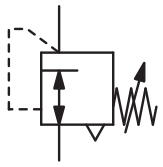
| | Description | | Supply pressure max. bar | Pressure range bar | Connection thread | Device | Page |
|---|---|---|---|---|---|---|---|
| **press. regulator** | also for liquids and $O_2$ | Kv: 0.3 - 25.6 | 40 | 0.2 ... 3 / 35 | G¼ - G2 | R280 | **4.02** |
| | for many different gases | Kv: 0.2 - 70 | 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** |
| | robust | Kv: 0.13 | 380 | 0.3 ... 2 / 35 | ¼″NPT | RHB | **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 | 15.20 |
| | 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 |

# 4

# High Pressure Regulators

# 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<br>by T-handle for G¾ up to G1½<br>by knob for G2<br>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<br>Elastomer: NBR/Buna-N<br>Inner valve: brass |



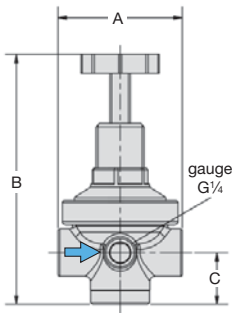
**G¼ up to G2, $P_1$: max. 40 bar**
**0.2…3/35 bar**

| 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** |

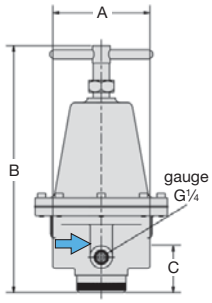
**R280-02**

**R280-04**
**accessory: gauge**

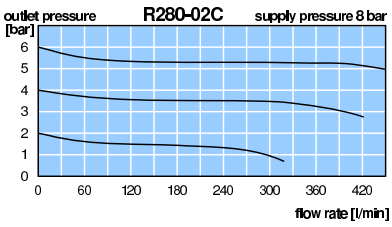
**R280-08**
**accessory: gauge**

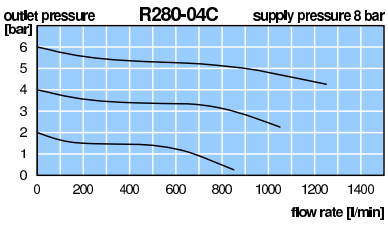


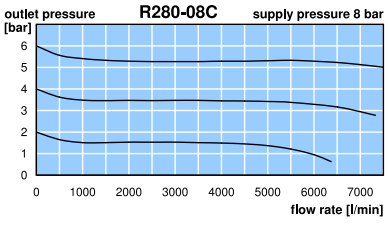

**R280-02/-04**




**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

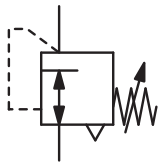
PDF CAD
www.aircom.net

**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<br>by T-handle for G¾ up to G1½<br>by knob for G2<br>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<br>Elastomer: NBR/Buna-N<br>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
accessory: gauge

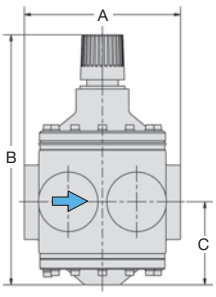
R280-16
accessory: gauge

## Special options, add the appropriate letter

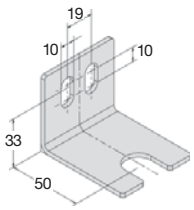
| | | | |
|---|---|---|---|
| **non-relieving** | without relieving function | not for G2 | R280-. . . **K** |
| **for oxygen** | specially cleaned, with oxygen grease, max. 60 °C/140 °F up to G1½ | | R280-. . . K**15** |

## Accessories

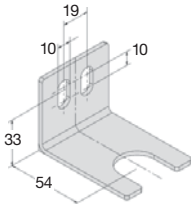
| | | | |
|---|---|---|---|
| **pressure gauge** | Ø 50 mm, 0…*2 bar, G¼ | for G¼ and G½ | **MA5002-. .**.*2 |
| | Ø 50 mm, 0…25 bar, G¼ | for G¼ and G½ | **MA5002- 25** |
| | Ø 63 mm, 0…*2 bar, G¼ | from G¾ | **MA6302-. .**.*2 |
| | Ø 63 mm, 0…25 bar, G¼ | from G¾ | **MA6302- 25** |
| **mounting bracket** | 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** |



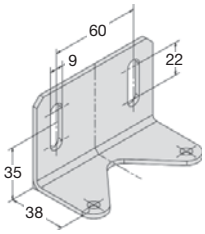

R280-16



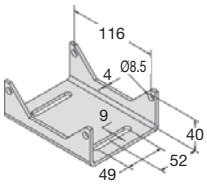

BW20-03



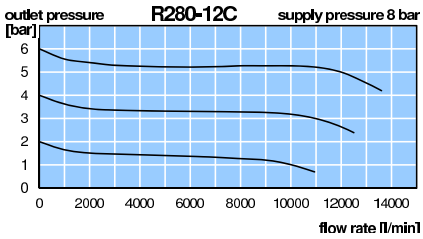

BW28-01

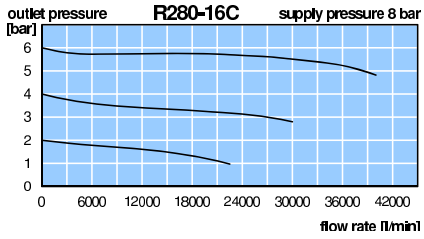



BW00-39




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**

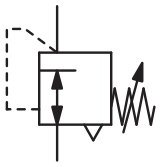
PDF CAD
www.aircom.net

**Order example:**
**R280-12A**

High pressure
4

# Brass Pressure Regulator up to 50 bar — R120

| | |
|---|---|
| **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<br>R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (spanner size 24 mm)<br>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 at R120-02 to -04, bronze at R120-06 to -16, aluminium at R120-24/-32<br>O-ring: FKM, optionally EPDM<br>Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32<br>Inner valve: brass<br>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** |
| 63 | 140 | 34 | 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** |
| 63 | 141 | 34 | P | | 50 | 840 | | 50 | 2 ... 30 | **R120-02F** |
| 63 | 156 | 34 | P | | 60 | 1000 | | 50 | 3 ... 50 | **R120-02G** |
| 63 | 140 | 34 | 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** |
| 63 | 141 | 34 | P | | 50 | 840 | | 50 | 2 ... 30 | **R120-03F** |
| 63 | 156 | 34 | P | | 60 | 1000 | | 50 | 3 ... 50 | **R120-03G** |

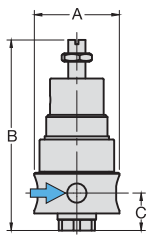
**R120-01/-A2**
**accessory: gauge**

**R120-02/-03**
**accessory: gauge**

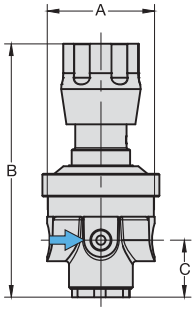
**High pressure**

**4**

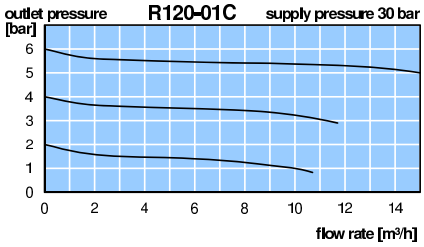
## Special options and Accessories, see separate page

