The 422 Series regulators are intended for primary pressure control of ultra-high purity and corrosive gases in applications where minor fluctuations in outlet pressure due to diminishing inlet supply can be tolerated.

- Single Stage
- 316L Stainless Steel Barstock Body
- Six Port Configuration
- 316L Stainless Steel Diaphragm

**Typical Applications**
- Gas and liquid chromatography
- Ultra-high purity carrier gases
- Zero, span, and calibration gases
- High purity chamber pressurization
- Liquefied hydrocarbon gas control
- Control of cryogenic gases
- Corrosive gases

**Features**
- Metal-to-Metal Diaphragm Seal
  - No possibility of gas contamination
- CAPSULE® Seat
  - Increased serviceability and life
- 316L Stainless Steel Barstock Body
  - Increased corrosion resistance
- Front and Rear Panel-Mountable
  - Versatile system configuration
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)
  - Broad range of applications
- Pipe Away Relief Valve
  - Safely vents exhaust gases

**Materials**
- **Body**: 316L stainless steel barstock
- **Bonnet**: Chrome-plated brass barstock
- **Seat**: PTFE
- **Diaphragm**: 316L stainless steel
- **Internal Seals**: PTFE

**Specifications**
- **Maximum Inlet Pressure**
  - 3000 PSIG (210 BAR)
  - 3500 PSIG (240 BAR) optional
  - 4500 PSIG (310 BAR) optional
- **Temperature Range**
  - -40°F to 140°F (-40°C to 60°C)
- **Gauges**
  - 2” (53mm) diameter stainless steel
- **Ports**
  - 1/4” FPT
- **Helium Leak Integrity**
  - 1 x 10⁻⁹ scc/sec
- **Cv**
  - 0.1
  - *See page 202 for flow curves*
- **Weight (422 3331-580)**
  - 3.8 lbs. (1.73 kg)
# 400 Series Regulators

## Installation Dimensions

![Installation Diagram]

## Ordering Information

<table>
<thead>
<tr>
<th>Series 422</th>
<th>Outlet Pressure</th>
<th>Outlet Gauge</th>
<th>Inlet Gauge</th>
<th>Outlet Assemblies</th>
<th>Assembly/Gauges</th>
<th>Inlet Connections</th>
<th>Installed Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: 0-15 PSIG (0-1 BAR)*</td>
<td>0-30-30 PSIG/0-10-2 BAR</td>
<td>0: None</td>
<td>0: 1/4&quot; FPT port</td>
<td>1: Bare body</td>
<td>000: 1/4&quot; FPT</td>
<td>B: Protocol alarm station with pressure switch gauges</td>
<td></td>
</tr>
<tr>
<td>2: 0-50 PSIG (0-3.5 BAR)</td>
<td>0-100 PSIG/0-7 BAR</td>
<td>3: 0-4000 PSIG/0-275 BAR</td>
<td>1: 1/4&quot; MPT</td>
<td>1: Cleanroom assembly (PSIG/kPa gauges)</td>
<td>TF2: 1/8&quot; tube</td>
<td>C: Protocol switchover station</td>
<td></td>
</tr>
<tr>
<td>3: 0-100 PSIG (0-7 BAR)</td>
<td>0-200 PSIG/0-7 BAR</td>
<td>6: 0-1000 PSIG/0-7 BAR</td>
<td>2: 1/4&quot; tube fitting</td>
<td>2: Cleanroom assembly (BAR/PSIG gauges)</td>
<td>TF4: 1/4&quot; tube</td>
<td>D: Deep purge*</td>
<td></td>
</tr>
<tr>
<td>4: 0-250 PSIG (0-17 BAR)</td>
<td>0-400 PSIG/0-27 BAR</td>
<td>6: 0-300 PSIG/0-21 BAR</td>
<td>3: Diaphragm valve 1/4&quot; tube fitting</td>
<td>6: Mirror image (PSIG/kPa gauges)</td>
<td>TF6: 3/8&quot; tube</td>
<td>E: Protocol alarm station with intrinsically safe transducer for hazardous environments</td>
<td></td>
</tr>
<tr>
<td>5: 0-500 PSIG (0-34 BAR)**</td>
<td>0-1000 PSIG/0-70 BAR</td>
<td>7: 0-400 PSIG/0-27 BAR</td>
<td>4: Diaphragm valve 1/4&quot; MPT</td>
<td>7: Mirror image (BAR/PSIG gauges)</td>
<td>M06: 6mm tube</td>
<td>H: Protocol switchover alarm station with pressure switch switch gauges</td>
<td></td>
</tr>
<tr>
<td>6: 0-600 PSIG (0-40 BAR)**</td>
<td>0-6000 PSIG/0-400 BAR</td>
<td>1: Needle valve 1/4&quot; MPT</td>
<td>6: 1/8&quot; tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7: 0-150 PSIG (0-10 BAR)</td>
<td>0-200 PSIG/0-14 BAR</td>
<td>0: 0-4000 PSIG/0-275 BAR</td>
<td>6: 1/8&quot; tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8: 0-6000 PSIG/0-400 BAR</td>
<td>5: Needle valve 1/4&quot; MPT</td>
<td>7: 3/8&quot; tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9: Diaphragm valve 1/8&quot; tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M: 6mm tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N: Diaphragm valve 6mm tube fitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not available with 4500 PSIG (310 BAR) maximum inlet pressure

**Standard assembly does not include relief valve

*Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®

†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE

## Related Options

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>550 0002</td>
<td>Panel mount kit</td>
</tr>
<tr>
<td>550 0001</td>
<td>Captured vent kit</td>
</tr>
<tr>
<td>476 0002</td>
<td>Helium Leak certification</td>
</tr>
</tbody>
</table>
Regulator Flow Curves

Flow Curves for 302, 304, 305, 307, 322, 324, 327, 401, 402, 408, 420, 422, 426, 427, 428, 429 Series

Flow Curves for 312, 315, 332, 411, 412, 414, 415, 430, 432 Series