



400 Series Regulators

445 SERIES

The 445 Series regulators are intended for secondary pressure control of ultra-high purity and corrosive gases or as point of use pressure control in high purity gas distribution systems.

- Single Stage
- Rear Entry
- 316L Stainless Steel Barstock Body
- Five 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
Liquefied hydrocarbon gas control
Control of cryogenic gases
Corrosive service



445 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

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

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)

Gauge
2" (53mm) diameter stainless steel

Ports
1/4" FPT

Helium Leak Integrity
1 x 10⁻⁹ scc/sec

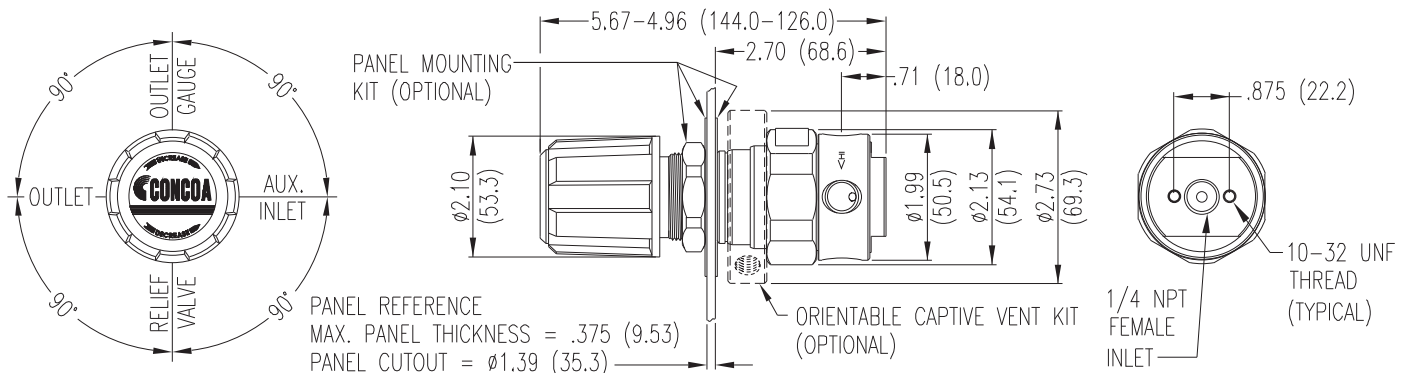
Cv
0.1 (Max outlet 50 PSIG/3.5 BAR or below)
0.2 (Max outlet above 50 PSIG/3.5 BAR)
See page 203 for flow curves

Weight (445 2021-000)
2.57 lbs. (1.17 kg)

400 Series Regulators



Installation Dimensions



REGULATORS

Ordering Information

445	A	B	C	D	-CON	Options	
Series 445	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	None
	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	
	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	
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR		3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR		4: Diaphragm valve 1/4" MPT		M06: 6mm tube	
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		5: Needle valve 1/4" MPT			
	<i>*Standard assembly does not include relief valve</i>			6: 1/8" tube fitting			
				7: 3/8" tube fitting			
				8: Diaphragm valve 1/8" tube fitting			
				9: Diaphragm valve 1/4" FPT			
				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

