



400 Series Regulators

408 Series Regulator

Single Stage

Anodized

Aluminum Barstock Body

316L Stainless Steel

Diaphragm

The 408 Series regulators are intended for primary pressure control of mildly corrosive high purity gases such as ammonia, hydrogen sulfide, and sulfur dioxide or for applications requiring the light weight of an aluminum body regulator.



408-2331 shown

Features

- Anodized aluminum body
Cost-effective corrosion resistance
- Front and rear panel-mountable
Versatile system configuration
- Pressure ranges 0-15 to 0-500 PSIG
Broad range of applications

Typical Applications

- Semi-corrosive gases and mixtures
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span, and calibration gases
- High purity chamber pressurization
- Mildly corrosive gases

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*
Anodized aluminum barstock
- Bonnet*
Anodized aluminum barstock
- Seat*
PTFE
- Filter*
10 micron patented stainless steel multi-layer mesh
- Diaphragm*
316L stainless steel
- Internal Seals*
PTFE

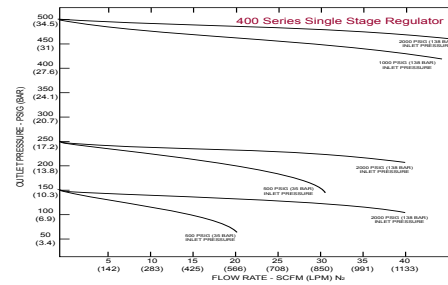
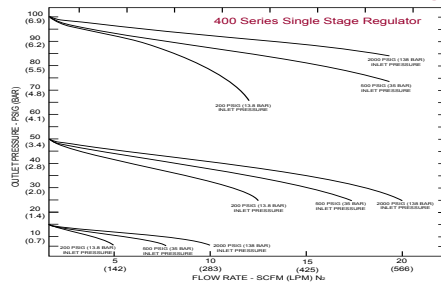
Specifications

- Maximum Inlet Pressure*
3000 PSIG (210 BAR)
- Temperature Range*
-40°F to 140°F (-40°C to 60°C)
- Gauges*
2" diameter stainless steel
- Ports*
1/4" FPT
- Helium Leak Integrity*
1 x 10⁻⁹ scc/sec
- Cv*
0.1
- Weight (408-2331-660)*
2.7 lbs. (1.24 kg)

400 Series Regulators



Flow Performance Curves and Ordering Information



408	A	B	C	D	-Inlet	
Series 408	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
	1: 0-15*	30"-0-30 PSIG	0: None	0: ¼" FPT Port	0: Bare Body	000: ¼" FPT
	2: 0-50	30"-0-100 PSIG	3: 0-4000 PSIG	1: ¼" MPT	1: Standard Assembly (PSIG/kPa Gauges)	TF2: ¼" Tube
	3: 0-100	30"-0-200 PSIG	5: 0-1000 PSIG	2: ¼" Tube Fitting	2: Standard Assembly (BAR/PSIG Gauges)	TF4: ¼" Tube
	4: 0-250	0-400 PSIG	6: 0-300 PSIG	3: Diaphragm Valve ¼" Tube Fitting	4: Cleanroom Assembly (PSIG/kPa Gauges)	TF6: ⅜" Tube
	5: 0-500**	0-1000 PSIG	7: 0-400 PSIG	4: Diaphragm Valve ¼" MPT	5: Cleanroom Assembly (BAR/PSIG Gauges)	M06: 6mm Tube
	7: 0-150	30"-0-200 PSIG		5: Needle Valve ¼" MPT		
				6: ⅜" Tube Fitting		
				7: ⅝" Tube Fitting		
				8: Diaphragm Valve ⅜" Tube Fitting		
				9: Diaphragm Valve ¼" FPT		
				M: 6mm Tube Fitting		
				S: Diaphragm Valve 6mm Tube Fitting		

Recommended Applications

Gas Service	Standard Inlet Pressure at 70°F	Series Model (408-ABCD)	Standard Connection (-CGA)
Ammonia	114 PSIG	408-A631	CGA 240 CGA 660 CGA 705
Carbonyl Sulfide	160 PSIG	408-A731	CGA 330
Dimethylamine	15 PSIG	408-1031	CGA 240 CGA 705
Hydrogen Sulfide	250 PSIG	408-A631	CGA 330
Methyl Mercaptan	15 PSIG	408-1031	CGA 330
Monomethylamine	20 PSIG	408-1031	CGA 705
Sulfur Dioxide	35 PSIG	408-1031	CGA 660
Trimethylamine	20 PSIG	408-1031	CGA 240 CGA 705
Vinyl Chloride	30 PSIG	408-1031	CGA 290 CGA 510
Vinyl Fluoride	355 PSIG	408-A531	CGA 350
Vinyl Methyl Ether	28 PSIG	408-1031	CGA 290 CGA 510
Mixtures	<3000 PSIG	408-A331	See CGA Bulletin No. V-7

Related Options

Options	Order No.	Description
Panel Mount Kit	550-0002	To mount the regulator using bonnet threads. Material: Nickel-plated brass
Captured Vent Kit	550-0001	360° orientation pipes vented gases to safe location in the event of diaphragm failure. Material: Nickel-plated brass
Helium Leak Certification	476-0002	Inboard helium leak certification to less than 1 x 10 ⁻⁹ cc/sec
Protocol Station	Add letter "M" after inlet	Convenient regulator wall mount, including tee, bracket, and flexible stainless steel pigtail with check valve in inlet gland
Deep Purge	Add letter "D" after inlet	Installed on the inlet of the regulator to assure complete purging of the cylinder connection and regulator body.
Protocol Purge Station	Add letter "Q" after inlet	Convenient regulator wall mount with purge