

435 SERIES REGULATORS



The 435 Series regulators are intended for secondary pressure control of ultra-high purity inert gases, including non-corrosive and liquefied gases. Unlike most pipeline equipment, the CONCOA 435 Series regulator is rated to full cylinder pressure, making it ideal for point-of-use pressure control in high purity gas distribution systems. The bare body brass eliminates contamination from chromium or nickel and ensures no confusion with stainless steel in mixed material environments.

Typical Applications

- Bulk Gas Distribution Systems
- Gas and Liquid Chromatography
- High Purity Carrier Gases
- Zero, Span, and Calibration Gases
- Liquefied Hydrocarbon Gas Control
- Control of Cryogenic Gases



435 3021-01-000 shown

Features

CAPSULE® Seat Design increases serviceability and life

Metal-to-Metal Diaphragm Seal prevents gas contamination

Front and Rear Panel-Mountable allows easy installation

Pipe Away Relief Valve vents exhaust gases safely

Captured Vent Capable Bonnet prohibits exposure in the unlikely event of diaphragm failure

Pressure Ranges from 0-15 to 0-500 PSIG (0-1 to 0-34 BAR) facilitates a broad range of applications

Materials and Specifications

Maximum Inlet Pressure (bare body): 3000 PSIG (210 BAR)

Body: Brass barstock

Bonnet: Brass barstock

Gauge: 2 in (50 mm) diameter brass

Seat: PTFE

Filter: 10-micron sintered bronze

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

Diaphragm: 316L stainless steel

Cv: 0.1 max outlet 50 PSIG (3.5 BAR) or below; 0.2 max outlet above 50 PSIG (3.5 BAR) *See flow curves attached*

Helium Leak Integrity: 1×10^{-9} scc/sec

Internal Seals: PTFE

Ports (bare body): 1/4 in FNPT

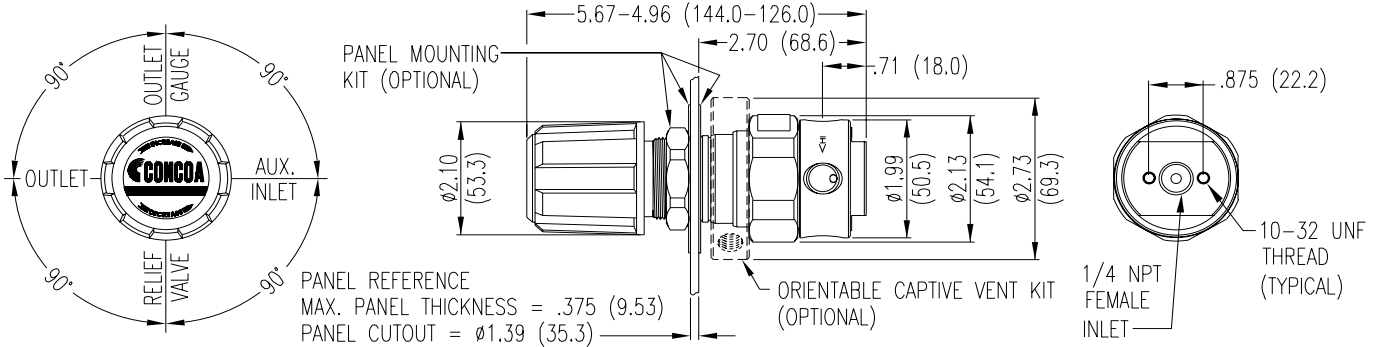
Weight (435 3021-000): 2.70 lbs. (1.22 kg)

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

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Installation Options



Ordering Information

435	A	B	C	D	-CON	Options	
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections	Installed Options
435	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FNPT port	0: Bare body	000: 1/4" FNPT	None
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR		1: 1/4" MNPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		2: 1/4" tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR		3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR		4: Diaphragm valve 1/4" MNPT		M06: 6mm tube	
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		5: Needle valve 1/4" MNPT			
	<i>*Standard assembly does not include relief valve.</i>						
				6: 1/8" tube fitting			
				7: 3/8" tube fitting			
				8: Diaphragm valve 1/8" tube fitting			
				9: Diaphragm valve 1/4" FNPT			
				A: 3/8" BSP RH fitting			
				B: Diaphragm Valve 3/8" tube fitting			
				C: 3/8" BSP LH fitting			
				D: 6mm brass hose barb (not available if A=4 or 5)			
				G: 1/8" stainless steel tube fitting			
				H: 1/4" stainless steel tube fitting			
				M: 6mm tube fitting			
				S: Diaphragm valve 6mm tube fitting			

Related Options

Part No.	Description
550 0001	Captured vent kit (2 required)
550 0002	Panel mount kit
476 0002	Helium leak certification

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Flow Curves for 435 Series

