408 Series Regulator

CRN OH 5216.5C

Single Stage

Anodized Aluminum Barstock Body

316L Stainless Steel Diaphragm

408-2331 shown

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.

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*

Advanced 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

400 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 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
¼” FPT

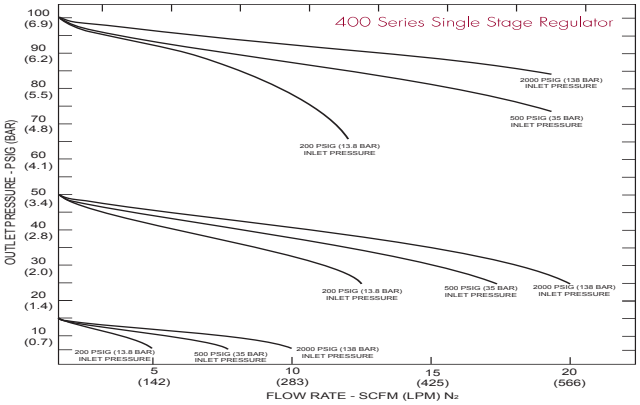
Helium Leak Integrity
1 x 10^{-9} scc/sec

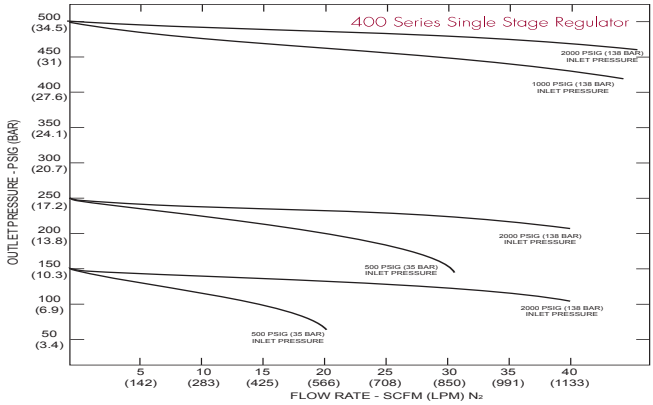
Cv
0.1

Weight (408-2331-660)
2.7 lbs. (1.24 kg)

Controls Corporation of America, Inc.
1501 Harpers Road • Virginia Beach, Virginia 23454 USA • 1.800.225.0473 • 757.422.3125 • www.concoa.com

Flow Performance Curves





Ordering Information *(For information about how to use this table please see page 4.)*

408	A		B	C	D	-Inlet
Series	**Outlet Pressure**	**Outlet Gauge**	**Inlet Gauge**	**Outlet Assemblies**	**Assembly/Gauges**	**Connections**
408	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: ⅛" 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)	CGA
	7: 0-150	30"-0-200 PSIG		5: Needle Valve ¼" MPT		DIN 477
				6: ⅛" Tube Fitting		BS 341
				7: ⅜" Tube Fitting		and others available
				8: Diaphragm Valve ⅛" 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

Option	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 for easy piping of vented gases to a 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 the 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. *(Please see page 127 for more information about purges.)*