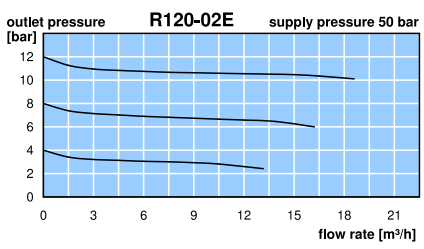



**R120-01/-A2**




**R120-02/-03**




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

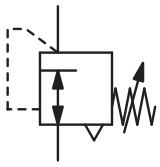
**Gauges: see chapter for measuring devices**

PDF CAD
www.aircom.net

**Order example: R120-01A**

# Brass Pressure Regulator up to 50 bar R120

| | |
|---|---|
| **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<br>R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (spanner size 24 mm)<br>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 at R120-02 to -04, bronze at R120-06 to -16, aluminium at R120-24/-32<br>O-ring: FKM, optionally EPDM<br>Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32<br>Inner valve: brass<br>Diaphragm: NBR/Buna-N with PTFE coating |



**G⅛ up to G4**
**0.1 ... 1.5 / 50 bar**

R120-04
accessory: gauge

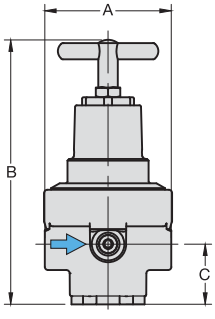
R120-08
accessory: gauge

## Brass pressure regulator

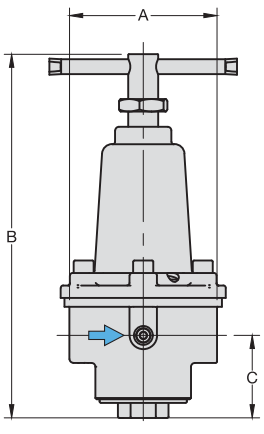
for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

| 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** |

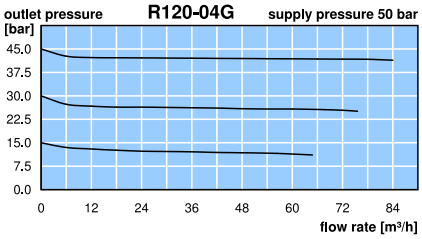
## Special options and Accessories, see separate page

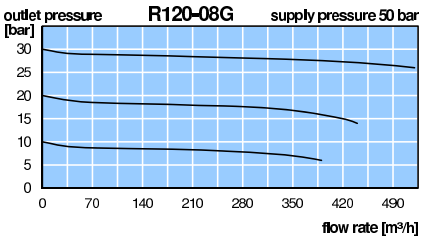



R120-04




R120-06/-08




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

**Gauges: see chapter for measuring devices**

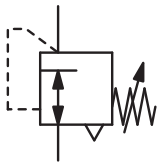
PDF CAD
www.aircom.net

**Order example: R120-04A**

High pressure
4

# Brass Pressure Regulator up to 50 bar R120

| | |
|---|---|
| **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<br>R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (spanner size 24 mm)<br>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 at R120-02 to -04, bronze at R120-06 to -16, aluminium at R120-24/-32<br>O-ring: FKM, optionally EPDM<br>Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32<br>Inner valve: brass<br>Diaphragm: NBR/Buna-N with PTFE coating |



**G⅛ up to G4**
**0.1 ... 1.5 / 50 bar**

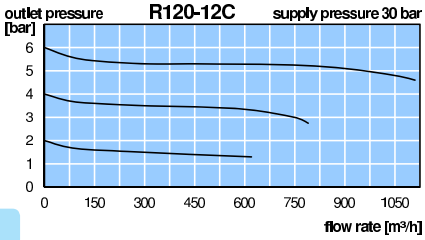
| Dimensions A mm | B mm | C mm | Regul. system D: diaphragm P: piston | $K_v$-value ($m^3/h$) | Flow rate $m^3/h$*1 | l/min*1 | Connection thread G | $P_1$ max. bar | Pressure range bar | Order number |
|---|---|---|---|---|---|---|---|---|---|---|
| 180 | 387 | 128 | P | 12.6 | 400 | 6600 | G1½ | 30 | 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** |

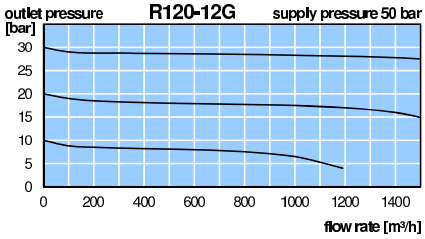
## Brass pressure regulator
for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge **R120**

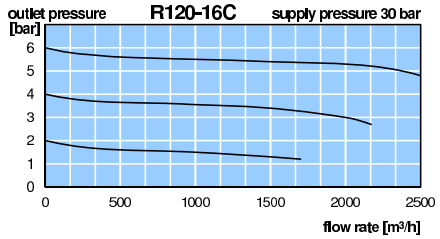


**R120-12/-B6**
**accessory: gauge**

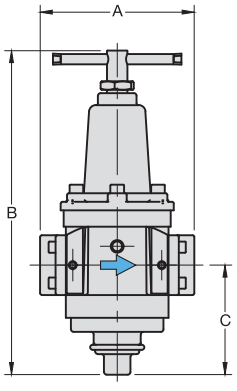
**R120-16**
**accessory: gauge**



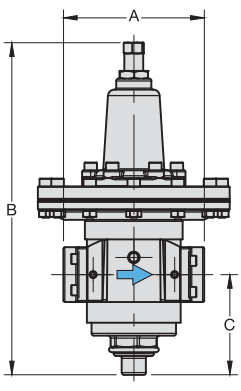



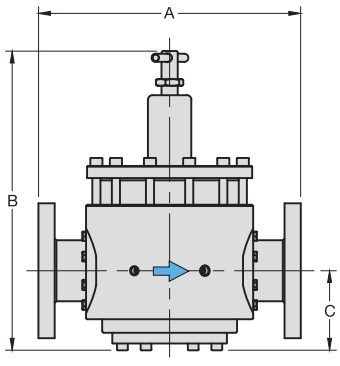

## Special options and Accessories, see separate page




**R120-12/-B6**




**R120-16**




**R120-24/-32**

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

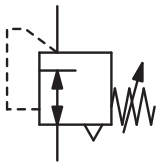
**Gauges: see chapter for measuring devices**

PDF CAD
www.aircom.net

**Order example:**
**R120-12A**

# Brass Pressure Regulator up to 50 bar — R120

| | |
|---|---|
| **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<br>R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (spanner size 24 mm)<br>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 at R120-02 to -04, bronze at R120-06 to -16, aluminium at R120-24/-32<br>O-ring: FKM, optionally EPDM<br>Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32<br>Inner valve: brass<br>Diaphragm: NBR/Buna-N with PTFE coating |

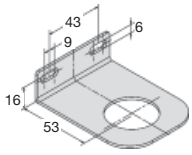


**G⅛ up to G4**
**0.1 ... 1.5 / 50 bar**

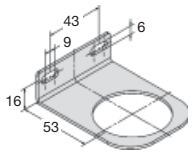
| Dimensions A mm | B mm | C mm | Regul. system **D:** diaphragm **P:** piston | $K_v$-value ($m^3/h$) | Flow rate $m^3/h$*1 | l/min*1 | Connection thread G | $P_1$ max. bar | Pressure range bar | Order number |
|---|---|---|---|---|---|---|---|---|---|---|

