CONCOA
PRECISION GAS CONTROLS

300 Series Regulators

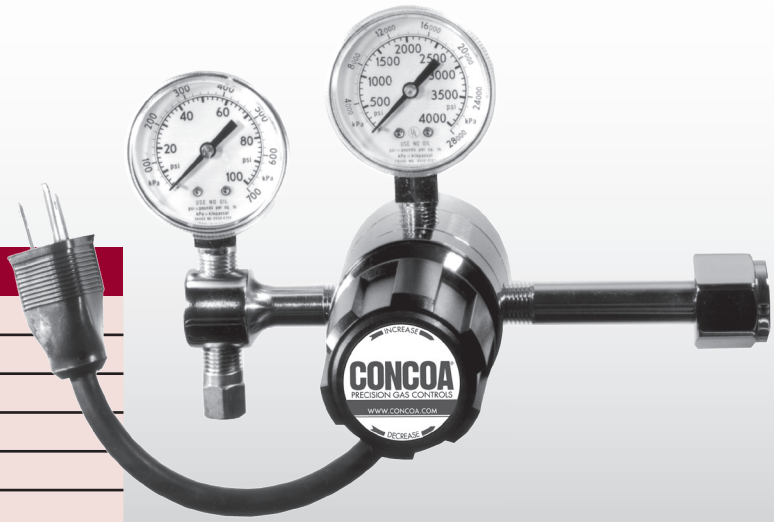
308 SERIES

The 308 Series regulators are specifically designed to prevent freeze-up problems associated with high flows of carbon dioxide and nitrous oxide. As CO_2 or N_2O passes through a regulator seat, dry ice can form if the flow is too high, causing the regulator to freeze up.

- Single Stage
- Chrome-Plated Brass Barstock Body
- 316L Stainless Steel Diaphragm
- Electrically Heated
- NEMA 4

Typical Applications

Chemical storage blanketing
Anaerobic chambers
Inert gas purging
Atomic absorption oxidizer gas
Semiconductor reactor furnace
Inductively coupled plasma systems
pH control



308 3301-330 shown

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

Three 50-Watt Heaters
Maintain gas flow up to 350 SCFH (165 LPM)

316L Stainless Steel Diaphragm
Unaffected by low temperatures

NEMA 4 Housing
For either indoor or outdoor use

Materials

Body
Chrome-plated brass barstock

Bonnet
Chrome-plated brass barstock

Seat
PTFE

Filter
10 micron sintered bronze

Diaphragm
316L stainless steel

Internal Seals
PTFE

Electrical Housing
NEMA 4

Specifications

Maximum Inlet Pressure
3000 PSIG (210 BAR)

Temperature Range (Thermostat)
95°F to 120°F (35°C to 49°C)

Heaters
3 @ 50 watts each (110 or 220 VAC)

Gauges
2" (53mm) diameter chrome-plated brass

Ports
1/4" FPT

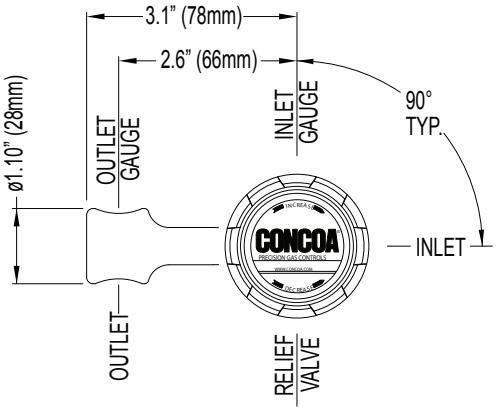
Helium Leak Integrity
1 x 10^{-8} scc/sec

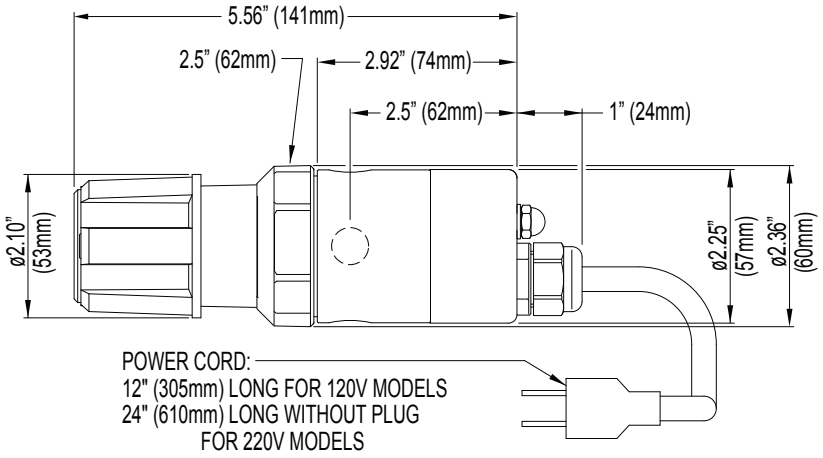
Cv
0.1
See page 191 for flow curves

Weight (308 3301-330)
5.4 lbs. (2.45 kg)

