



412 DUAL STAGE BRASS REGULATOR

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.

Highlighted Features

- Dual Stage
- Brass Barstock Body
- Six Port Configuration
- 316L Stainless Steel Diaphragm

Typical Applications

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



412 REGULATOR
WITH DIAPHRAGM VALVE
SHOWN HERE

Features	Materials	Specifications
<p>Metal-to-Metal Diaphragm Seal No possibility of gas contamination</p> <p>CAPSULE® Seat Increased serviceability and life</p> <p>Brass Barstock Body Smooth surface finish</p> <p>Front Panel-Mountable Easy installation</p> <p>10 Micron Filtration in Both Stages Fail-safe seat performance</p> <p>Pressure Ranges 0-15 to 0-350 PSIG (0-1 to 0-24 BAR) Broad range of applications</p> <p>Pipe Away Relief Valve Safely vents exhaust gases</p>	<p>Body Brass barstock</p> <p>Bonnet Brass barstock</p> <p>Seat PCTFE (first stage) PTFE (second stage)</p> <p>Filter 10 micron sintered bronze</p> <p>Diaphragm 316L stainless steel</p> <p>Internal Seals PTFE</p>	<p>Maximum Inlet Pressure 3000 PSIG (210 BAR) 3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional</p> <p>Temperature Range -40°F to 140°F (-40°C to 60°C)</p> <p>Gauges 2" (53mm) diameter brass</p> <p>Ports 1/4" FPT</p> <p>Helium Leak Integrity 1 x 10⁻⁹ scc/sec</p> <p>Cv 0.1 <i>Refer to flow curve chart below</i></p> <p>Weight (412 2331-580) 5.3 lbs. (2.40 kg)</p>

Order Information

Model	A	B	C	D	-CON	Installed Options	
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Gauges	Inlet Connections	Installed Options
412	1: 0-15 PSIG (0-1 BAR) ¹	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station with pressure switch gauges
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-310 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ - 1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	D: Deep purge ¹
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	E: Protocol alarm station with intrinsically safe transducer for hazardous environments
	7: 0-150 PSIG (0-10 BAR)	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT		M06: 6mm	H: Protocol switchover alarm station with pressure switch gauges
	E: 0-350 PSIG (0-24 BAR)	0-400 PSIG/ 0-27 BAR	8: 0-6000 PSIG* / 0-400 BAR	5: Needle valve 1/4" MPT 6: 1/8" tube fitting 7: 3/8" tube fitting		CGA DIN 477 BS 341 and others available	J: Protocol alarm station with standard transducer for non-hazardous environments
			G: 0-4000 PSIG/ 0-275 BAR †	8: Diaphragm valve 1/8" tube fitting 9: Diaphragm valve 1/4" FPT			K: Protocol switchover alarm station with standard transducer for non- hazardous environments
				A: 3/8" BSP RH fitting B: Diaphragm valve 3/8" tube fitting C: 3/8" BSP LH fitting			M: Protocol station Q: Protocol purge station ¹
				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			X: Protocol switchover alarm station with intrinsically safe transducer for hazardous environments

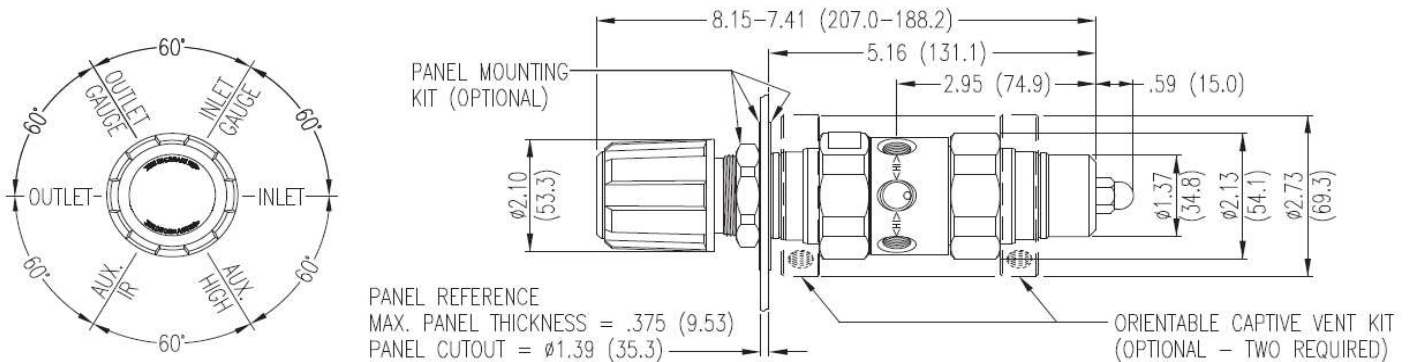
Notes:

