



# 400 Series Regulators

# 415 SERIES

The 415 Series regulators are intended for primary pressure control of ultra-high purity or corrosive gases for applications requiring constant pressure control and delivery regardless of supply pressure variations.

- Dual Stage
- 316L Stainless Steel Barstock Body
- Five Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- EPA protocol gases
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span, and calibration gases
- Ultra-high purity chamber pressurization
- Liquefied hydrocarbon gas control
- Corrosive gases



415 3332 580 shown

## Features

- Metal-to-Metal Diaphragm Seal**  
No possibility of gas contamination
- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Barstock Body**  
Increased corrosion resistance
- Front Panel-Mountable**  
Easy installation
- 10 Micron Filtration in Both Stages**  
Fail-safe seat performance
- Pressure Ranges 0-15 to 0-350 PSIG (0-1 BAR to 0-24 BAR)**  
Broad range of applications
- Pipe Away Relief Valve**  
Safely vents exhaust gases

## Materials

- Body**  
316L stainless steel barstock
- Bonnet**  
Chrome-plated brass barstock
- Seat**  
PTFE  
PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option
- Filter**  
Patented 10 micron 316 mesh
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

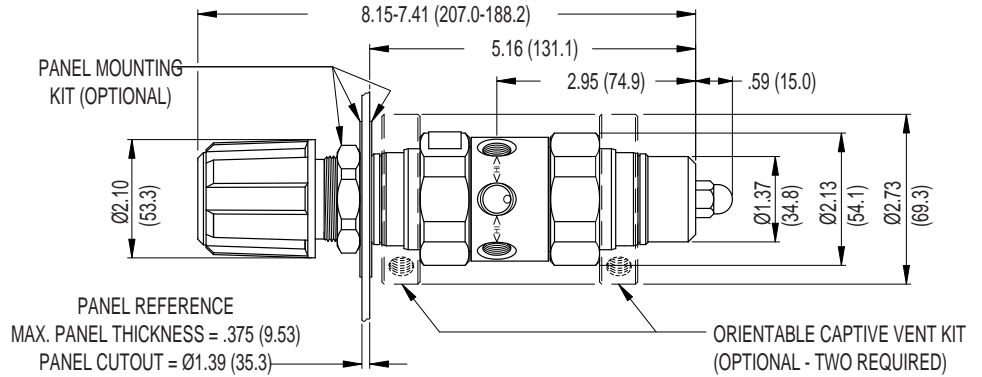
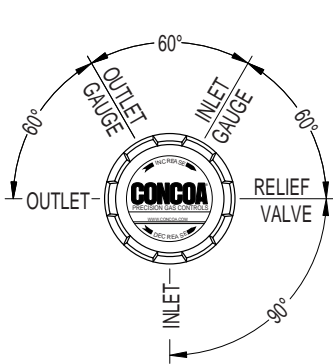
## Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)  
3500 PSIG (240 BAR) optional  
4500 PSIG (310 BAR) optional
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter stainless steel
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-9</sup> scc/sec
- Cv**  
0.1  
See page 202 for flow curves
- Weight (432 3331-580)**  
5.09 lbs. (2.31 kg)

# 400 Series Regulators



## Installation Dimensions



## Ordering Information

415	A		B	C	D	-CON
Series 415	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
	<b>1:</b> 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/-1-0-2 BAR)	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR	<b>3:</b> 0-4000 PSIG/0-275 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-1-0-14 BAR	<b>5:</b> 0-1000 PSIG/0-70 BAR	<b>2:</b> 1/4" tube fitting	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-27 BAR	<b>6:</b> 0-300 PSIG/0-21 BAR	<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR	<b>7:</b> 0-400 PSIG/0-27 BAR	<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube
	<b>E:</b> 0-350 PSIG (0-24 BAR)	0-400 PSIG/0-27 BAR	<b>8:</b> 0-6000 PSIG/0-415 BAR*	<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available
			<b>G:</b> 0-4000 PSIG/0-275 BAR†	<b>6:</b> 1/8" tube fitting		
			*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®	<b>7:</b> 3/8" tube fitting		
			†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE	<b>8:</b> Diaphragm valve 1/8" tube fitting		
				<b>9:</b> Diaphragm valve 1/4" FPT		
				<b>M:</b> 6mm tube fitting		
				<b>S:</b> Diaphragm valve 6mm tube fitting		

## Related Options

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

