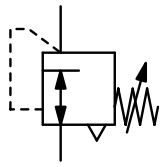
HIGH PRESSURE REGULATORS

	DESCRIPTION		SUPPLY PRESSURE max. bar	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESS. REGULATOR	also for liqudis and O_2	Kv: 0.3 - 25.6	40	0.2 ... 3 / 35	G¼ - G2	R280	**4.02**
	for many different gases	Kv: 0.2 - 70	50	0.1 ... 1.5 / 50	G¼ - G4	R120	**4.04**
	also for liquids	Kv: 1.3 - 3.2	60	0.5 ... 12 / 50	G¼ - G1	R286	**4.08**
	low cost	Kv: 0.02	207	0.1 ... 3.5 / 12	¼″NPT	RH83	**4.09**
	for many different gases	Kv: 0.05 - 3.5	200	0.1 ... 1.5 / 200	G¼ - G1¼	RH10	**4.10**
	gas cylinder pressure regulator		200	0 ... 1.5 / 40	DIN 477	RH200	**4.12**
	gas cylinder pressure regulator		300	0 ... 1.5 / 40	DIN 477	RH300	**4.13**
	gas cylinder pressure regulator		100	0 ... 10 / 60	G¼ - G½	RH-147	**4.14**
	gas cylinder pressure regulator		200	0 ... 10 / 60	G¼ - G½	RH-247	**4.14**
	gas cylinder pressure regulator		300	0 ... 10 / 60	G¼ - G½	RH-347	**4.14**
	miniature	Kv: 0.05	241	0.2 ... 2 / 7	⅛″NPT and ¼″NPT	RH0	**4.15**
	miniature	Kv: 0.05	414	0.5 ... 5 / 124	¼″NPT	RH1	**4.15**
	for pure gases 5.0	Kv: 0.9	207	0.2 ... 1.7 / 14	⅜″NPT and ½″NPT	RH2	**4.16**
	different pressure ranges	Kv: 0.05	414	0.3 ... 35 / 414	¼″NPT	HP300	**4.17**
	made of brass	Kv: 0.05	414	0.7 ...104 / 172	¼″NPT	HP400	**4.17**
	different pressure ranges	Kv: 0.05	300	0.1 ... 1.7 / 35	¼″NPT	HP500	**4.18**
	large nominal size	Kv: 1.7	260	0.7 ... 21 / 104	½″NPT and ¾″NPT	RH3	**4.19**
	large nominal size	Kv: 1.7	345	3 ...172	½″NPT and ¾″ NPT	RH3-U	**4.19**
	made of brass	Kv: 0.3	414	0 ... 14 / 28	⅜″NPT and ½″ NPT	RH4	**4.20**
	different pressure ranges	Kv: 0.05	1 034	0.3 ... 35 / 690	¼″NPT	HP306	**4.21**
MADE OF SST	for many different gases	Kv: 0.05 - 3.5	200	1 ... 8 / 200	G¼ - G1¼	RH3000	15.18
	large nominal size	Kv: 1.7	310	0.7 ... 21 / 104	½″NPT and ¾″NPT	RH3-S1	**4.19**
	robust	Kv: 0.13	380	0.3 ... 2 / 35	¼″NPT	RHB-S	www
	large nominal size	Kv: 1.7	410	3 ...172	½″NPT and ¾″NPT	RH3-S2	**4.19**
	different pressure ranges		690	0.3 ... 35 / 414	¼″NPT	HP300-S	**4.17**
	for different gases, wide variety		60	0.1 ... 1.5/ 50	G⅛ - G2	R3000	15.06
VACUUM REGULATOR	made of brass		4	0.06...1 bar_{abs}	¼″NPT	RDV	www
DIFFERENTIAL PRESS.	brass or stainless steel	Kv: 0.7 / 2.0	414	0 ... 1 / 24	½″NPT and ¾″NPT	RH44	**4.22**
VOLUME BOOSTER	ratio 1:2 to 1:19	Kv: 1.7	260	3 ... 42 / 104	½″NPT and ¾″NPT	RH3-J	6.12
	SST 1:2 to 1:19	Kv: 1.7	310	3 ... 42 / 104	½″NPT and ¾″NPT	RH3-JS1	6.12
	SST	Kv: 2.9	100	0.1 ... 24 / 99	G1	RLM, RLE	6.14
	made of brass		50	1 ... 15 / 50	G¼ - G2	R120-J	6.15

BRASS PRESSURE REGULATOR UP TO 40 BAR SUPPLY PRESSURE R280

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 G¼ and G½, with locknut by T-handle for G¾ up to G1½ by knob for G2 by hexagonal spindle for range 0.5…16/25 bar, up to size G½ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ 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



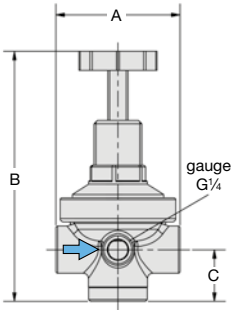
G¼ up to G2, P_1: max. 40 bar
0.2…3/35 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow-rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number
Brass pressure regulator supply pressure max. 40 bar, for compressed air relieving, without pressure gauge									**R280**
45	104	23	handwheel	0.3	26	430	G¼	0.2… 3	**R280-02A**
								0.2… 6	**R280-02B**
								0.5…10	**R280-02C**
								0.5…16	**R280-02D**
								0.5…25	**R280-02E**
72	145	30	handwheel	0.8	75	1250	G½	0.2… 3	**R280-04A**
								0.2… 6	**R280-04B**
								0.5…10	**R280-04C**
			hexagonal spindle					0.5…16	**R280-04D**
								0.5…25	**R280-04E**
95	216	41	T-handle	4.8	450	7500	G¾*2	0.2… 3	**R280-06A**
								0.2… 6	**R280-06B**
								0.5…10	**R280-06C**
			hexagonal spindle					0.5…16	**R280-06D**
								0.5…25	**R280-06E**
95	216	41	T-handle	5.0	468	7800	G1	0.2… 3	**R280-08A**
								0.2… 6	**R280-08B**
								0.5…10	**R280-08C**
			hexagonal spindle					0.5…16	**R280-08D**
								0.5…25	**R280-08E**
128	240	50	T-handle	7.1	660	11000	G1¼*2	0.2… 3	**R280-10A**
								0.2… 6	**R280-10B**
								0.5…10	**R280-10C**
			hexagonal spindle					0.5…16	**R280-10D**
								0.5…25	**R280-10E**

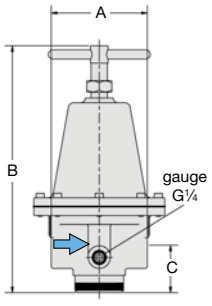
R280-02

R280-04

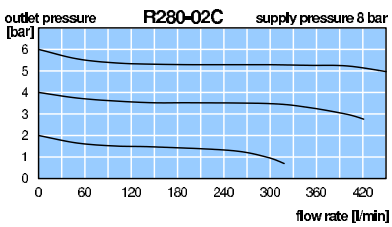
R280-08

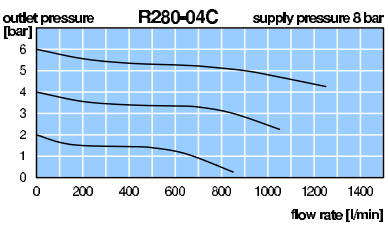


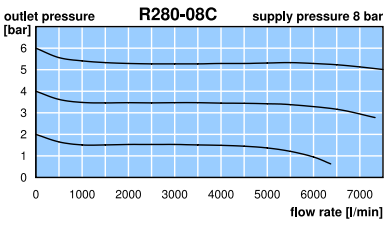
R280-02/-04



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

PDF CAD
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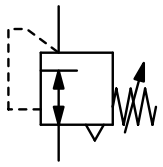
Order example:
R280-02A

High pressure
4

BRASS PRESSURE REGULATOR UP TO 40 BAR SUPPLY PRESSURE R280

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 G¼ and G½, with locknut by T-handle for G¾ up to G1½ by knob for G2 by hexagonal spindle for range 0.5…16/25 bar, up to size G½ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ 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



G¼ up to G2, P_1: max. 40 bar
0.2…3/35 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow-rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number
Brass pressure regulator supply pressure max. 40 bar, for compressed air relieving, without pressure gauge									**R280**
114	240	50	T-handle	7.7	720	12000	G1½	0.2… 3	**R280-12A**
								0.2… 6	**R280-12B**
								0.5…10	**R280-12C**
			hexagonal spindle					0.5…16	**R280-12D**
								0.5…25	**R280-12E**
160	248	78	knob	25.6	2400	40000	G2	0.5… 6	**R280-16B**
								0.5…10	**R280-16C**
								0.5…16	**R280-16D**
								0.5…25	**R280-16E**
								0.5…35	**R280-16F**

R280-12

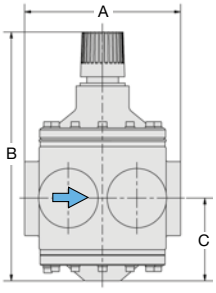
Special options, add the appropriate letter

non-relieving	without relieving function	not for G2	R280-. . . **K**
for oxygen	specially cleaned, with oxygen grease, max. 60 °C/140 °F up to G1½		R280-. . . K**15**

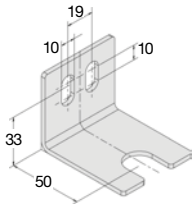
R280-16
accessory: gauge

Accessories, enclosed

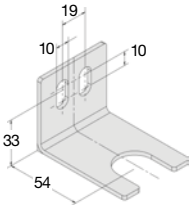
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for G¼ and G½	**MA5002-. .**.*2
	Ø 50 mm, 0…25 bar, G¼	for G¼ and G½	**MA5002- 25**
	Ø 63 mm, 0…*2 bar, G¼	from G¾	**MA6302-. .**.*2
	Ø 63 mm, 0…25 bar, G¼	from G¾	**MA6302- 25**
mounting bracket	made of steel	for G¼	**BW20-03**
mounting nut	made of brass	for G¼	**M20x1,5M**
mounting bracket	made of steel	for G½	**BW28-01**
mounting nut	made of brass	for G½	**M28x1,5M**
mounting bracket	made of steel	for G¾ to G1½	**BW00-39**
mounting bracket	made of steel	for G2	**BW00-40**



