

322 SERIES REGULATORS



The 322 Series single stage regulators are intended for primary pressure control of ultra-high purity and mildly reactive gases. However, it is not suitable for toxic or highly corrosive gases. Due to the pressure rise associated with high-pressure cylinder depletion, CONCOA recommends single-stage regulators for primary pressure control in applications that can tolerate minor fluctuations in outlet pressure due to diminishing inlet supply or where inlet pressure is constant or under 500 PSIG (34 BAR).

Typical Applications

- Gas and Liquid Chromatography
- High Purity Carrier Gases
- Zero, Span, and Calibration Gases
- Liquified Hydrocarbon Gas Control
- High Purity Chamber Pressurization
- Control of Cryogenic Gases



3223331-01-580 shown

Features

CAPSULE® Seat increases serviceability and life

316L Stainless Steel Diaphragm prevents inboard diffusion

Low Wetted Surface Area minimizes purge requirements

Field-Adjustable Pressure Limit safeguards downstream equipment

Convolute Diaphragm provides smooth pressure changes

Rear Panel-Mountable allows easy installation

Compact Design permits easy transport and system integration

Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-35 BAR) facilitates a broad range of applications

Materials and Specifications

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

Body: 316L stainless steel barstock

Bonnet: Chrome-plated, die-cast zinc

Gauges: 2 in (50 mm) diameter stainless steel with plated case

Seats: PTFE (first stage); PCTFE (second stage)

Filter: 10-micron 316 stainless steel mesh

Temperature Range: -40°F to 140°F (-40°C to 60°C)

Diaphragm: 316L stainless steel

Cv: 0.1 See *flow curves attached*

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

Internal Seals: PTFE

Ports (bare body): 1/4 in FPT

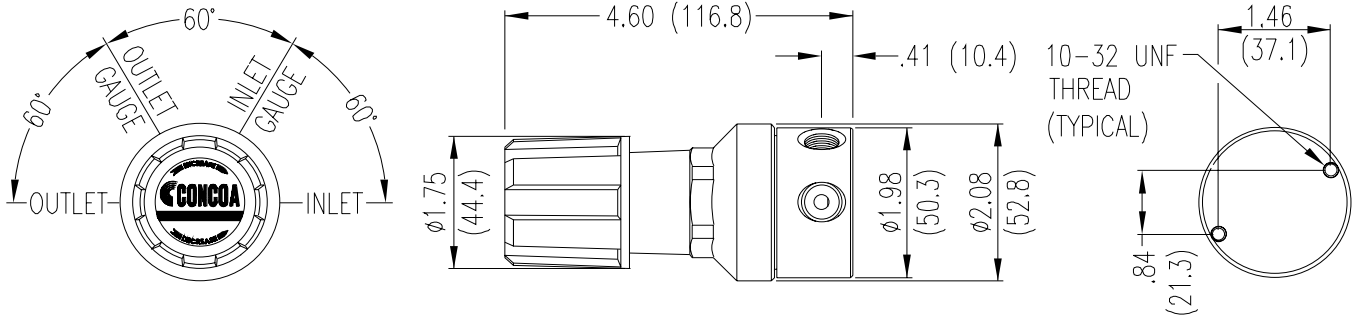
Weight (322 2331-580): 3.0 lbs. (1.3 kg)

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

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Installation Dimensions



Ordering Information

322	A	B	C	D	-CON	Options	
Series 322	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	30 in -0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4 in FPT port	0: Bare body	000: 1/4 in FPT	B: Protocol alarm station with pressure switch gauges
	2: 0-50 PSIG (0-2 BAR)	30 in -0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-310 BAR	1: 1/4 in MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8 in tube	C: Protocol switchover station
	3: 0-100 PSIG (0-3.5 BAR)	30 in -0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4 in tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4 in tube	E: Protocol alarm station with intrinsically safe transducer for hazardous environments
	4: 0-250 PSIG (0-7 BAR)	0-400 PSIG/ 0-7 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4 in tube fitting		TF6: 3/8 in tube	H: Protocol switchover alarm station with pressure switch gauges
	5: 0-500 PSIG (0-14 BAR)	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4 in MPT		M06: 6 mm tube	J: Protocol alarm station with standard transducer for non-hazardous environments
	7: 0-150 PSIG (0-10 BAR)	30 in -0-200 PSIG/ -1-0-14 BAR	8: 0-6000 PSIG/ 0-415 BAR*	5: Needle valve 1/4 in MPT		CGA DIN 477 BS 341 and others available	K: Protocol switchover alarm station with standard transducer for non-hazardous environments
	*Not available with 4500 PSIG (310 BAR) maximum inlet pressure		G: 0-4000 PSIG/ 0-275 BAR†	6: 3/8 in tube fitting			M: Protocol station
		Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®		7: 3/8 in tube fitting			Q: Protocol purge station
		†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE		8: Diaphragm valve 1/8 in tube fitting			T: Tee purge*
				9: Diaphragm valve 1/8 in tube fitting			X: Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				M: 6 mm tube fitting			
				S: Diaphragm valve 6 mm tube fitting			
							*Not available with 4500 PSIG (310 BAR) max inlet pressure

Related Options

Part No.	Description
835 0204	Rear panel mount kit



Regulator Flow Curves

Flow Curves for 302, 304, 305, 307, 322, 324, 327, 401, 402, 408, 420, 422, 426, 427, 428, 429 Series

