

# 427 SERIES REGULATORS



The 427 Series single stage regulators are intended for secondary pressure control of the highest purity gases or as point-of-use pressure control in high purity gas distribution systems.

## Typical Applications

- Semiconductor Process Gases
- Photovoltaic Manufacturing
- Ultra-High Purity Gases
- Pharmaceutical Processing
- Aerospace Systems
- Nanotechnology Research



427 4001-01-001 shown

## Features

**CAPSULE® Seat Design** features integral 360° filtration in both stages

**316L Stainless Steel Barstock Body** provides increased corrosion resistance

**Cleanroom Assembly** eliminates contamination at installation

**Front and Rear Panel-Mountable** facilitates a variety of system configurations

**Metal-to-Metal Diaphragm Seal** prevents gas contamination

**Butt-welded Face Seal Connections** provide the highest leak integrity available

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

## Materials and Specifications

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

**Body:** 316L stainless steel barstock

**Bonnet:** Chrome-plated brass barstock

**Seat:** PTFE

**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:**  $1 \times 10^{-9}$  scc/sec

**Internal Seals:** PTFE

**Ports (bare body):** 1/4 in face seal connection

**Weight (427 4001-001):** 2.24 lbs. (1.02 kg)

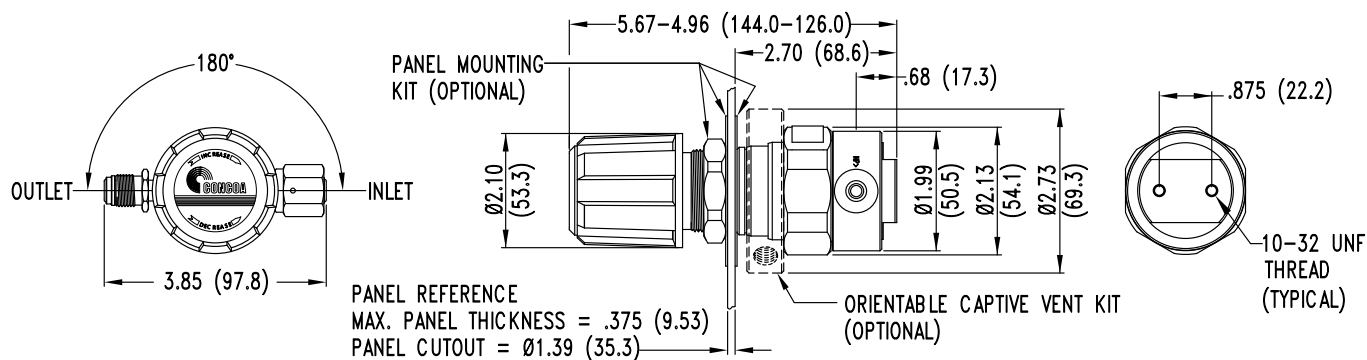
**Conformances:** Cleanliness meets or exceeds CGA G-4.1; PED 2014/68/EU; ANSI/ASME B40.1; CRN OH5216



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## Installation Dimensions



## Ordering Information

427	A	B	C	D
Series 427	Outlet Pressure	Outlet Gauge	Inlet Gauge	Connections - inlet/outlet
	1: 0-15 PSIG (0-1 BAR)	0: None	0: None	1: Female face seal/male face seal
	2: 0-30 PSIG (0-2 BAR)			2: Male face seal/male face seal
	3: 0-50 PSIG (0-3.5 BAR)			3: Male face seal/female face seal
	4: 0-100 PSIG (0-7 BAR)			4: Female face seal/female face seal
	5: 0-250 PSIG (0-17 BAR)			
	6: 0-500 PSIG (0-34 BAR)			
	7: 0-150 PSIG (0-10 BAR)			

## Related Options

Part No.	Description
550 0001	Captured vent kit. 360° Orientation, pipes vented gases to safe location in the event of diaphragm failure. Material: Nickel-plated brass
550 0002	Panel mount kit to mount the regulator using bonnet threads. Material: Nickel-plated brass
476 0002	Helium Leak certification Inboard Helium Leak certification to less than 1 x 10 <sup>-9</sup> cc/sec



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## Flow Curves for 427 Series