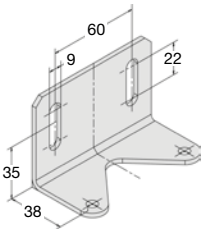
R280-16



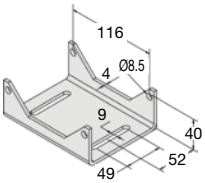
BW20-03



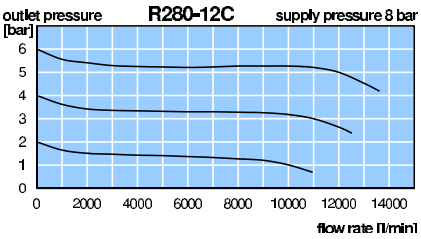
BW28-01

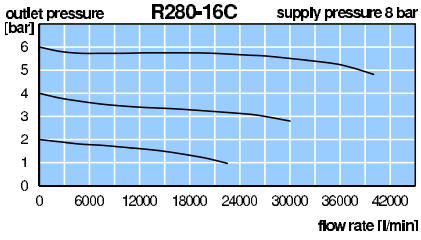


BW00-39



BW00-40





*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
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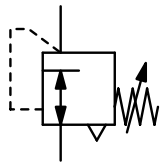
Order example:
R280-12A

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 **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (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: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 ... 1.5 / 50 bar

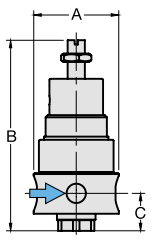
Dimensions A mm	B mm	C mm	Regul. system **D:** diaphragm **P:** piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number
Brass pressure regulator for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge										**R120**
40	88	18	D	0.20	8	130	G⅛	30	0.1 ... 1.5	**R120-01A**
			D		10	160		30	0.2 ... 3.0	**R120-01B**
			D		15	250		30	0.5 ... 8.0	**R120-01C**
			D		20	330		30	1 ... 15	**R120-01E**
40	88	18	D	0.20	8	130	G¼	30	0.1 ... 1.5	**R120-A2A**
			D		10	160		30	0.2 ... 3.0	**R120-A2B**
			D		15	250		30	0.5 ... 8.0	**R120-A2C**
			D		20	330		30	1 ... 15	**R120-A2E**
69	140	36	D	0.35	16	260	G¼	30	0.1 ... 1.5	**R120-02A**
			D		20	320		30	0.2 ... 3.0	**R120-02B**
			D		30	500		30	0.5 ... 8.0	**R120-02C**
			D		40	660		50	1 ... 15	**R120-02E**
			P		50	840		50	2 ... 30	**R120-02F**
69	154	36	P		60	1000		50	3 ... 50	**R120-02G**
69	140	36	D	0.35	16	260	G⅜	30	0.1 ... 1.5	**R120-03A**
			D		20	320		30	0.2 ... 3.0	**R120-03B**
			D		30	500		30	0.5 ... 8.0	**R120-03C**
			D		40	660		50	1 ... 15	**R120-03E**
			P		50	840		50	2 ... 30	**R120-03F**
69	154	36	P		60	1000		50	3 ... 50	**R120-03G**

R120-01/-A2

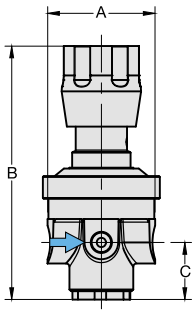
R120-02/-03

High pressure 4

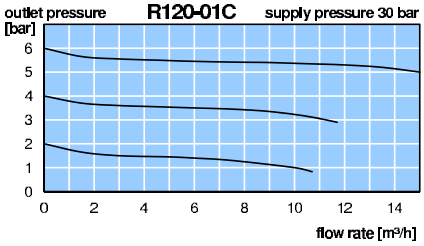
Special options and Accessories, see separate page

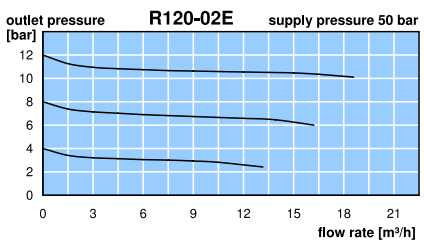


R120-01/-A2



R120-02/-03





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

Gauges: see chapter for measuring devices

PDF CAD
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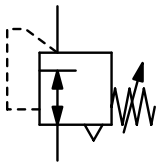
Order example: R120-01A

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 **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindel (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: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 … 1.5 / 50 bar

Brass pressure regulator

for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

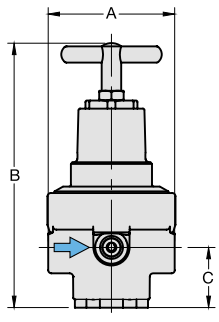
Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number
78	163	37	D	1.0	27	450	G½	30	0.1 … 1.5	**R120-04A**
			D		30	600		30	0.2 … 3.0	**R120-04B**
			D		40	830		30	0.5 … 8.0	**R120-04C**
			D		60	1250		50	1 … 15	**R120-04E**
78	159	37	P		100	2080		50	2 … 30	**R120-04F**
			P		120	2500		50	3 … 50	**R120-04G**
118	291	66	D	5.5	75	1250	G¾	30	0.1 … 1.5	**R120-06A**
			D		98	1600		30	0.2 … 3.0	**R120-06B**
			D		170	2800		30	0.5 … 8.0	**R120-06C**
			D		280	4600		50	1 … 15	**R120-06E**
118	316	66	P		400	6600		50	2 … 30	**R120-06F**
			P		500	8300		50	3 … 50	**R120-06G**
118	291	66	D	5.5	75	1250	G1	30	0.1 … 1.5	**R120-08A**
			D		98	1600		30	0.2 … 3.0	**R120-08B**
			D		170	2800		30	0.5 … 8.0	**R120-08C**
			D		280	4600		50	1 … 15	**R120-08E**
118	316	66	P		400	6600		50	2 … 30	**R120-08F**
			P		500	8300		50	3 … 50	**R120-08G**

R120-04

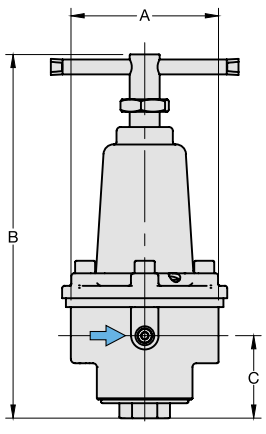
R120-08

High pressure 4

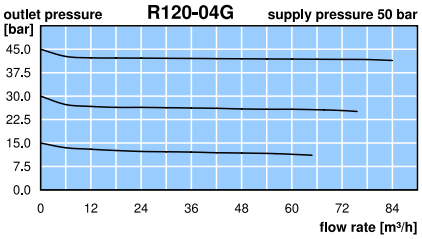
Special options and Accessories, see separate page

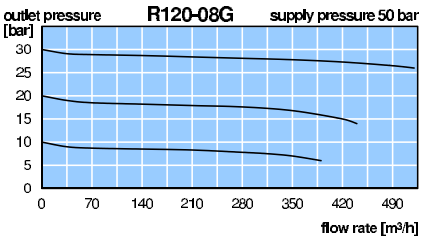


R120-04



R120-06/-08





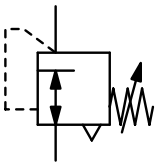
*1 at max. supply pressure and max. outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R120-04A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0.A to -0.E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindel (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: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 ... 1.5 / 50 bar

Brass pressure regulator

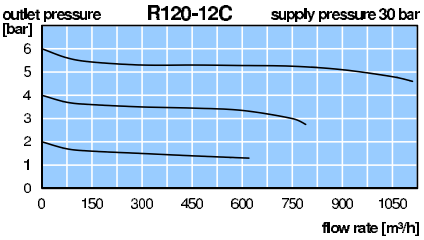
for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

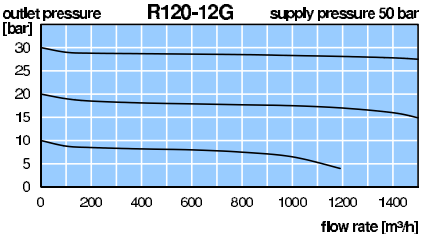
Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number
180	387	128	P	12.6	400	6600	G1½	30	0.1 ... 1.5	**R120-12A**
			P		670	11000		30	0.2 ... 3.0	**R120-12B**
			P		1000	16600		30	0.5 ... 8.0	**R120-12C**
			P		1500	25000		50	1 ... 15	**R120-12E**
180	402	128	P		1600	27000		50	2 ... 30	**R120-12F**
			P		2000	33000		50	3 ... 50	**R120-12G**
180	387	128	P	12.6	400	6600	G2	30	0.1 ... 1.5	**R120-B6A**
			P		670	11000		30	0.2 ... 3.0	**R120-B6B**
			P		1000	16600		30	0.5 ... 8.0	**R120-B6C**
			P		1500	25000		50	1 ... 15	**R120-B6E**
180	402	128	P		1600	27000		50	2 ... 30	**R120-B6F**
			P		2000	33000		50	3 ... 50	**R120-B6G**
180	425	128	D	26	1800	30000	G2	30	0.1 ... 1.5	**R120-16AK**
			D		2500	40000		30	0.3 ... 6.0	**R120-16CK**
180	379	128	D		3500	50000		30	1 ... 15	**R120-16DK**
389	463	118	D	70	2400	40000	flange	30	0.1 ... 1.5	**R120-24AKF**
			D		5000	83000	DN80	30	0.3 ... 6.0	**R120-24CKF**
			D		6000	99000		30	1 ... 15	**R120-24DKF**
389	463	118	D	70	2400	40000	flange	30	0.1 ... 1.5	**R120-32AKF**
			D		5000	83000	DN100	30	0.3 ... 6.0	**R120-32CKF**
			D		6000	99000		30	1 ... 15	**R120-32DKF**

