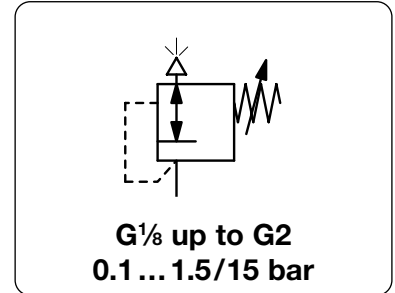


# BACK PRESSURE REGULATOR

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



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



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

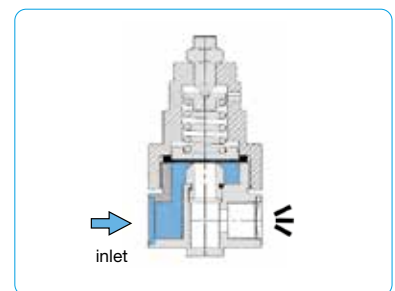
| Aluminium back pressure regulator |     |    |   | overpressure max. 30 bar | DBC |                 |             |         |
|-----------------------------------|-----|----|---|--------------------------|-----|-----------------|-------------|---------|
| 40                                | 82  | 13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



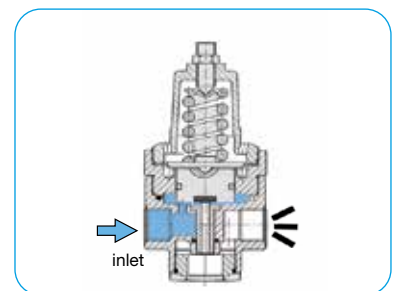
DBC-01/-A2



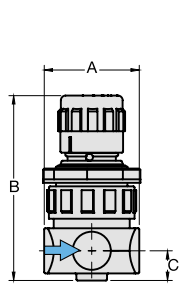
DBC-04/-A6



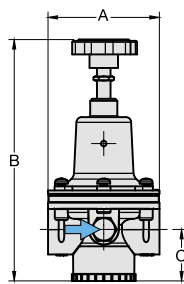
cross-section with diaphragm (D)



cross-section with piston (P)



DBC-01/-A2



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

\*1 at 7 bar overpressure and open outlet

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

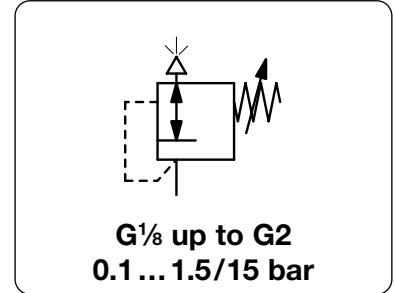
Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net



Order example:  
DBC-01A

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



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

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



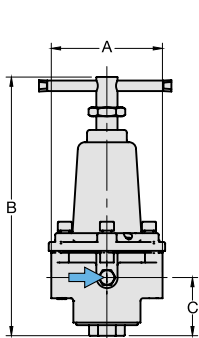
DBC-12/-16

## Special options, add the appropriate letter

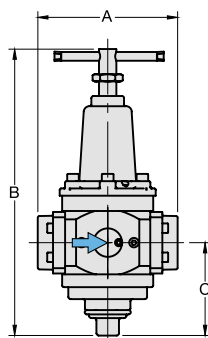
|                          |   |                           |                   |
|--------------------------|---|---------------------------|-------------------|
| <b>NPT</b>               | connection thread                                 | from G $\frac{1}{4}$ (02) | <b>DBC-... N</b>  |
| <b>FKM o-ring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

## Accessories, enclosed

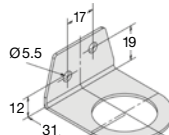
|                               |  |  |                                |
|-------------------------------|--|--|--------------------------------|
| <b>pressure gauges</b>        | Ø 50 mm, 0... <sup>*2</sup> bar, G $\frac{1}{4}$ | for G $\frac{1}{4}$                              | <b>MA5002-...<sup>*2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



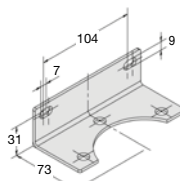
DBC-06/-08



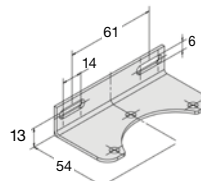
DBC-12/-16



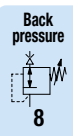
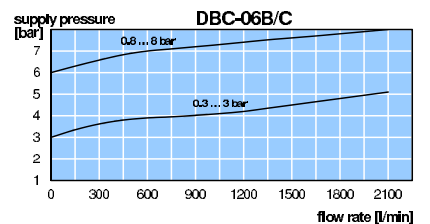
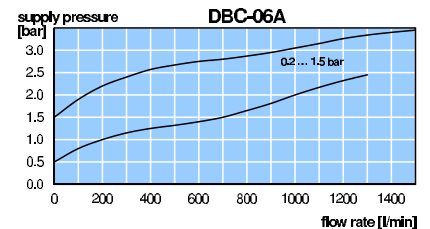
BW30-02



BW00-42



BW00-44



\*1 at 7 bar overpressure and open outlet

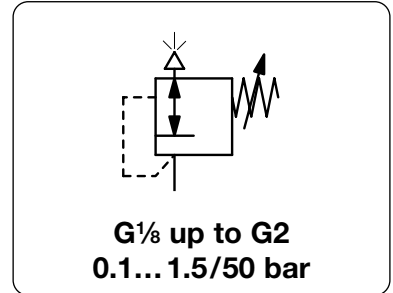
\*2 02 = 0...2.5 bar, 04 = 0...4 bar, 06 = 0...6 bar, 10 = 0...10 bar, 16 = 0...16 bar

