



# 400 Series Regulators

## 445 Series Regulator

Single Stage

Rear Entry

316L Stainless Steel Barstock Body

Five-Port Configuration

316L Stainless Steel  
Diaphragm

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.

### Features

- Stainless steel barstock body  
Smooth surface finish
- 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 service



445-2021 shown

### 400 Series 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 patented 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)

#### Gauge

2" diameter stainless steel

#### Ports

1/4" 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)

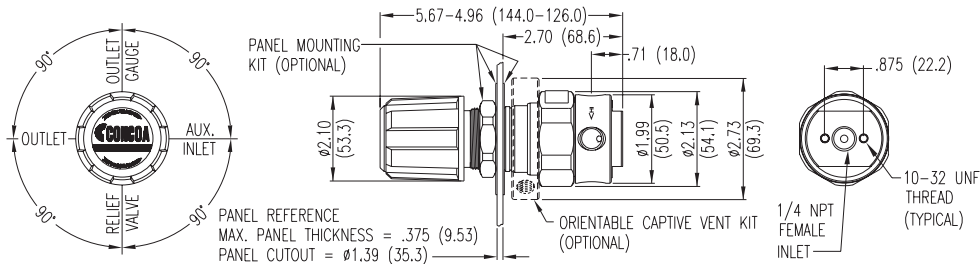
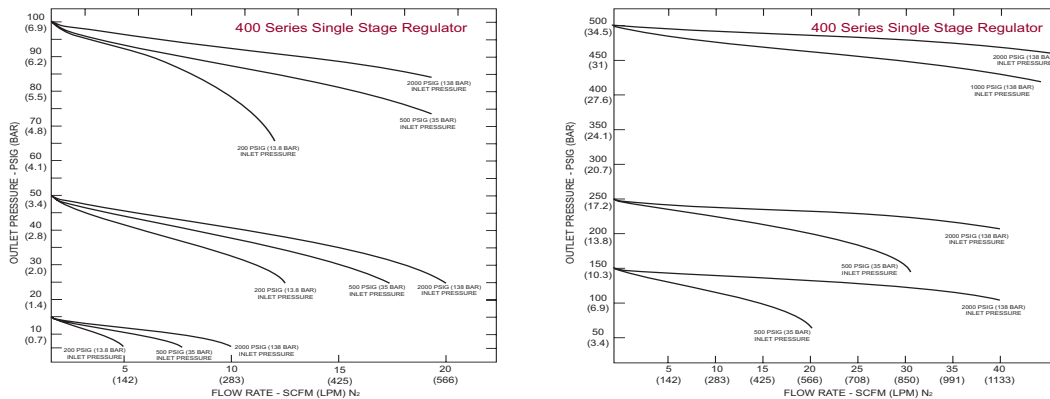
#### Weight (445-2021-TF4)

2.57 lbs. (1.17 kg)

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## Technical Information



## Ordering Information

445	A	B	C	D	-Inlet	Options	
Series 445	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/ Gauges	Inlet Connections	Installed Options
	1: 0-15*	30"-0-30 PSIG	0: None	0: 1/4" FPT Port	0: Bare Body	000: 1/4" FPT	None
	2: 0-50	30"-0-100 PSIG		1: 1/4" MPT	1: Standard Assembly (PSIG/kPa Gauges)	TF2: 1/8" Tube	
	3: 0-100	30"-0-200 PSIG		2: 1/4" Tube Fitting	2: Standard Assembly (BAR/PSIG Gauges)	TF4: 1/4" Tube	
	4: 0-250	0-400 PSIG		3: Diaphragm Valve 1/4" Tube Fitting	4: Cleanroom Assembly (PSIG/kPa Gauges)	TF6: 3/8" Tube	
	5: 0-500**	0-1000 PSIG		4: Diaphragm Valve 1/4" MPT	5: Cleanroom Assembly (BAR/PSIG Gauges)	M06: 6mm Tube	
	7: 0-150	30"-0-200 PSIG		5: Needle Valve 1/4" MPT			
				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			
	**Standard assembly does not include relief valve						

## Related Options

Stock No.	Description
550-0002	Panel Mount Kit
550-0001	Captured Vent Kit
476-0002	Helium Leak Certification