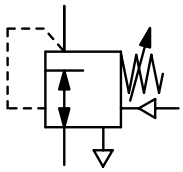
PRECISION VOLUME BOOSTER / DIFFERENTIAL PRESSURE REGULATOR R03-J

Description	Pilot-operated volume booster with positive bias designed to supply outlet pressure equal to signal pressure plus an adjustable preset spring constant. With very high forward and reverse flow characteristics and excellent sensitivity. If requested the system pressure can also manually be adjusted up to 6 bar adding to the pilot pressure.
Media	oil-free and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	max. 16 bar
Pilot pressure	max. 10 bar, accordingly lower in the case of manual pre-pressure setting **Pilot port** G⅛
Accuracy	at supply pressure change from 2 bar to 7 bar: < 6 mbar pressure deviation at flow rate change from 0 l/min to 20 l/min: < 20 mbar pressure deviation response sensitivity: < 2 mbar
Air consumption	1.5 l/min at P_1= 5 bar, 2 l/min at P_1= 7 bar, 4 l/min at P_1= 10 bar, < 1% of volume flow
Relieving function	relieving
Relief capacity	700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N



G¼ up to G½, 4500 l/min parallel translation

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Positive bias bar	Pressure range bar	Order number
Volume booster						supply pressure max. 16 bar, with constant bleed, tapped exhaust, transmission ratio 1:1			**R03-J**
82	106	41	2.0	198	3300	G¼*3	without	0.05…10	**R03-02J**
			2.3	228	3800	G⅜*3			**R03-03J**
			2.7	270	4500	G½			**R03-04J**
Positive bias booster						supply pressure max. 16 bar, with constant bleed, tapped exhaust, transmission ratio 1:1			**R03-J .**
82	142	41	2.0	198	3300	G¼*3	0…1 bar	0.05…10	**R03-02J1**
			2.3	228	3800	G⅜*3			**R03-03J1**
			2.7	270	4500	G½			**R03-04J1**
82	180	41	2.0	198	3300	G¼*3	0…6 bar	0.05…10	**R03-02J6**
			2.3	228	3800	G⅜*3			**R03-03J6**
			2.7	270	4500	G½			**R03-04J6**

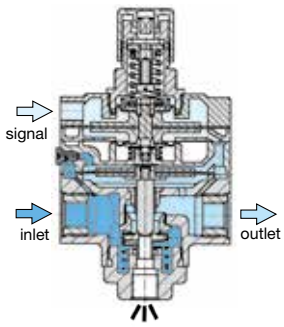
R03-..J

R03-...J1

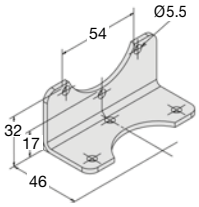
R03-...J6

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G¼		**MA5002-..*2**
mounting nut	made of plastic	for R03-..J1	**M30x1,5K**
mounting bracket	made of steel		**BW00-36**



cross-section



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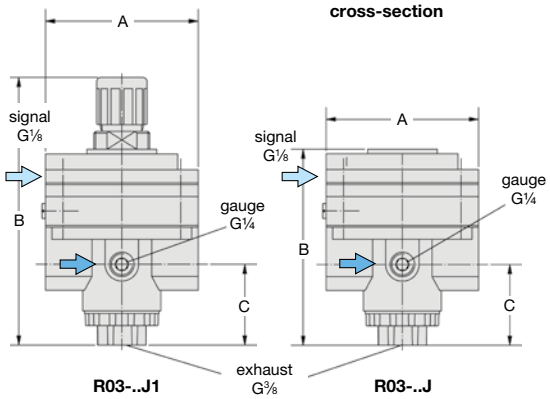

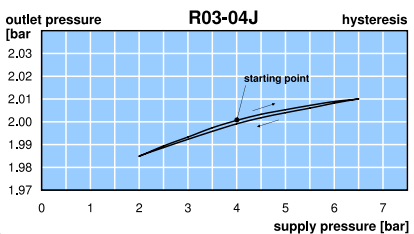

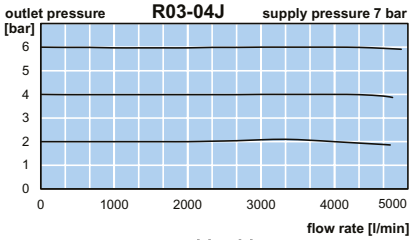

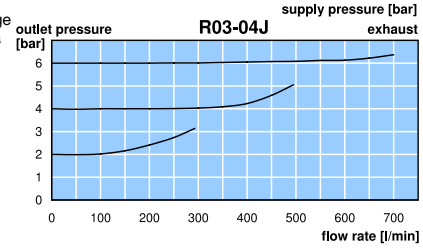

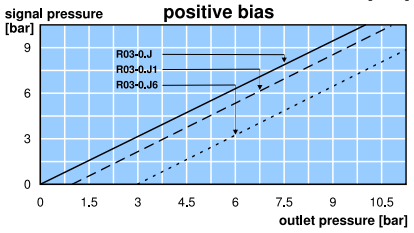

*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar
*3 standard unit G½ reduced to smaller threads by fittings

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R03-02J