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

# BRASS BACK PRESSURE REGULATOR, UP TO 50 BAR

DBM

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



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

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



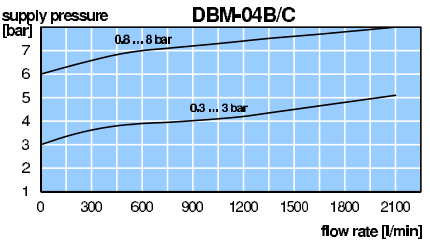
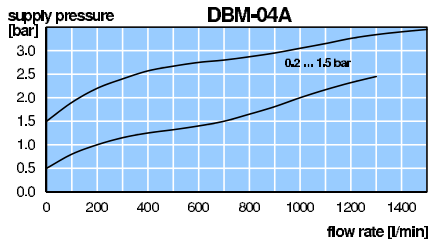
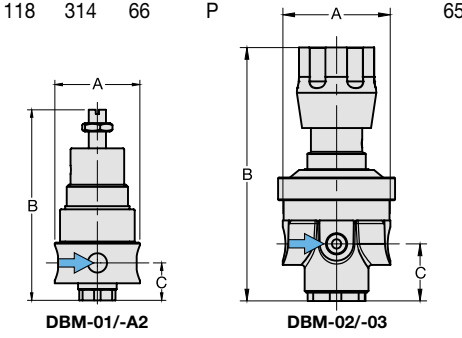
DBM-02/-03



DBM-04

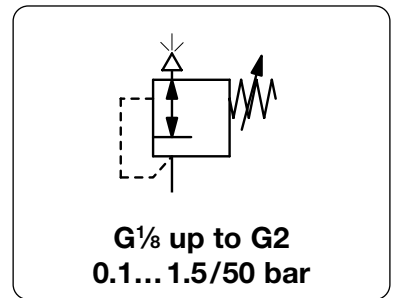


DBM-06/-08



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

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



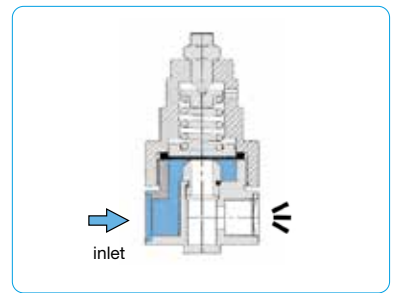
| Dimensions |   |   | Regul. system             | Relief capacity | Over-pressure | Connection thread | Adjustment range | Order number |
|------------|---|---|---------------------------|-----------------|---------------|-------------------|------------------|--------------|
| A          | B | C |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

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



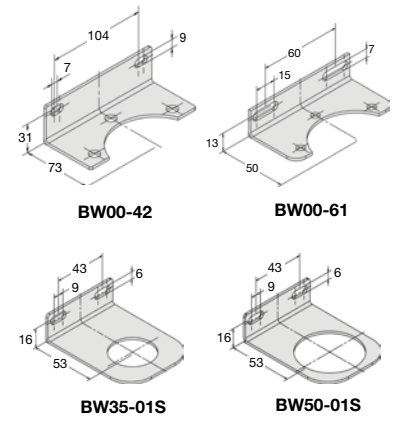
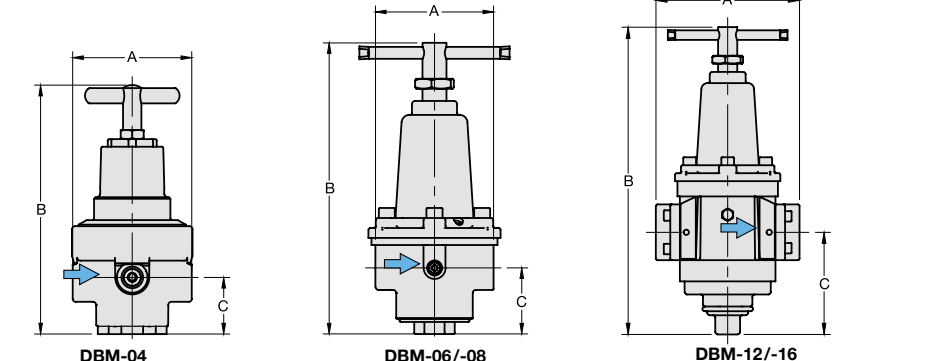
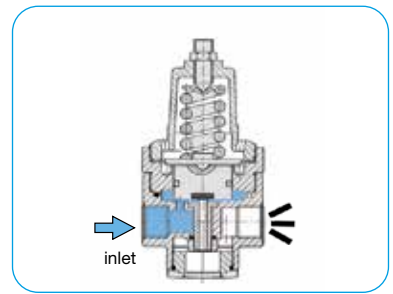
**Special options, add the appropriate letter**

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



**Accessories, enclosed**

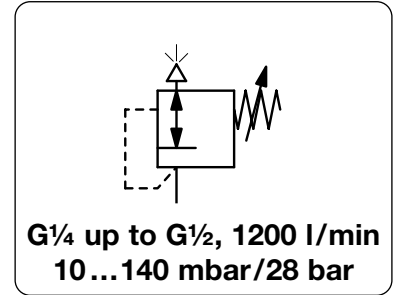
|                               |   |   |                     |
|-------------------------------|---|---|---------------------|
| <b>pressure gauge</b>         | Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$        | for G $\frac{1}{4}$ and G $\frac{1}{2}$ | <b>MA5002-...*2</b> |
|                           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