300 Series Regulators

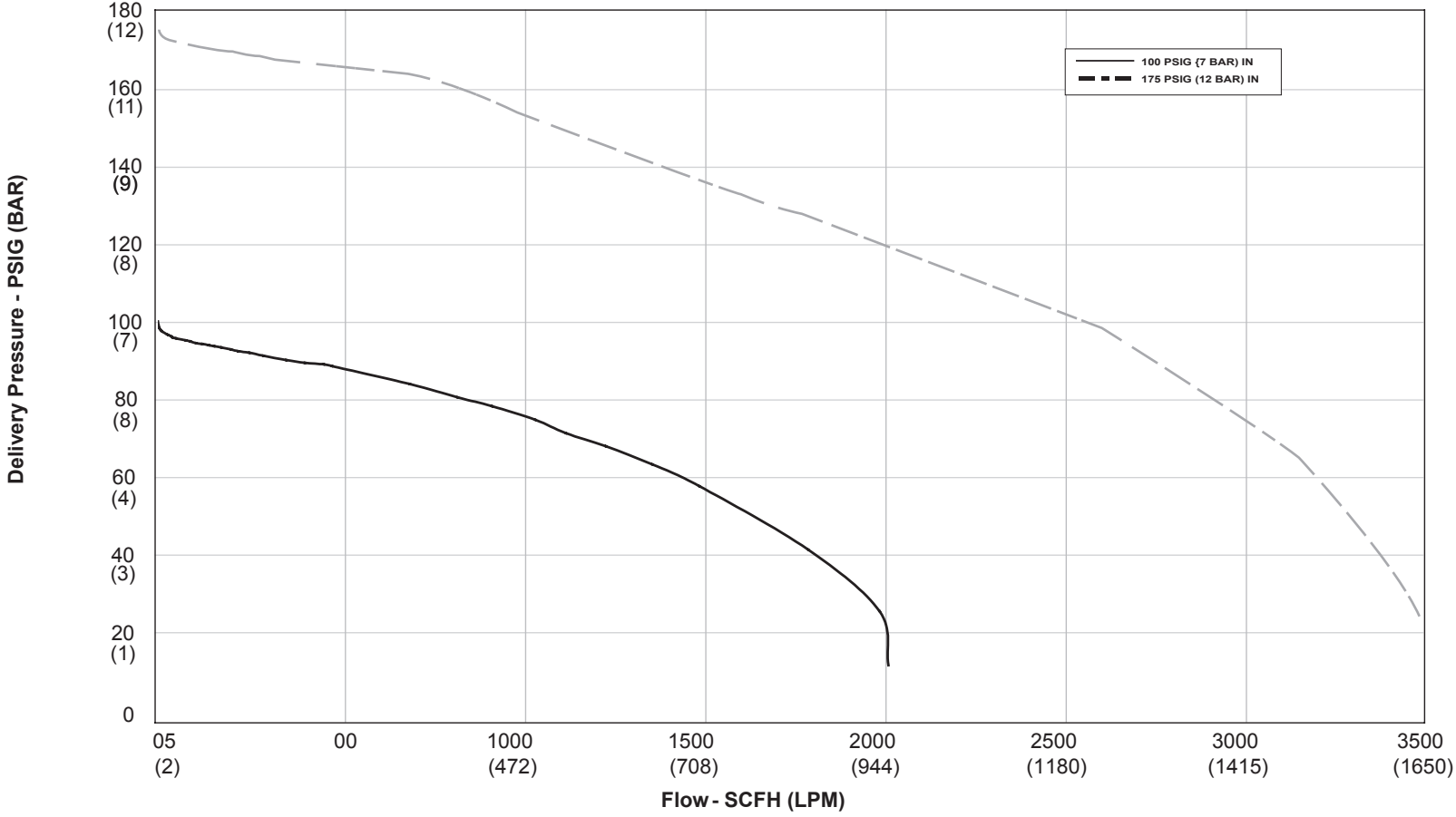
Installation Dimensions





Ordering Information

308	A		B	C	D	-CON	Options
Series 308	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	**0:** None	**0:** 1/4" FPT port	**0:** Bare body 110 VAC	**000:** 1/4" FPT	**B:** Protocol alarm station (110/220 VAC)
	2: 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	**3:** 0-4000 PSIG/ 0-275 BAR	**1:** 1/4" MPT	**1:** Standard assembly 110 VAC (PSIG/kPa gauges)	**TF2:** 1/8" tube	**C:** Protocol switchover station
	3: 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		**2:** 1/4" tube fitting	**2:** Bare body 220 VAC*	**TF4:** 1/4" tube	**H:** Protocol switchover station with alarm (110/220 VAC)
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		**3:** Diaphragm valve 1/4" tube fitting	**3:** Standard assembly 220 VAC* (PSIG/kPa gauges)	**TF6:** 3/8" tube	**M:** Protocol station
	7: 0-175 PSIG (0-12 BAR)	0-400 PSIG/ 0-27 BAR		**4:** Diaphragm valve 1/4" MPT	**4:** Standard assembly 110 VAC (BAR/PSIG gauges)	**M06:** 6mm tube	**Q:** Protocol purge station
				5: Needle valve 1/4" MPT	**5:** Standard assembly 220 VAC (BAR/PSIG gauges)*	CGA DIN 477 BS 341 and others available	
				6: 1/8" tube fitting	**220 volt models are CE marked*		
				7: 3/8" tube fitting			
				8: Diaphragm valve 1/8" tube fitting			
				9: Diaphragm valve 1/4" FPT			
				A: 3/8" BSP RH fitting			
				M: 6mm tube fitting			
				S: Diaphragm valve 6mm tube fitting			


100 PSIG {7 BAR) IN
175 PSIG (12 BAR) IN
Delivery Pressure - PSIG (BAR)
180
(12)
160
(11)
140
(9)
120
(8)
100
(7)
80
(8)
60
(4)
40
(3)
20
(1)
0
05
(2)
00
1000
(472)
1500
(708)
2000
(944)
2500
(1180)
3000
(1415)
3500
(1650)
Flow - SCFH (LPM)