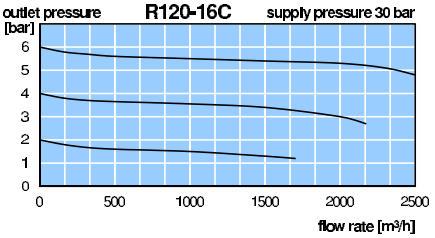
R120-12/-B6

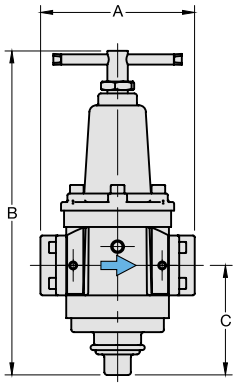
R120-16

Special options and Accessories, see separate page

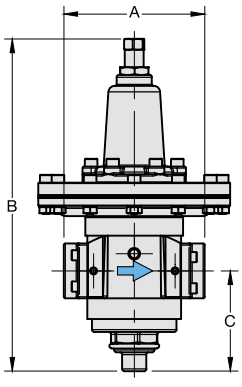




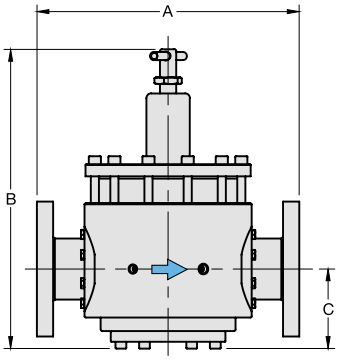




R120-12/-B6



R120-16



R120-24/-32

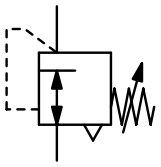
*1 at max. supply pressure and max. outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

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 **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (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: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating

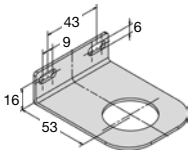


G⅛ up to G4
0.1 ... 1.5 / 50 bar

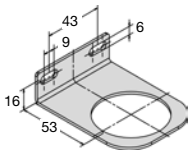
Dimensions A mm	B mm	C mm	Regul. system **D:** diaphragm **P:** piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number

Special options, add the appropriate letter

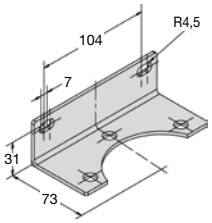
NPT	connection thread		R120-. . . **N**
non-relieving	withour relieving function	up to R120-B6	R120-. . . **K**
down to - 40 °C	low temperature version	up to R120-04	R120-. . .**X51**
up to 130 °C	high temperature version	up to R120-04	R120-. . .**X54**
EPDM o-ring	PTFE diaphragm		R120-. . . **E**
T-handle	instead of plastic knob	for R120-02	R120-02. **T**
PWIS-free	for painting plants		R120-. . .**LA**
carbon dioxide	CO_2		R120-. . . K**03**
argon	Ar		R120-. . . K**05**
nitrogen	N_2		R120-. . . K**07**
helium	He		R120-. . . K**09**
hydrogen	H_2		R120-. . . K**11**
methane	CH_4		R120-. . . K**13**
natural gas *3			R120-. . . K**14**
oxygen	O_2		R120-. . . K**15**
propane	C_3H_6		R120-. . . K**16**
nitrous oxide	N_2O		R120-. . . K**17**
water	H_2O		R120-. . . K**W**
flange connection	standard for R120-32, otherwise see chapter SST devices /flanges		R120-. . . **F**.



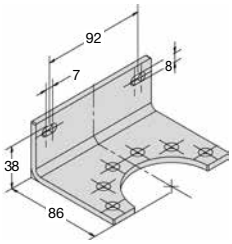
BW35-01S



BW50-01S



BW00-42



BW00-43

Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for G⅛ and G¼ (A2)	**MA4001-..** *2
	Ø 50 mm, 0...*2 bar, G¼	for G¼ (02) up to G½	**MA5002-..** *2
	Ø 50 mm, 0...60 bar, G¼	for G¼ up to G½	**MA5002-60**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ up to G4	**MA6302-..** *2
	Ø 63 mm, 0...60 bar, G¼	for G¾ up to G4	**MA6302-60**
gauge up to 130 °C	Ø 63 mm, 0...*2 bar, G¼ , stainless steel		**MS6302-..**2
mounting bracket	made of stainless steel	for G¼ and G⅜	**BW35-01S**
mounting nut	made of stainless steel	for G¼ and G⅜	**M35x1,5S**
mounting bracket	made of stainless steel	for G½	**BW50-01S**
mounting nut	made of stainless steel	for G½	**M50x1,5S**
mounting bracket	made of steel	for G¾ and G1	**BW00-42**
		for G1½ and G2 (B6)	**BW00-43**

*1 at max. supply pressure and max. outlet pressure
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar
*3 without DVGW approval

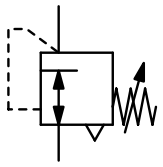
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MA4001-02

BRASS PRESSURE REGULATOR UP TO 60 BAR SUPPLY PRESSURE R286

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	G¼ 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: Inner valve:	brass at G¼, anodized aluminium at G1 brass



G¼ up to G1, P_1: max. 60 bar
0.5…12/50 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number
Brass pressure regulator supply pressure max. 60 bar, for compressed air relieving, without pressure gauge									**R286**
72	164	31	handwheel	1.3	120	2000	G¼	0.5…12	**R286-02C**
								1.0…20	**R286-02E**
			hexagonal spindle					2.0…35	**R286-02F**
								3.0…50	**R286-02G**
72	164	31	handwheel	1.6	150	2500	G⅜	0.5…12	**R286-03C**
								1.0…20	**R286-03E**
			hexagonal spindle					2.0…35	**R286-03F**
								3.0…50	**R286-03G**
72	156	35	handwheel	2.3	216	3500	G½	0.5…12	**R286-04C**
								1.0…20	**R286-04E**
			hexagonal spindle					2.0…35	**R286-04F**
								3.0…50	**R286-04G**
118	257	51	handwheel	3.2	300	5000	G1	0.5…12	**R286-08C**
								1.0…20	**R286-08E**
			hexagonal spindle					2.0…35	**R286-08F**
								3.0…50	**R286-08G**

R286-02

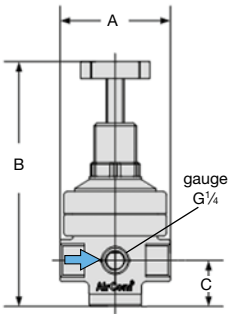
R286-08

Special options, add the appropriate letter

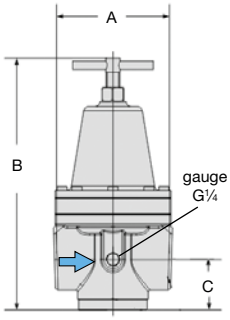
non-relieving	without relieving function, for liquids	R286- 0 . .**K**

Accessories, enclosed

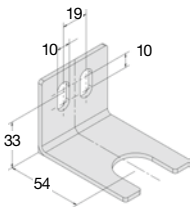
pressure gauge	Ø 50 mm,	0…10 bar, G¼	for G¼ to G½	**MA5002- 10**
		0…25 bar, G¼	for G¼ to G½	**MA5002- 25**
		0…60 bar, G¼	for G¼ to G½	**MA5002- 60**
	Ø 63 mm,	0…16 bar, G¼	for G1	**MA6302- 16**
		0…25 bar, G¼	for G1	**MA6302- 25**
		0…60 bar, G¼	for G1	**MA6302- 60**
mounting bracket	made of steel, mounting nut required		for G¼ to G½	**BW28-01**
mounting nut	made of brass		for G¼ to G½	**M28x1,5M**
mounting bracket	made of steel, assembly at spring cage		for G1	**BW00-45**



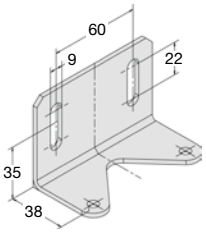
R286-02/-03/ -04



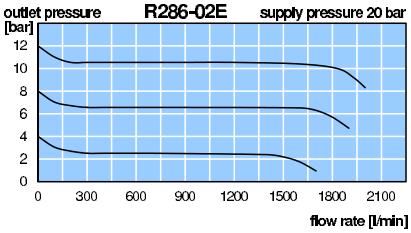
R286-08

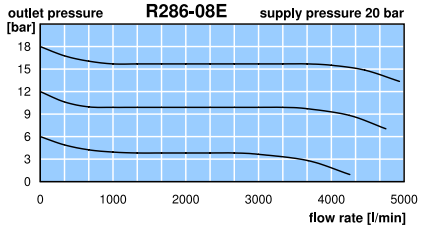


BW28-01



BW00-45





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

Gauges: see chapter for measuring devices

PDF CAD
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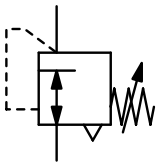
Order example:
R286-02C