## Special options, add the appropriate letter

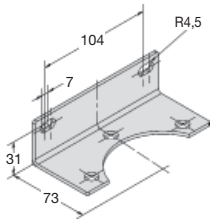
| | | | |
|---|---|---|---|
| **NPT** | connection thread | | R120-. . . **N** |
| **non-relieving** | withour relieving function | up to R120-B6 | R120-. . . **K** |
| **down to - 40 °C** | low temperature version | up to R120-04 | R120-. . .**X51** |
| **up to 130 °C** | high temperature version | 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.** |



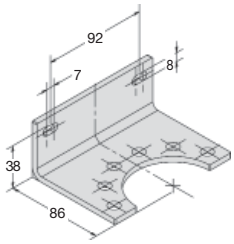
**BW35-01S**



**BW50-01S**



**BW00-42**



**BW00-43**

## Accessories

| | | | |
|---|---|---|---|
| **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) and G½ | **MA5002-. .** *2 |
| | Ø 50 mm, 0...60 bar, G¼ | for G¼ and 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 | **BW35-01S** |
| **mounting nut** | made of stainless steel | for G¼ | **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**

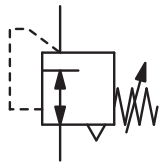
PDF CAD
www.aircom.net

**Order example:**
**MA4001-02**

High pressure
4

# 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<br>Elastomer: NBR/Buna-N | Intermediate ring:<br>Inner valve: | brass at G¼, anodized aluminium at G1<br>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**
**accessory: gauge**

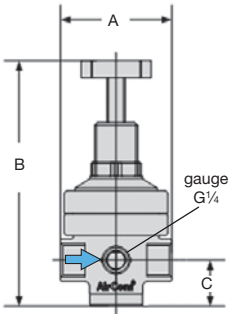
**R286-08**
**accessory: gauge**

## Special options, add the appropriate letter

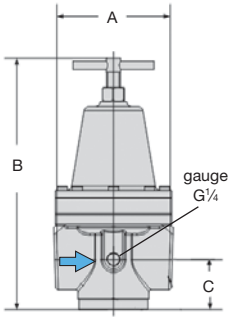
| | | |
|---|---|---|
| **non-relieving** | without relieving function, for liquids | R286- 0 . .**K** |

## Accessories

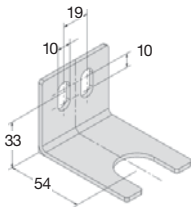
| | | | | |
|---|---|---|---|---|
| **pressure gauge** | Ø 50 mm, | 0…10 bar, G¼ | for G¼ to G½ | **MA5002- 10** |
| | | 0…25 bar, G¼ | for G¼ to G½ | **MA5002- 25** |
| | | 0…60 bar, G¼ | for G¼ to G½ | **MA5002- 60** |
| | Ø 63 mm, | 0…16 bar, G¼ | for G1 | **MA6302- 16** |
| | | 0…25 bar, G¼ | for 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** |



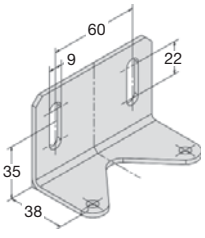

**R286-02/-03/ -04**



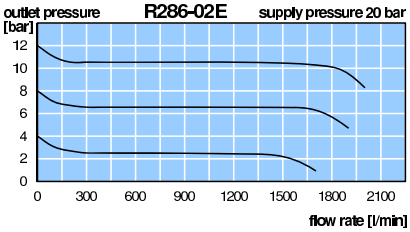

**R286-08**

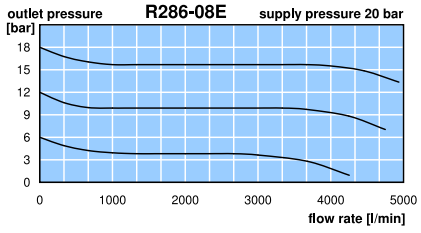



**BW28-01**




**BW00-45**




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

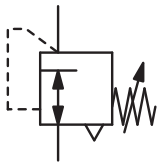
**Gauges: see chapter for measuring devices**

PDF CAD
www.aircom.net

**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 Optionally: 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<br>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**

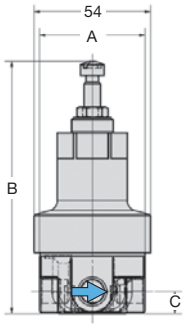


## Special options, add the appropriate letter

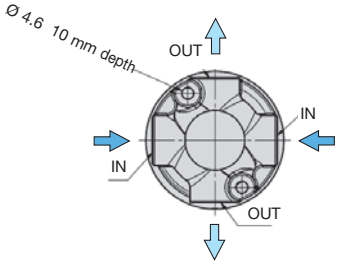
| | | |
|---|---|---|
| **non-relieving** | without relieving function | RH83-02. **K** |
| **carbon dioxide** | $CO_2$ | RH83-02. K**03** |
| **argon** | Ar | RH83-02. K**05** |
| **nitrogen** | $N_2$ | RH83-02. K**07** |
| **helium** | He | RH83-02. K**09** |
| **inert gas** | krypton, neon, xenon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

## Accessories

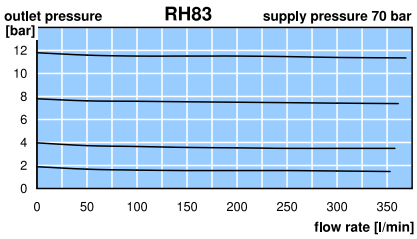
| | | |
|---|---|---|
| **pressure gauge** | Ø 50 mm, ¼″NPT | **MA5002- . .*2N** |




**RH83**




**connections**




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

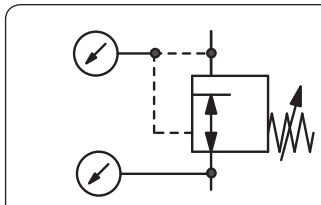
*2 **04** = 0...4 bar, **11** = 0...11 bar, **16** = 0...16 bar

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<br>Piston: brass at RH10-02 O-rings: EPDM or FKM, dependent on media<br>Valve seat: nylon<br>Diaphragm: stainless steel at RH10-02, NBR/Buna-N at all others |

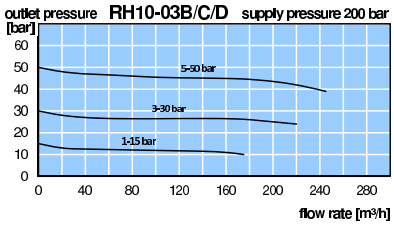


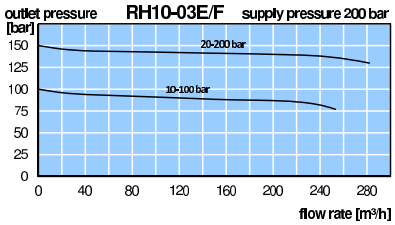
**G¼ up to G1¼**
**1…8/220 bar**

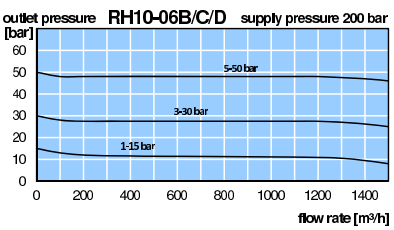
| Dimensions A mm | B mm | C mm | Safety relief valve S: with valve | $K_v$-value ($m^3/h$) | Flow rate $m^3/h$*1 | l/min*1 | Connection thread inlet / outlet | Pressure range bar | Order number |
|---|---|---|---|---|---|---|---|---|---|
| **High pressure regulator 220 bar** | | | | non-relieving, for compressed air, pressure gauges supplied | | | | | **RH10** |
| 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** |

