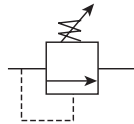


## P3RA102BP High Precision Relief Valves

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



### 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

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

### Ordering Information:

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

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

Most popular.



For inventory, lead times, and kit

K94

Parker Hannifin Corporation  
Pneumatic Division

## High Precision Relief Valve

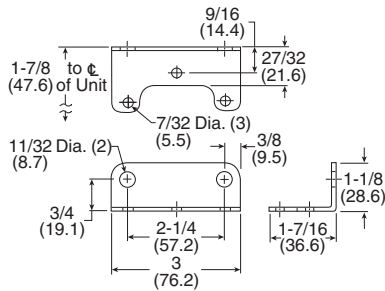
### Material Specifications

Body and housing	Aluminum
Trim	Zinc plated steel, brass
Nozzle	Nitrile on dacron

### Repair and Service Kits

0 to 200 psig, standard	<b>PS12127-1</b>
Tamper resistant kit	<b>PS12165</b>
Mounting bracket kit, zinc plated steel	<b>PS09921</b>

### Mounting bracket

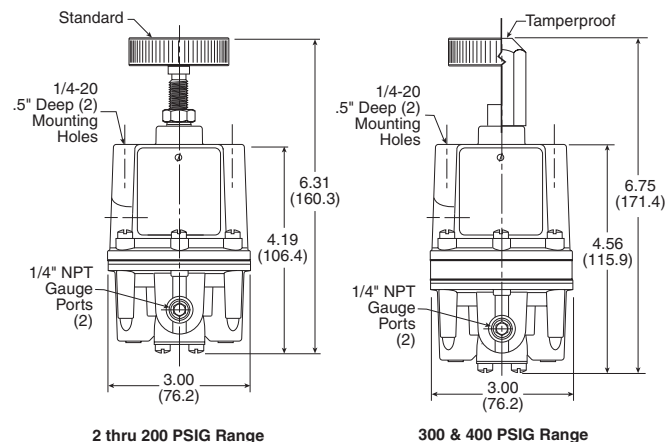


### WARNING

Product rupture can cause serious injury.  
Do not connect regulator to bottled gas.  
Do not exceed Maximum primary pressure rating.

### CAUTION:

**REGULATOR PRESSURE ADJUSTMENT** – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



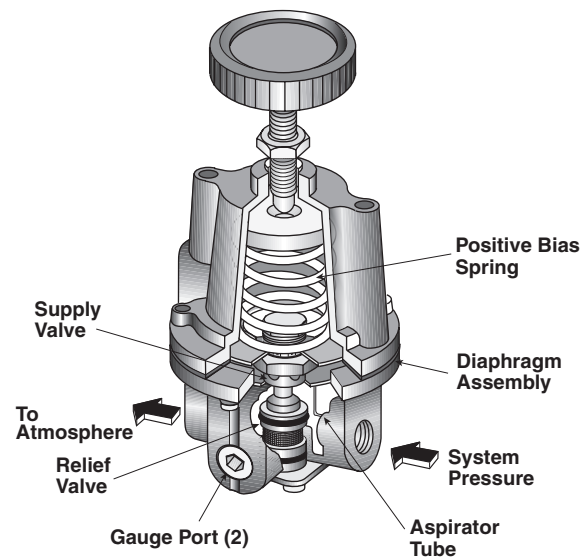
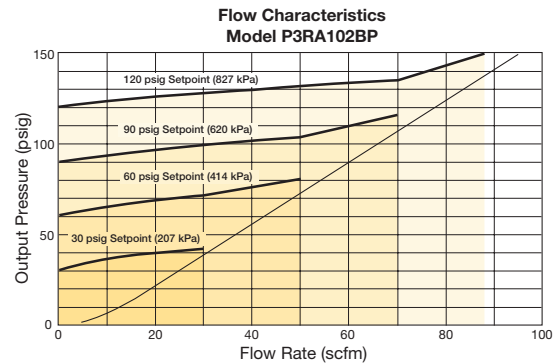
2 thru 200 PSIG Range

300 & 400 PSIG Range

## Regulator Products

### Flow Charts

#### P3RA102BP 1/4" Regulator



### Operating Principles

The P3RA102BP Regulator uses the force balance principle to open the Relief Valve and vent system pressure when the set point is exceeded.

Downstream pressure is transmitted through the Aspirator Tube to the bottom of the Diaphragm Assembly. When you adjust the range screw for a specific set point, the Positive Bias Spring compresses and exerts a force on the top of the Diaphragm Assembly. As long as the pressure acting on the bottom of the Diaphragm Assembly produces a force less than the spring force acting on the top of the Diaphragm Assembly, the Relief Valve remains closed. When system pressure increases, the force on the bottom of the Diaphragm Assembly increases until it reaches the set point. When system pressure increases beyond the set point, the assembly moves upward, lifting the Relief Valve from its seat and vents the downstream air.

If downstream pressure decreases below the set point, the assembly moves downward closing the Relief Valve.

General

Dial

Pilot

Proportional

Precision

Water

K

Regulator  
Products



For inventory, lead times, and kit

K95

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