HIGH PRESSURE REGULATOR UP TO 207 BAR SUPPLY PRESSURE RH83

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



P_1: max. 207 bar
0.1 ... 3.5/12 bar

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

RH83

High pressure

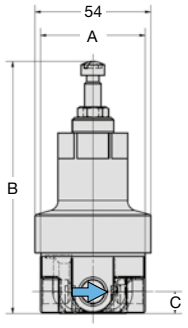
4

Special options, add the appropriate letter

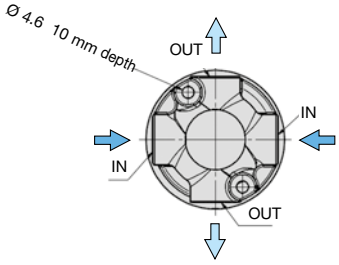
non-relieving	without relieving function	RH83-02. **K**
carbon dioxide	CO_2	RH83-02. K**03**
argon	Ar	RH83-02. K**05**
nitrogen	N_2	RH83-02. K**07**
helium	He	RH83-02. K**09**
inert gas	krypton, neon, xenon	RH83-02. K**31**

Accessories, enclosed

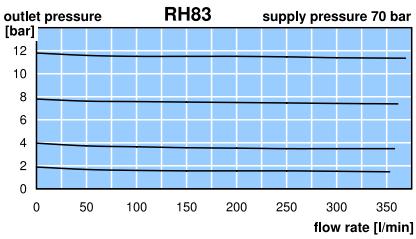
pressure gauge	Ø 50 mm, ¼″NPT	**MA5002- . .*2N**



RH83



connections



*1 bei P_1 = 70 bar, P_2 = 4 bar und Δp = 0.35 bar

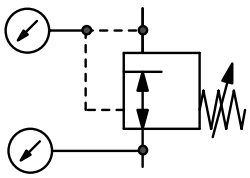
*2 **04** = 0...4 bar, **11** = 0...11 bar, **16** = 0...16 bar

PDF CAD
www.aircom.net

Order example:
RH83-02A

HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE UP TO 200 BAR RH10

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

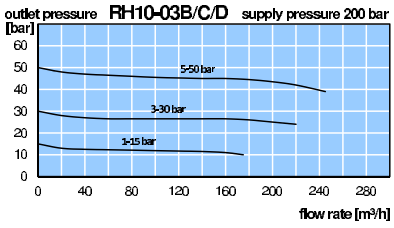


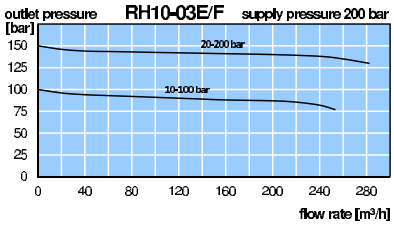
G¼ up to G1¼
1…8/220 bar

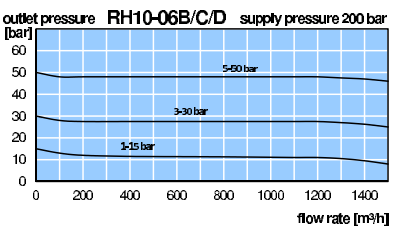
RH10-02B11

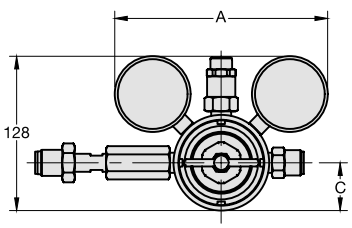
RH10-A3B07

Dimensions A mm	B mm	C mm	Safety relief valve S: with valve	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread inlet / outlet	Pressure range bar	Order number
High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied		**RH10**
175	150	32	S	0.05	80	1300	DIN 477 / G¼	1… 8	**RH10-02A**
			S					1… 15	**RH10-02B**
			S					3… 30	**RH10-02C**
			S					5… 50	**RH10-02D**
			S					10…100	**RH10-02E**
			-					20…200	**RH10-02F**
181	162	34	S	0.15	228	3800	DIN 477 / G½ a	0.1… 1.5	**RH10-030**
			S					1… 15	**RH10-03B**
181	164	34	S				DIN 477 / G⅜ i	3… 30	**RH10-03C**
			S					5… 50	**RH10-03D**
181	182	34	-					10…100	**RH10-03E**
			-					20…200	**RH10-03F**
181	231	102	S	0.25	422	7000	G¾ i / G½ a	0.1… 1.5	**RH10-A30**
			S					1… 15	**RH10-A3B**
181	233	102	S				G¾ i / G⅜ i	3… 30	**RH10-A3C**
			S					5… 50	**RH10-A3D**
181	184	35	-					10…100	**RH10-A3E**
			-					20…200	**RH10-A3F**
166	346	113	S	1.5	2000	33000	G¾ a / G¾ a	1… 8	**RH10-06A**
			S					1… 15	**RH10-06B**
			S					3… 30	**RH10-06C**
			S					5… 50	**RH10-06D**
			S					10…100	**RH10-06E**
250	370	242	S	2.5	3000	48000	G1 a / G1 a	1… 8	**RH10-08A**
			S					1… 15	**RH10-08B**
250	406	278	S					3… 30	**RH10-08C**
			S					5… 50	**RH10-08D**
250	387	276	-					20…200	**RH10-08F**

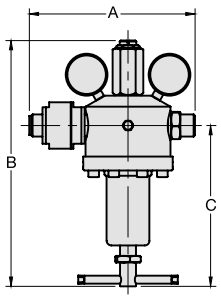








RH10-02/-03/-A3



RH10-06/-08/-10

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

*2 max. 80 bar outlet pressure

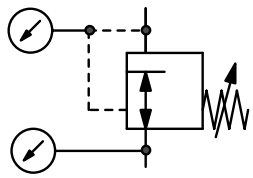
Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example:
RH10-02A

HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE UP TO 200 BAR RH10

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



G¼ up to G1¼
1…8/220 bar

Dimensions A mm	B mm	C mm	Safety relief valve S: with valve	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread inlet / outlet	Pressure range bar	Order number
High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied		**RH10**
246	385	269	S	3.5	5000	80000	G1 a /G1¼	1… 8	**RH10-10A**
			S					1… 15	**RH10-10B**
			S					3… 30	**RH10-10C**
246	426	310	S					5… 50	**RH10-10D**

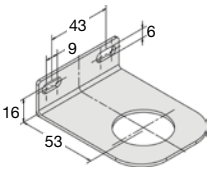
RH10-08B

Special options, add the appropriate letter

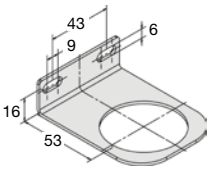
relieving diaphragm	with relieving function, for compressed air	RH10-. . . **R**
relieving piston	with relieving function, for compressed air	RH10-. . . **R**
FKM elastomer		RH10-. . . **V**
PTFE elastomer		RH10-. . . **T**
SST diaphragm	from RH10-03	RH10-. . . **S**
for panel mounting carbon	for RH10-02 to -A3	RH10-. . . **P**
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_3H_8	RH10-. . . **16**
nitrous oxide	N_2O	RH10-. . . **17**
without cylinder connection		RH10-. . . **X40**

Accessories, enclosed

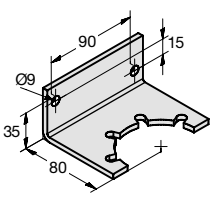
mounting bracket	made of stainless steel	for RH10-02	**BW35-01S**
mounting nut		for RH10-02	**M35x1,5S**
mounting bracket		for RH10-03 and -A3	**BW50-01S**
mounting nut		for RH10-03 and -A3	**M50x1,5S**
mounting bracket		for RH10-06	**BW00-31S**
		for RH10-08	**BW00-35S**



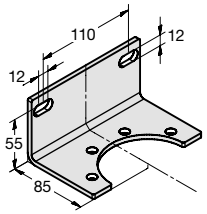
BW35-01S



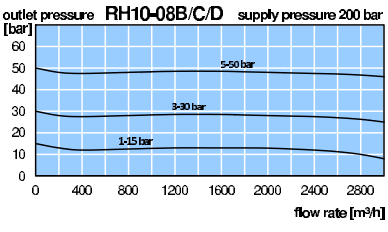
BW50-01S

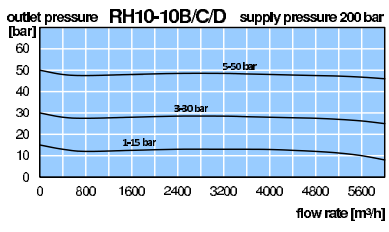


BW00-31S



BW00-35S





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

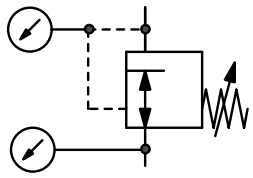
*2 max. 80 bar outlet pressure

Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example:
RH10-10A

Description	High pressure regulator for gas cylinders for reducing pressure of compressed air or liquid gases from a high level to the required pressure.
Supply pressure	max. 200 bar
Media	compressed air, oxygen or different gases
Connections	according to DIN 477
Adjustment	by T-handle
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N and EPDM Spring cage: brass Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0



P_1: max. 200 bar
0 ... 1.5/40 bar

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

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 ... 15	**RH202-00A**
				48	800		0 ... 10	**RH202-00C**

RH201, 1-step

Regulator for propane and acetylene

connections DIN 477, with inlet / outlet gauges — **RH201**

210	190	100	1-step	propane	C_3H_8	max. 8	0 ... 4.0	**RH201-00B16**
210	190	100	1-step	azetylene	C_2H_2	max. 26	0 ... 1.5	**RH201-00A19**

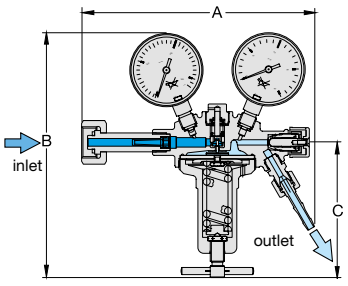
High pressure
4

Special options, change the appropriate letter

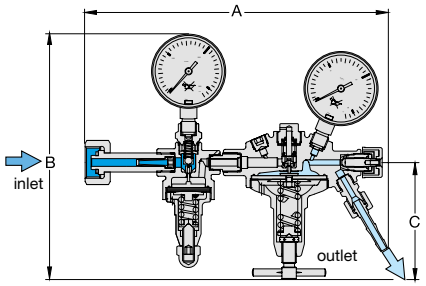
carbon dioxide	CO_2		RH20 .-...**03**
inert gas			RH20 .-...**04**
argon	Ar		RH20 .-...**05**
fuel gas			RH20 .-...**06**
nitrogen	N_2		RH20 .-...**07**
forming gas		up to 40 bar	RH20 .-...**08**
helium	He	up to 40 bar	RH20 .-...**09**
hydrogen	H_2		RH20 .-...**11**
testing gas		up to 40 bar	RH20 .-...**12**
oxygen	O_2	up to 40 bar	RH20 .-...**15**
chrome-plated body	inside and outside	1-step	RH201 -**C**....
chrome-plated body	inside and outside	2-step	RH202 -**C**....
metal diaphragm	5.0 purity	1-step	RH201 - .**M**...
		2-step	RH202 - .**M**...

