sight glass	50	960	16000	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 μ m filter element

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

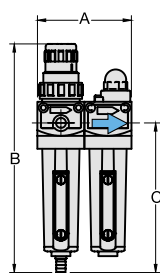
automatic drain

drainage by float valve, max. 16 bar for G $\frac{3}{8}$ up to G2

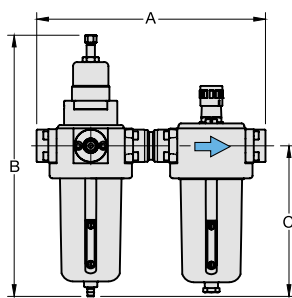
CD2-...R

Accessories, enclosed

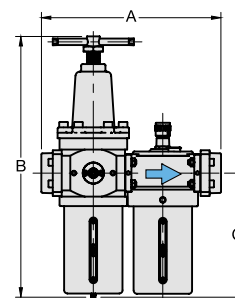
mounting bracket	made of steel	for G $\frac{1}{8}$ and G $\frac{1}{4}$	BW30-02
mounting nut	made of plastic	for G $\frac{1}{8}$ and G $\frac{1}{4}$	M30x1,5K
mounting bracket	made of steel	for G $\frac{3}{8}$ and G $\frac{1}{2}$	BW50-03
mounting nut	made of plastic	for G $\frac{3}{8}$ and G $\frac{1}{2}$	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

* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net



Order example:
CD2-01

Description	FRL service unit of small size and with high flow. Compact design, proven in operation.		
Media	compressed air or non-corrosive gases		
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	G¼ on both sides of the body, one screw plug supplied		
Filter element	40 µm, optionally 5 µm, 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



G¼ up to G2

Dimensions			Combination consisting of	Bowl design made of/with	Flow rate		Connection thread	Order number	A*
A	B	C			m³/h*1	l/min*1			
mm	mm	mm					G		

FRL unit, 3-partP₁: max. 17 bar, P₂: 0.3...9 bar, 40 µm,
manual drain, relieving, with pressure gauge**C630**

400	267	197	F602 + R119, + L606	metal/sight glass	408	6800	G¾	C630-06FRL-W	
					516	8600	G1	C630-08FRL-W	
419	286	206		metal/sight glass	600	10000	G1¼	C630-10FRL-W	
					630	10500	G1½	C630-12FRL-W	
485	425	356		metal/sight glass	1590	26500	G2	C630-16FRL-W	



C630-08FRL-W



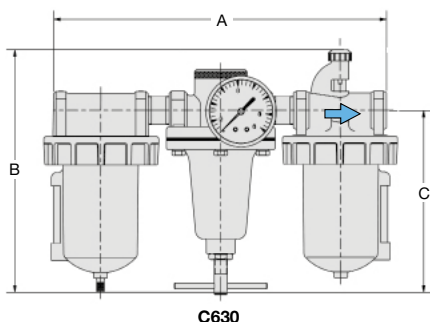
C630-16FRL-W

C630-16FRL-WF.
with mounting flange**Special options,** add the appropriate letter

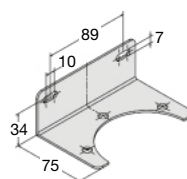
5 µm filter element		C630-0 G
NPT	connection thread	C630-0 N
0.2... 4 bar pressure range		C630-0 B
0.5...17 bar pressure range		C630-0 D
semiautomatic drain	RK500SY, max. 12 bar	C630-0 M
automatic drain	SA605MD, max. 12 bar	C630-0 R
flange connection	see chapter for stainless steel devices / flanges	C630-0 F

Accessories, enclosed

mounting bracket	made of steel	for G¾ to G1½	BW00-24
------------------	---------------	---------------	----------------



C630



BW00-24

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

Further details: see chapter for single devices

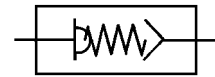
PDF CAD
www.aircom.net

* Product group

Order example:
C630-06FRL-AFRL
units

19

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		



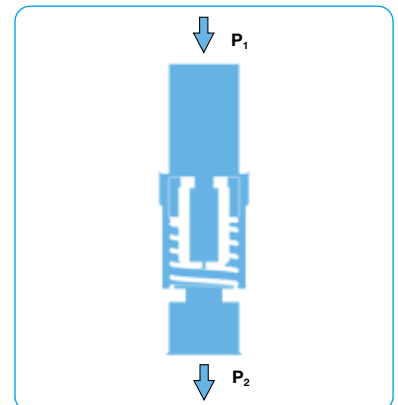
max. 18 bar
G¼ up to G2

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	G¼ mf		281A0221
49	-	22	3	52	G¼		281ZL0211
49	10	22	3	52	G¼ mf		281ZL0221
49	-	22	60	990	G¼		281ZH0211
49	10	22	60	990	G¼ mf		281ZH0221
58	-	27	65	1080 *1	G¾		281A0311
58	12	27	65	1080 *1	G¾ mf		281A0321
58	-	27	87	1450	G¾		281ZH0311
58	12	27	87	1450	G¾ mf		281ZH0321
65	-	30	181	3020 *1	G½		281A0411
64	15	30	181	3020 *1	G½ mf		281A0421
65	-	30	206	3440	G½		281ZH0411
64	15	30	206	3440	G½ mf		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

