

# PRECISION VOLUME BOOSTER WITH TRANSMISSION RATIO

# R750

### Description

The volume booster with transmission ratio amplifies the outlet pressure at a 1:1 up to 1:6 ratio by a pneumatic pilot pressure, which has no constant bleed. That signal pressure has the same function as a spring in a common regulator: generating counter pressure on the diaphragm. This force is compensated by the outlet pressure on the diaphragm's bottom side. The ratio of pilot pressure to outlet pressure depends on the size of the operating diaphragms.

### 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, 1.7 bar at 1:6, pilot port G $\frac{1}{4}$

### Accuracy

at supply variation of 3.5 bar: < 7 mbar 1:1, < 10 mbar at 1:2, < 21 mbar at 1:3, < 41 mbar at 1:6  
response sensitivity: < 2 mbar 1:1, < 3 mbar at 1:2, < 17 mbar at 1:3, < 23 mbar at 1:6

### Air consumption

max. 3 l/min, subject to outlet pressure

### Relieving function

relieving

### Relief capacity

170 l/min at 1.5 bar outlet and 0.7 bar overpressure above setpoint

### Gauge port

on both sides of the body, thread equal to regulator thread

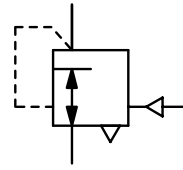
**Mounting position** any

### Temperature range

0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F

### Material

Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: brass and stainless steel



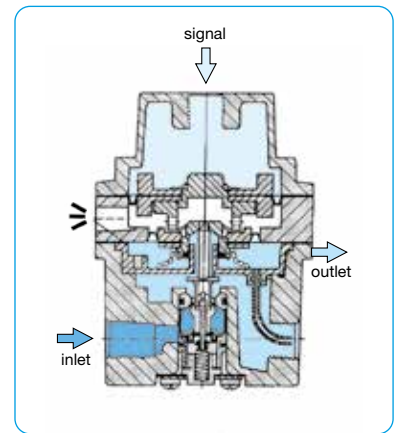
**G $\frac{1}{4}$  and G $\frac{3}{8}$ , 1000 l/min  
1:1 up to 1:6**

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

Booster			with transmission ratio, relieving, with constant bleed,		supply pressure max. 17 bar, pressure range 0...10 bar	R750			
68	102	16	0.5	60	1000	G $\frac{1}{4}$	10	1:1	R750-02I
							5.0	1:2	R750-02K
							3.3	1:3	R750-02C
							1.7	1:6	R750-02M
68	102	16	0.5	60	1000	G $\frac{3}{8}$	10	1:1	R750-03I
							5.0	1:2	R750-03K
							3.3	1:3	R750-03C
							1.7	1:6	R750-03M
68	102	16	0.5	60	1000	G $\frac{1}{2}$	10	1:1	R750-04I
							5.0	1:2	R750-04K
							3.3	1:3	R750-04C
							1.7	1:6	R750-04M



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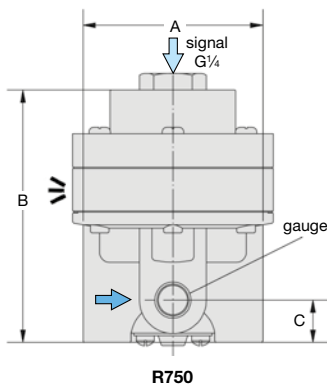
cross-section

### Special options, add the appropriate letter

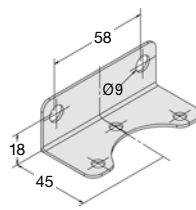
negative bias	factory-set to -0,3 bar	R750-0. .Y
NPT	connection thread	R750-0. .N
tapped exhaust	connection thread G $\frac{1}{4}$	R750-0. .X12

### Accessories, enclosed

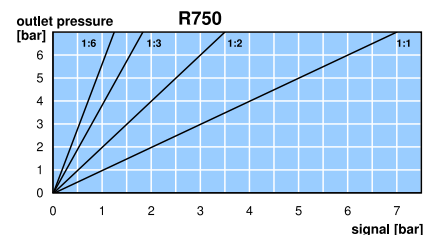
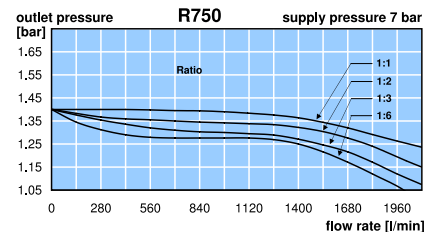
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-33



R750



BW00-33



\*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

\* Product group

Gauges: see chapter for measuring devices

PDF CAD  
www.aircom.net



Order example:  
R750-02I