



## Large pressure regulators G 1½ – G 2

Pressure regulators regulate the line pressure ( $p_1$ ) of a compressed air system to the set operating pressure/secondary pressure ( $p_2$ ) and keep it nearly constant, independent of pressure fluctuations and air consumption. Diaphragm-type pre-controlled pressure regulator. Secondary venting (reverse control) and extensive inlet pressure independence is given. **Control ranges for  $p_2$  from 0.5–6, 10, 16, 25 and 35 bar**. Two pressure gauges (for inlet and outlet pressure [ $p_1$  and  $p_2$ ]), can be mounted at the front and rear. Mounting kit available as accessory. Connection thread from G 1½ to G 2. **Notice:** To avoid failures, a compressed air filter should be installed in front of the unit. Also suitable for use with neutral and non-toxic gases. Remote control version available on request. **Areas of application:** marine engineering, mechanical and industrial engineering, fluid technology, use in production lines for the manufacture of PET bottles, generally when high flow rates at constant pressure are required.

### Standard version: control range ( $p_2$ ) 0.5–10 bar, with pressure gauge

| Size          | Order No. |          |
|---------------|-----------|----------|
|               | G 1½*     | G 2      |
| BG 90 (super) | 417.2113  | 417.2123 |

\*inlet and outlet reduced (reductions enclosed) see page 119

### Order key for all variants

417.XXXXX

|           |                                               |                                            |        |
|-----------|-----------------------------------------------|--------------------------------------------|--------|
| <b>A</b>  | lockable, with padlock                        |                                            |        |
| <b>2</b>  | 0.5–6 bar                                     | control range secondary pressure ( $p_2$ ) |        |
| <b>3</b>  | 0.5–10 bar                                    |                                            |        |
| <b>4</b>  | 0.5–16 bar                                    |                                            |        |
| <b>5</b>  | 0.5–25 bar                                    |                                            |        |
| <b>6</b>  | 0.5–35 bar                                    |                                            |        |
| <b>11</b> | G 1½                                          | BG 90                                      | thread |
| <b>12</b> | G 2                                           |                                            |        |
| <b>2</b>  | with 2 pressure gauges (for $p_1$ and $p_2$ ) |                                            |        |
| <b>4</b>  | without pressure gauge                        |                                            |        |



417.2123

### Spare parts and accessories

| Size                                                      | Order No.               |              |
|-----------------------------------------------------------|-------------------------|--------------|
| <b>Mounting set</b> for attaching to housing              | BG 90                   |              |
| <b>Pressure gauge</b> horizontally**                      | Ø 63                    |              |
| Display range 0–10 bar (for $p_2$ up to 6 bar)            | 214                     |              |
| Display range 0–16 bar (for $p_2$ up to 10 bar)           | 215                     |              |
| Display range 0–25 bar (for $p_2$ up to 16 bar)           | 216                     |              |
| Display range 0–40 bar (for $p_2$ up to 25 bar)           | 217                     |              |
| Display range 0–60 bar (for $p_1$ and $p_2$ up to 35 bar) | 218                     |              |
| <b>Control range secondary pressure <math>p_2</math></b>  | up to 6, 10, 16, 25 bar | up to 35 bar |
| <b>Spare parts set</b> (seals, diaphragms, sealing cone)  | 417-75                  | 417-85       |
| <b>Sealing cone</b> , complete                            | 417-67                  | 417-78       |
| <b>Diaphragm</b> , complete                               | 417-66                  | 417-86       |

\*\*pressure gauges starting from page 154



417-47



417-75

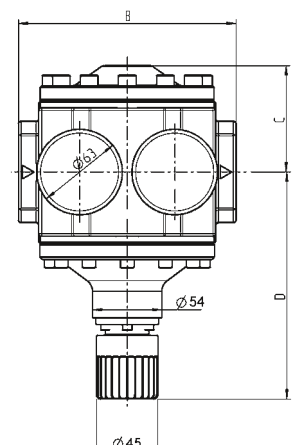
### Technical data

| Size                              | BG 90                              |     |
|-----------------------------------|------------------------------------|-----|
| Thread                            | G 1½                               | G 2 |
| Nominal flow rate***              | 52,190 l/min                       |     |
| Max. operating pressure ( $p_1$ ) | 40 bar (PN 40)                     |     |
| Max. secondary pressure ( $p_2$ ) | 0.5 up to 6, 10, 16, 25 and 35 bar |     |
| Operating temperature             | -10 °C up to +90 °C                |     |
| Mounting position/flow direction  | any/in arrow direction             |     |
| Nominal width                     | DN 50                              |     |
| Pre-pressure dependence           | < 1 %                              |     |
| Reverse control hysteresis        | ~ 0.5 bar                          |     |
| Weight                            | 5.5 kg                             |     |
| Material diaphragm/seals          | NBR                                |     |
| Material housing, spring cover    | aluminum die-cast                  |     |

\*\*\*measured at  $p_1 = 10$  bar,  $p_2 = 8$  bar and  $\Delta p = 1$  bar

### Dimensions (mm)

|          | BG 90 |     |
|----------|-------|-----|
|          | G 1½  | G 2 |
| <b>B</b> | 180   | 160 |
| <b>C</b> | 78    | 78  |
| <b>D</b> | 170   | 170 |



fastening and connecting elements see page 57