# 300 Series Regulators

The 322 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
- Four Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

| Gas and liquid chromatography |
| High purity carrier gases |
| Zero, span, and calibration gases |
| High purity chamber pressurization |
| Liquefied hydrocarbon gas control |
| Control of cryogenic gases |

## Features

- **CAPSULE® Seat**
  - Increased serviceability and life
- **316L Stainless Steel Diaphragm**
  - No inboard diffusion
- **Low Wetted Surface Area**
  - Minimal purge requirements
- **Field-Adjustable Pressure Limit**
  - Safeguard downstream equipment
- **Convoluted Diaphragm**
  - Smooth pressure changes
- **Compact Design**
  - Easily transported and integrated into systems
- **316L Stainless Steel Barstock Body**
  - Increased corrosion resistance
- **Rear Panel-Mountable**
  - Easy installation
- **Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-35 BAR)**
  - Broad range of applications

## Materials

- **Body**
  - 316L stainless steel barstock
- **Bonnet**
  - Chrome-plated die-cast zinc
- **Seat**
  - PTFE
  - PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option
- **Filter**
  - Patented 10 micron 316 mesh
- **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
  - Chrome-plated brass case
  - Stainless steel internals
- **Ports**
  - 1/4" FPT
- **Helium Leak Integrity**
  - 1 x 10⁻⁸ scc/sec
- **Cv**
  - 0.1
  - [See page 202 for flow curves](#)
- **Weight (322 2331-580)**
  - 3.0 lbs. (1.34 kg)

CRN 0H5216.5R1
## 300 Series Regulators

### Installation Dimensions

![Diagram of 300 Series Regulators](image)

### Ordering Information

<table>
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<tr>
<th>Series 322</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>
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</thead>
<tbody>
<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></td>
<td></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: Standard assembly (PSIG/kPa gauges)</td>
<td>TF2: 1/8&quot; tube</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3: 0-100 PSIG (0-7 BAR)</td>
<td>30°-0-200 PSIG/ -1-0-14 BAR</td>
<td>6: 0-1000 PSIG/ 0-70 BAR</td>
<td>2: 1/4&quot; tube fitting</td>
<td></td>
<td>TF6: 3/8&quot; tube</td>
<td></td>
<td></td>
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<tr>
<td>4: 0-250 PSIG (0-17 BAR)</td>
<td>0-400 PSIG/ 0-14 BAR</td>
<td>5: 0-4000 PSIG/ 0-21 BAR</td>
<td>3: Diaphragm valve 1/4&quot; tube fitting</td>
<td></td>
<td>M06: 6mm tube</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>H: Protocol switchover alarm station with pressure switch gauges</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>8: 0-6000 PSIG/ 0-415 BAR</td>
<td>5: Needle valve 1/4&quot; MPT</td>
<td></td>
<td>J: Protocol alarm station with standard transducer for non hazardous environments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

### Related Options

<table>
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<tr>
<th>Order No.</th>
<th>Description</th>
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<tr>
<td>835 0204</td>
<td>Rear panel mount kit</td>
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**Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE**

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

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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