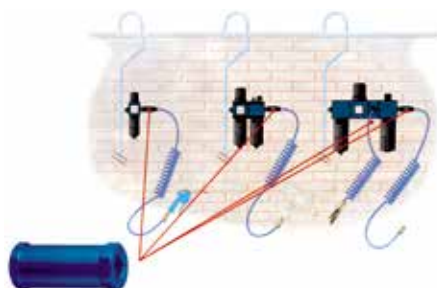
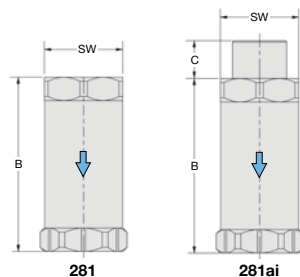


cross-section

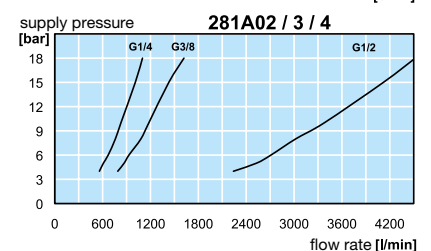
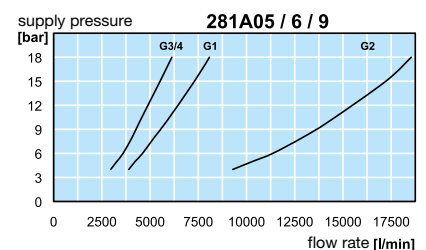
Special options, add the appropriate letter

NPT	connection thread for standard version	281A1 ...
	connection thread for Low-Flow version	281ZL1 ...
	connection thread for High-Flow version	281ZH1 ...
		281R ...

stainless steel body



application example



*1 Standard version

*2 volume flow measurement according to DIN EN60534 (± 10% for closing)

* Product group

PDF CAD
www.aircom.net



Order example:
281A0211

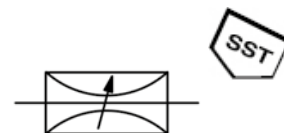
MICRO-/ MINIATURE-DEVICES

	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

Description	The precision needle valve is an 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		



Ø 0 ... 0.65 mm
compressed air or liquids

Flow adjustment mit	Operating pressure max. bar	Volume flow at 3.5 bar and 6 turns l/min	Nipple diameter Ø mm	inch	Order number
------------------------	--------------------------------	--	-------------------------	------	--------------

