



400 Series Regulators

403 SERIES

The 403 Series regulators are intended for secondary pressure control of non-corrosive, high purity or liquefied gases or as point of use pressure control in high purity gas distribution systems.

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

Typical Applications

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



403 2021-000 shown

Features

Metal-to-Metal Diaphragm Seal
No possibility of gas contamination

CAPSULE® Seat
Increased serviceability and life

Chrome-plated Brass Barstock Body
Smooth surface finish

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

Materials

Body
Chrome-plated brass barstock

Bonnet
Chrome-plated brass barstock

Seat
PTFE

Filter
10 micron sintered bronze

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" (53mm) diameter chrome-plated

Ports
1/4" FPT

Helium Leak Integrity
1 x 10⁻⁹ scc/sec

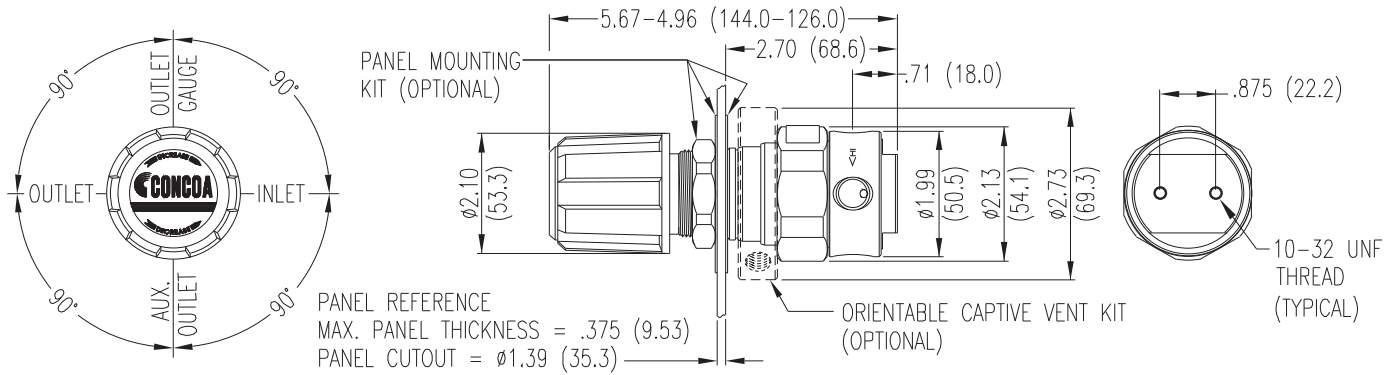
Cv
0.1 Max outlet 50 PSIG (3.5 BAR) or below
0.2 Max outlet above 50 PSIG (3.5 BAR)
See page 203 for flow curves

Weight (403 2021-000)
2.71 lbs. (1.23 kg)

400 Series Regulators



Installation Dimensions



Ordering Information

403	A		B	C	D	-CON	Options
Series 403	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/ Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	D: Deep purge
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR		1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	M: Protocol station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		2: 1/4" tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	Q: Protocol purge station
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR		3: Diaphragm valve 1/4" tube fitting	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube	
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR		4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube	
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		5: Needle valve 1/4" MPT			
	**Standard assembly does not include relief valve	6: 1/8" tube fitting					
		7: 3/8" tube fitting					
		8: Diaphragm valve 1/8" fitting					
		9: Diaphragm valve 1/4" FPT					
		A: 3/8" BSP RH fitting					
		B: Diaphragm valve 3/8" tube fitting					
		C: 3/8" BSP LH fitting					
		D: 6mm brass hose barb (Not available if A=4 or 5)					
		G: 1/8" stainless steel tube fitting					
	H: 1/4" stainless steel tube fitting						
M: 6mm tube fitting							
S: 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

