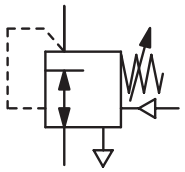
Positive Bias Relay / Differential Pressure Regulator R650

Description	Signal-operated regulator designed to provide outlet pressure which is the sum of the input signal pressure plus a preset bias. As an option, the relay can start with bias range -0.3 bar / -4 psi. The relay can also be used as a differential pressure regulator.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar, pilot port G¼
Accuracy	response sensitivity: < 1 mbar
Air consumption	without constant bleed
Relieving function	relieving
Relief capacity	110 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: brass



G¼ and G⅜, 1300 l/min parallel translation

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Connection thread G	Supply recommended bar	Positive bias bar	Pressure range bar	Order number
Positive bias relay supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1									**R650**
68	170	16	72	1200	G¼	5	0… 1	0…10	**R650-02C**
						5	0… 2		**R650-02D**
						8	0… 4		**R650-02E**
						15	0…10		**R650-02F**
68	170	16	78	1300	G⅜	5	0… 1	0…10	**R650-03C**
						5	0… 2		**R650-03D**
						8	0… 4		**R650-03E**
						15	0…10		**R650-03F**

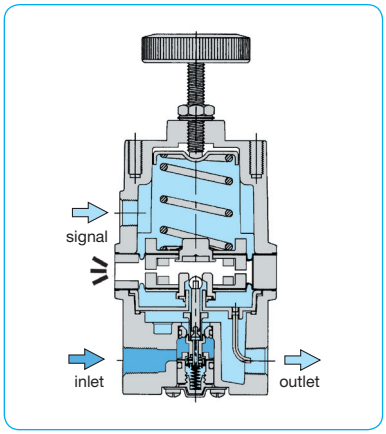
R650

Special options, add the appropriate letter

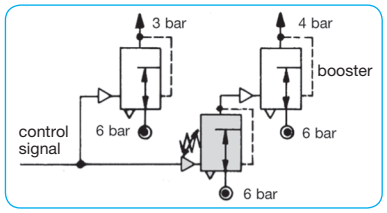
negative bias	factory-set to -0.3 bar	R650-0..**Y**
NPT	connection thread	R650-0..**N**
tapped exhaust	G⅛ connection thread	R650-0..**X12**
tamper-proof cap	above spindle, total height 174 mm	R650-0..**T**

Accessories, enclosed

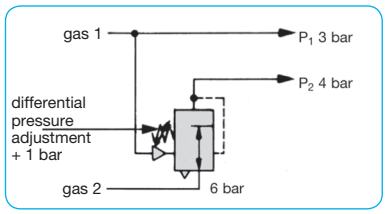
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
mounting bracket	made of steel	**BW00-33**



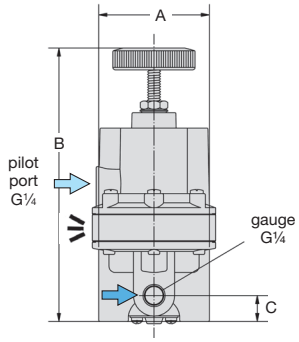
cross section



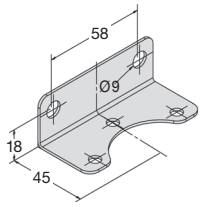
Example 1: constant differential pressure of 1 bar at high flow



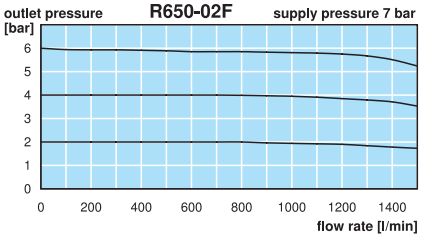
Example 2: constant differential pressure of 1 bar

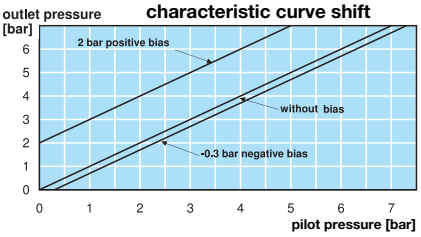


R650



BW00-33





*1 at 7 bar supply pressure and 6 bar outlet pressure
*2 **01** = 0...1 bar, **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R650-02C