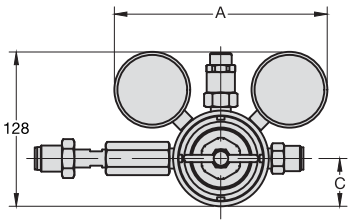
**RH10-02B11**

**RH10-A3B07**

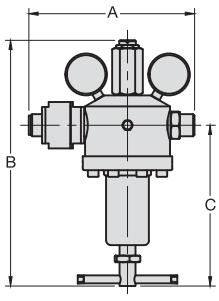



**RH10-02/-03/-A3**




**RH10-06/-08/-10**

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

*2 max. 80 bar outlet pressure

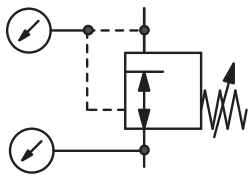
**Stainless steel version: see chapter for stainless steel devices**

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<br>Piston: brass at RH10-02 O-rings: EPDM or FKM, dependent on media<br>Valve seat: nylon<br>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**

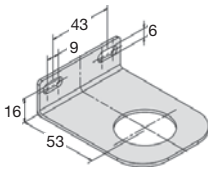


## Special options, add the appropriate letter

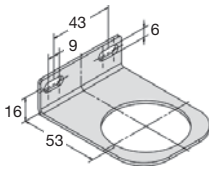
| | | |
|---|---|---|
| **relieving diaphragm** | with relieving function, for compressed air up to max. 50 bar | RH10-. . . **R** |
| **relieving piston** | with relieving function, for compressed air up to max. 50 bar | RH10-. . . **R** |
| **FKM elastomer** | | RH10-. . . **V** |
| **PTFE elastomer** | | 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** | $C_3H_6$ | RH10-. . . **16** |
| **nitrous oxide** | $N_2O$ | RH10-. . . **17** |
| **without flange connection** | | RH10-. . . **X40** |

## Accessories

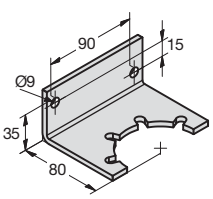
| | | | |
|---|---|---|---|
| **mounting bracket** | made of stainless steel | for RH10-02 | **BW35-01S** |
| **mounting nut** | | for RH10-02 | **M35x1,5S** |
| **mounting bracket** | | for RH10-03 and -A3 | **BW50-01S** |
| **mounting nut** | | for RH10-03 and -A3 | **M50x1,5S** |
| **mounting bracket**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



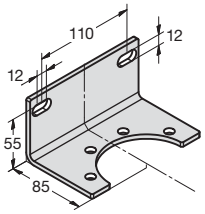

**BW35-01S**



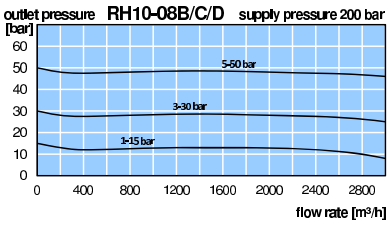

**BW50-01S**

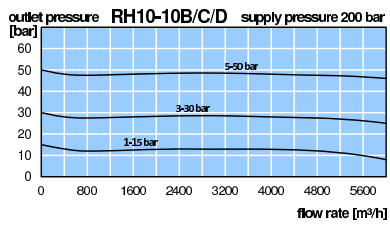



**BW00-31S**




**BW00-35S**




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

*2 max. 80 bar outlet pressure

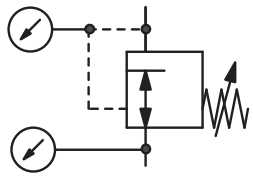
**Stainless steel version: see chapter for stainless steel devices**

PDF CAD
www.aircom.net

**Order example:**
**RH10-10A**

# Gas Cylinder Pressure Regulator up to 200 bar RH201 / RH202

| | |
|---|---|
| **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<br>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** |

## 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** |



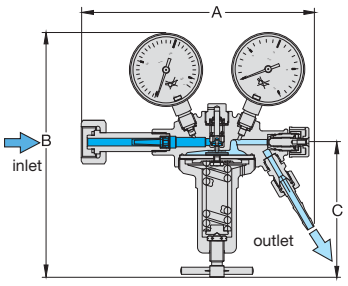
RH201, 1-step

## Special options, change the appropriate letter

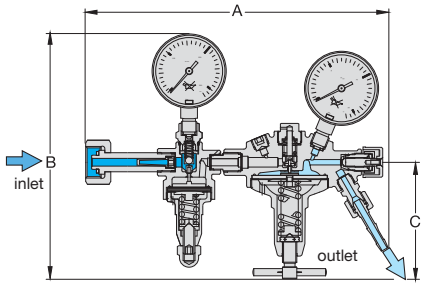
| | | | |
|---|---|---|---|
| **carbon dioxide** | $CO_2$ | | RH20 .-…**03** |
| **inert gas** | | | RH20 .-…**04** |
| **argon** | Ar | | RH20 .-…**05** |
| **fuel gas** | | | RH20 .-…**06** |
| **nitrogen** | $N_2$ | | RH20 .-…**07** |
| **forming gas** | | up to 40 bar | RH20 .-…**08** |
| **helium** | 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 20 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

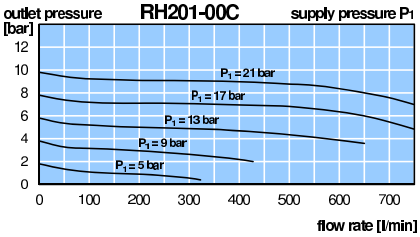



cross-section, 2-step

| 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 |



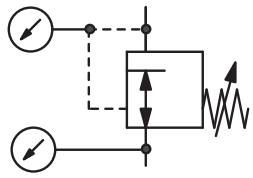

*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

PDF CAD
www.aircom.net

**Order example:**
**RH201-00C**

# Gas Cylinder Pressure Regulator up to 300 bar — RH300

| | |
|---|---|
| **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<br>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**

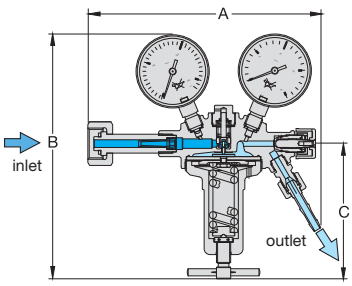


## Special options, change the appropriate letter

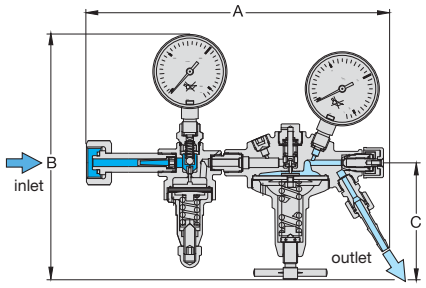
| | | | |
|---|---|---|---|
| **carbon dioxide** | $CO_2$ | | RH30 .-…**03** |
| **inert gas** | | | RH30 .-…**04** |
| **argon** | Ar | | RH30 .-…**05** |
| **fuel gas** | | | RH30 .-…**06** |
| **nitrogen** | $N_2$ | | RH30 .-…**07** |
| **forming gas** | | up to 40 bar | RH30 .-…**08** |
| **helium**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

