



400 Series Regulators

428 SERIES

The 428 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
- Three Port Configuration
- Face Seal Connections

Typical Applications

Semiconductor process gases
Gas and liquid chromatography
Ultra-high purity carrier gases
Zero, span, and calibration gases
Liquefied hydrocarbon gas control
Control of cryogenic gases



428 3302-001 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 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)

Gauge
2" (53mm) diameter stainless steel

Ports
1/4" face seal connection

Helium Leak Integrity
1 x 10⁻⁹ scc/sec

Cv
0.1
See page 188 for flow curves

Weight (428 3302-001)
2.46 lbs. (1.12 kg)

CONCOA
PRECISION GAS CONTROLS

Technical drawing of the 1/2" NPT x 1/2" NPT 100 PSI Differential Pressure Transmitter, Model 3000. The drawing includes three views: a front view, a side view, and a top view. The front view shows the circular face with an 'OUTLET' on the left, an 'INLET' on the right, and an 'OUTLET GAUGE' at the top. The side view shows the profile of the transmitter with various mounting and connection dimensions. The top view shows the circular base with two mounting holes. Dimensions are provided in both inches and millimeters.

Front View Dimensions:

- OUTLET GAUGE
- OUTLET
- INLET
- 3.00 (76.2)
- 1.95 (49.5)
- 90°
- 90°
- 3.85 (97.8)

Side View Dimensions:

- PANEL MOUNTING KIT (OPTIONAL)
- 5.67-4.96 (144.0-126.0)
- 2.70 (68.6)
- .68 (17.3)
- Ø2.10 (53.3)
- Ø1.99 (50.5)
- Ø2.13 (54.1)
- Ø2.73 (69.3)
- ORIENTABLE CAPTIVE VENT KIT (OPTIONAL)

Top View Dimensions:

- .875 (22.2)
- 10-32 UNF THREAD (TYPICAL)

Panel Reference:

- MAX. PANEL THICKNESS = .375 (9.53)
- PANEL CUTOUT = Ø1.39 (35.3)

428	A	B	C	D
Series 428	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)	1: 30"-0-30 PSIG/-1-0-2 BAR		2: Male face seal/male face seal
	3: 0-50 PSIG (0-3.5 BAR)	2: 30"-0-60 PSIG/-1-0-4 BAR		3: Male face seal/female face seal
	4: 0-100 PSIG (0-7 BAR)	3: 30"-0-100 PSIG/-1-0-7 BAR		4: Female face seal/female face seal
	5: 0-250 PSIG (0-17 BAR)	4: 30"-0-200 PSIG/-1-0-14 BAR		
	6: 0-500 PSIG (0-34 BAR)	5: 0-400 PSIG/0-27 BAR		
	7: 0-150 PSIG (0-10 BAR)	6: 0-1000 PSIG/0-70 BAR		

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

OUTLET PRESSURE - PSIG (BAR)