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

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

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



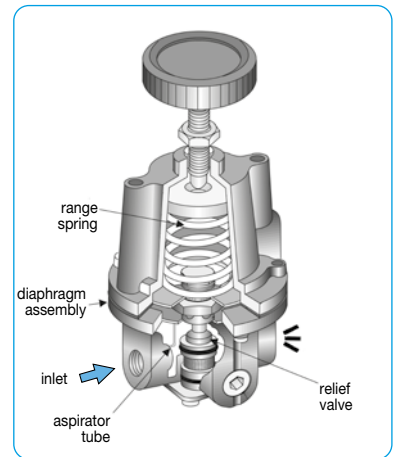
| Dimensions |   |   | Relief capacity<br>l/min*1 | Over-pressure<br>max. bar | Connection<br>thread<br>G | Adjustment<br>range<br>bar | Order<br>number |
|------------|---|---|----------------------------|---------------------------|---------------------------|----------------------------|-----------------|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

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

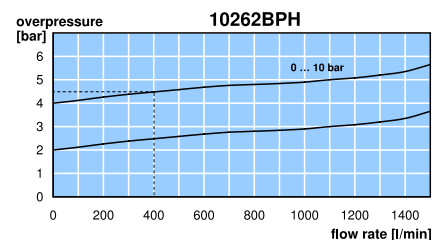
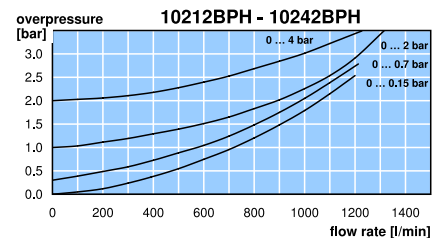
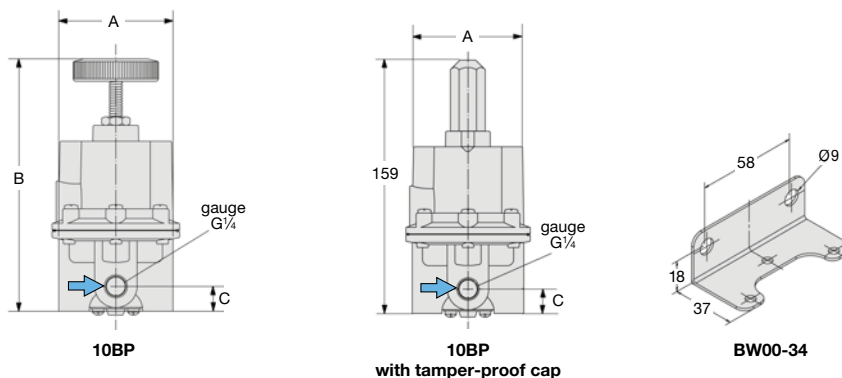


| Special options, add the appropriate letter |   |             |
|---|---|-------------|
| G $\frac{3}{8}$                             | connection thread   | 102.3BP     |
| G $\frac{1}{2}$                             | connection thread, recommended for mbar range             | 102.4BP     |
| NPT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