**RH302, 2-step**

**RH301-C.., chrome-plated**



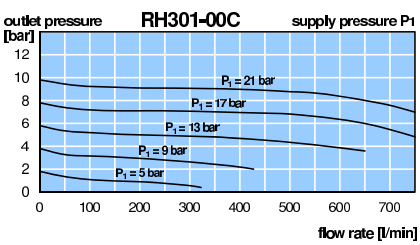

**cross-section, 1-step**




**cross-section, 2-step**

| connection thread up to 300 bar | | |
|---|---|---|
| **gas type** | **inlet** *1 | **outlet** |
| fuel gas | W30x2 LH | G⅜ 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 |



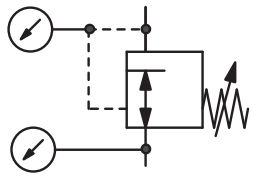

*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

PDF CAD
www.aircom.net

**Order example:**
**RH301-00C**

# Main Pressure Regulator up to 300 bar RH

| | |
|---|---|
| **Description** | Main pressure regulator according to ISO 7291 up to 300 bar with G½ connection thread.<br>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<br>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<br>O-rings: NBR/Buna-N<br>Spring cage: brass<br>Diaphragm: 65NBR4550, stainless steel for oxygen > 20 bar |



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



## Main pressure regulator

for compressed air, supply and outlet pressure gauge supplied

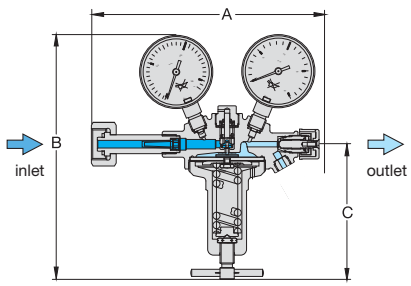
| Dimensions A mm | B mm | C mm | Flow rate $m^3/h$*1 | l/min*1 | Supply pressure max. bar | Connection thread G | Pressure range bar | Order number RH |
|---|---|---|---|---|---|---|---|---|
| 150 | 205 | 115 | 50 | 830 | 100 | G½ | 0…10 | **RH-147.510** |
| | | | 75 | 1250 | | | 0…20 | **RH-147.520** |
| 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**

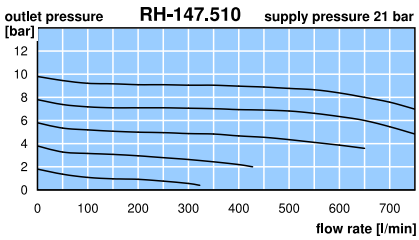
**RH-.47.525 / 545 / 565**

## 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

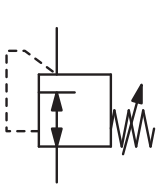
PDF CAD
www.aircom.net

**Order example:**
**RH-147.510**

# Miniature High Pressure Regulator up to 414 bar RH0/RH1

| | | | |
|---|---|---|---|
| **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**

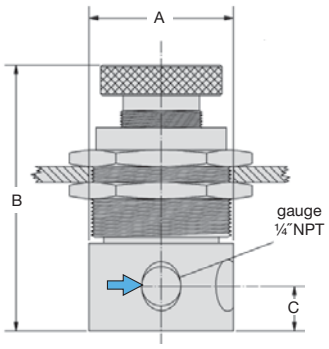
| Dimensions A mm | B mm | C mm | $K_v$-value ($m^3$/h) | Flow rate $m^3$/h | l/min | Connection thread NPT | Pressure range bar | Order number |
|---|---|---|---|---|---|---|---|---|
| **High pressure regulator 241 bar** | | | | | | for gases, non-relieving brass, stainless steel diaphragm | | **RH0** |
| 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 | 1 400*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 | 3 200*3 | ¼″ NPT | 4.0… 48 | **RH1-02D** |
| | | | | | | | 8.0… 83 | **RH1-02E** |
| | | | | | | | 10…124 | **RH1-02F** |


RH0

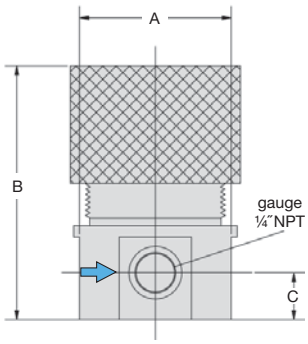
RH1

## Special options, add the appropriate letter

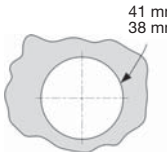
| | | | | |
|---|---|---|---|---|
| **⅛″NPT** | connection thread | | für RH0 | RH0-0**1**. |
| **aluminium body** | | | für RH0 | RH0-02.**A** |
| **stainless steel body** | | | für RH0 | RH0-02.**S** |
| **CTFE seat** | | | für RH0 | RH0-02.**X52** |
| **CTFE seat** | for stainless steel body | | für 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** |



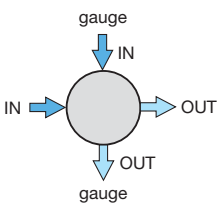

RH0-...P



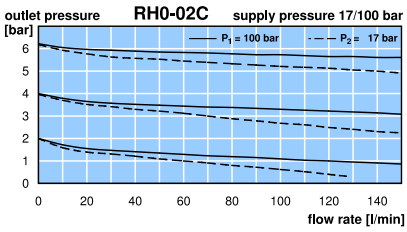

RH1

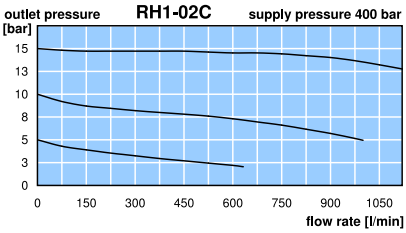


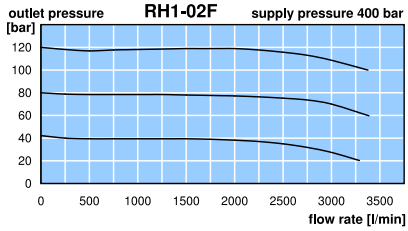

panel cut-out




connection diagram



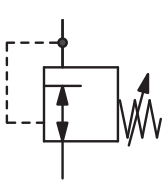

*1 at 100 bar supply pressure and 6 bar outlet pressure
*2 at 400 bar supply pressure and 15 bar outlet pressure
*3 at 400 bar supply pressure and 120 bar outlet pressure

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** |

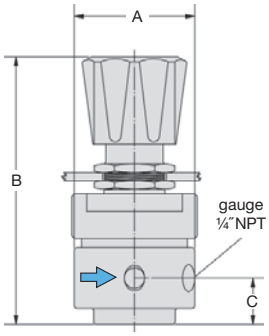
**RH2**

## Special options, add the appropriate letter

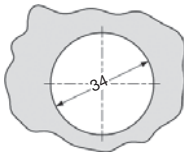
| | | | |
|---|---|---|---|
| **⅜″NPT** | connection thread | | RH2-0**3**. |
| **brass pressure gauge** | for brass body, | outlet side | RH2-0..**GM** |
| **SST pressure gauge** | for stainless steel body, | outlet side | RH2-0..**G** |

