

**Description** The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed and shows the same function as a spring in a common regulator: generating counter pressure on the diaphragm.

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

**Supply pressure** max. 17 bar

**Pilot pressure** max. 10 bar at 1:1 ratio, 5 bar at 1:2, 3.3 bar at 1:3, 2.5 bar at 1:4, 1.7 bar at 1:6 **Pilot port** G $\frac{1}{4}$

**Accuracy** at supply pressure variation of 7 bar: < 7 mbar pressure deviation  
 transmission error: 1% from 1:1 to 1:3 ratio, 2% at greater or inverse transmission  
 response sensitivity: 1 mbar at 1:1, 2 mbar at 1:2, 3 mbar at 1:3 and at inverse transmission

**Air consumption** max. 3 l/min, subject to outlet pressure

**Relief capacity** 310 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint

**Gauge port** G $\frac{1}{4}$  on both sides of the body, screw plugs supplied

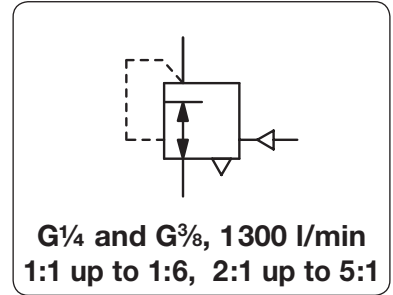
**Temperature range** 0 °C to 80 °C / 32 °F to 176 °F, NBR, for appropriately conditioned compr. air down to -40 °C / -40 °F  
 0 °C to 90 °C / 32 °F to 194 °F, FKM, for appropriately conditioned compr. air down to -40 °C / -40 °F

**Material** Body: aluminium die-cast  
 Inner valve: brass and zinc-plated steel

**Relieving function** relieving

**Mounting position** any

**Elastomer:** NBR/Buna-N, optionally FKM



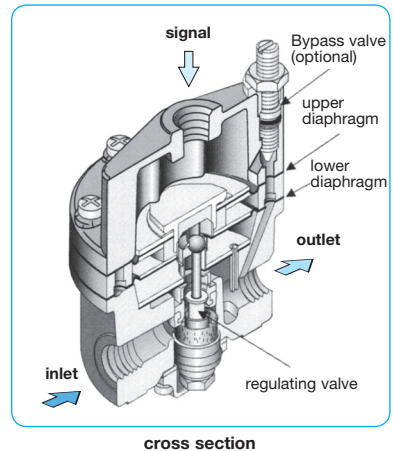
| Dimensions |    |    | K <sub>v</sub> -value | Flow rate           | Connection thread | Pilot pressure | Transmission ratio | Order number |
|------------|----|----|-----------------------|---------------------|-------------------|----------------|--------------------|--------------|
| A         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

| Booster |     |    | with transmission ratio, relieving, with constant bleed, pressure range 0...10 bar |    |      |                 | R208 |       |          |
|---------|-----|----|--|----|------|-----------------|------|-------|----------|
| 76      | 98  | 24 | 0.7  | 78 | 1300 | G $\frac{1}{4}$ | 10   | 1 : 1 | R208-02I |
|         |     |    |  |    |      |                 | 5.0  | 1 : 2 | R208-02K |
|         |     |    |  |    |      |                 | 3.3  | 1 : 3 | R208-02L |
| 76      | 110 | 24 | 0.7  | 78 | 1300 | G $\frac{1}{4}$ | 2.5  | 1 : 4 | R208-02M |
|         |     |    |  |    |      |                 | 2.0  | 1 : 5 | R208-02N |
|         |     |    |  |    |      |                 | 1.7  | 1 : 6 | R208-02O |
| 76      | 98  | 24 | 0.7  | 78 | 1300 | G $\frac{1}{4}$ | 10   | 2 : 1 | R208-02R |
|         |     |    |  |    |      |                 |      | 3 : 1 | R208-02S |
| 76      | 110 | 24 | 0.7  | 78 | 1300 | G $\frac{1}{4}$ | 10   | 4 : 1 | R208-02T |
|         |     |    |  |    |      |                 |      | 5 : 1 | R208-02U |



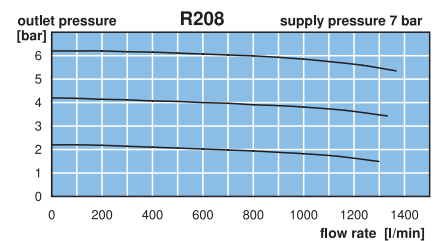
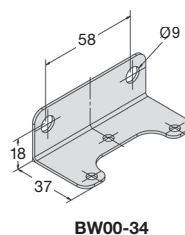
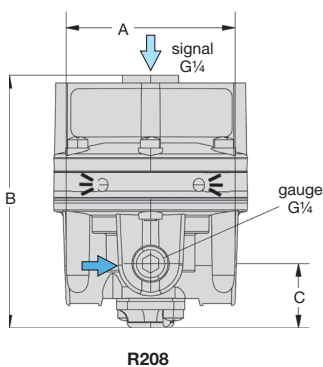
**Special options, add the appropriate letter**

|                        |  |              |
|------------------------|--|--------------|
| G $\frac{3}{8}$        | connection thread                            | R208-03 .    |
| NPT                    | connection thread                            | R208-02 .N   |
| non-relieving*3        | without relieving function                   | R208-02 .K   |
| tapped exhaust*3       | connection thread G $\frac{1}{4}$            | R208-02 .X12 |
| bypass with restrictor | between control chamber and outlet, 1:1 only | R208-02 .X16 |
| negative bias*3        | preset to -0,24 bar, adjustable by 30 mbar   | R208-02 .Y   |
| silicone elastomer     | supply pressure max. 5 bar, 1:1 only         | R208-02 .A   |
| FKM elastomer          |  | R208-02 .V   |



**Accessories, enclosed**

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



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

\*3 only for 1:1, 1:2, 1:3, 2:1 and 3:1