### Model 50 Miniature Precision Regulator

**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 m³/HR) @ 120 psig, [8 BAR], (800 kPa) supply
- **Exhaust Capacity**
  - 2 SCFM (3.4 m³/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**
  - 50 R 1

<table>
<thead>
<tr>
<th>Pressure Range</th>
<th>psig</th>
<th>[BAR]</th>
<th>(kPa)</th>
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<tr>
<td>0-10</td>
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<td>0-70</td>
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<td>5-30</td>
<td>0.03-2</td>
<td>(3-200)</td>
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<td>1-60</td>
<td>0.07-4</td>
<td>(7-400)</td>
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<tr>
<td>2-100</td>
<td>0.15-7</td>
<td>(15-700)</td>
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<tr>
<td>2-100</td>
<td>0.15-7</td>
<td>(15-700)</td>
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</tr>
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</table>

- **Port Tubing Size**
  - 1/4” / 6 mm

- **Port Type**
  - Inch: E
  - Metric: M

- **Elastomer**
  - Nitrile: N

- **Adjustment Type**
  - Knob: K

- **Function Type**
  - Relieving: R
  - Non-Relieving: N

- **Vent**
  - Untapped: S
  - Tapped: E

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