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

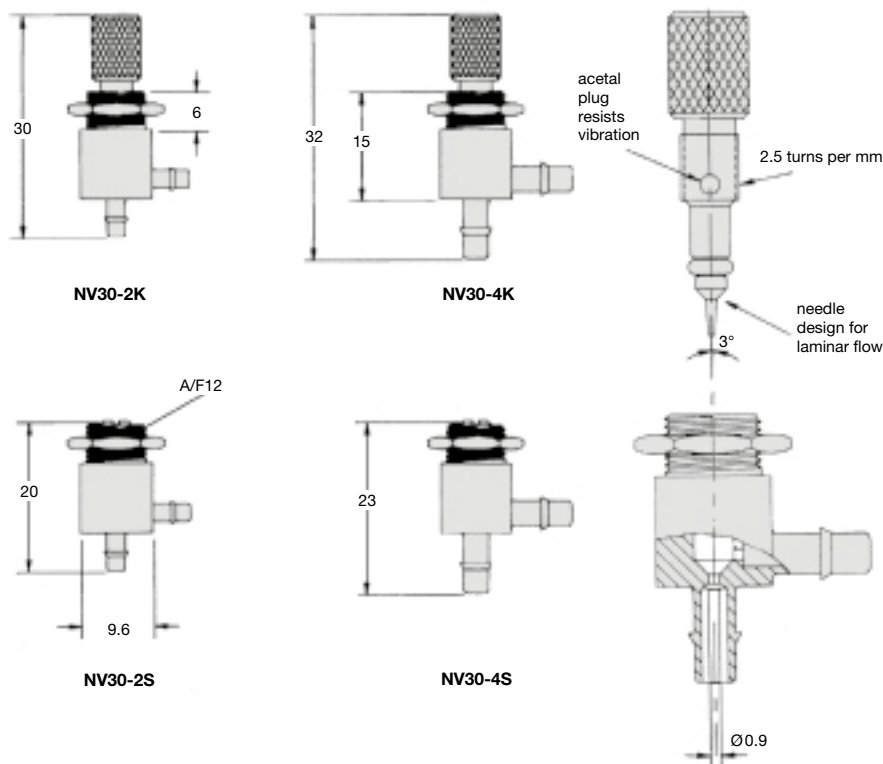
4.5

1/8"

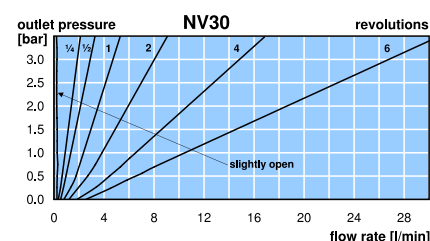
NV30-4S



NV30-4S
with slotted screw



NV30-2K



* Product group

PDF CAD
www.aircom.net



Order example:
NV30-2K

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	



Ø 0.06 up to 0.64 mm
compressed air or liquids

Nominal size Ø mm	Order number				D*
	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

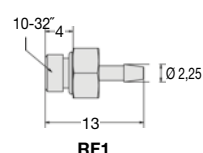
				
0.06	RF106	RF206	RF306	RF406
0.07	RF107	RF207	RF307	RF407
0.08	RF108	RF208	RF308	RF408
0.09	RF109	RF209	RF309	RF409
0.10	RF110	RF210	RF310	RF410
0.11	RF111	RF211	RF311	RF411
0.12	RF112	RF212	RF312	RF412
0.13	RF113	RF213	RF313	RF413
0.14	RF114	RF214	RF314	RF414
0.15	RF115	RF215	RF315	RF415
0.16	RF116	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



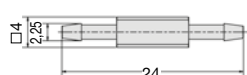
RF2 RF1
with nipple



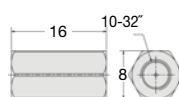
RF3 RF4
with connection thread



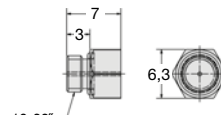
RF1



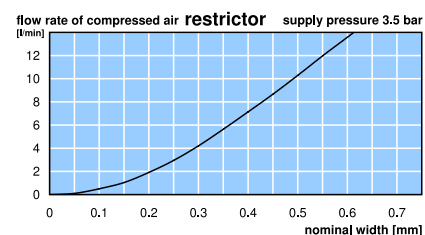
RF2



RF3



RF4



* Product group

PDF CAD
www.aircom.net



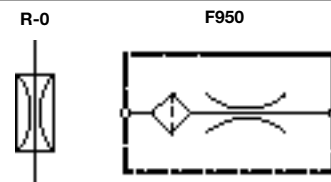
Order example:
RF106

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

Precision Restrictor R-0

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

Restrictor with Filter F950



R-0 0.08 up to 1.02 mm
F950 0.1 up to 0.76 mm / 5 / 43 / 73 µm

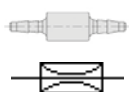
Dimensions	Connection	Nominal size	Order	Nominal size	Order
A	inlet / outlet	colour / DN	number	colour / DN	number
mm		Ø mm		Ø mm	

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



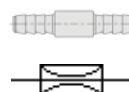
R-0...-1 with nipple R-0...-6

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



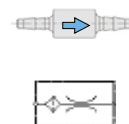
R-0...-0 with plain fittings

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

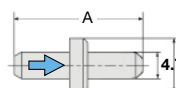


for R-0 R-0...-0

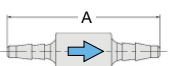
nipple Ø 4.7 A = 34 mm



for F950 F950-...-...-B85



plain fittings R-0...-0

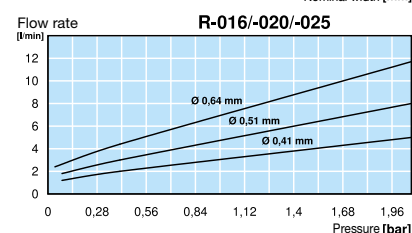
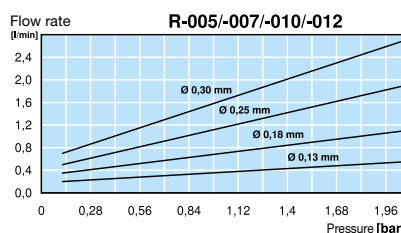


barbed fittings Ø 2.7 R-0...-6 F950-...-...B80



barbed fittings Ø 4.7 R-0...-1 F950-...-...B85

*1 nominal size see RF2



* Product group

PDF CAD
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Order example:
R-003-6