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



Back pressure  
8



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

Gauges: see chapter for measuring devices

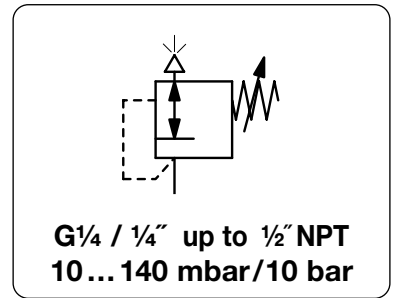
PDF CAD  
www.aircom.net

Order example:  
10212BPH

# PRECISION BACK PRESSURE REGULATOR

**DB240**

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



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

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



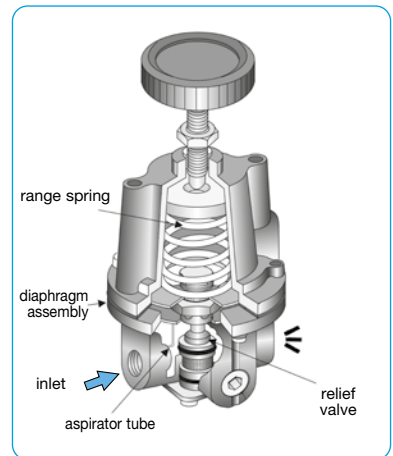
DB240

## Special options, add the appropriate letter

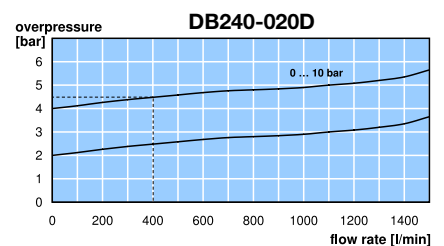
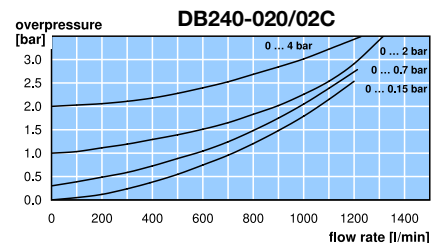
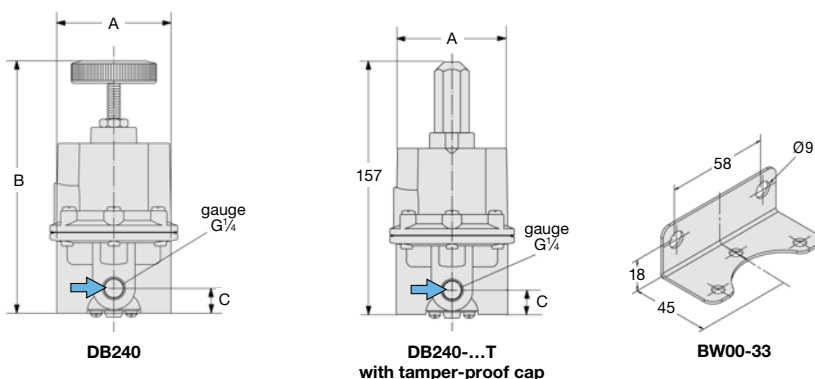
|                                      |   |               |
|--------------------------------------|---|---------------|
| <b><math>\frac{1}{4}</math>" NPT</b> | connection thread   | DB240-02 . N  |
| <b><math>\frac{3}{8}</math>" NPT</b> | connection thread   | DB240-03 . N  |
| <b><math>\frac{1}{2}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

## Accessories, enclosed

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



cross-section



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

Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net

Order example:  
DB240-020

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

**Media** compressed air or non-corrosive gases

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

**Overpressure** max. 10 bar

**Accuracy** response sensitivity <2 mbar

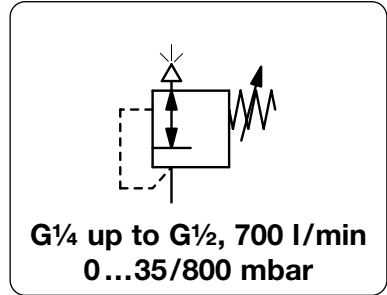
**Adjustment** by handwheel with locknut

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

**Mounting position** any

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

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



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

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



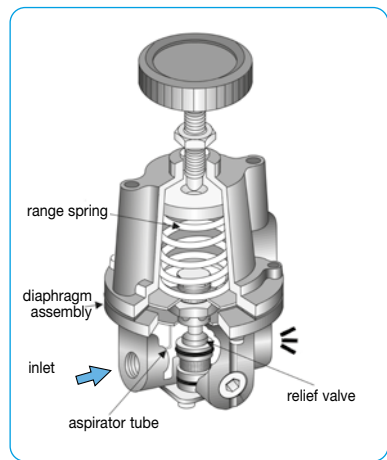
DB110

**Special options, add the appropriate letter**

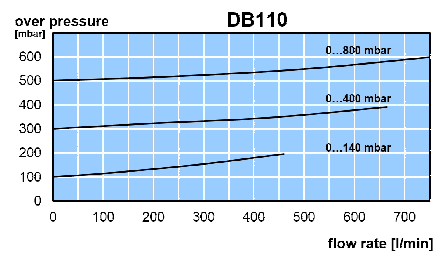
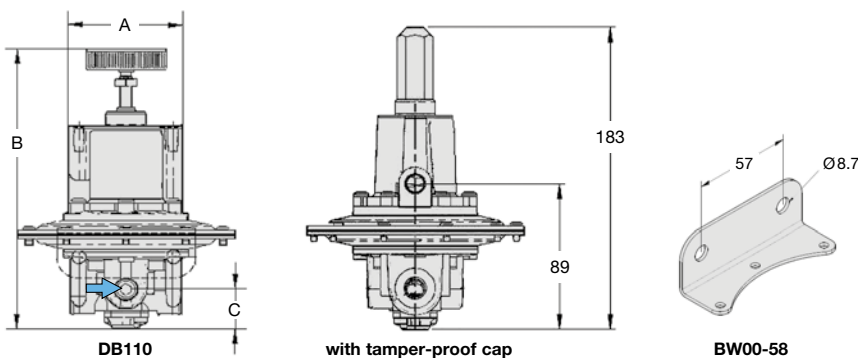
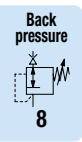
|                  |   |             |
|------------------|---|-------------|
| G¾               | connection thread   | DB110-0.. 3 |
| NPT              | connection thread   | DB110-0.. N |
| FKM elastomer    |   | DB110-0.. V |
| tamper-proof cap | aluminium, adjustment by screwdriver, total height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

**Accessories, enclosed**

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



functional principle



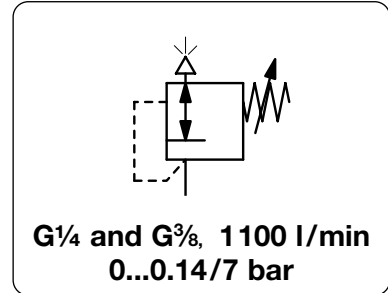
\*1 at 200 mbar overpressure and open outlet  
\*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C3 = 0...250 mbar, C4 = 0...400 mbar



