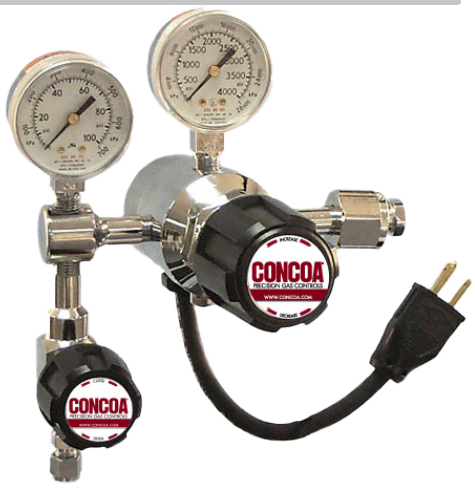
308 Series Regulators

The 308 Series single stage regulators are specifically designed to prevent freeze-up problems associated with high flows of carbon dioxide and nitrous oxide. As carbon dioxide or nitrous oxide passes through a regulator seat, it can freeze up if the flow is too high. The 308 regulator has an integral heating system consisting of three heating cartridges, a primary thermostat for automatic temperature control, and a secondary safety thermostat cutout. This system directly heats the regulator seat to mitigate ice buildup and prevent freeze-up problems. Available with a variety of options installed at the factory, CONCOA 308 Series regulator may be configured as a single station manifold with or without purge, low-pressure alarm, or multiple inlets.



308 3331-01-320 shown

Typical Applications

- Chemical Storage Blanketing
- Anaerobic Chambers
- Inert Gas Purging
- Atomic Absorption Oxidizer Gas
- Semiconductor Reactor Furnaces

Features

CAPSULE® Seat increases serviceability and life

Low Wetted Surface Area minimizes purge requirements

Convoluted Diaphragm provides smooth pressure changes

NEMA 4 Housing ensures safe use in indoor or outdoor environment

Field-adjustable Pressure Limit safeguards downstream equipment

Materials and Specifications

Maximum Inlet Pressure (bare body): 3000 PSIG (210 BAR); 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) optional

Body: Chrome-plated brass barstock

Bonnet: Chrome-plated brass barstock

Gauges: 2 in (50 mm) diameter plated case

Seats: PTFE; PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option

Filter: 10-micron sintered bronze

Diaphragm: 316L stainless steel

Internal Seals: PTFE

Ports (bare body): 1/4 in FNPT

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

Cv: 0.1 *See flow curves attached*

Electrical Housing: NEMA 4

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

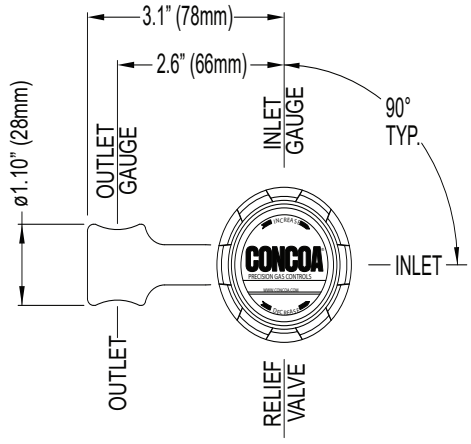
Heaters: 3 @ 50 watts each

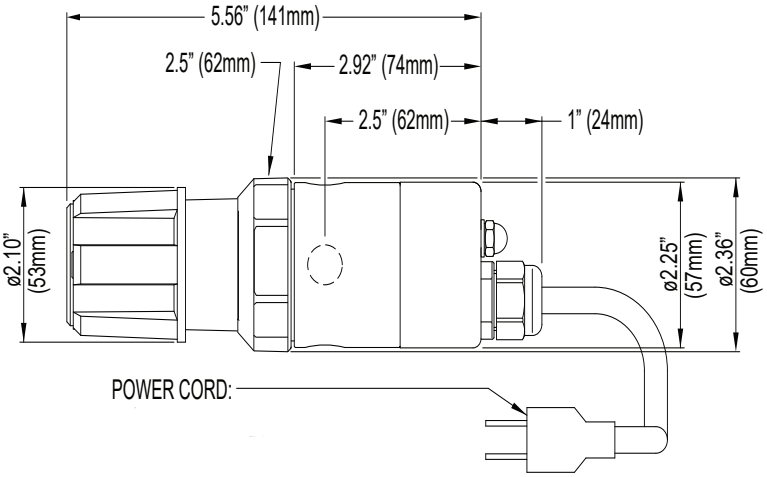
Power Requirements: 100-127 VAC 50/60HZ, 150W (for 115V AC units); 197-252 VAC 50/60 HZ, 150W (for 230V AC units)

Conformances: Cleanliness meets or exceeds CGA G-4.1; PED 2014/68/EU; ANSI/ASME B40.1; CRN OH5216

308 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" FNPT port	0: Bare body 115 VAC	000: 1/4" FNPT	B: Protocol alarm station with pressure switch gauges
	2: 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MNPT	1: Standard assembly 115 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	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Bare body 230 VAC*	TF4: 1/4" tube	H: Protocol switchover alarm station with pressure switch gauges
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR	8: 0-6000 PSIG/ 0-415 BAR*	3: Diaphragm valve w/ 1/4" tube fitting	3: Standard assembly 230 VAC (PSIG/kPa gauges)*	TF6: 3/8" tube	J: Protocol alarm station with standard transducer for non-hazardous environments
	7: 0-175 PSIG (0-12 BAR)	0-400 PSIG/ 0-27 BAR	**C:** 0-4000 PSIG/ 0-275 BAR pressure switch	4: Diaphragm valve w/ 1/4" MNPT	4: Standard assembly 115 VAC (BAR/PSIG gauges)	M06: 6 mm tube	K: Protocol switchover alarm station with standard transducer for non-hazardous environments
	**Not available with 4500 PSIG (310 BAR) maximum inlet pressure.*		M: 0-600 PSIG/ 0-40 BAR pressure switch	5: Needle valve w/ 1/4" MNPT	5: Standard assembly 230 VAC (BAR/PSIG gauges)*	*CGA DIN 477 BS 341 and others available.*	M: Protocol station
			G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fitting	**230 volt models are CE marked.*		Q: Protocol purge station
			**Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®.*	7: 3/8" tube fitting			.
			†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE Seat CAPSULE.	8: Diaphragm valve w/ 1/8 in tube fitting			
				9: Diaphragm valve w/ 1/4" FNPT			
				A: 3/8" BSP RH fitting			
				M: 6 mm tube fitting			
				S: Diaphragm valve w/ 6 mm tube fitting			

308 Series Regulators

Flow Curves for 308 Series