

Standard High Precision Regulator

P3RA102 High Precision Regulators

The P3RA102 Regulator is designed for applications that require high capacity and accurate process control. A poppet valve which is balanced by utilizing a rolling diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

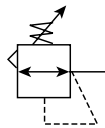
Control sensitivity of .125" (.005 psig) (.32 cm) water column allows use in precision processes

Pressure balanced supply valve prevents supply pressure changes from affecting the setpoint

Optional check valve permits dumping of downstream pressure when supply is opened to atmosphere

Separate control chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing

An aspirator tube compensates downstream pressure droop under flow conditions



Operating information

Supply pressure:	500 psig (35 bar), (3500 kPa) max
Ambient temperature:	-40°F to 200°F (-40°C to 93°C)
Sensitivity:	.125" (.005 psig) (.32 cm) water column
Flow capacity:	40 scfm (68 m³/HR) @ 100 psig (7.0 bar), (700 kPa) supply and 20 psig (1.5 bar), (150 kPa) setpoint
Exhaust capacity:	5.5 scfm (9.35 m³/HR) where downstream pressure is 5 psig, (.35 bar), (35 kPa) above 20 psig (1.5 bar), (150 kPa) setpoint
Supply pressure effect:	Less than 0.1 psig (.007 bar), (.7 kPa) for 100 psig, (7.0 bar), (700 kPa) change in supply pressure
Hazardous locations:	Acceptable for use in zones 1 and 2 for gas atmosphere: Groups IIA and IIB and zones 21 and 22 for dust atmospheres

Port Size	Description	Part Number
1/4"	0.5 to 30 psig	P3RA10232
1/4"	1 to 60 psig	P3RA10242
1/4"	2 to 150 psig	P3RA10262

Ordering Information:

P3RA102	6	2									
<table><tr><th colspan="2">Springs</th></tr><tr><td>0.5 to 30 psig</td><td>3</td></tr><tr><td>1 to 60 psig</td><td>4</td></tr><tr><td>2 to 150 psig</td><td>6</td></tr></table>				Springs		0.5 to 30 psig	3	1 to 60 psig	4	2 to 150 psig	6
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Note:
Other spring ranges, port sizes, and options available. Please consult factory

Most popular.



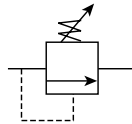
High Precision Relief Valve

P3RA102BP High Precision Relief Valves

The P3RA102BP is a high capacity relief valve that relieves excess pressure in a pneumatic system.

The P3RA102BP provides greater accuracy than standard relief valves over a narrow pressure range. The P3RA102BP is an excellent choice for a wide range of precision applications.

- Control sensitivity of .125" (.005 psig) (.32 cm) water column allows use in precision applications
- A separate control chamber and Aspirator Tube isolate the diaphragm from the main flow to eliminate hunting and buzzing
- Unit construction lets you service without removing it from the line
- Mounting bracket is available



Port Size	Description	Part Number
1/4"	0.5 to 30 psig	P3RA10232BP
1/4"	1 to 60 psig	P3RA10242BP
1/4"	2 to 150 psig	P3RA10262BP

Operating information

Setpoint range	System pressure (maximum)
2 to 200 psig (0.15 to 14 bar) (15 to 1400 kPa)	300 psig (20.7 bar), (2100 kPa) max
300 to 400 psig (21 to 28 bar) (2100 to 2800 kPa)	500 psig (35 bar), (3500 kPa) max
Ambient temperature:	-40°F to 200°F (-40°C to 93°C)
Sensitivity:	.125" (.005 psig) (.32 cm) water column
Flow capacity:	40 scfm (68 m3/HR) @ 100 psig, (7.0 bar), (700 kPa) system pressure

Ordering Information:

P3RA102	6	2		
Springs 0.5 to 30 psig 3 1 to 60 psig 4 2 to 150 psig 6		Options Blank No Options H BSPP		
Pipe Size 1/4 inch 2		Options BP Back Pressure		

Note:

Other spring ranges, port sizes, and options available. Please consult factory

Most popular.