# PRECISION BACK PRESSURE REGULATOR, SMALL AND LIGHTWEIGHT

**DB300**

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



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

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



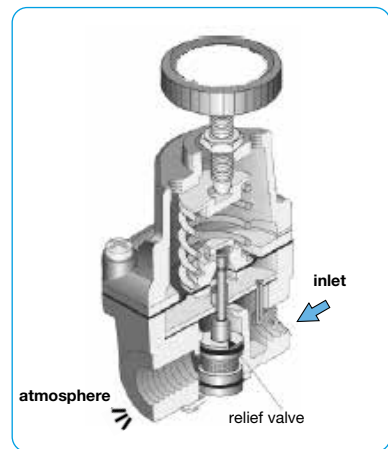
DB300

## Special options, add the appropriate letter

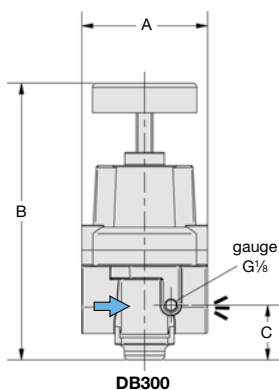
|                         |   |            |
|-------------------------|---|------------|
| <b>NPT</b>              | connection thread   | DB300-0..N |
| <b>tamper-proof cap</b> | aluminium, adjustment by screwdriver, total height 141 mm | DB300-0..T |
| <b>FKM elastomer</b>    |   | DB300-0..V |

## Accessories, enclosed

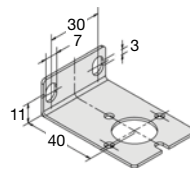
|                               |   |                     |
|-------------------------------|---|---------------------|
| <b>pressure gauge</b>         | Ø 63 mm, 0... 160 mbar, G $\frac{1}{4}$ - connecting parts required | <b>MA6302-C2</b>    |
|                               | Ø 50 mm, 0...*2 bar,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



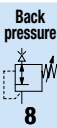
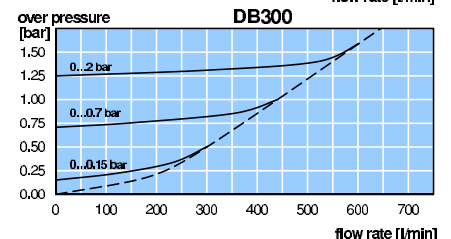
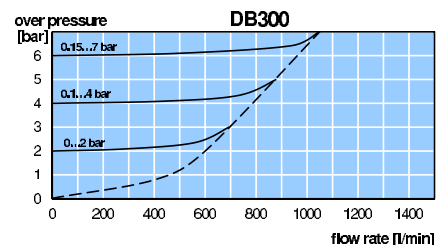
cross-section



DB300



BW00-46



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

Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net

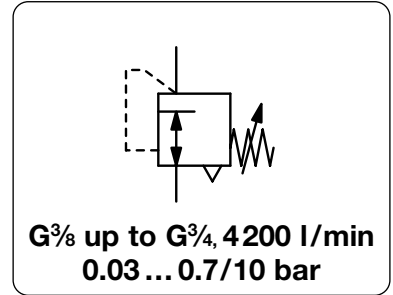


Order example:  
DB300-020

# PRECISION BACK PRESSURE REGULATOR

**DB400**

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



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

| Precision back pressure regulator |     |    |      |    |                 |              | overpressure max. 17 bar | DB400     |
|-----------------------------------|-----|----|------|----|-----------------|--------------|--------------------------|-----------|
| 89                                | 206 | 39 | 3800 | 17 | G $\frac{3}{8}$ | 0.03 ... 0.7 |                          | DB400-031 |
|                                   |     |    |      |    |                 | 0.03 ... 2.0 |                          | DB400-03A |
|                                   |     |    |      |    |                 | 0.07 ... 4.0 |                          | DB400-03B |
|                                   |     |    |      |    |                 | 0.15 ... 10  |                          | DB400-03C |
| 89                                | 206 | 39 | 4000 | 17 | G $\frac{1}{2}$ | 0.03 ... 0.7 |                          | DB400-041 |
|                                   |     |    |      |    |                 | 0.03 ... 2.0 |                          | DB400-04A |
|                                   |     |    |      |    |                 | 0.07 ... 4.0 |                          | DB400-04B |
|                                   |     |    |      |    |                 | 0.15 ... 10  |                          | DB400-04C |
| 89                                | 206 | 39 | 4200 | 17 | G $\frac{3}{4}$ | 0.03 ... 0.7 |                          | DB400-061 |
|                                   |     |    |      |    |                 | 0.03 ... 2.0 |                          | DB400-06A |
|                                   |     |    |      |    |                 | 0.07 ... 4.0 |                          | DB400-06B |
|                                   |     |    |      |    |                 | 0.15 ... 10  |                          | DB400-06C |



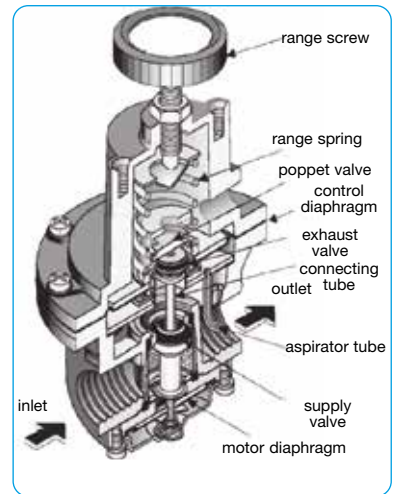
**DB400**

## Special options, add the appropriate letter

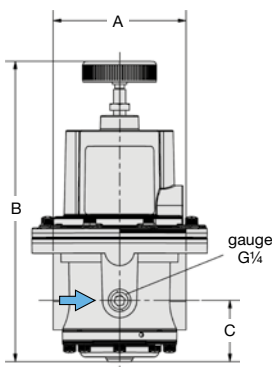
|                         |   |            |
|-------------------------|---|------------|
| <b>NPT</b>              | connection thread   | DB400-0..N |
| <b>tamper-proof cap</b> | aluminium, adjustment by screwdriver, total height 295 mm | DB400-0..T |
| <b>FKM elastomer</b>    |   | DB400-0..V |

