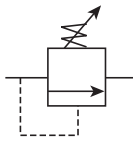
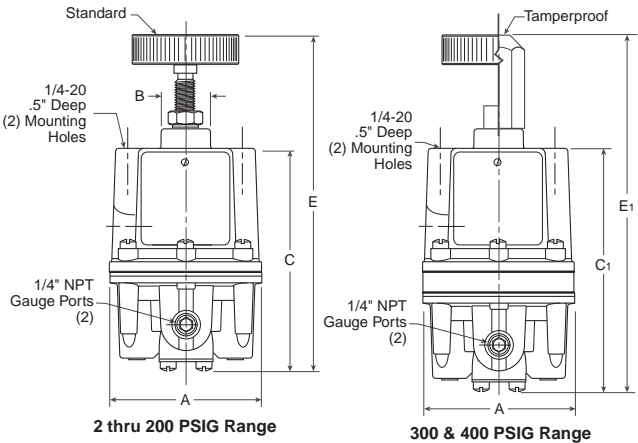


**P3RA102BP Relief Valve – High Precision**



**Features**

- Control sensitivity of .125" (.32) 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 the P3RA102BP without removing it from the line.
- Mounting Bracket is available.



A	B	C
3.00 (76.2)	0.97 (24.6)	4.19 (106.4)
C <sub>1</sub>	E	E <sub>1</sub>
4.56 (115.9)	6.31 (160.3)	6.75 (171.4)

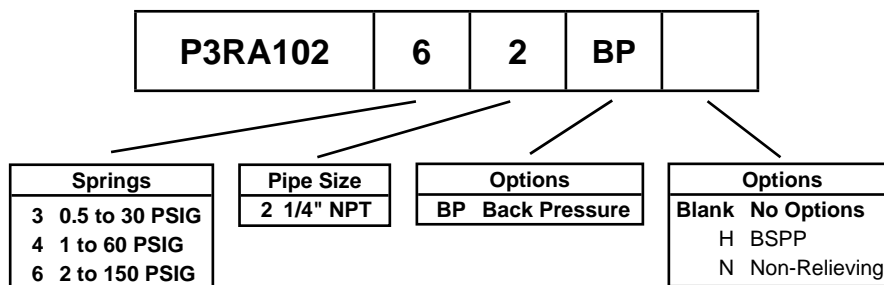
Inches (mm)

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.

<b>⚠ WARNING</b>
<b>Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.</b>

**Ordering Information**

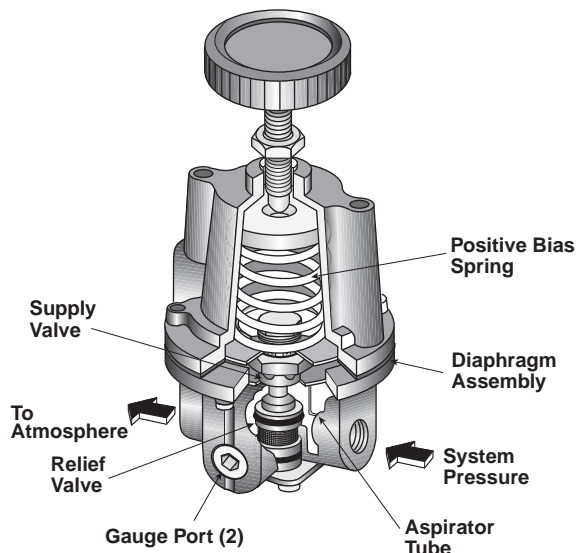
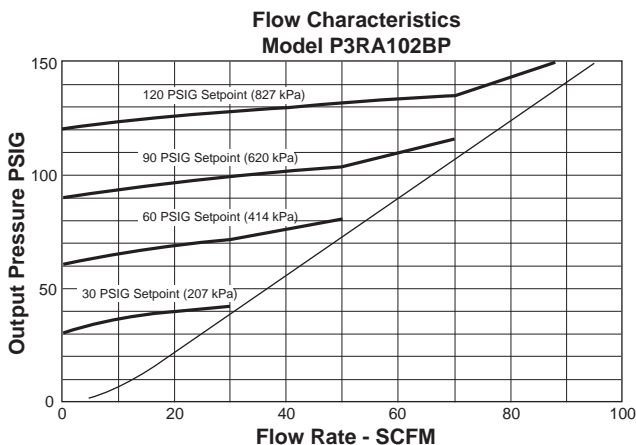


**Note:** Other Spring Ranges, Port Sizes, and Options Available.  
 Please Consult Factory

**BOLD ITEMS ARE MOST POPULAR.**



**Technical Information**



**Operating Principles**

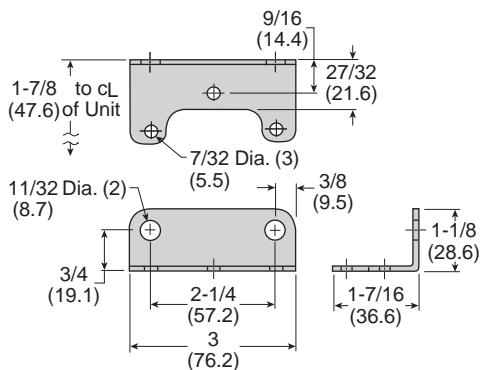
The P3RA102BP Regulator uses the force balance principle to open the Relief Valve and vent system pressure when the set point is exceeded.

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.

**P3RA102BP Kits & Accessories**

**Mounting Bracket Kit –**  
 Zinc Plated Steel ..... PS09921



**Service Kits –**  
 0 to 200 PSIG, Standard ..... PS12127-1  
**Tamper Resistant Kit** ..... PS12165

**Specifications**

Set Point Range	System Pressure (Maximum)
2-200 PSIG (0.15-14 bar) (15-1400 kPa)	300 PSIG (21.0 bar) (2100 kPa)
300-400 PSIG (21-28 bar) (2100-2800 kPa)	500 PSIG (35.0 bar) (3500 kPa)

**Flow Capacity (SCFM) –**  
 40 (68 m<sup>3</sup>/HR) @ 100 PSIG, (7.0 bar), (700 kPa) System Pressure

**Sensitivity** ..... .125" (.005 PSIG) (.32 cm) Water Column  
**Ambient Temperature** ..... -40°F to +200°F, (-40°C to +93°C)

**Materials of Construction**

**Body and Housing** ..... Aluminum  
**Trim** ..... Zinc Plated Steel, Brass  
**Nozzle** ..... Nitrile on Dacron