## Accessories

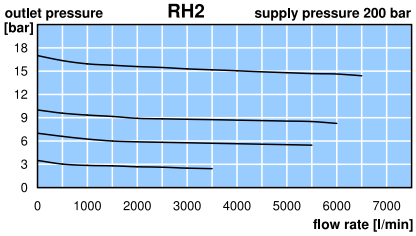
| | | |
|---|---|---|
| **mounting nut** | for panel mounting, made of stainless steel | **8686-1** |




**RH2**




**panel cut-out**



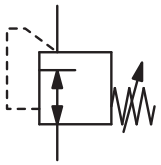

*1 at 200 bar supply pressure and 14 bar outlet pressure

PDF CAD
www.aircom.net

**Order example:**
**RH2-04A**

# High Pressure Regulator up to 690 bar HP300 / HP400

| | | | |
|---|---|---|---|
| **Description** | Piston-operated high pressure regulator HP300 / HP400 are marked by high flow and great reliability. | | |
| **Media** | compressed air, non-corrosive gases or liquids | | |
| **Supply pressure** | max. 690 bar at HP300, max. 414 bar at HP400 | | |
| **Accuracy** | at supply pressure variation of 7 bar:<br>< 5 mbar pressure deviation at HP300,<br>< 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 | | |

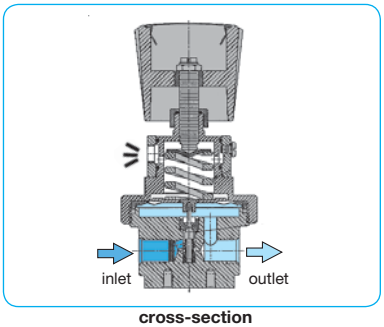


**¼″NPT, $P_1$: 300/690 bar**
**0.3…35/414 bar**

| 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 | 1 500 | 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 | 1 500 | ¼″ NPT | 0.7…104 | **HP400-104** |
| | | | | | | | 1.0…172 | **HP400-170** |

**HP300, accessory: set of mount. brackets**

**HP400**



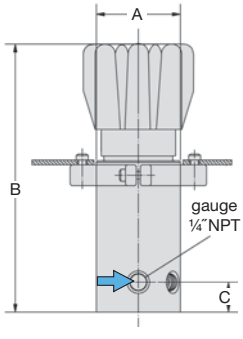

**cross-section**

## Special options, add the appropriate letter

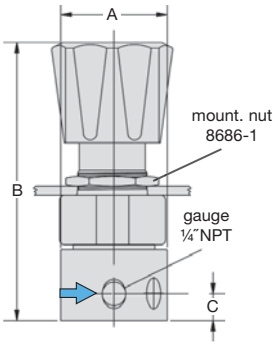
| | | | | |
|---|---|---|---|---|
| **relieving** | | | | HP300-. . .**R** |
| | | | | HP400-. . .**R** |
| **body made of SST** | | | (690 bar) | HP300-. . .**S** |
| | | | (414 bar) | HP400-. . .**S** |
| **for oxygen** | specially cleaned, | $P_1$ <200 bar | for HP300/400 | HP.00-. . .**15** |
| **for 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

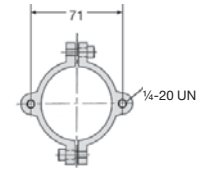
| | | | |
|---|---|---|---|
| **set of mounting brackets** | aluminium | for HP300 | **1129** |
| **mounting nut** | for panel mounting, made of stainless steel | for HP400 | **8686-1** |



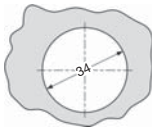

**HP300**



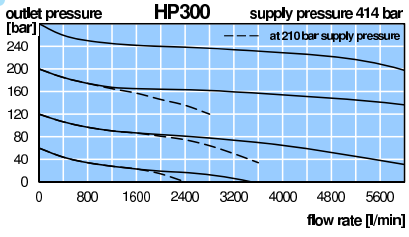

**HP400**

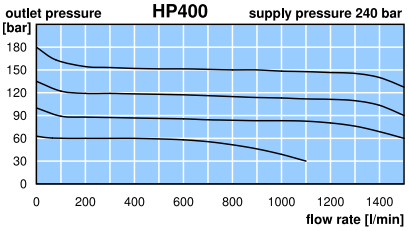



**1129**




**panel cut-out**



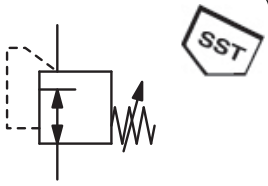

*1 at 240 bar supply pressure and 30 bar outlet pressure

PDF CAD
www.aircom.net

**Order example:**
**HP300-035**

# High Pressure Regulator up to 300 bar — HP500

| | | | |
|---|---|---|---|
| **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 |



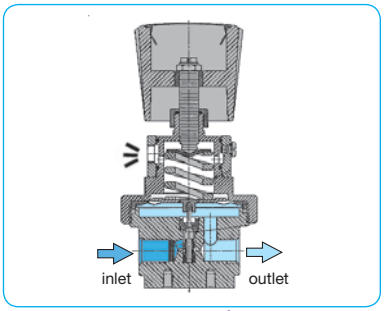

**¼″ NPT, $P_1$: 300 bar**
**0.1 ... 1.7/35 bar**

| 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 | 1 500 | 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

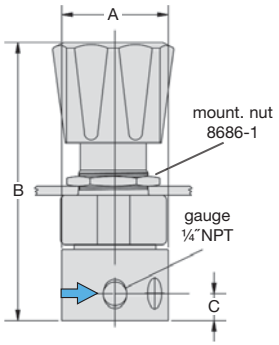
| | | |
|---|---|---|
| **relieving** | | HP500-...**R** |
| **body made of SST** | | HP500-...**S** |
| **free of grease and oil** | suitable for oxygen, $P_1$ <200 bar | HP500-...**L** |
| **for liquids** | w/o filter at inlet, valve seat of Vespel | HP500-...**W** |
| **brass pressure gauge** | for 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** |



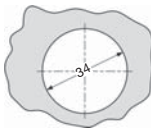

cross-section

## Accessories

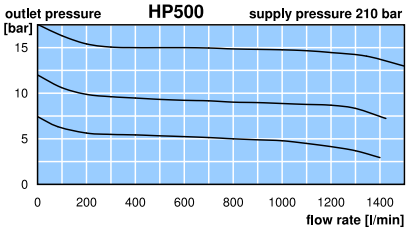
| | | |
|---|---|---|
| **mounting nut** | for panel mounting, made of stainless steel | **8686-1** |




HP500



panel cut-out



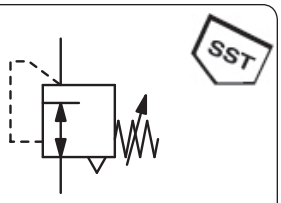

*1 at 240 bar supply pressure and 30 bar outlet pressure

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<br>O-rings: NBR/Buna-N and FKM<br>Main valve seat: CTFE, PTFE at RH3-04B<br>Relieving valve: CTFE, PTFE at RH3-04B/-04C<br>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 | |