## Accessories, enclosed

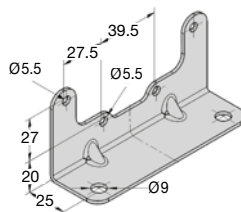
|                         |                                      |                    |
|-------------------------|--------------------------------------|--------------------|
| <b>pressure gauge</b>   | Ø 63 mm, 0...*2 bar, G $\frac{1}{4}$ | <b>MA6302-...*</b> |
| <b>mounting bracket</b> | made of steel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



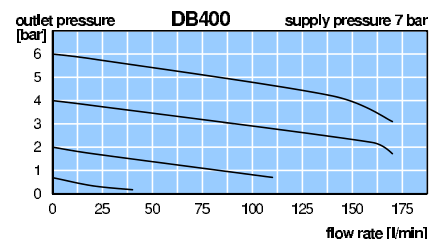
**cross-section**



**DB400**



**BW00-47**



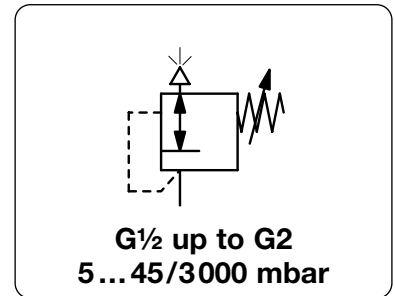
\*1 at 7 bar inlet pressure and 1.4 bar outlet pressure  
\*2 01 = 0...1 bar, 02 = 0...2.5 bar, 04 = 0...4 bar, 10 = 0...10 bar, 25 = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net

Order example:  
DB400-031

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



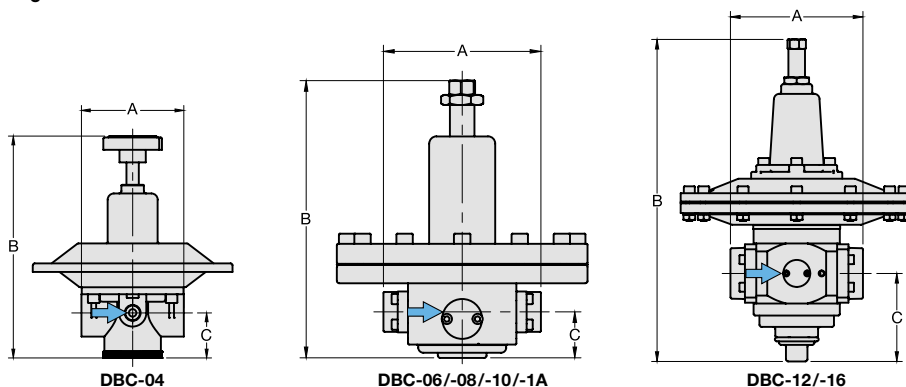
| Dimensions |   |   | Relief capacity<br>l/min*1 | Over-pressure<br>max. bar | Connection thread<br>G | Adjustment range<br>mbar | Order number |
|------------|---|---|----------------------------|---------------------------|------------------------|--------------------------|--------------|
| A   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

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



| Special options, add the appropriate letter |   |  |                   |
|---|---|--|-------------------|
| <b>NPT</b>                                  | connection thread                                 | for G $\frac{1}{2}$ , G1 $\frac{1}{2}$ (12) and G2 | <b>DBC-... N</b>  |
| <b>NPT</b>                                  | connection thread                                 | for G $\frac{3}{4}$ to G1 $\frac{1}{2}$ (1A)       | <b>DBC-... N</b>  |
| <b>FKM o-ring</b>                           | PTFE-diaphragm                                    |  | <b>DBC-... V</b>  |
| <b>EPDM o-ring</b>                          | PTFE-diaphragm                                    |  | <b>DBC-... E</b>  |
| <b>flange connection</b>                    | see chapter for stainless steel devices / flanges |  | <b>DBC-... F.</b> |

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

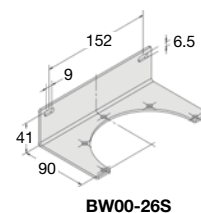
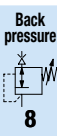


\*1 at 6 bar overpressure and open outlet  
\*2 B6 = 0...60 mbar, C2 = 0...160 mbar, C4 = 0...400 mbar, C01 = 0...1 bar, 04 = 0...4 bar, 06 = 0...6 bar

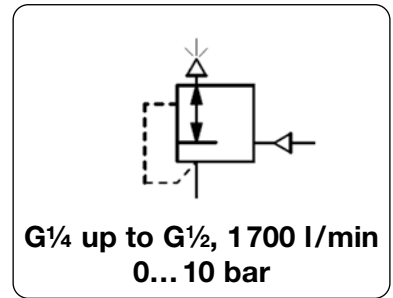
Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net

