

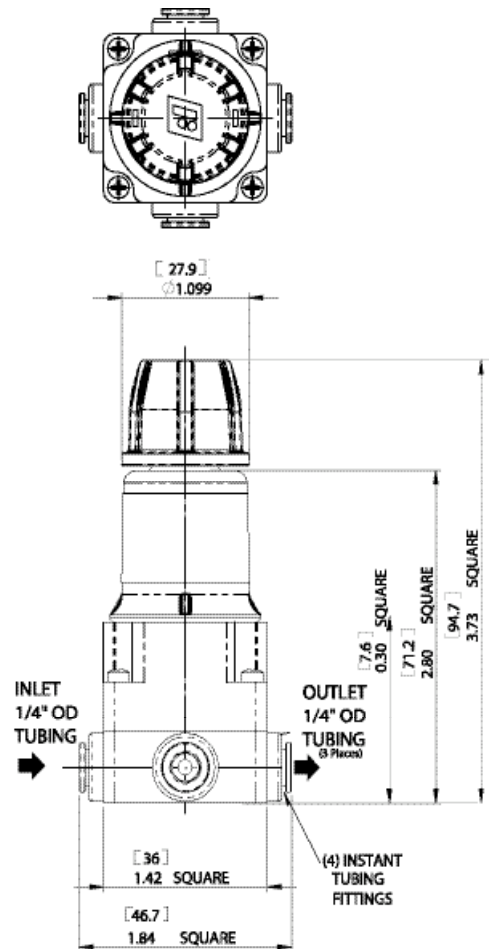


## Features

- Compact size
- Lightweight unit
- Handles high supply pressure
- High accuracy for precision control
- Polymer construction for corrosive resistance
- Venturi design compensates downstream pressure droop under flowing conditions
- Non-rising adjustment knob
- Manifold mount capability
- Push to connect fittings in all ports
- Separate control chamber isolates the Diaphragm from the main flow to eliminate hunting and buzzing

## Operating Principles

When the setpoint is reached, the upward force of the output pressure that acts on the bottom of the Diaphragm balances with the downward force that acts on the top of the Diaphragm. If the output pressure rises above the setpoint, the force that acts on the bottom of the Diaphragm moves the Diaphragm Assembly upward to close the Supply Valve and open the Relief Valve. Excess output pressure exhausts through the Vent in the unit until it reaches the setpoint.



## Specifications

### Flow Capacity

10 SCFM (17.0 m<sup>3</sup>/HR) @ 120 psig, [8 BAR], (800 kPa) supply

### Exhaust Capacity

2 SCFM (3.4 m<sup>3</sup>/HR) where downstream pressure is 15 psig, [1.0 BAR], (100 kPa)

### Maximum Supply Pressure

150 psig, [10 BAR], (1000 kPa)

### Supply Pressure Effect

0.1 psig for 10 psig change in supply

### Sensitivity

5" (12.7cm) Water Column

### Ambient Temperature

0°F to +160°F, (-17.8°C to 71.1°C)

### Materials of Construction

Body and Housing .....Glass Filled Acetal  
 Valve .....Stainless Steel  
 Diaphragm .....Polymer Reinforced Nitrile

## Catalog Information

Catalog Number 50R1

Pressure Range

psig	[BAR]	(kPa)	
0-10	[0-0.7]	(0-70) .....	2
.5-30	[0.03-2]	(3-200) .....	3
1-60	[0.07-4]	(7-400) .....	4
2-100	[0.15-7]	(15-700) .....	5

Port Tubing Size

1/4" / 6 mm .....

Port Type

Inch .....

Metric .....

Elastomer

Nitrile .....

Adjustment Type

Knob .....

Function Type

Relieving .....

Non-Relieving .....

Vent

Untapped .....

Tapped .....



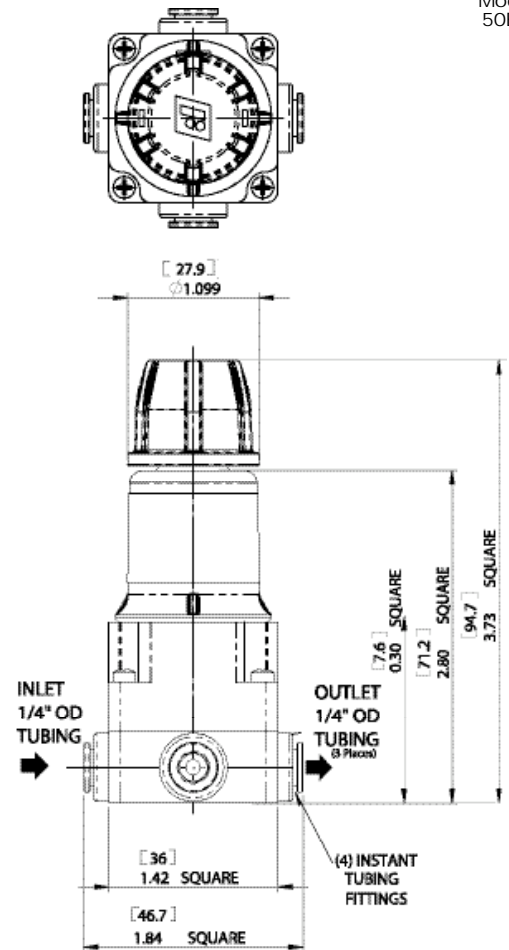
**Features**

- Compact size
- Lightweight unit
- High accuracy for precision control
- Polymer construction for corrosive resistance
- Non-rising adjustment knob
- Manifold mount capability
- Push to connect fittings in all ports
- Separate control chamber isolates the Diaphragm from the main flow to eliminate hunting and buzzing

**Operating Principles**

Downstream pressure is transmitted through the Aspirator Tube to the bottom 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 beyond 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.



**Specifications**

**Flow Capacity**

10 SCFM (17.0 m<sup>3</sup>/HR) @ 120 psig, [8 BAR], (800 kPa) system pressure

**Maximum System Pressure**

150 psig, [10 BAR], (1000 kPa)

**Sensitivity**

5" (12.7cm) Water Column

**Ambient Temperature**

0°F to +160°F, (-17.8°C to 71.1°C)

**Materials of Construction**

Body and Housing .....Glass Filled Acetal  
Valve .....Stainless Steel  
Diaphragm .....Polymer Reinforced Nitrile

**Catalog Information**

Catalog Number	50B1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure Range		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>psig</b>	<b>[BAR]</b>	<b>(kPa)</b>			
0-10	[0-0.7]	(0-70).....	<input type="checkbox"/>		
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Port Tubing Size					
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