



400 Series Regulators

412 Series Regulator

Dual Stage

Brass Barstock Body

Six-Port
Configuration

316L Stainless Steel
Diaphragm

The 412 Series regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases for applications requiring constant pressure control and delivery regardless of supply pressure variations.



412-1331 shown

Features

- Brass barstock body
Smooth surface finish
- Front panel-mountable
Easy installation
- 10 micron filtration in both stages
Fail-safe seat performance
- Pressure ranges 0-15 to 0-250 PSIG
Broad range of applications

Typical Applications

- EPA Protocol gases
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span, and calibration gases
- High purity chamber pressurization

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*
Brass barstock
- Bonnet*
Brass barstock
- Seat*
PTFE
PCTFE with 4500 PSIG inlet option
- Filter*
10 micron sintered bronze
- Diaphragm*
316L stainless steel
- Internal Seals*
PTFE

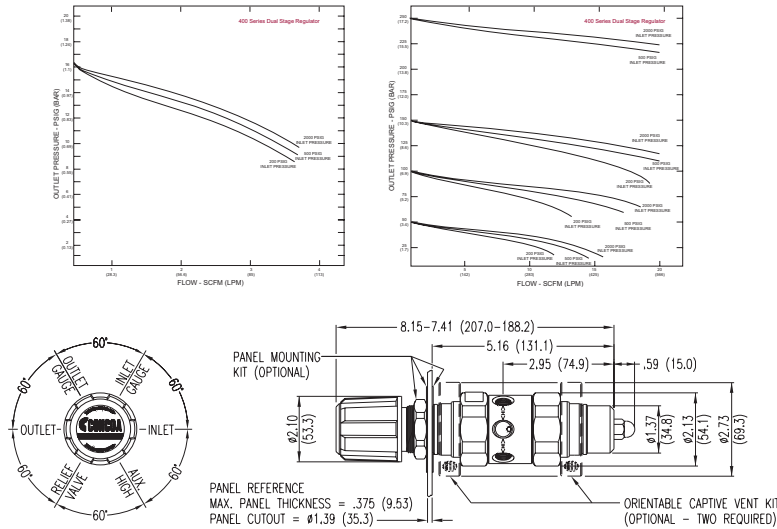
Specifications

- Maximum Inlet Pressure*
3000 PSIG (210 BAR)
4500 PSIG (310 BAR) optional
- Temperature Range*
-40°F to 140°F (-40°C to 60°C)
- Gauges*
2" diameter brass
- Ports*
1/4" FPT
- Helium Leak Integrity*
1 x 10⁻⁹ scc/sec
- Cv*
0.1
- Weight (412-2331-580)*
5.3 lbs. (2.40 kg)

400 Series Regulators



Technical Information



400 Series

Ordering Information

412	A	B	C	D	-Inlet	Options	
Series 412	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	A: Protocol Alarm Station (110V)
	2: 0-50	30"-0-100 PSIG	3: 0-4000 PSIG	1: 1/4" MPT	1: Standard Assembly (PSIG/kPa Gauges)	TF2: 1/8" Tube	B: Protocol Alarm Station (220V)
	3: 0-100	30"-0-200 PSIG	5: 0-1000 PSIG	2: 1/4" Tube Fitting	2: Standard Assembly (BAR/PSIG Gauges)	TF4: 1/4" Tube	C: Protocol Switchover Station
	4: 0-250	0-400 PSIG	6: 0-300 PSIG	3: Diaphragm Valve 1/4" Tube Fitting	4: Cleanroom Assembly (PSIG/kPa Gauges)	TF6: 3/8" Tube	D: Deep Purge*
	7: 0-150	30"-0-200 PSIG	7: 0-400 PSIG	4: Diaphragm Valve 1/4" MPT	5: Cleanroom Assembly (BAR/PSIG Gauges)	M06: 6mm Tube	G: Protocol Switchover Station with Alarm (110V)
			8: 0-6000 PSIG*	5: Needle Valve 1/4" MPT			H: Protocol Switchover Station with Alarm (220V)
				6: 1/8" Tube Fitting			M: Protocol Station
				7: 3/8" Tube Fitting			Q: Protocol Purge Station*
				8: Diaphragm Valve 1/8" Tube Fitting			
				9: Diaphragm Valve 1/4" FPT			
				A: 3/8" BSP Right Hand Fitting			
				B: Diaphragm Valve 3/8" Tube Fitting			
				C: 3/8" BSP Left Hand Fitting			
				D: 6mm Brass Hose Barb (not available if A=4 or 5)			
				G: 1/8" Stainless Steel Tube Fitting			
				H: 1/4" Stainless Steel Tube Fitting			
				M: 6mm Tube Fitting			
				S: Diaphragm Valve 6mm Tube Fitting			
		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat Capsule®				CGA DIN 477 BS 341 and others available	*Not available with 4500 PSIG max inlet pressure

Related Options

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