RH202, 2-step

RH201-C.., chrome-plated



cross-section, 1-step

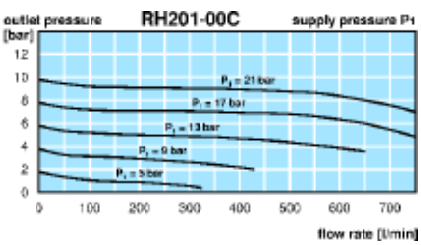


cross-section, 2-step

connection thread up to 200 bar		
gas type	**inlet** *1	**outlet**
compressed air	G⅝ a	G¼
oxygen	G¾ i	G¼
inert gas	W21, 8x1/14	G¼
CO_2 / argon	W21, 8x1/14	G¼
helium	W21, 8x1/14	G¼
fuel gas	W21, 8x1/14 LH	G⅜ LH
hydrogen	W21, 8x1/14 LH	G⅜ LH
forming gas	W21, 8x1/14 LH	G⅜ LH

connection thread up to 200 bar		
gas type	**inlet** *1	**outlet**
nitrogen	W24,32x1/14	G¼
testing gas	M19x1,5 LH	G⅜LH
nitrous oxide	G⅜	G¼
azetylene	clamp (cylinder)	G⅜a 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_3H_8	0.80
nitrous oxide	N_2O	0.80

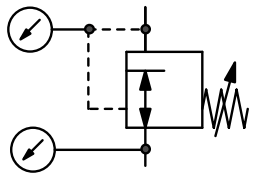


*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

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
Adjustment	by T-handle
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N and EPDM Spring cage: brass Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0



P_1: max. 300 bar
0…1.5/40 bar

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

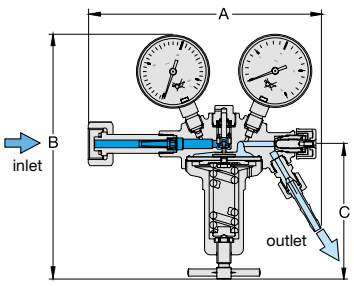
RH301, 1-step

RH302, 2-step

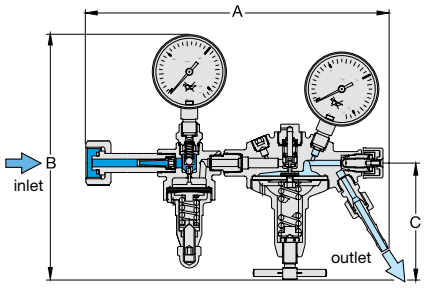
RH301-C.., chrome-plated

Special options, change the appropriate letter

compressed air	connection gauge $G^5/_8$		RH3**5** .-.. .
carbon dioxide	CO_2		RH30 .-…**03**
inert gas			RH30 .-…**04**
argon	Ar		RH30 .-…**05**
fuel gas			RH30 .-…**06**
nitrogen	N_2		RH30 .-…**07**
forming gas		up to 40 bar	RH30 .-…**08**
helium	He	up to 40 bar	RH30 .-…**09**
hydrogen	H_2		RH30 .-…**11**
testing gas		up to 40 bar	RH30 .-…**12**
oxygen	O_2	up to 20 bar	RH30 .-…**15**
chrome-plated body	inside and outside	1-step	RH301 -**C**….
chrome-plated body	inside and outside	2-step	RH302 -**C**….
metal diaphragm	5.0 purity	1-step	RH301 - **.M**…
		2-step	RH302 - **.M**…



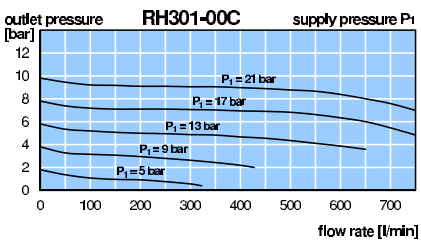
cross-section, 1-step



cross-section, 2-step

connection thread up to 300 bar		
gas type	**inlet** *1	**outlet**
fuel gas	W30x2 LH	$G^3/_8$ LH
all others	W30x2	G¼

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_3H_8	0.80
nitrous oxide	N_2O	0.80

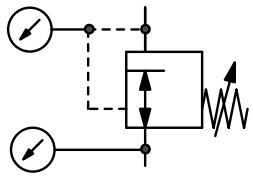


*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

PDF CAD
www.aircom.net

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, optionally according to DIN 477
Adjustment	by T-handle for RH-..7.510 / 520 / 525 by hexagonal spindle (spanner size 20 mm) for RH-..7.545 / 565
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	without supply pressure variation compensation
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N Spring cage: brass Diaphragm: 65NBR4550, stainless steel for oxygen > 20 bar



G¼ up to G½, P_1: max. 300 bar
0…10/60 bar

High pressure
4

Main pressure regulator

for compressed air, supply and outlet pressure gauge supplied

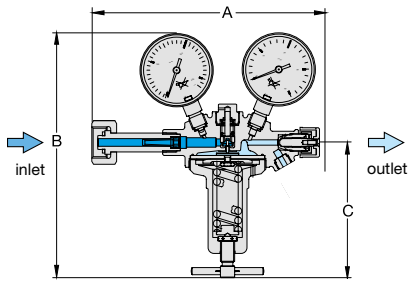
Dimensions A mm	B mm	C mm	Flow rate m^3/h*1	l/min*1	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number RH
150	205	115	50	830	100	G½	0…10	**RH-147.510**
			75	1250			0…20	**RH-147.520**
200	310	215	170	2830			0…20	**RH-147.525**
			290	4830			15…40	**RH-147.545**
			450	7500			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-.47.510 / 520

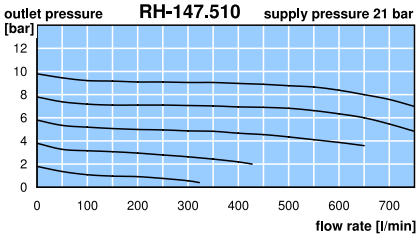
RH-.47.525 / 545 / 565

Special options, add the appropriate letter

G¼	connection thread, max. 100 bar		RH-.**27**….
G⅜	connection thread		RH-.**37**….
carbon dioxide	CO_2		RH-.47….**03**
inert gas			RH-.47….**04**
argon	Ar		RH-.47….**05**
fuel gas		up to 40 bar	RH-.47….**06**
nitrogen	N_2		RH-.47….**07**
forming gas		up to 40 bar	RH-.47….**08**
helium	He		RH-.47….**09**
hydrogen	H_2		RH-.47….**11**
testing gas		up to 40 bar	RH-.47….**12**
natural gas *2			RH-.47….**14**
oxygen	O_2	up to 20 bar	RH-.47….**15**
chrome plated body	inside and outside		RH-.47….**C**
metal diaphragm	5.0 purity		RH-.**41**….**M**



RH-…



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

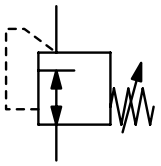
*2 without DVGW-approval

PDF CAD
www.aircom.net

Order example:
RH-147.510

Description	Diaphragm-operated high pressure regulator of small and light design.		
Adjustment	by black plastic knob	**Weight**	aluminium 200 g, brass 430 g
Relieving function	non-relieving	**Mounting position**	any
Gauge port	¼″ NPT for inlet and outlet pressure		

	RH0	RH1
Media	corrosive or non-corrosive gases up to purity 5.0	compressed air, non-corrosive gases or liquids
Supply pressure	max. 241 bar	max. 414 bar
Leakage rate	< 1 x 10^{-6} mbar l/s He	< 1 x 10^{-4} mbar l/s He
Temperature range	-40 °C to 60 °C / -40 °F to 140 °F	-25 °C to 75 °C / -13 °F to 167 °F
Body	brass, optionally stainless steel or aluminium	nickel-plated aluminium
Regulating system	diaphragm made of stainless steel	piston with EPDM o-ring, as option NBR/Buna-N or FKM
Valve seat	PFA or CTFE as option	CTFE or Vespel as option
Inner valve	brass, optionally stainless steel	stainless steel and aluminium



P_1: max. 241 / 414 bar
0 … 2 / 124 bar

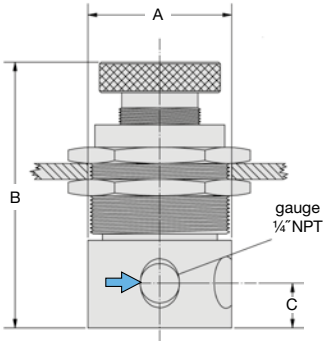
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h	l/min	Connection thread NPT	Pressure range bar	Order number
High pressure regulator 241 bar						for gases, non-relieving brass, stainless steel diaphragm		**RH0**
41	82	14	0.05	9*1	150*1	¼″ NPT	0.2 … 2	**RH0-02A**
							0.4 … 4	**RH0-02B**
							0.6 … 7	**RH0-02C**
High pressure regulator 414 bar						for gases and liquids, non-relieving aluminium, piston with EPDM		**RH1**
41	76	13	0.05	84*2	1400*2	¼″ NPT	0.5 … 5	**RH1-02A**
							0.5 … 10	**RH1-02B**
							1.5 … 15	**RH1-02C**
41	76	13	0.05	192*3	3200*3	¼″ NPT	4.0 … 48	**RH1-02D**
							8.0 … 83	**RH1-02E**
							10 … 124	**RH1-02F**

