



# 400 Series Regulators

## 428 Series Regulator

Single Stage

316L Stainless Steel Barstock Body

Three-Port Configuration

Face Seal Connections

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.

### Features

- 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  
Broad range of applications

### 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 shown

### 400 Series Advantage

- Metal-to-metal diaphragm seal  
No possibility of gas contamination
- Capsule® seat  
Increased serviceability and life
- 316L stainless steel diaphragm  
No inboard diffusion
- Orientable captured vent capable  
Safety in any installation
- Low wetted surface area  
Minimal purge requirements
- Field-adjustable pressure limit  
Safeguard downstream equipment
- Pipe away relief valve  
Safely vents exhaust gases

### Materials

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

### Specifications

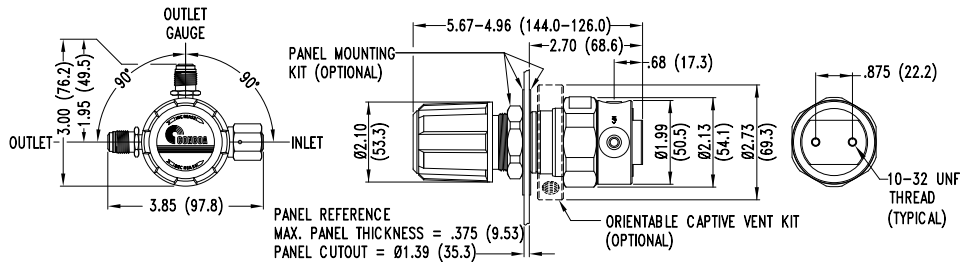
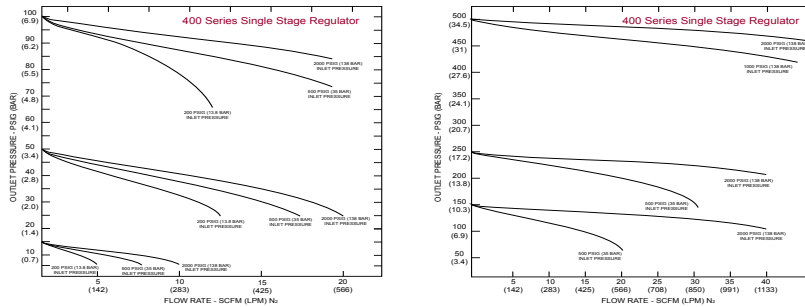
- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauge**  
2" diameter stainless steel
- Ports**  
1/4" FSC
- Helium Leak Integrity**  
1 x 10<sup>-9</sup> scc/sec
- Cv**  
0.1
- Weight (428-1302)**  
2.46 lbs. (1.12 kg)

FSC - Face Seal Connection

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## Technical Information



## Ordering Information

428	A	B	C	D
Series 428	Outlet Pressure	Outlet Gauge	Inlet Gauge	Connections
	1: 0-15 PSIG	0: None	0: None	1: FFSC in/MFSC out
	2: 0-30 PSIG	1: 30"-0-30 PSIG		2: MFSC in/MFSC out
	3: 0-50 PSIG	2: 30"-0-60 PSIG		3: MFSC in/FFSC out
	4: 0-100 PSIG	3: 30"-0-100 PSIG		4: FFSC in/FFSC out
	5: 0-250 PSIG	4: 30"-0-200 PSIG		FSC - Face Seal Connection
	6: 0-500 PSIG	5: 0-400 PSIG		
	7: 0-150 PSIG	6: 0-1000 PSIG		

## 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 $1 \times 10^{-9}$ cc/sec
Passivation	550-0003	Passivation for fluorine service
0.01 micron filter	580-2001	Attached at outlet for low particle count gases (with 1/4" VCR® connections only)