Order example:  
**DBC-04N**



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



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

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



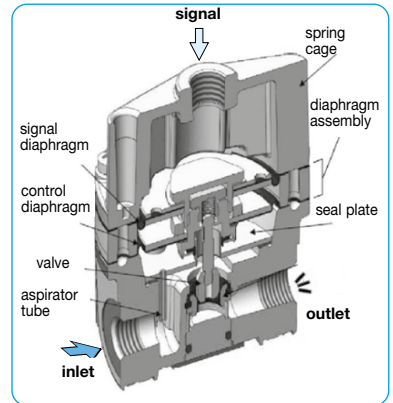
DB208

### Special options, add the appropriate letter

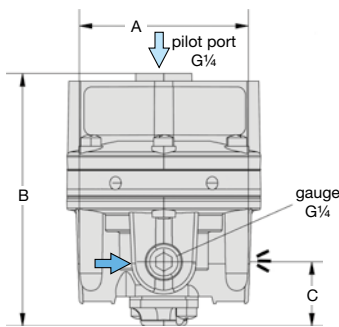
|                      |                   |           |
|----------------------|-------------------|-----------|
| <b>NPT</b>           | connection thread | DB208-0.N |
| <b>FKM elastomer</b> |                   | DB208-0.V |

### Accessories, enclosed

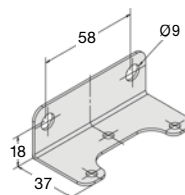
|                         |                                      |              |
|-------------------------|--------------------------------------|--------------|
| <b>pressure gauge</b>   | Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$ | MA5002-...*2 |
| <b>mounting bracket</b> | made of steel             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



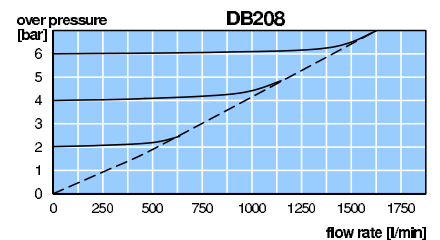
cross-section



DB208



BW00-34



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

Gauges: see chapter for measuring devices

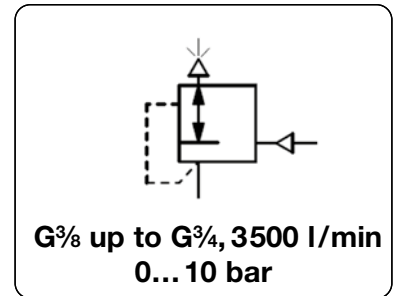
PDF CAD  
www.aircom.net

Order example:  
DB208-02

# PRECISION BACK PRESSURE REGULATOR, PILOT-OPERATED

**DB450**

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



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

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



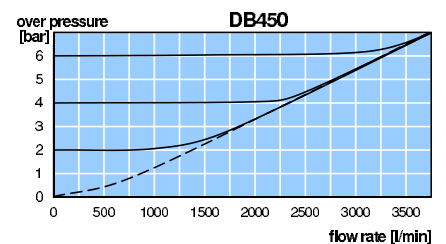
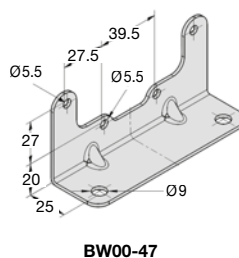
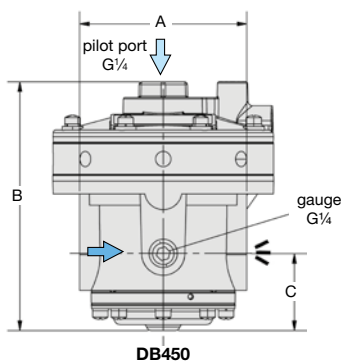
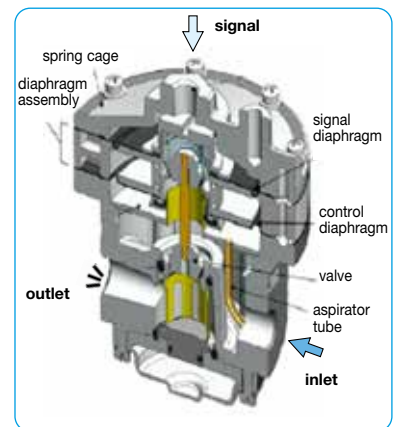
**DB450**

## Special options, add the appropriate letter

|                      |                   |                   |
|----------------------|-------------------|-------------------|
| <b>NPT</b>           | connection thread | <b>DB450-0. N</b> |
| <b>FKM elastomer</b> |                   | <b>DB450-0. V</b> |

## Accessories, enclosed

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



\*1 at 6 bar inlet pressure and open outlet

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

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

**Model 59** Small, sensitive diaphragm-type valve made to screw in. Relief flow is proportional to overpressure. Model 134 features a tapped exhaust.

**Media** compressed air or non-corrosive gases, model 134 also for liquids

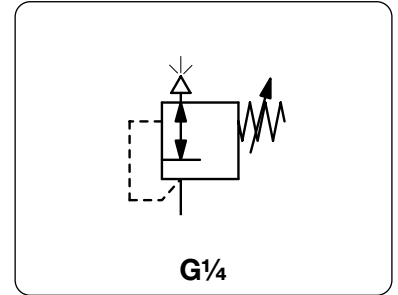
**Overpressure Adjustment** max. 21 bar by knurled screw at model 59 by plastic knob with snap-lock at model 130 and 134

**Gauge port** model 134: for inlet pressure G $\frac{1}{8}$  on both sides of the body model 59/130: not available

**Temperature range** 0 °C to 50 °C / 32 °F to 132 °F

**Material** Body: aluminium at model 59 and 130, brass at model 134  
Elastomer: NBR/Buna-N at model 130 and 134  
Spring cage: plastic at type 130 and 134