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

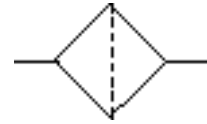
Diameter tolerances -3% to +10% of nominal diameter

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



5/25/43/73 μm
compressed air or gases

Dimensions A mm	Operating pressure max. bar	Connection inlet / outlet	Filter element μm	Order number
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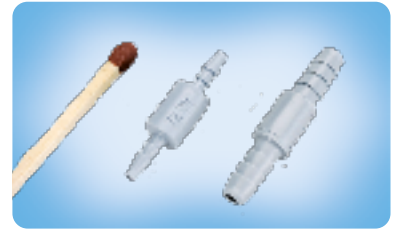


Micro pressure filter

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

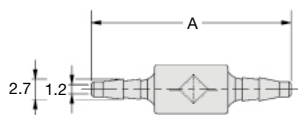


F970 with thread

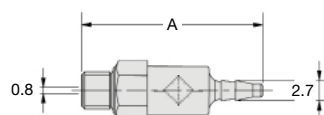
Accessories, enclosed

connecting nipple for F960 and F970

10-32" / fitting $\varnothing$ 2.7	F3120-80
$\varnothing$ 4.7	F3120-85
$\varnothing$ 5.6	F3120-86

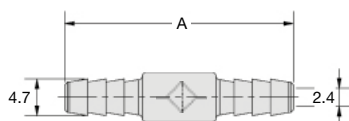


F950...B80

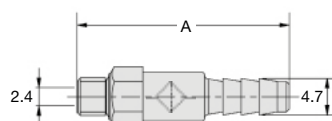


F960...B80

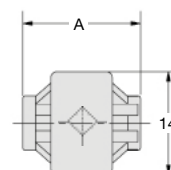
fitting	for tube
B80 $\varnothing$ 2.7	$\frac{1}{16}"$ $\varnothing$ 1.6 mm
B85 $\varnothing$ 4.7	$\frac{1}{8}"$ $\varnothing$ 3.2 mm
B86 $\varnothing$ 5.6	0.17" $\varnothing$ 4.3 mm



F950...B85



F960...B85



F970

* Product group

PDF CAD
www.aircom.net

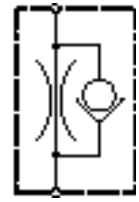


Order example:
F950-05B80

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



3.4/57
l/min



Ø 0.1 up to
1.0 mm

Dimensions	Operating pressure	Check disk	Connection	Leakage rate	Flow rate	Nominal size	Order number
A	max. bar	made of		< ml/min*2	l/min*1	colour / DN	
mm							



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
		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
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
15	5.2	silicone	10-32"	1	57	grey	3.8	F2804-404
		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

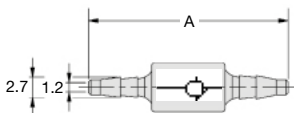
15	5.2	silicone	10-32"				0.10	F2804-404-041
							0.13	F2804-404-050
							0.15	F2804-404-051
							0.18	F2804-404-071
							0.25	F2804-404-101
							0.30	F2804-404-121
							0.41	F2804-404-161
							0.51	F2804-404-201
							0.64	F2804-404-251
							0.76	F2804-404-301
							1.02	F2804-404-401

Special options, add the appropriate number

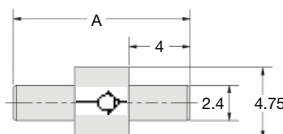
increased cracking pressure for check valve, with spring 35 mbar F2804-404-05

Accessories, enclosed

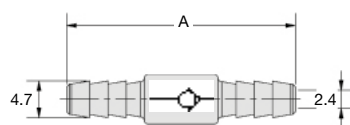
connecting nipple for F2804-404 10-32" / fitting Ø 2.7 F3120-80
Ø 4.7 F3120-85
Ø 5.6 F3120-86



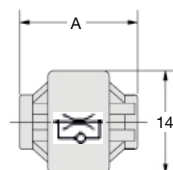
F2804-40.-B80



F2804-40.- with plain fittings



F2804-40. B85



F2804-404

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 at max. operating pressure *2 at Δp or P₁ = 70 mbar, at type F2804-404: P₁ = 5.2 bar

* Product group

PDF CAD
www.aircom.net



Order example:
F2804-400