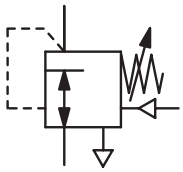
Precision Volume Booster / Differential Pressure Regulator 53.19…53.24

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. Manual setting through an adjusting screw or handwheel generates a shift of the pressure range between pilot pressure and outlet pressure. This bias is possible both positive and negative by 2 bar.
Media	dry, oil-free and 25 µm filtered compressed air
Supply pressure	max. 10 bar
Pilot pressure	max. 8 bar, pilot port G⅛
Accuracy	response sensitivity: < 1 mbar
Air consumption	max. 3 l/min, subject to outlet pressure, 1% of volume flow
Relieving function	relieving, the exhaust valve's diameter is six times greater than the regulating valve's diameter
Gauge port	¼˝ NPT on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N

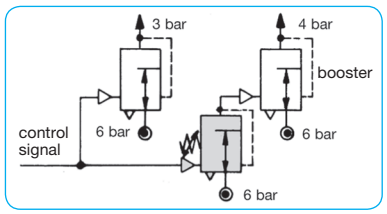


¼˝NPT, 280 l/min parallel translation

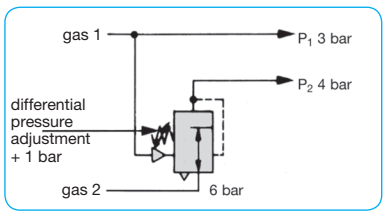
Dimensions A mm	B mm	C mm	Description	Flow rate l/min*1	Connection thread NPT	Pressure range bar	Order number
Volume booster			supply max. 10 bar, relieving, K_v = 0.16 m³/h with constant bleed, transmission ratio 1:1				**53.20**
54	127	11	**handwheel**	280	¼˝NPT	0.2 …1	**53.2201.00**
						0.14…8	**53.2204.00**
			with tapped exhaust			0.2 …1	**53.2401.00**
						0.14…8	**53.2404.00**
54	127	11	**adjusting screw**	280	¼˝NPT	0.2 …1	**53.1901.00**
						0.14…8	**53.1904.00**

53.2204.00

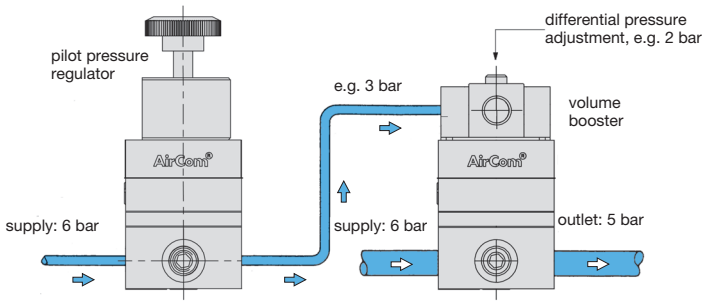
53.1904.00



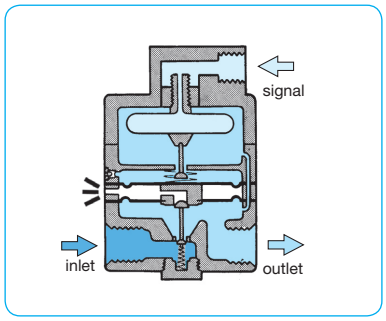
Example 1: constant differential pressure of 1 bar at high flow



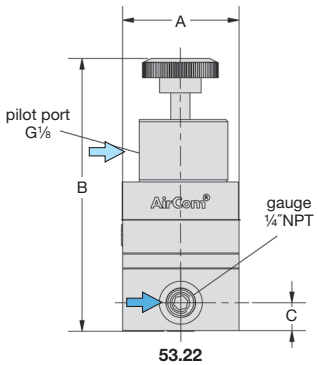
Example 2: constant differential pressure of 1 bar



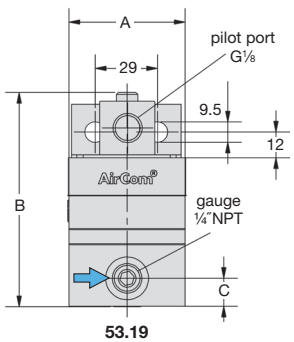
control of volume booster



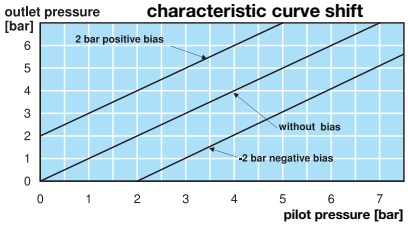
cross section



53.22



53.19



*1 at 7 bar supply pressure and 1.4 bar outlet pressure

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: 53.2201.00