



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

- 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

Materials

- 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

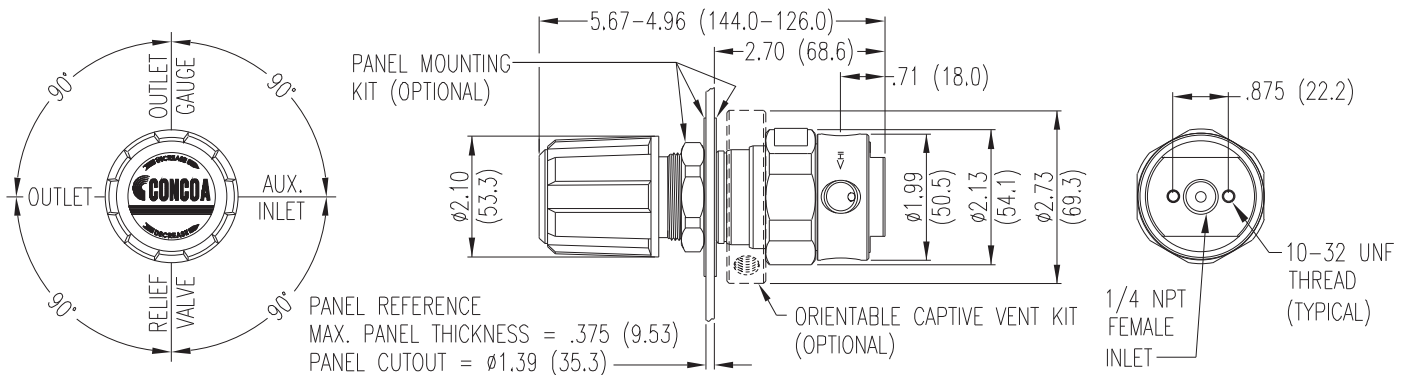
Specifications

- 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			
	*Standard assembly does not include relief valve			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

