



# 400 Series Regulators

# 425 SERIES

The 425 Series regulators are intended for secondary pressure control of ultra-high purity and corrosive gases or as point-of-use pressure control in ultra-high purity gas distribution systems.

- Single Stage
- 316L Stainless Steel Barstock Body
- Four Port Configuration
- 316L Stainless Steel Diaphragm

Typical Applications
Bulk gas distribution systems
Gas and liquid chromatography
Ultra-high purity carrier gases
Zero, span, and calibration gases
High purity chamber pressurization
Liquefied hydrocarbon gas control
Control of cryogenic gases
Corrosive gases



425 2021-000 shown

Features	Materials	Specifications
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**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 and Rear Panel-Mountable**  
Versatile system configuration

**Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications

**3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

**Pipe Away Relief Valve**  
Safely vents exhaust gases

**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

**Maximum Inlet Pressure**  
3000 PSIG (210 BAR)

**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

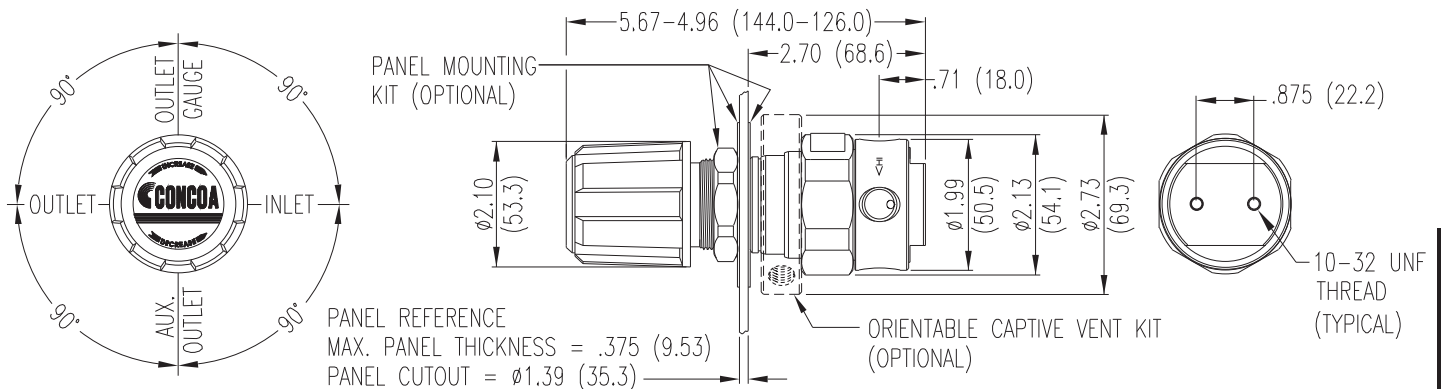
**Cv**  
0.1 (Max outlet 50 PSIG/1 BAR or below)  
0.2 (Max outlet above 50 PSIG/3.5 BAR)  
*See page 203 for flow curves*

**Weight (425 2021-TF4)**  
2.58 lbs. (1.17 kg)

# 400 Series Regulators



## Installation Dimensions



REGULATORS

## Ordering Information

425	A	B	C	D	-CON	Options	
Series 425	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/ Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	<b>30"</b> -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>M:</b> Protocol station
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	<b>30"</b> -0-100 PSIG/ -1-0-7 BAR		<b>1:</b> 1/4" MPT	<b>1:</b> Cleanroom Assembly (PSIG/kPa Gauges)	<b>TF2:</b> 1/8" tube	<b>Q:</b> Protocol purge station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	<b>30"</b> -0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Cleanroom Assembly (BAR/PSIG Gauges)	<b>TF4:</b> 1/4" tube	<b>S:</b> Stainless steel bonnet
	<b>4:</b> 0-250 PSIG (0-17 BAR)	<b>0-400</b> PSIG/ 0-27 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting	<b>6:</b> Mirror Image (PSIG/kPa Gauges)	<b>TF6:</b> 3/8" tube	
	<b>5:</b> 0-500 PSIG (0-34 BAR)**	<b>0-1000</b> PSIG/ 0-70 BAR		<b>4:</b> Diaphragm valve 1/4" MPT	<b>7:</b> Mirror Image (BAR/PSIG Gauges)	<b>M06:</b> 6mm tube	
	<b>7:</b> 0-150 PSIG (0-10 BAR)	<b>30"</b> -0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT			
	<i>*Standard assembly does not include relief valve</i>			<b>6:</b> 1/8" tube fitting			
				<b>7:</b> 3/8" tube fitting			
				<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
476 0002	Helium Leak certification

# Regulator Flow Curves



## Flow Curves for 403, 405, 425, 435, 445 Series

