

# 425 Series Regulator

*Single Stage*  
*316L Stainless Steel*  
*Barstock Body*

*Four-Port*  
*Configuration*

*316L Stainless Steel*  
*Diaphragm*

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

## Advanced Features

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

## Typical Applications

- 316L stainless steel barstock body  
Increased corrosion resistance
- Front and rear panel mountable  
Versatile system configuration
- Pressure ranges 0-15 to 0-500 PSIG  
Broad range of applications
- 3000 PSIG inlet pressure rating  
Safe use with high pressure cylinders



425-2021 shown

## 400 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 vent exhaust gases
- *Delivery pressure range easily changed*  
Maximum flexibility

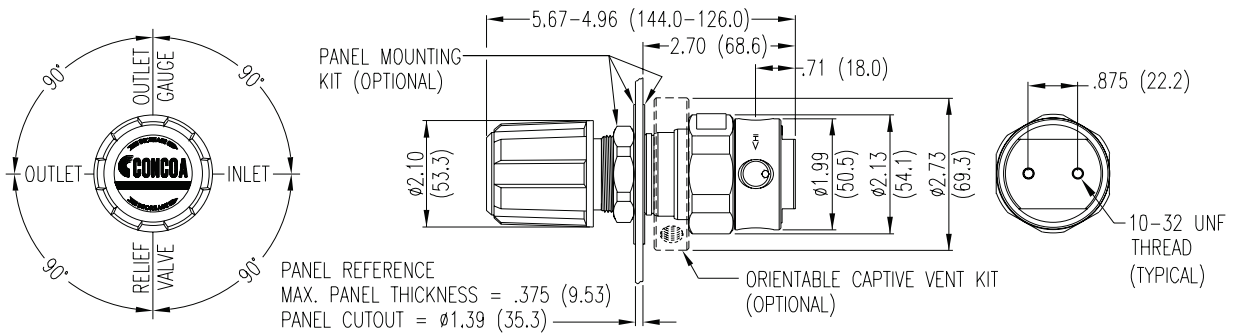
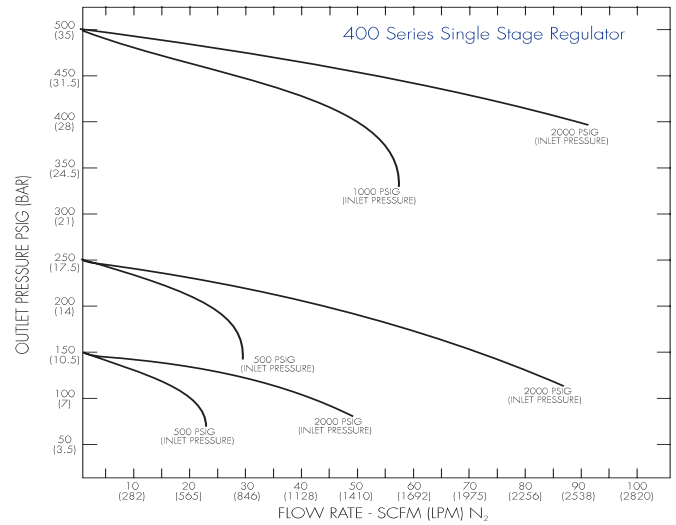
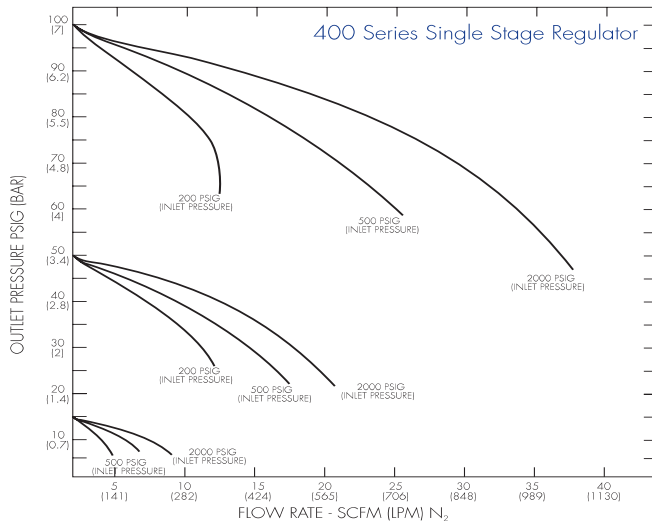
## Materials

- Body*  
316L stainless steel barstock
- Bonnet*  
Chrome-plated brass barstock
- Seat*  
PTFE
- Filter*  
10 micron 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)
- Gauges*  
2" diameter stainless steel
- Ports*  
¼" FPT
- Helium Leak Integrity*  
1 x 10<sup>-9</sup> scc/sec
- Cv*  
0.1 (Max outlet 50 PSIG or below)  
0.2 (Max outlet above 50 PSIG)
- Weight (425-2021-TF4)*  
2.58 lbs. (1.17 kg)

# Flow Performance Curves



## Ordering Information *(For information about how to use this table please see page 4.)*

425-	A	B	C	D	-Inlet	Options	
Series 425	<b>Outlet Pressure</b> 1: 0-15 2: 0-50 3: 0-100 4: 0-250 5: 0-500 7: 0-150	<b>Outlet Gauge</b> 30"-0-30 PSIG 30"-0-100 PSIG 30"-0-200 PSIG 0-400 PSIG 0-1000 PSIG 30"-0-200 PSIG	<b>Inlet Gauge</b> 0: None	<b>Outlet Assemblies</b> 0: ¼" FPT Port 1: ¼" MPT 2: ¼" Tube Fitting 3: Diaphragm Valve ¼" Tube Fitting 4: Diaphragm Valve ¼" MPT 5: Needle Valve ¼" MPT 6: ⅛" Tube Fitting 7: ⅜" Tube Fitting 8: Diaphragm Valve ⅛" Tube Fitting 9: Diaphragm Valve ¼" FPT A: ⅜" BSP Right Hand Fitting M: 6mm Tube Fitting S: Diaphragm Valve 6mm Tube Fitting	<b>Assembly/ Gauges</b> 0: Bare Body 1: Standard Assembly (PSIG/kPa Gauges) 2: Standard Assembly (BAR/PSIG Gauges) 4: Cleanroom Assembly (PSIG/kPa Gauges) 5: Cleanroom Assembly (BAR/PSIG Gauges)	<b>Inlet Connections</b> 000: ¼" FPT TF2: ⅛" Tube TF4: ¼" Tube TF6: ⅜" Tube M06: 6mm Tube	<b>Installed Options</b> A: Protocol Alarm Station (110V) B: Protocol Alarm Station (220V) C: Protocol Switchover Station G: Protocol Switchover Station with Alarm (110V) H: Protocol Switchover Station with Alarm (220V) M: Protocol Station S: SS Bonnet

### Related Options

- Panel Mount Kit (550-0002)
- Captured Vent Kit (550-0001)
- Helium Leak Certification (476-0002)
- Passivation for Fluorine Service (550-0003)