The 420 Series SilcoNert® treated regulators are intended for pressure control of reactive or corrosive calibration mixtures or pure gases in applications where an extremely inert wetted finish is required. The proprietary non-reactive amorphous silicon finish is significantly more inert than 316L stainless steel and ideally suited for Hydrogen Sulfide, reduced Sulfur, Mercury and PPM to PPB calibration mixtures.

- Single Stage
- SilcoNert 2000 Barstock Body, Diaphragm, and Internals
- Six Port Configuration or Four Port Configuration
- Inert Surface Finish and Corrosion Resistance

**Typical Applications**
- Reactive calibration standard
- Emissions monitoring
- Hydrogen sulfide PPM to PPB standards
- Mercury standards
- Sulfur mixtures
- Corrosive service

**Features**
- Metal-to-Metal Diaphragm Seal
- No possibility of gas contamination
- CAPSULE® Seat
- Increased serviceability and life
- SilcoNert 2000 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

**Materials**
- Body: SilcoNert 2000
- Bonnet: SilcoNert 2000
- Seat: PTFE
- Filter: SilcoNert 2000 10 micron mesh
- Diaphragm: Dursan®
- Internal Seals: PTFE

**Specifications**
- Maximum Inlet Pressure
  - 3000 PSIG (210 BAR)
  - 4500 PSIG (310 BAR) optional
- Temperature Range
  - -40°F to 140°F (-40°C to 60°C)
- Gauge
  - 2" (53mm) diameter stainless steel
- Ports
  - 1/4" FPT
- Helium Leak Integrity
  - 1 x 10^-9 scc/sec
- Cv
  - 0.1 (Max outlet 50 PSIG/3.5 BAR or below)
  - 0.2 (Max outlet above 50 PSIG/3.5 BAR)
  - See page 202 for flow curves
- Weight (420 3331-330)
  - 3.8 lbs. (1.73 kg)
# 400 Series Regulators

## Installation Dimensions

### Four Port Configuration

![Four Port Configuration Diagram]

### Six Port Configuration

![Six Port Configuration Diagram]

## Ordering Information

<table>
<thead>
<tr>
<th>420</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>-CON</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</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/0-2 BAR</td>
<td>0: None</td>
<td>0: 1/4&quot; FPT port</td>
<td>0: Six-port bare body</td>
<td>000: 1/4&quot; FPT</td>
<td>B: Protocol alarm station with pressure switch gauges</td>
</tr>
<tr>
<td>2: 0-50 PSIG (0-3.5 BAR)</td>
<td>30°-0-100 PSIG/0-7 BAR</td>
<td>3: 0-4000 PSIG/0-275 BAR</td>
<td>2: 1/4&quot; tube fitting</td>
<td>1: Six-port cleanroom assembly (PSIG/kPa gauges)</td>
<td>TF2: 1/8&quot; tube</td>
<td>C: Protocol switchover station*</td>
</tr>
<tr>
<td>3: 0-100 PSIG (0-7 BAR)</td>
<td>30°-0-200 PSIG/0-14 BAR</td>
<td>5: 0-1000 PSIG/0-70 BAR</td>
<td>3: Diaphragm valve 1/4&quot; tube fitting</td>
<td>2: Six-port cleanroom assembly (BAR/PSIG gauges)</td>
<td>TF4: 1/4&quot; tube</td>
<td>E: Protocol alarm station with intrinsically safe transducer for hazardous environments</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>6: 1/8&quot; tube fitting</td>
<td>6: Six-port mirror image (PSIG/kPa gauges)</td>
<td>M06: 6mm tube</td>
<td>H: Protocol switchover alarm station with pressure switch gauges</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>8: Diaphragm valve 1/8&quot; FPT</td>
<td>7: Six-port mirror image (BAR/PSIG gauges)</td>
<td>CGA DIN 477 BS 341 and others available</td>
<td>J: Protocol alarm station with standard transducer for non hazardous environments</td>
</tr>
<tr>
<td>6: 0-150 PSIG (0-10 BAR)</td>
<td>30°-0-200 PSIG/0-14 BAR</td>
<td>8: 0-6000 PSIG/0-415 BAR*</td>
<td>9: Diaphragm valve 1/8&quot; FPT</td>
<td>A: Four-port bare body</td>
<td>M: Protocol station</td>
<td></td>
</tr>
<tr>
<td>7: 0-250 PSIG (0-17 BAR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>K: Protocol switchover alarm station with standard transducer for non hazardous environments</td>
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</table>

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

*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®

## Related Options

<table>
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<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 RATE - SCFH (LPM)

OUTLET PRESSURE - PSIG (BAR)

- 500 PSIG (34 BAR) IN
- 1000 PSIG (70 BAR) IN
- 2000 PSIG (137 BAR) IN

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