RH0

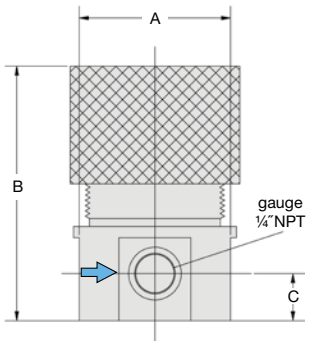
RH1

Special options, add the appropriate letter

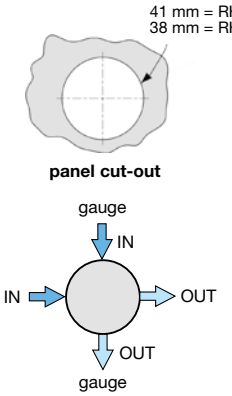
⅛″NPT	connection thread		für RH0	RH0-0**1**.
aluminium body			für RH0	RH0-02.**A**
stainless steel body			für RH0	RH0-02.**S**
CTFE seat			für RH0	RH0-02.**X52**
CTFE seat	for stainless steel body		für RH0	RH0-02.**SX52**
Vespel seat			für RH1	RH1-02.**X45**
NBR o-ring			für RH1	RH1-02.**N**
FKM o-ring			für RH1	RH1-02.**V**
free of grease and oil	suitable for oxygen,	P_1 < 200 bar	für RH0	RH0-02.**L**
for oxygen	specially cleaned,	P_1 < 200 bar	für RH1	RH1-02.**15**
brass pressure gauge	inlet side **HM**		outlet side	RH.-02.**GM**
SST pressure gauge	inlet side **H**		outlet side	RH.-02.**G**
for panel mounting			für RH0	RH0-02.**P**



RH0-...P

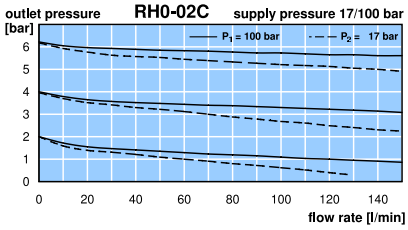


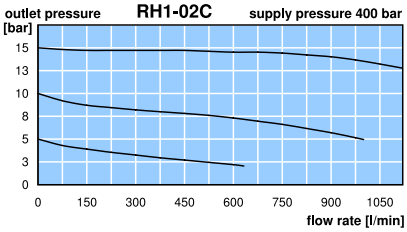
RH1

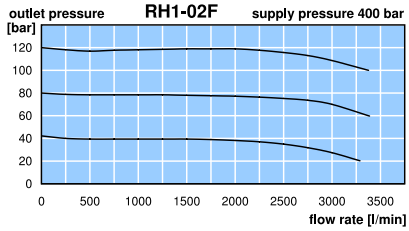


panel cut-out

connection diagram







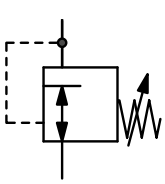
*1 at 100 bar supply pressure and 6 bar outlet pressure
*2 at 400 bar supply pressure and 15 bar outlet pressure
*3 at 400 bar supply pressure and 120 bar outlet pressure

PDF CAD
www.aircom.net

Order example:
RH0-02A

HIGH PRESSURE REGULATOR FOR PURE GASES UP TO 207 BAR RH2

Description	Diaphragm-operated high pressure regulator of small design and with high flow.
Media	compressed air, non-corrosive gases or pure gases up to 5.0
Supply pressure	max. 207 bar
Test pressure	150% of maximum supply pressure
Leakage rate	< 2 x 10^{-6} mbar l/s He
Adjustment	by black plastic knob
Relieving function	non-relieving
Gauge port	¼″ NPT for inlet and outlet pressure, shifted by 60°
Mounting position	any
Temperature range	-40 °C to 75 °C / -40 °F to 167 °F
Material	Body: brass or stainless steel 316; Diaphragm: stainless steel 316; Valve seat: CTFE; Spring cage: nickel-plated brass; Seals: PTFE; Inner valve: stainless steel 316



½″ NPT, P_1: max. 207 bar
0.2…1.7/14 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number
Brass pressure regulator, ½″ NPT supply pressure max. 207 bar, non-relieving								**RH2**
66	150	26	0.9	330	5500	½″ NPT	0.2…1.7	**RH2-04A**
							0.2…3.5	**RH2-04B**
							0.5…7.0	**RH2-04C**
							1.0… 10	**RH2-04D**
							1.0… 14	**RH2-04E**
SST pressure regulator, ½″ NPT supply pressure max. 207 bar, non-relieving								**RH2**
66	150	26	0.9	330	5500	½″ NPT	0.2…1.7	**RH2-04AS**
							0.2…3.5	**RH2-04BS**
							0.5…7.0	**RH2-04CS**
							1.0… 10	**RH2-04DS**
							1.0… 14	**RH2-04ES**

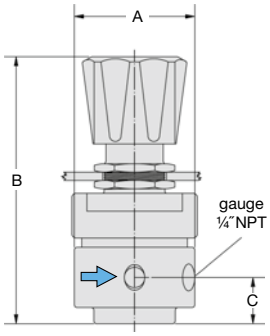
RH2

Special options, add the appropriate letter

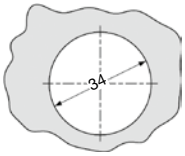
⅜″NPT	connection thread		RH2-03.
brass pressure gauge	for brass body,	outlet side	RH2-0..**GM**
SST pressure gauge	for stainless steel body,	outlet side	RH2-0..**G**

Accessories, enclosed

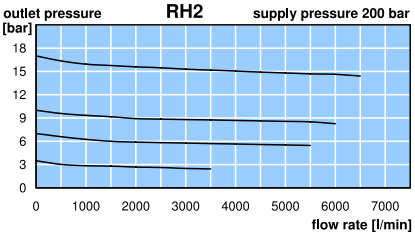
mounting nut	for panel mounting, made of stainless steel	**8686-1**



RH2



panel cut-out

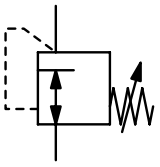


*1 at 200 bar supply pressure and 14 bar outlet pressure

PDF CAD
www.aircom.net

Order example:
RH2-04A

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	**Leakage rate**	< 10^{-4} mbar l/s He
Relieving function	non-relieving, optionally relieving	**Gauge port**	¼″ NPT for inlet / outlet pressure, shifted by 70°
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		

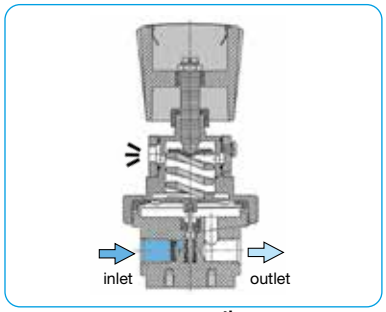


¼″NPT, P_1: 300/690 bar
0.3…35/414 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number
High pressure regulator 414 bar non-relieving, brass								**HP300**
55	175	19	0.05	90	1500	¼″ NPT	0.3… 35	**HP300-035**
							0.6… 55	**HP300-055**
							0.7…104	**HP300-105**
							1.0…172	**HP300-175**
							1.7…276	**HP300-280**
							3.4…414	**HP300-415**
High pressure regulator 414 bar non-relieving, brass								**HP400**
50	137	13	0.05	90	1500	¼″ NPT	0.7…104	**HP400-104**
							1.0…172	**HP400-170**

HP300

HP400



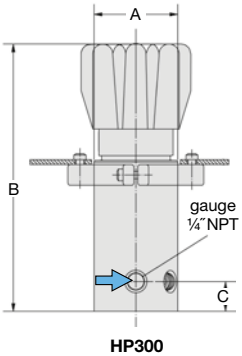
cross-section

Special options, add the appropriate letter

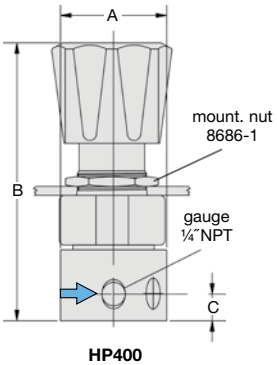
relieving				HP300-…**R**
				HP400-…**R**
body made of SST			(690 bar)	HP300-…**S**
			(414 bar)	HP400-…**S**
for oxygen	specially cleaned,	P_1 <200 bar	for HP300/400	HP.00-…**15**
for liquids	w/o filter at inlet, valve seat of Nylatron		for HP300	HP300-…**W**
	w/o filter at inlet, valve seat of Vespel		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

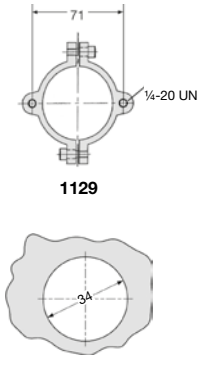
set of mounting brackets	aluminium	for HP300	**1129**
mounting nut	for panel mounting, made of stainless steel	for HP400	**8686-1**



