The 109 Series regulators are intended for pressure control of general purpose laboratory gases with applications requiring constant pressure control and delivery regardless of supply pressure variations.

- Dual Stage
- Forged Brass Body
- PTFE-Lined Diaphragm
- Five Port Configuration

**Typical Applications**

- Purging
- Pressure testing
- Blanketing
- Chamber pressurization

**Features**

- CAPSULE® Seat
  - Increased serviceability and life
- PCTFE-Lined Neoprene Diaphragm
  - Sensitive to downstream conditions
- Forged Body
  - Durable, long-lasting construction
- Field-Adjustable Pressure Limit
  - Safeguard downstream equipment
- Integral Relief Valve
  - Diaphragm and gauge protection
- High Flow Capacity
  - Supply multiple user locations
- Forged Brass Body
  - Economical high purity design
- Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)
  - Broad range of applications
- 10 Micron Filtration in Both Stages
  - Fail-safe seat performance

**Materials**

- Body: Forged brass
- Bonnet: Brass-plated die-cast zinc
- Seat: PCTFE (first stage)
- PTFE (second stage)
- Filter: 10 micron sintered bronze
- Diaphragm: PTFE-lined neoprene
- 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 1/2" (68mm) diameter brass
- Ports: 1/4" FPT
- Cv: 0.28
  - See page 207 for flow curves
- Weight (109 7505-580): 4.69 lbs. (2.13 kg)
### Ordering Information

<table>
<thead>
<tr>
<th>Order No. (109 Series Dual Stage)</th>
<th>Outlet Pressure</th>
<th>Outlet Gauge</th>
<th>Inlet Gauge</th>
<th>Outlet Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>109 7501-CGA</td>
<td>0-15 PSIG</td>
<td>0-30 PSIG/0-210 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>1/4” tube fitting</td>
</tr>
<tr>
<td>109 7502-CGA</td>
<td>0-15 PSIG</td>
<td>0-30 PSIG/0-210 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>Needle valve 1/4” MPT</td>
</tr>
<tr>
<td>109 7504-CGA</td>
<td>0-40 PSIG</td>
<td>0-60 PSIG/0-400 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>1/4” tube fitting</td>
</tr>
<tr>
<td>109 7505-CGA</td>
<td>0-40 PSIG</td>
<td>0-60 PSIG/0-400 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>Needle valve 1/4” MPT</td>
</tr>
<tr>
<td>109 7512-CGA</td>
<td>0-120 PSIG</td>
<td>0-200 PSIG/0-1400 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>1/4” tube fitting</td>
</tr>
<tr>
<td>109 7513-CGA</td>
<td>0-120 PSIG</td>
<td>0-200 PSIG/0-1400 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>Needle valve 1/4” MPT</td>
</tr>
<tr>
<td>109 7520-CGA</td>
<td>0-200 PSIG</td>
<td>0-400 PSIG/0-2800 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>1/4” tube fitting</td>
</tr>
<tr>
<td>109 7521-CGA</td>
<td>0-200 PSIG.</td>
<td>0-400 PSIG/0-2800 kPa</td>
<td>0-4000 PSIG/0-28,000 kPa</td>
<td>Needle valve 1/4” MPT</td>
</tr>
</tbody>
</table>

### Related Options

<table>
<thead>
<tr>
<th>Options</th>
<th>Order No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol station</td>
<td>Add letter &quot;M&quot; after inlet</td>
<td>Convenient regulator wall mount, including tee, bracket, and stainless steel flexible hose with check valve in the inlet gland</td>
</tr>
<tr>
<td>Protocol purge station</td>
<td>Add letter &quot;Q&quot; after inlet</td>
<td>Convenient regulator wall mount with purge</td>
</tr>
</tbody>
</table>
Regulator Flow Curves

Flow Curves for 109, 202 and 455 Series Single Stage

Flow Curves for 109 Series Dual Stage