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, the flow is too high, causing the regulator to freeze up. 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.

3083331-01-320 shown

Typical Applications

- Chemical Storage Blanketing
- Anaerobic Chambers
- Inert Gas Purging
- Atomic Absorption Oxidizer Gas
- Semiconductor Reactor Furnace
- Inductively Coupled Plasma Systems

Features

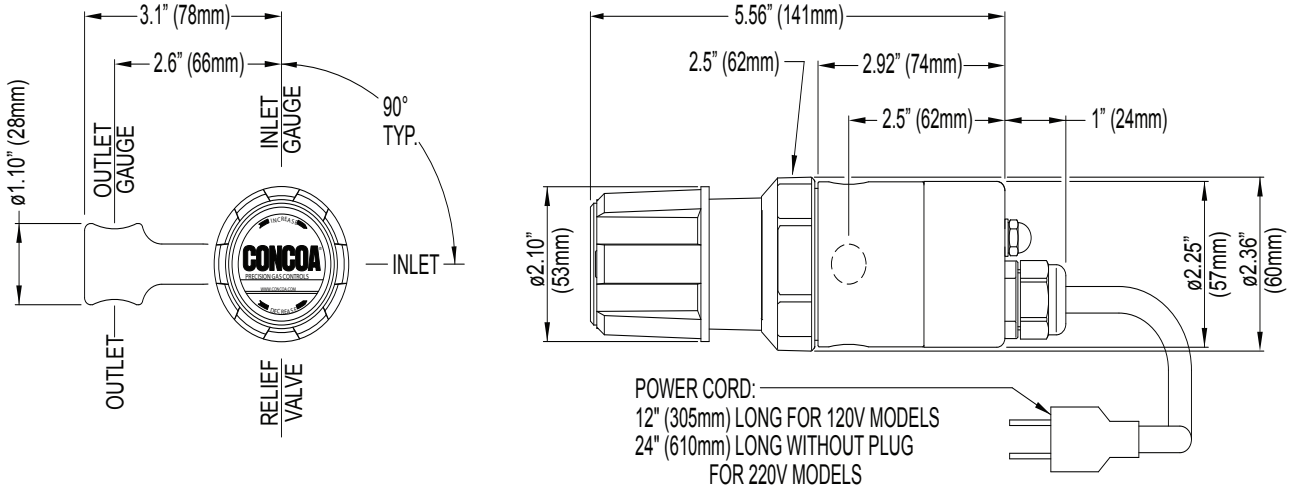
CAPSULE® Seat increases serviceability and life
Low Wetted Surface Area minimizes purge requirements
316L Stainless Steel Diaphragm prevents inboard diffusion
Convoluted Diaphragm provides smooth pressure changes
Compact Design permits easy transport and system integration
Three 50-Watt Heaters maintain gas flow up to 350 SCFH (165 LPM)
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)
Body: Chrome-plated brass barstock
Bonnet: Chrome-plated brass barstock
Gauges: 2 in (50 mm) diameter plated case
Seat: PTFE
Filter: 10-micron sintered bronze
Diaphragm: 316L stainless steel
Internal Seals: PTFE
Ports (bare body): 1/4 in FPT
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 (110 or 220 VAC)
Weight (308 3301-330): 5.4 lbs (2.5 kg)
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 in FPT port	0: Bare body 110 VAC	000: 1/4 in FPT	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 in MPT	1: Standard assembly 110 VAC (PSIG/kPa gauges)	TF2: 1/8 in tube	C: Protocol switchover station
	3: 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		2: 1/4 in tube fitting	2: Bare body 220 VAC*	TF4: 1/4 in tube	D: Deep purge*
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		3: Diaphragm valve 1/4 in tube fitting	3: Standard assembly 220 VAC* (PSIG/kPa gauges)	TF6: 3/8 in tube	E: Protocol alarm station with intrinsically safe transducer for hazardous environments
	7: 0-175 PSIG (0-12 BAR)	0-400 PSIG/ 0-27 BAR		4: Diaphragm valve 1/4 in MPT	4: Standard assembly 110 VAC (BAR/PSIG gauges)	M06: 6 mm tube	H: Protocol switchover alarm station with pressure switch gauges
				5: Needle valve 1/4 in MPT	5: Standard assembly 220 VAC (BAR/PSIG gauges)*	CGA DIN 477 BS 341 and others available	J: Protocol alarm station with standard transducer for non-hazardous environments
				6: 1/8 in tube fitting	*220 volt models are CE marked		K: Protocol switchover alarm station with standard transducer for non-hazardous environments
				7: 3/8 in tube fitting			M: Protocol station
				8: Diaphragm valve 1/8 in tube fitting			Q: Protocol purge station
				9: Diaphragm valve 1/4 in in FPT			X: Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				A: 3/8 in BSP RH fitting			
				M: 6 mm tube fitting			
				S: Diaphragm valve 6 mm tube fitting			

Flow Curves for 308 Series