- ¹ Not available with 4500 PSIG (310 BAR) maximum inlet pressure
- ² Standard assembly does not include relief valve
- *Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®
- †Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®

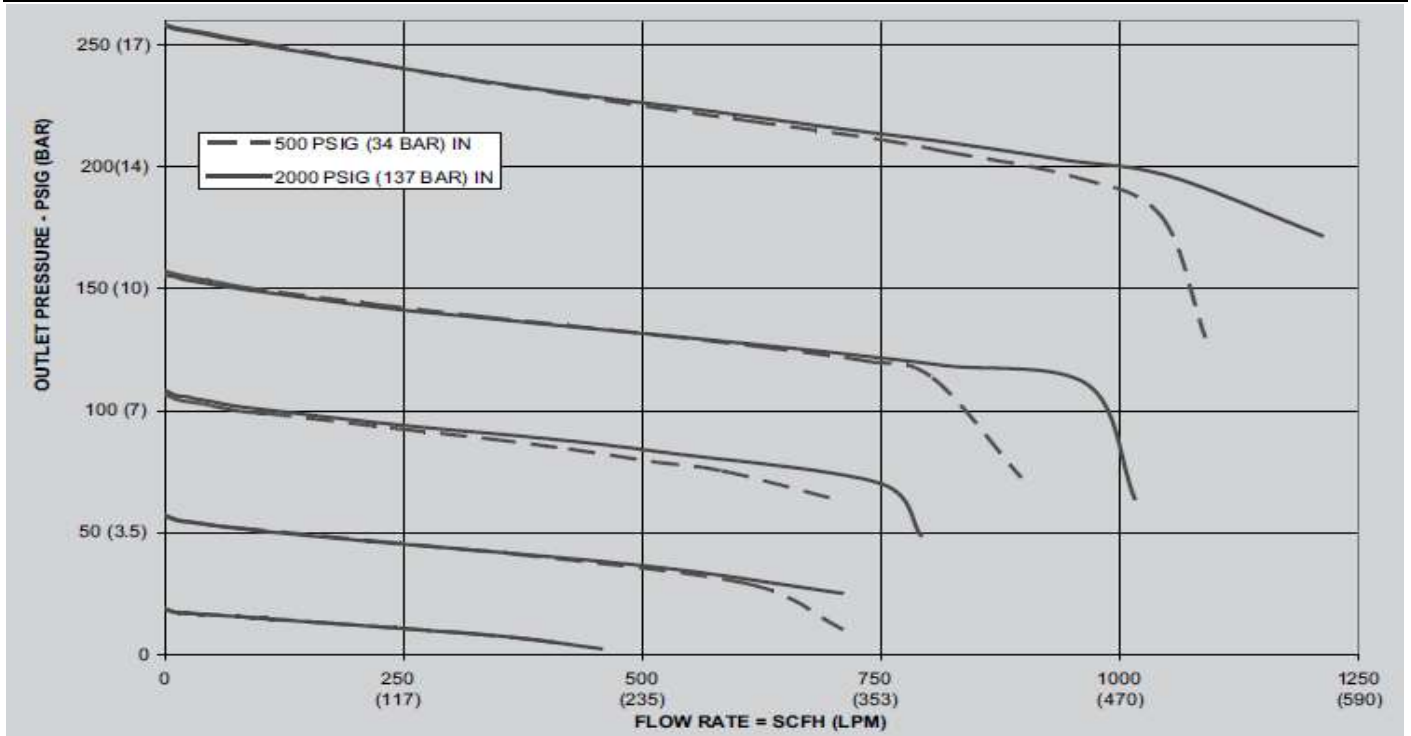
Related Options

Part Number	Description
CON 550-0002	Panel mount kit
CON 550-0001	Captured vent kit
CON 476-0002	Helium leak certification

Installation Dimensions



412 Regulator Flow Curves



Can't find what you need? We will be happy to assist you to find the right regulator to fit your needs.