HP300

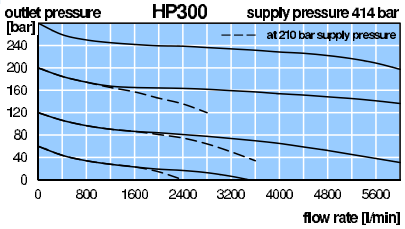


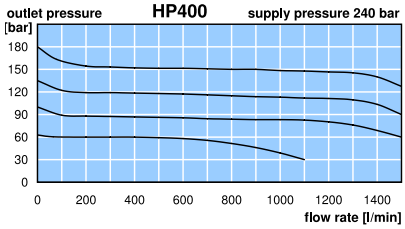
HP400



1129

panel cut-out



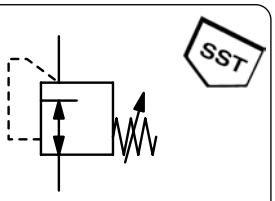


*1 at 240 bar supply pressure and 30 bar outlet pressure

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**	¼″ 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



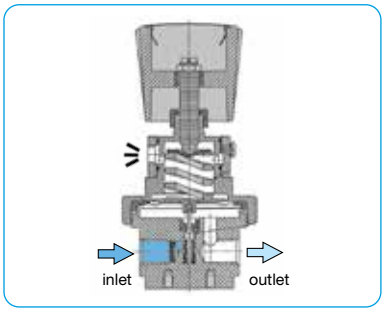
¼″ NPT, P_1: 300 bar
0.1 ... 1.7/35 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number
High pressure regulator 300 bar non-relieving, brass								**HP500**
50	137	19	0.05	90	1500	¼″ NPT	0.1 ... 1.7	**HP500-002**
							0.1 ... 3.5	**HP500-004**
							0.1 ... 7.0	**HP500-007**
							0.2 ... 17	**HP500-017**
							0.3 ... 35	**HP500-035**

HP500

Special options, add the appropriate letter

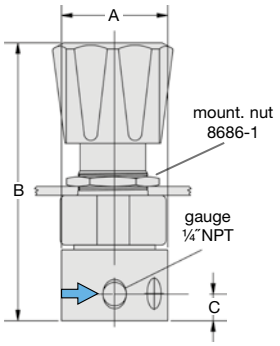
relieving		HP500-...**R**
body made of SST		HP500-...**S**
free of grease and oil	suitable for oxygen, P_1 <200 bar	HP500-...**L**
for liquids	w/o filter at inlet, valve seat of Vespel	HP500-...**W**
brass pressure gauge	for brass body, inlet side	HP500-...**HM**
	for brass body, outlet side	HP500-...**GM**
SST pressure gauge	for stainless steel body, inlet side	HP500-...**H**
	for stainless steel body, outlet side	HP500-...**G**



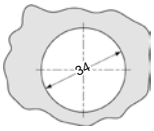
cross-section

Accessories, enclosed

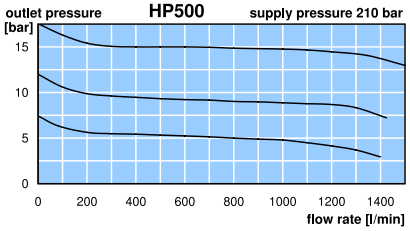
mounting nut	for panel mounting, made of stainless steel	**8686-1**



HP500



panel cut-out



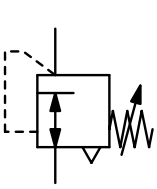
*1 at 240 bar supply pressure and 30 bar outlet pressure

PDF CAD
www.aircom.net

Order example:
HP500-002

HIGH FLOW / HIGH PRESSURE REGULATOR UP TO 410 BAR RH3

Description	High pressure regulator with high flow and high reliability. Large piston sensor for high sensitivity and balanced stem design for constant downstream pressure.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 260 bar, optionally up to 345 bar or 410 bar
Leakage rate	< 1 x 10^{-4} mbar l/s He
Adjustment	by black plastic knob
Relieving function	relieving, optionally non-relieving
Gauge port	none, optionally ¼″ 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



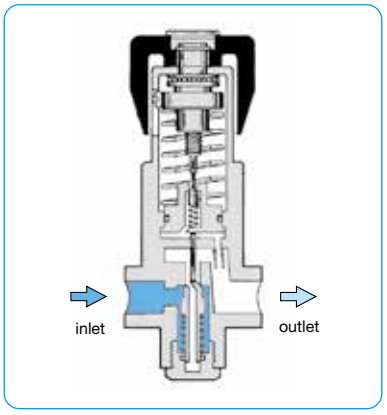
P_1: max. 260/410 bar
0.7 ... 21/104 bar

Dimensions A	B	C	K_v-value	Flow rate		Connection thread	Pressure range	Order number
mm	mm	mm	(m^3/h)	m^3/h*1	l/min*1	NPT	bar	
High pressure regulator 260 bar, ½″NPT							relieving, brass	**RH3**
76	203	45	1.7	420	7000	½″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

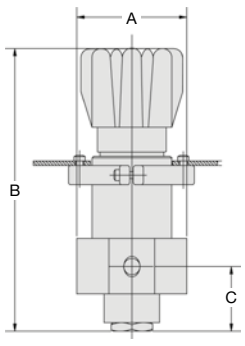
¾″NPT	connection thread			RH3-0**6**.
non-relieving	without relieving function			RH3-0. .**K**
stainless steel, 310 bar	body: stainless steel 316			RH3-0. .**S1**
stainless steel, 410 bar	body: stainless steel 316,	add. pre. range 3.4 ... 172 bar (**F**)		RH3-0**S2**
brass, 345 bar	body: brass,	add. pre. range 3.4 ... 172 bar (**F**)		RH3-0**U**
gauge port	¼″NPT for inlet and outlet			RH3-0**M**
brass pressure gauge	inlet side **HM**		outlet side	RH3-0. .M**GM**
SST pressure gauge	inlet side **H**		outlet side	RH3-0. .M**G**



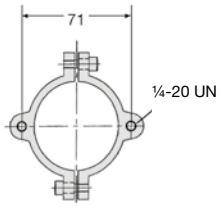
cross-section

Accessories, enclosed

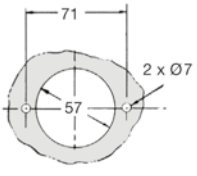
set of mounting brackets	for panel mounting	**1129**



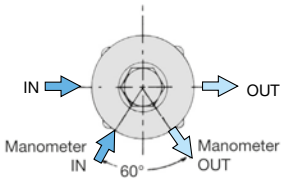
RH3



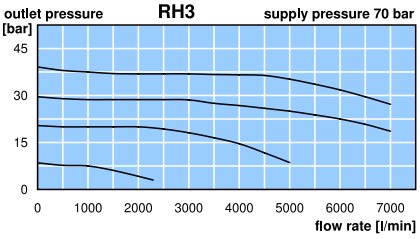
1129

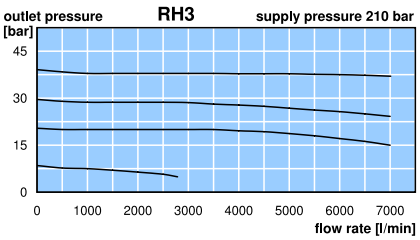


panel cut-out



gauge port, option "M"



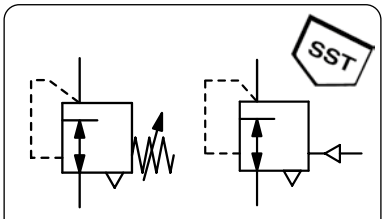


*1 at 210 bar supply pressure and 40 bar outlet pressure

PDF CAD
www.aircom.net

Order example:
RH3-04B

Description	High pressure regulator with balanced valve design ensuring stable downstream pressure. Excellent for low pressure.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 414 bar
Exhaust	for compressed air or gases: ¼″ NPT tapped exhaust for inlet and outlet
Leakage	bubble-tight
Adjustment	by black plastic knob, optionally pneumatical control through diaphragm or piston
Relieving function	for compressed air or gases: relieving for liquids: non-relieving
Gauge port	non, optionally ¼″ NPT for inlet and outlet
Mounting position	any
Temperature range	-26 °C to 74 °C / -15 °F to 165 °F
Weight	2.2 kg
Material	Body: brass, optionally 316 stainless steel; O-rings: NBR/Buna-N, on request FKM, Kalrez, E.P.; Main valve seat: Vespel SP21; Relieving valve: Vespel SP21; Inner valve: Monel, stainless steel; Filter: bronze, 40 µm, only for liquids



P_1: max. 414 bar
0…14/28 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number
High pressure regulator 414 bar						brass body, Vespel SP21, NBR/Buna-N relieving, without gauge port		**RH4**
76	159	19	0.3	510	8500	⅜″ NPT	0…14	**RH4-03A**
							0…28	**RH4-03B**
						½″ NPT	0…14	**RH4-04A**
							0…28	**RH4-04B**

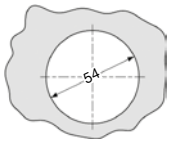
RH4–...S

Special options, add the appropriate letter

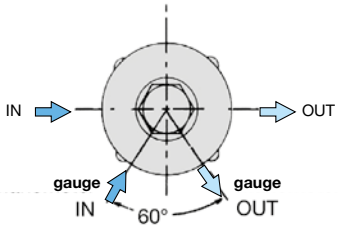
booster version	½″ NPT, 0…41 bar, brass, diaphragm control, $P_{St.}$= 5.8 bar		RH4- 04**J1**
	piston control		RH4- 04**J2**
non-relieving	without relieving function		RH4- 0 . .**K**
stainless steel body			RH4- 0 . .**S**
gauge port	¼″ NPT for inlet and outlet		RH4- 0 . .**M**
brass pressure gauge	inlet side **HM**	outlet side	RH4- 0 . .M**GM**
SST pressure gauge	inlet side **H**	outlet side	RH4- 0 . .M**G**

