

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

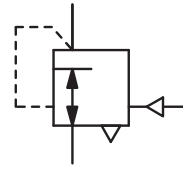
Mounting position any

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 _v -value (m ³ /h)	Flow rate m ³ /h*1 l/min*1	Connection thread G	Signal pressure max. bar	Transmission ratio signal : outlet	Order number
A mm	B mm	C mm						

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



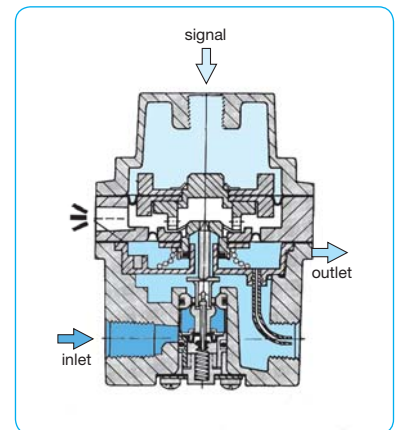
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Special options, add the appropriate letter

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

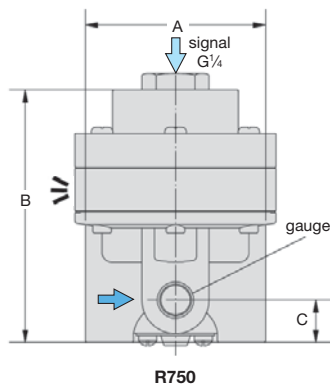
pressure gauge	Ø 50 mm, 0...*2 bar, G $\frac{1}{4}$	MA5002-...*2
mounting bracket	made of steel	BW00-33



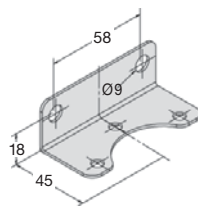
cross-section

Booster

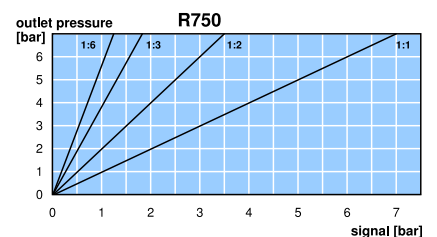
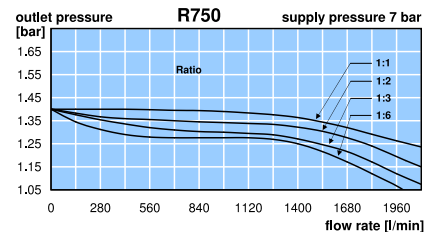
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R750



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

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Order example:
R750-02I