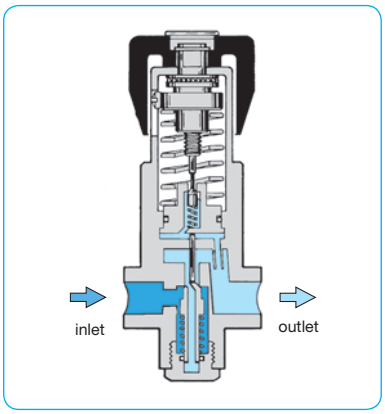
## High pressure regulator 260 bar, ½″NPT — relieving, brass — RH3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 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

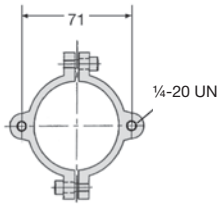
| | | | | |
|---|---|---|---|---|
| **¾″NPT** | connection thread | | | RH3-0 **6** . |
| **non-relieving** | without relieving function | | | RH3-0 . .**K** |
| **stainless steel, 310 bar** | body: stainless steel 316 | | | RH3-0 . .**S1** |
| **stainless steel, 410 bar** | body: stainless steel 316, | pressure range 3 ... 172 bar | | RH3-0 .**S2** |
| **brass, 345 bar** | body: brass, | pressure range 3 ... 172 bar | | 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** |



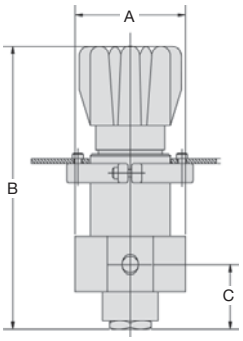

cross-section

## Accessories

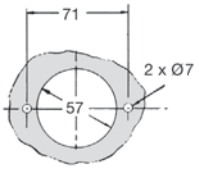
| | | |
|---|---|---|
| **set of mounting brackets** | for panel mounting | **1129** |



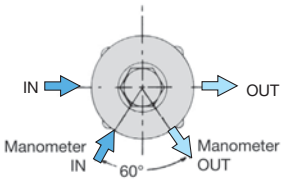

1129



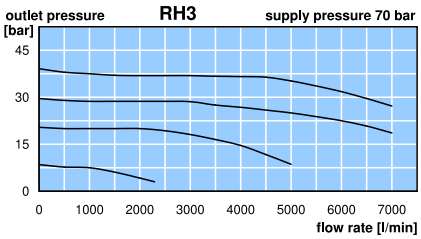

RH3

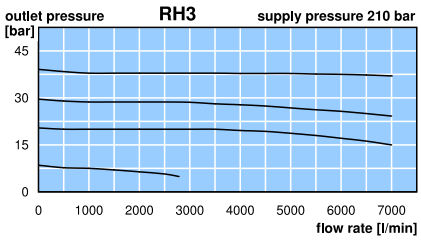



panel cut-out




gauge port, option "M"



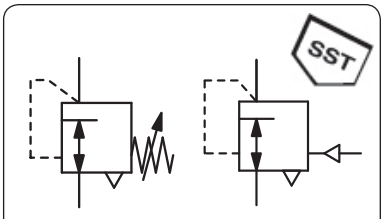

*1 at 210 bar supply pressure and 40 bar outlet pressure

PDF CAD
www.aircom.net

**Order example:**
**RH3-04B**

# High Pressure Regulator up to 414 bar — RH4

| | | | | | |
|---|---|---|---|---|---|
| **Description** | High pressure regulator with balanced valve design ensuring stable downstream pressure. Excellent for low pressure. | | | | |
| **Media** | compressed air, non-corrosive gases or liquids | | | | |
| **Supply pressure** | max. 414 bar | | | | |
| **Exhaust** | for compressed air or gases: 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** |

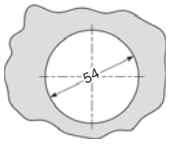
RH4

## Special options, add the appropriate letter

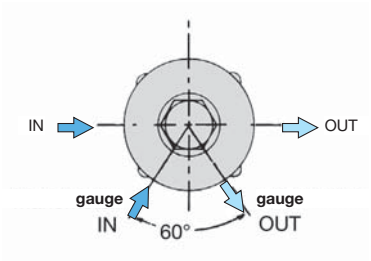
| | | | |
|---|---|---|---|
| **booster version** | ½″ NPT, 0…41 bar, brass, diaphragm control, $P_{St.}$= 5.8 bar | | RH4- 04**J1** |
| | piston control | | RH4- 04**J2** |
| **non-relieving** | without relieving function | | RH4- 0 . .**K** |
| **stainless steel body** | | | RH4- 0 . .**S** |
| **gauge 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

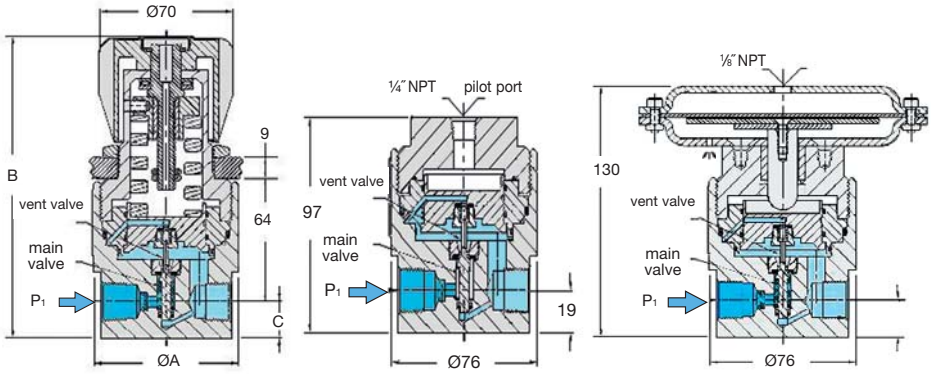
| | | |
|---|---|---|
| **mounting nut** | for panel mounting | **62634** |



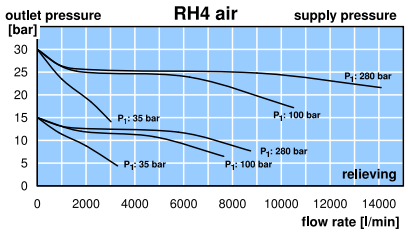

**panel cut-out**

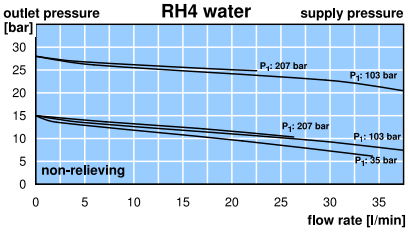



**gauge port, option "M"**




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



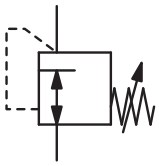

*1 at 280 bar supply pressure and 14 bar outlet pressure

PDF CAD
www.aircom.net

**Order example: RH4-03A**

# Brass High Pressure Regulator up to 380 bar RHB

| | |
|---|---|
| **Description** | Diaphragm-operated high pressure regulator made of brass. |
| **Media** | compressed air or non-corrosive gases |
| **Supply pressure** | max. 380 bar |
| **Adjustment** | by T-handel with locknut |
| **Relieving function** | non-relieving |
| **Gauge port** | ¼˝ NPT on both sides of the body, screw plugs supplied |
| **Mounting position** | any |
| **Temperature range** | 0 °C to 106 °C / 32 °F to 223 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F |
| **Material** | Body: brass O-rings: NBR/Buna-N<br>Diaphragm: stainless steel 302 Valve seat: nylon, optionally PTFE |