Accessories, enclosed

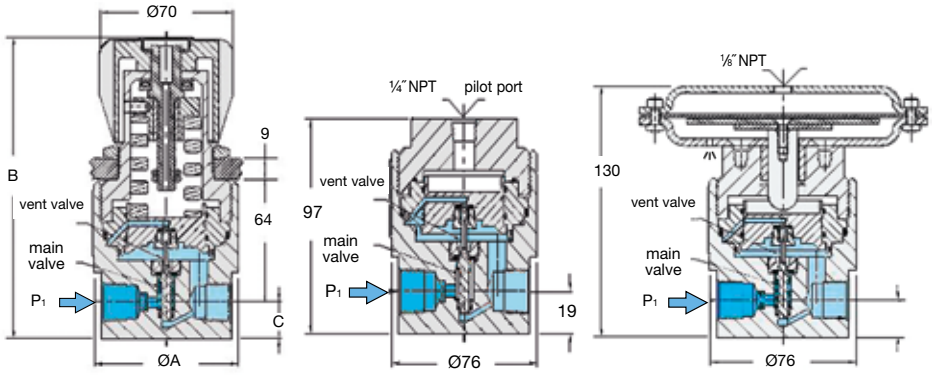
mounting nut	for panel mounting	**62634**



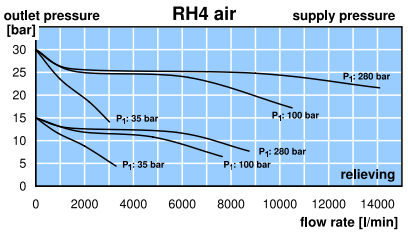
panel cut-out

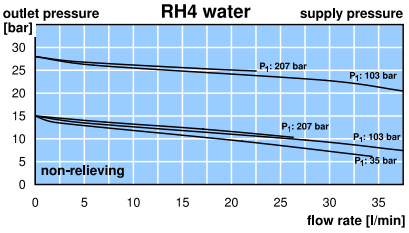


gauge port, option "M"



pressure regulator RH4 **booster RH4-J2** **booster RH4-J1**



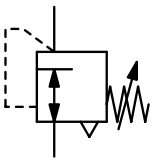


*1 at 280 bar supply pressure and 14 bar outlet pressure

PDF CAD
www.aircom.net

Order example: RH4-03A

Description	High pressure regulator, piston operated, made of stainless steel, with high sensitivity, excellent accuracy and reliability.			
Media	compressed air and non-corresive 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 ¼"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



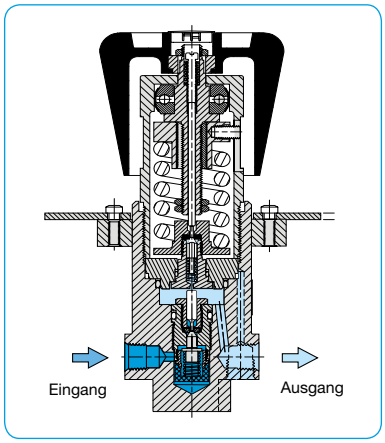
P1: max. 415 / 1 034 bar
0,3 ... 35 / 690 bar

Dimensions A mm	B mm	ØC mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order Number
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 ... 280	HP306-280
				420	7000	¼" NPT	3,4 ... 415	HP306-415
				450	7500	¼" NPT	14 ... 690	HP306-690

HP306, accessory: mounting bracket

Special options, add the appropriate letter

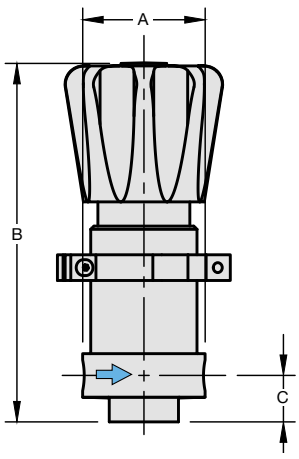
3/8"NPT	connection thread			HP306-...**03**
1/2"NPT	connection thread not possible by option S			HP306-...**04**
non-relieving	with FKM elastomer			HP306-...V**K**
FKM elastomer				HP306-...**V**
for oxygen	special cleaned, P1 < 200 bar			HP306-...**15**
inlet pressure 415 bar	brass up to pressure range 3,4 ... 415			HP306-...**U**
inlet pressure 1034 bar	stainless steel			HP306-...**S**
tapped exhaust	with FKM elastomer, ¼"NPT			HP306-...V**X12**
gauge port	¼"NPT for inlet and outlet			HP306-...**M**
gauge brass	inlet side	MHM	outlet side	HP306-...M**GM**
gauge stainless steel	inlet side	MH	outlet side	HP306-...M**G**



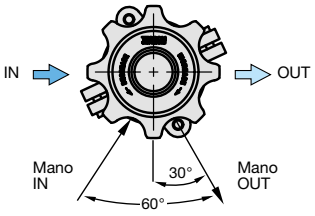
cross-section

Accessories, enclosed

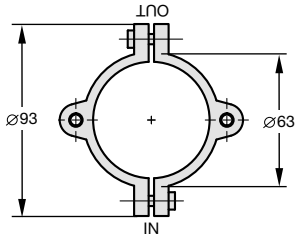
monting bracket	made of aluminium	**1129**



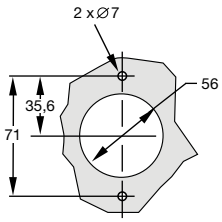
HP306



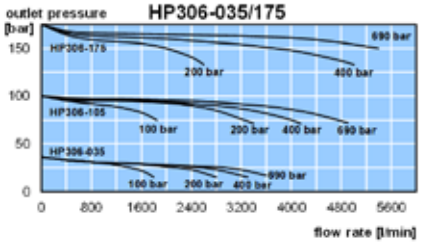
connection diagram

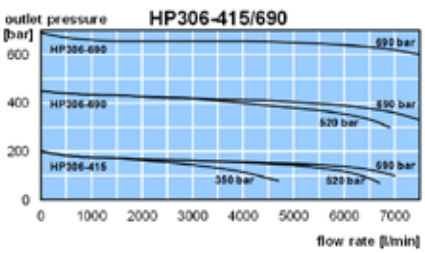


1129



panel cut-out





*1 at 690 bar inlet pressure, see diaphragm

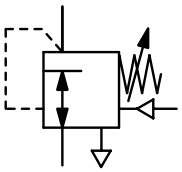
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
HP306-035

DIFFERENTIAL PRESSURE REGULATOR P1: MAX. 414 BAR, P2: 0-103 BAR RH44

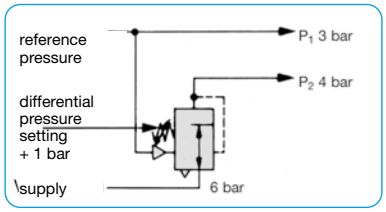
Description	The dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.		
Media	compressed air or gases according to the selected material		
Supply pressure	max. 414 bar	**Outlet pressure**	max. 103 bar
Exhaust	tapped exhaust ¼″ NPT	**Control port**	⅛″ NPT
Adjustment	hexagonal screw for spring tension	**Leakage**	bubble-tight
Gauge port	not available	**Mounting position**	any
Temperature range	-26 °C to 74 °C / -14 °F to 165 °F		
Material	Body: brass, optionally stainless steel 302 Valve seat and gasket: CTFE, Vespel O-Rings: FKM		



differential pressure 0-1/24 bar
reference pressure 0- 103 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate l/min*1	Connection thread NPT	Differential pressure range bar	Order number
Differential pressure regulator				P1 max: 414 bar, PA max: 103 bar, brass relieving, PSH: 0 ... 103 bar, FKM / CTFE			**RH44**
76	212	46	0.7	10000	½″ NPT	0... 1 bar	**RH44-04A**
						0... 7 bar	**RH44-04B**
						0... 14 bar	**RH44-04C**
						0... 24 bar	**RH44-04D**
76	212	46	2.0	21000	¾″ NPT	0... 1 bar	**RH44-06A**
						0... 7 bar	**RH44-06B**
						0... 14 bar	**RH44-06C**
						0... 24 bar	**RH44-06D**

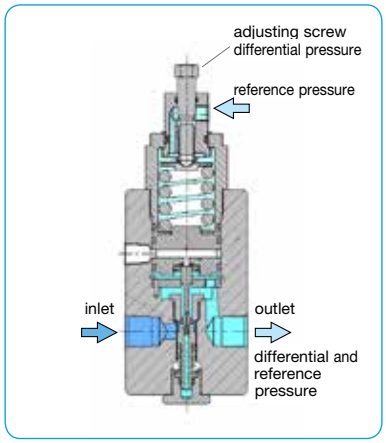
RH44



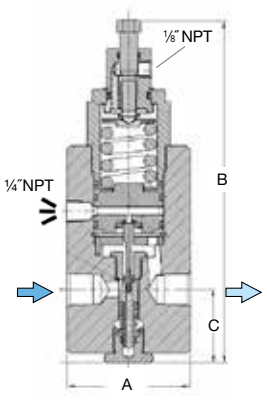
Example: differential pressure constant 1 bar

Special options, add the appropriate letter

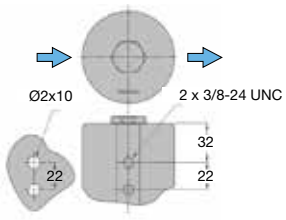
stainless steel body	RH44-0..**S**



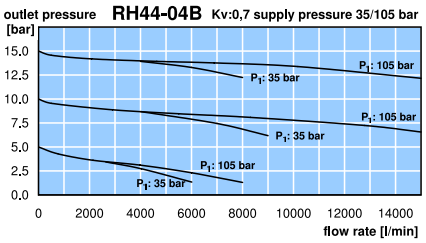
cross-section



RH44



panel-mounting



*1 bei P_1 = 105 bar, P_2 = 15 bar and Δp = 1 bar

Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example: RH44-04A

High pressure

4