The 445 Series regulators are intended for secondary pressure control of ultra-high purity and corrosive gases or as point of use pressure control in high purity gas distribution systems.

- Single Stage
- Rear Entry
- 316L Stainless Steel Barstock Body
- Five Port Configuration
- 316L Stainless Steel Diaphragm

**Typical Applications**
- Bulk gas distribution systems
- Gas and liquid chromatography
- Ultra-high purity carrier gases
- Zero, span, and calibration gases
- Liquefied hydrocarbon gas control
- Control of cryogenic gases
- Corrosive service

### Features
- **Metal-to-Metal Diaphragm Seal**
  - No possibility of gas contamination
- **CAPSULE® Seat**
  - Increased serviceability and life
- **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
- **3000 PSIG (210 BAR) Inlet Pressure Rating**
  - Safe use with high pressure cylinders

### Materials
- **Body**
  - 316L stainless steel barstock
- **Bonnet**
  - Chrome-plated brass 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)
- **Gauge**
  - 2" (53mm) diameter stainless steel
- **Ports**
  - 1/4" FPT
- **Helium Leak Integrity**
  - $1 \times 10^{-9}$ 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 203 for flow curves
- **Weight (445 2021-000)**
  - 2.57 lbs. (1.17 kg)
## 400 Series Regulators

### Installation Dimensions

### Ordering Information

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<tr>
<th>Series 445</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<th>Options</th>
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</thead>
<tbody>
<tr>
<td>Outlet Pressure</td>
<td>Outlet Gauge</td>
<td>Inlet Gauge</td>
<td>Outlet Assemblies</td>
<td>Assembly/Gauges</td>
<td>Inlet Connections</td>
<td>Installed Options</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” FPT port</td>
<td>0: Bare body</td>
<td>000: 1/4” FPT</td>
<td>None</td>
</tr>
<tr>
<td>2: 0-50 PSIG (0-3.5 BAR)</td>
<td>30”-0-100 PSIG/ -1-0-7 BAR</td>
<td>1: 1/4” MPT</td>
<td>1: Cleanroom assembly (PSIG/kPa gauges)</td>
<td>TF2: 1/8” tube</td>
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<td></td>
</tr>
<tr>
<td>3: 0-100 PSIG (0-7 BAR)</td>
<td>30”-0-200 PSIG/ -1-0-14 BAR</td>
<td>2: 1/4” tube fitting</td>
<td>2: Cleanroom assembly (BAR/PSIG gauges)</td>
<td>TF4: 1/4” tube</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4: 0-250 PSIG (0-17 BAR)</td>
<td>0-400 PSIG/ -0-1-0-27 BAR</td>
<td>3: Diaphragm valve 1/4” tube fitting</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>5: 0-500 PSIG (0-34 BAR)**</td>
<td>0-1000 PSIG/ -0-0-70 BAR</td>
<td>4: Diaphragm valve 1/4” MPT</td>
<td></td>
<td>TF6: 3/8” tube</td>
<td></td>
<td></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” MPT</td>
<td></td>
<td>M06: 6mm tube</td>
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</tbody>
</table>

*Standard assembly does not include relief valve

### Related Options

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
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</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 403, 405, 425, 435, 445 Series

Flow Curves for 492, 493 Series