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 ultra-high purity and corrosive gases or as point-of-use pressure control in ultra-high purity gas distribution systems.

Advanced Features

- *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

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 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 vents exhaust gases

Materials

Body
316L stainless steel barstock

Bonnet
Chrome-plated brass barstock

Seat
PTFE

Filter
10 micron 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)

Gauges
2” diameter stainless steel

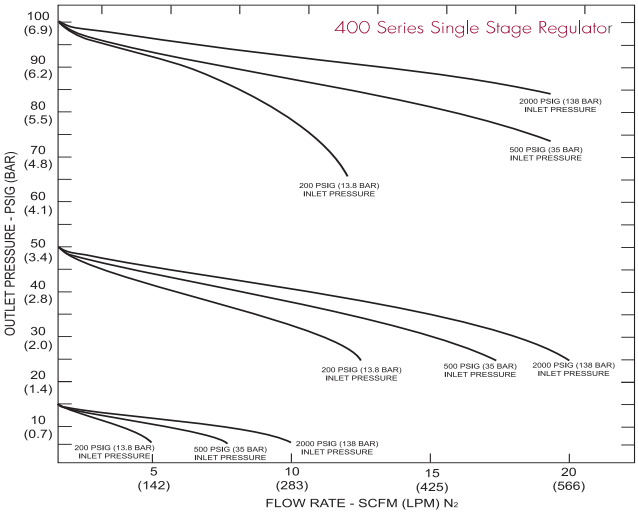
Ports
¼” FPT

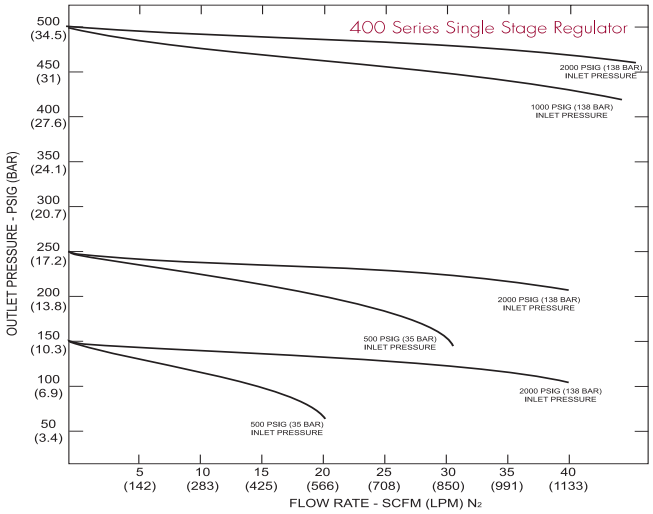
Helium Leak Integrity
1 x 10^{-9} scc/sec

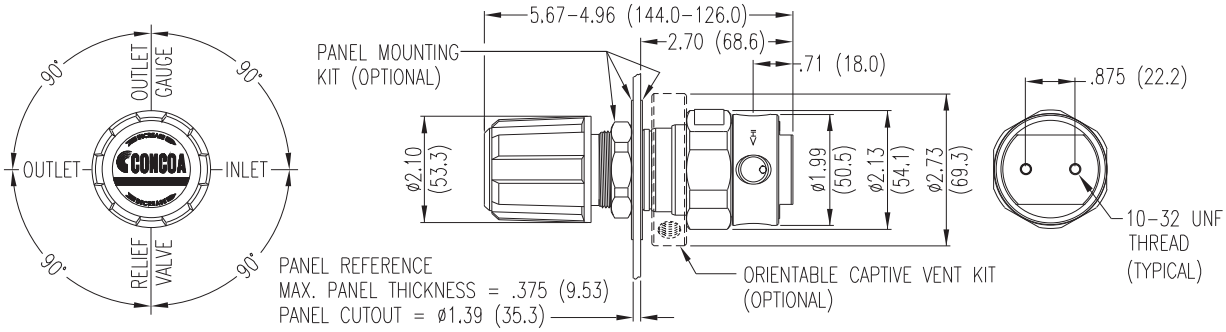
Cv
0.1 (Max outlet 50 psig or below)
0.2 (Max outlet above 50 psig)

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	**Outlet Pressure** / **Outlet Gauge** 1: 0-15* 30"-0-30 psig 2: 0-50 30"-0-100 psig 3: 0-100 30"-0-200 psig 4: 0-250 0-400 psig 5: 0-500** 0-1000 psig 7: 0-150 30"-0-200 psig **Not available with 4500 psig maximum inlet pressure* ***Standard assembly does not include relief valve*	**Inlet Gauge** 0: None	**Outlet Assemblies** 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 M: 6mm Tube Fitting S: Diaphragm Valve 6mm Tube Fitting	**Assembly/ Gauges** 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) 6: Mirror Image Assembly (psig/kPa Gauges) 7: Mirror Image Assembly (BAR/psig Gauges)	**Inlet Connections** 000: ¼" FPT TF2: ⅛" Tube TF4: ¼" Tube TF6: ⅜" Tube M06: 6mm Tube	**Installed Options** M: Protocol Station S: Stainless Steel Bonnet
Related Options	• Panel Mount Kit (550-0002) • Captured Vent Kit (550-0001) • Helium Leak Certification (476-0002)					