



400 Series Regulators

427 SERIES

The 427 Series 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.

- Single Stage
- 316L Stainless Steel Barstock Body
- Two Port Configuration
- Face Seal Connections

Typical Applications

- Semiconductor process gases
- Photovoltaic manufacturing
- Ultra-high purity gases
- Pharmaceutical processing
- Aerospace systems
- Nanotechnology research



427 4004-001 shown

Features

- Metal-to-Metal Diaphragm Seal**
No possibility of gas contamination
- CAPSULE® Seat**
Increased serviceability and life
- Butt-Welded Face Seal connections**
Highest leak integrity available
- 316L Stainless Steel Barstock Body**
Increased corrosion resistance
- Front and Rear Panel-Mountable**
Versatile system configuration
- 3000 PSIG (210 BAR) Inlet Pressure Rating**
Safe use with high pressure cylinders
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**
Broad range of applications

Materials

- Body**
316L stainless steel barstock
- Bonnet**
Chrome-plated brass barstock
- Seat**
PTFE
- Filter**
Patented 10 micron 316 mesh
- Diaphragm**
316L stainless steel
- Internal Seals**
PTFE

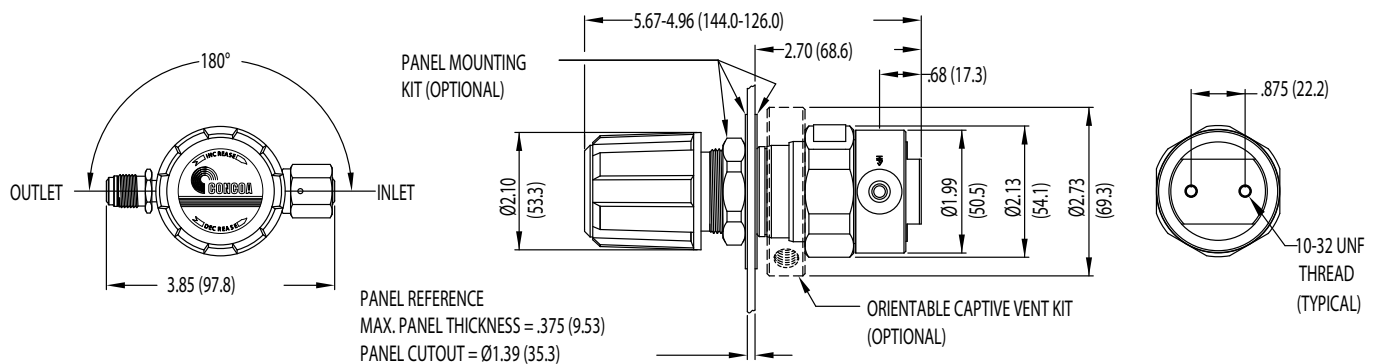
Specifications

- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Ports**
1/4" face seal connection
- Helium Leak Integrity**
1 x 10⁻⁹ scc/sec
- Cv**
0.1
See page 202 for flow curves
- Weight (427 4004-001)**
2.24 lbs. (1.02 kg)

400 Series Regulators



Installation Dimensions



REGULATORS

Ordering Information

Series	A	B	C	D
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

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



Regulator Flow Curves

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

