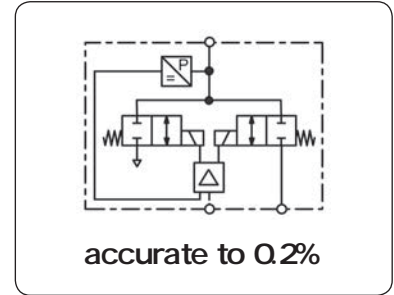


Proportional Pressure Regulator with Single or Double Loop, Accurate to 0.2% PQ

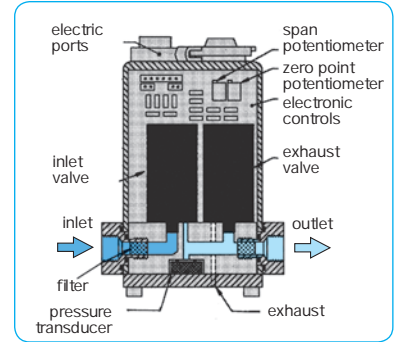
Technical features

• Pressure range	0... 10 mbar up to 0... 35 bar	• Linearity	± 0.15% FS
• Input signal	0... 10 V and 4... 20 mA	• Hysteresis	± 0.15% FS
• Security	constant outlet pressure at voltage drop	• Response sensitivity	< 0.1% FS
• Response time	10 to 15 ms	• Repeatability	± 0.02% FS
• Adjustment	zero point and span	• Protection class	IP 65
• Sensitivity	immune to shock and vibration up to 90 g	• Air consumption	without constant bleed



General technical features

Description	Two solenoid valves control the system pressure. One valve is for inlet control, the other for outlet control. A strain gauge pressure transducer measures system pressure and provides a feedback signal to the electronic controls. Any difference between command and feedback signals causes one of the solenoid valves to open, causing system pressure to increase or decrease.		
Mounting position	any, immune to shock and vibration up to 90 g		
Protection class	IP 65 housing		
Temperature range	-5 °C to 70 °C / 23 °F to 158 °F		
Material	Body: aluminium	Elastomer: FKM	Ports: brass
	Transducer: aluminium and silicon	Valves: nickel-plated brass	



Pneumatic features

Media	dry, oil-free and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart, minimum 10% above outlet pressure
Flow rate	35 l/min at 7 bar supply pressure and open outlet, optionally 100 l/min 3 l/min at controlled outlet pressure
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without constant bleed

Electrical features

Supply voltage	15... 24 V DC, reverse voltage protection existing		
Power consumption	3.6 W for regulation, 0.5 W non-regulating		
Command signal	0... 10 V, optionally 4... 20 mA		
Command signal impedance	4.7 k at voltage signal, 100 at current signal	100 at current signal, 100 at voltage signal	for external feedback
Monitor signal impedance	4.7 k at voltage signal, 100 at current signal		
Electrical connector	plug M16x0.75, 7-pin, with coupling socket		
Monitor signal	0... 10 V, optionally 4... 20 mA		
Security	constant outlet pressure at voltage drop		

Accuracy

Linearity/Hysteresis	± 0.15% FS
Response sensitivity	< 0.1% FS
Response time	10 to 15 ms
Repeatability	± 0.02% FS
Temperature influence	< 0.01% FS per °C/K at 0 °C to 50 °C / 32 °F to 122 °F < 1.00% FS per °C/K at 50 °C to 70 °C / 122 °F to 158 °F
Regulating time	< 2 s to fill 0.1 l volume to 90% of the initial pressure (or to exhaust) < 40 s to fill 2 l volume to 90% of the initial pressure (< 80 s to exhaust)

Adjustment

Zero point	The zero point can be increased by up to 20% of full scale, e.g. from 0 bar to 1.2 bar at a 6 bar regulator. External adjustment via potentiometer Z "zero".
Span	The maximum pressure value of the control range can be reduced by up to 20% depending on the selected pressure range, e.g. from 6 to 4.8 bar. External adjustment via potentiometer S "span".

