400 Series Regulators

The 408 Series regulators are intended for primary pressure control of mildly corrosive high purity gases such as ammonia, hydrogen sulfide, and sulfur dioxide or for applications requiring the light weight of an aluminum body regulator.

- Single Stage
- Anodized Aluminum Barstock Body
- 316L Stainless Steel Diaphragm

### Typical Applications
- Semi-corrosive gases and mixtures
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span, and calibration gases
- High purity chamber pressurization
- Mildly corrosive gases

### Features
- Metal-to-Metal Diaphragm Seal
  - No possibility of gas contamination
- CAPSULE® Seat
  - Increased serviceability and life
- Anodized Aluminum Body
  - Cost-effective 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**
  - Anodized aluminum barstock
- **Bonnet**
  - Anodized aluminum barstock
- **Seat**
  - PTFE
- **Filter**
  - Patented 10 micron 316 mesh
- **Diaphragm**
  - 316L stainless steel
- **Internal Seals**
  - PTFE

### Specifications
- **Maximum Inlet Pressure**
  - 3000 PSIG (210 BAR)
- **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**
  - $1 \times 10^{-9}$ scc/sec
- **Cv**
  - 0.1
  - See page 202 for flow curves
- **Weight (408 2331-000)**
  - 2.7 lbs. (1.24 kg)

CRN 0H15806.5R1
## 400 Series Regulators

### Installation Dimensions

![Image of regulator with dimensions](image)

**Panel Reference**
- Max. Panel Thickness: 0.375 (9.53)
- Panel Cutout: 0.139 (35.3)

### Ordering Information

<table>
<thead>
<tr>
<th>408</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>-CON</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series 408</td>
<td>Outlet Pressure</td>
<td>Outlet Gauge</td>
<td>Inlet Gauge</td>
<td>Outlet Assemblies</td>
<td>Assembly/Gauges</td>
<td>Inlet Connections</td>
</tr>
<tr>
<td>1: 0-15 PSIG (0-1 BAR)</td>
<td>30*-0-30 PSIG/ -1-0-2 BAR</td>
<td>0: None</td>
<td>0: 1/4&quot; FPT port</td>
<td>0: Bare body</td>
<td>000: 1/4&quot; FPT port</td>
<td>M: Protocol station</td>
</tr>
<tr>
<td>2: 0-50 PSIG (0-3.5 BAR)</td>
<td>30*-0-100 PSIG/ -1-0-7 BAR</td>
<td>3: 0-4000 PSIG/ 0-310 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>D: Deep purge</td>
</tr>
<tr>
<td>3: 0-100 PSIG (0-7 BAR)</td>
<td>30*-0-200 PSIG/ -1-0-14 BAR</td>
<td>5: 0-1000 PSIG/ 0-70 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>Q: Protocol purge station</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></td>
<td></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></td>
<td></td>
<td>TF6: 3/8&quot; tube</td>
</tr>
<tr>
<td>7: 0-150 PSIG (0-10 BAR)</td>
<td>30*-0-200 PSIG/ -1-0-14 BAR</td>
<td>5: Needle valve 1/4&quot; MPT</td>
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<td></td>
<td></td>
<td>M06: 6mm tube</td>
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</table>

*No relief valve

### Related Options

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
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<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