



100 Series Regulators

109 SERIES

The 109 Series regulators are intended for pressure control of general purpose laboratory gases where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

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



109 6504-580 shown

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

Materials

- Body**
Forged brass
- Bonnet**
Brass-plated die-cast zinc
- Seat**
PTFE
- Filter**
10 micron sintered bronze
- Diaphragm**
PTFE-lined Neoprene
- Internal Seals**
PTFE

Specifications

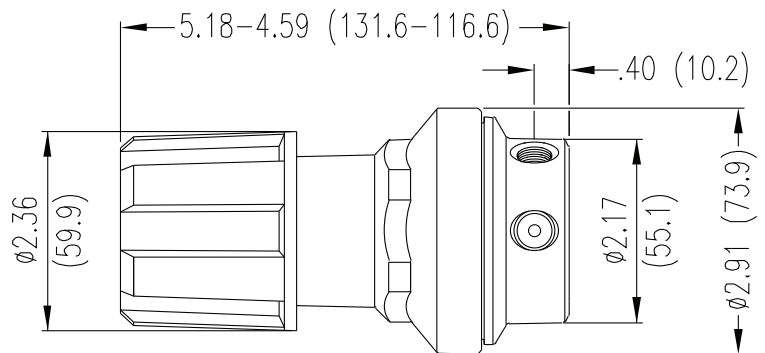
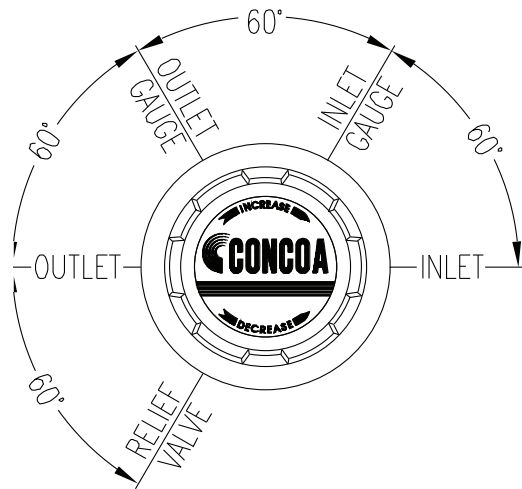
- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2 1/2" (68mm) diameter brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.28
See page 193 for flow curves
- Weight (109 6504-580)**
3.3 lbs. (1.5 kg)

CRN OH 5216.5R1

100 Series Regulators



Installation Dimensions



Ordering Information

Order No. (109 Series Single Stage)	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assembly
109 6501-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 6502-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 6504-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-4 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 6505-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-4 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 6512-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 6513-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 6520-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 6521-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT

Related Options

Options	Order No.	Description
Protocol station	Add letter "M" after inlet	Convenient regulator wall mount, including tee, bracket, and stainless steel flexible hose with check valve in the inlet gland
Protocol purge station	Add letter "Q" after inlet	Convenient regulator wall mount with purge

100 SERIES



100 Series Regulators

109 SERIES

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



109 7505-580 shown

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**
PTFE
- Filter**
10 micron sintered bronze
- Diaphragm**
PTFE-lined neoprene
- Internal Seals**
PTFE

Specifications

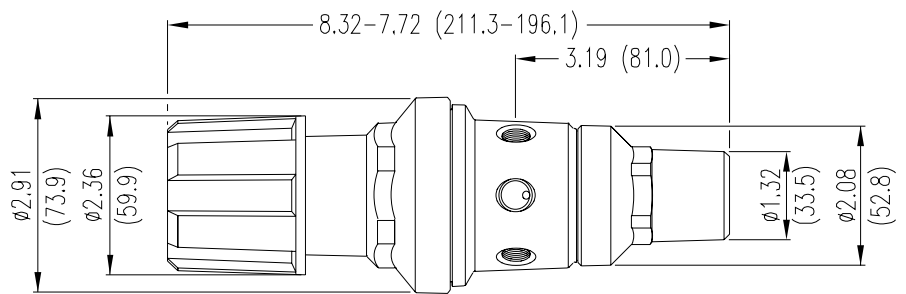
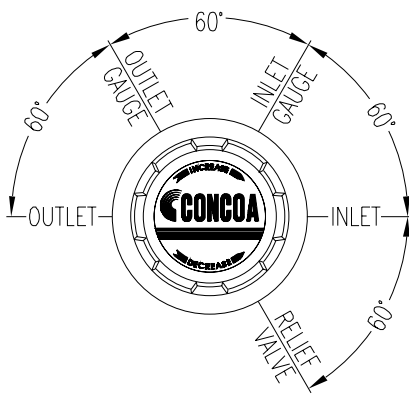
- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2 1/2" (68mm) diameter brass
- Ports**
1/4" FPT
- Cv**
0.28
See page 193 for flow curves
- Weight (109 7505-580)**
4.69 lbs. (2.13 kg)

CRN OH 5216.5R1

100 Series Regulators



Installation Dimensions



100 SERIES

Ordering Information

Order No. (109 Series Dual Stage)	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assembly
109 7501-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 7502-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 7504-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-3 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 7505-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-3 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 7512-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 7513-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
109 7520-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
109 7521-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-400 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT

Related Options

Options	Order No.	Description
Protocol station	Add letter "M" after inlet	Convenient regulator wall mount, including tee, bracket, and stainless steel flexible hose with check valve in the inlet gland
Protocol purge station	Add letter "Q" after inlet	Convenient regulator wall mount with purge