**Mounting position** any  
brass at model 134  
Seal: silicone at model 59  
Inner valve: brass



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

| Back pressure regulator                    |    |   | relief capacity | Over-pressure | Connection        | Adjustment  | Order number    |
|--|----|---|-----------------|---------------|-------------------|-------------|-----------------|
| overpressure max. 21 bar, with male thread |    |   |                 |               |                   |             | <b>Model 59</b> |
| 20   | 50 | - | 1500            | 21            | G $\frac{1}{4}$ a | 1.7 ... 2.4 | 59-02A- 35      |
|  |    |   |                 |               |                   | 2.8 ... 3.5 | 59-02A- 50      |
|  |    |   |                 |               |                   | 3.8 ... 14  | 59-02A-200      |



Model 59

| Back pressure regulator                    |    |   | relief capacity | Over-pressure | Connection        | Adjustment | Order number     |
|--|----|---|-----------------|---------------|-------------------|------------|------------------|
| overpressure max. 21 bar, with male thread |    |   |                 |               |                   |            | <b>Model 130</b> |
| 43   | 88 | - | 540             | 21            | G $\frac{1}{4}$ a | 0 ... 3.5  | 130-02- 50       |
|  |    |   |                 |               |                   | 0 ... 7.0  | 130-02-100       |



Model 130

| Back pressure regulator                                     |    |    | relief capacity | Over-pressure | Connection      | Adjustment | Order number     |
|---|----|----|-----------------|---------------|-----------------|------------|------------------|
| overpressure max. 21 bar with tapped exhaust and gauge port |    |    |                 |               |                 |            | <b>Model 134</b> |
| 40  | 76 | 10 | 540             | 21            | G $\frac{1}{4}$ | 0 ... 1.0  | 134-02- 15       |
|   |    |    |                 |               |                 | 0 ... 1.8  | 134-02- 25       |
|   |    |    |                 |               |                 | 0 ... 3.5  | 134-02- 50       |
|   |    |    |                 |               |                 | 0 ... 7.0  | 134-02-100       |



Model 134

**Special options, add the appropriate letter**

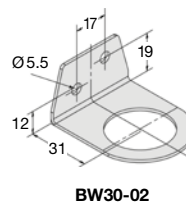
free of grease and oil specially cleaned, suitable for oxygen for 130 and 134 13.-02-... L

**Accessories, enclosed**

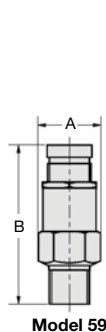
|                  |  |                 |                                |
|------------------|--|-----------------|--------------------------------|
| pressure gauge   | Ø 40 mm, 0... <sup>*2</sup> bar, G $\frac{1}{8}$ | for 134         | <b>MA4001-...<sup>*2</sup></b> |
| mounting bracket | made of steel                                    | for 130 and 134 | <b>BW30-02</b>                 |
| mounting nut     | made of plastic                                  | for 130 and 134 | <b>M30x1,5K</b>                |
|                  | made of aluminium                                | for 130 and 134 | <b>M30x1,5A</b>                |

| Model 59   |              |          | relief    |              |          |
|------------|--------------|----------|-----------|--------------|----------|
| range      | set pressure | capacity | range     | set pressure | capacity |
| bar        | Druck        | l / min  | bar       | Druck        | l / min  |
| 3.8 ... 14 | 1.8 bar      | 500      | 0 ... 3.5 | 0.7 bar      | 50       |
|            | 3.6 bar      | 900      |           | 1.8 bar      | 190      |
|            | 5.4 bar      | 1 100    |           | 3.6 bar      | 310      |
|            | 7.0 bar      | 1 500    | 0 ... 7   | 3.6 bar      | 280      |
|            | 8.6 bar      | 1 700    |           | 5.2 bar      | 385      |
|            | 10.0 bar     | 2 000    |           | 7.0 bar      | 540      |

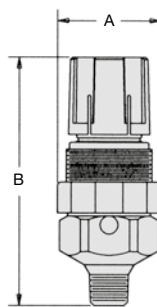
| Model 130 |              |          | relief  |              |          |
|-----------|--------------|----------|---------|--------------|----------|
| range     | set pressure | capacity | range   | set pressure | capacity |
| bar       | Druck        | l / min  | bar     | Druck        | l / min  |
| 0 ... 3.5 | 0.7 bar      | 50       | 0 ... 7 | 3.6 bar      | 280      |
|           | 1.8 bar      | 190      |         | 5.2 bar      | 385      |
|           | 3.6 bar      | 310      |         | 7.0 bar      | 540      |



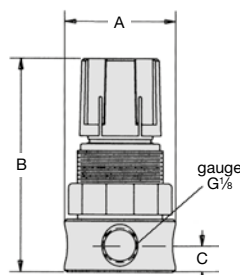
BW30-02



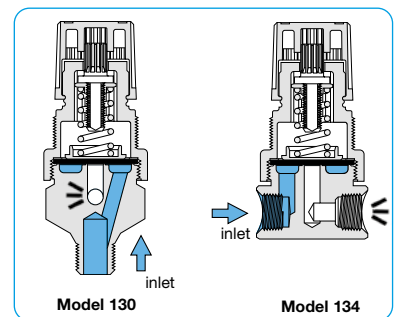
Model 59



Model 130



Model 134



cross-section

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

Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net



Order example:  
59-02A-35