**¼˝ NPT, $P_1$: max. 380 bar**
**0 ... 2/35 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 380 bar** made of brass, with T-handle non-relieving, nylon seat, NBR/Buna-N | | | | | | | | **RHB** |
| 85 | 156 | 60 | 0.13 | 240 | 4000 | ¼˝ NPT | 0.3 ... 2 | **RHB-02A** |
| | | | | | | | 0.3 ... 4 | **RHB-02B** |
| | | | | | | | 0.3 ... 8 | **RHB-02C** |
| | | | | | | | 0.3 ... 10 | **RHB-02D** |
| | | | | | | | 0.3 ... 15 | **RHB-02E** |
| 85 | 177 | 60 | | | | | 0.3 ... 35 | **RHB-02F** |

**RHB-02D**

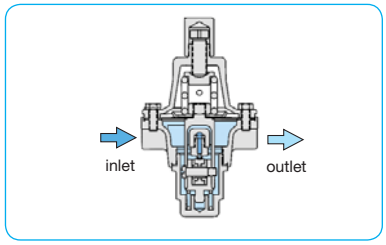
## Special options, add the appropriate letter

| | | |
|---|---|---|
| **nickel-plated** | outer surface | RHB-02 . **X25** |
| **tamper-proof cap** | made of brass, total hight 150 mm or 172 mm | RHB-02 . **T** |
| **PTFE valve seat** *2 | nickel plated surface | RHB-02 . **X52** |

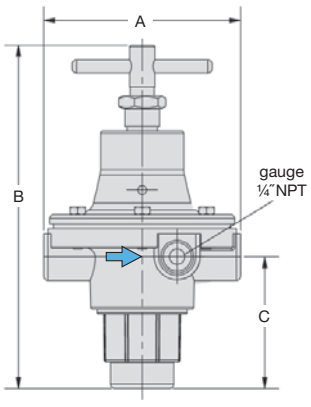
**RHB-02DT**

## Accessories

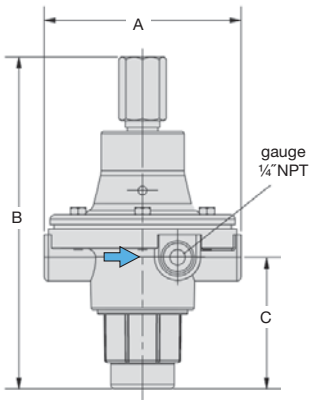
| | | |
|---|---|---|
| **mounting bracket** | made of steel | **BW00-48** |



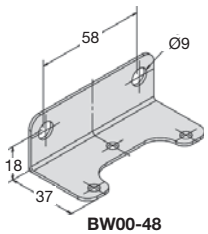

**cross-section**



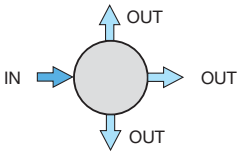

**RHB-02.**
**with T-handle**



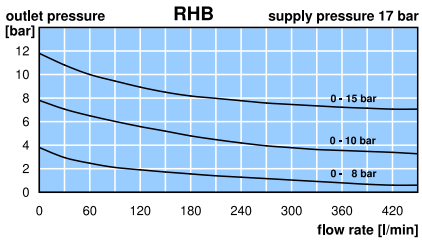

**RHB-02.T**
**with tamper-proof cap**

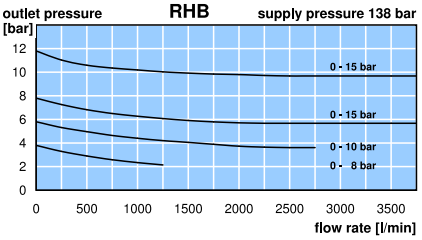



**BW00-48**




**connection diagram**




*1 $P_1$ = 138 bar, $P_2$ = 10 bar und $\Delta p$ = 3 bar

*2 1.5 ... 35 bar pressure range for RHB-02F

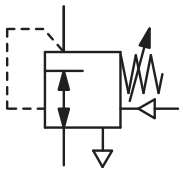
**Stainless steel version: see chapter for stainless steel devices**

PDF CAD
www.aircom.net

**Order example:**
**RHB-02A**

# Differential Pressure Regulator $P_1$: max. 414 bar, $P_2$: 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<br>Valve seat and gasket: CTFE, Vespel<br>O-Rings: FKM | | |



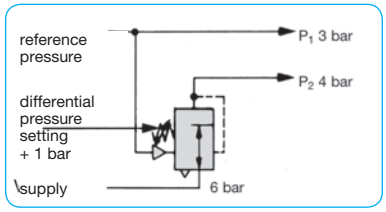
**differential pressure 0-1/24 bar**
**reference pressure 0- 103 bar**

| 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** $P_1$ max: 414 bar, $P_A$ max: 103 bar, brass relieving, $P_{SR}$: 0 ... 103 bar, FKM / CTFE | | | | | | | **RH44** |
| 76 | 212 | 46 | 0.7 | 10 000 | 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 | 21 000 | ¾˝ NPT | 0 ... 1 bar | **RH44-06A** |
| | | | | | | 0 ... 7 bar | **RH44-06B** |
| | | | | | | 0 ... 14 bar | **RH44-06C** |
| | | | | | | 0 ... 24 bar | **RH44-06D** |

**RH44**

High pressure

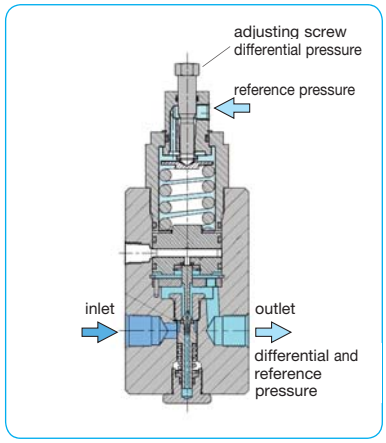
4



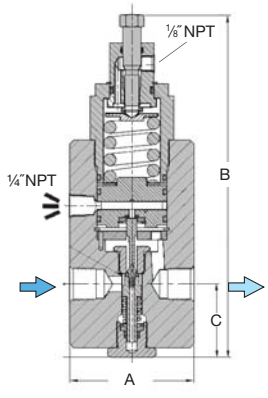

**Example:** differential pressure constant 1 bar

## Special options, add the appropriate letter

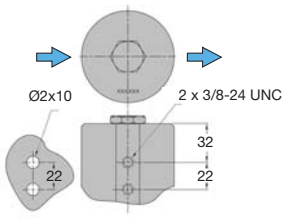
| | |
|---|---|
| **stainless steel body** | RH44-0..**S** |



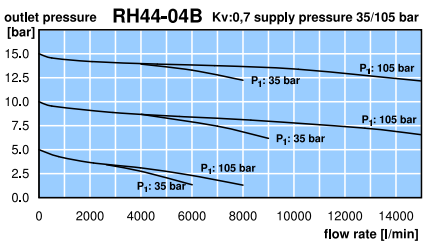

**cross-section**




**RH44**




**panel-mounting**




*1 bei $P_1$ = 105 bar, $P_2$ = 15 bar and $\Delta p$ = 1 bar

**Stainless steel version: see chapter for stainless steel devices**

PDF CAD
www.aircom.net

**Order example: RH44-04A**