



400 Series Regulators

414 SERIES

The 414 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.

- Dual Stage
- Brass Barstock Body
- Five 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



414 3332 580 shown

Features

- Metal-to-Metal Diaphragm Seal**
No possibility of gas contamination
- CAPSULE® Seat**
Increased serviceability and life
- 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 0-350 PSIG (0-1 to 0-24 BAR)**
Broad range of applications
- Pipe Away Relief Valve**
Safely vents exhaust gases

Materials

- Body**
Brass barstock
- Bonnet**
Brass barstock
- Seat**
PTFE
PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option
- Filter**
10 micron sintered bronze
- Diaphragm**
316L stainless steel
- Internal Seals**
PTFE

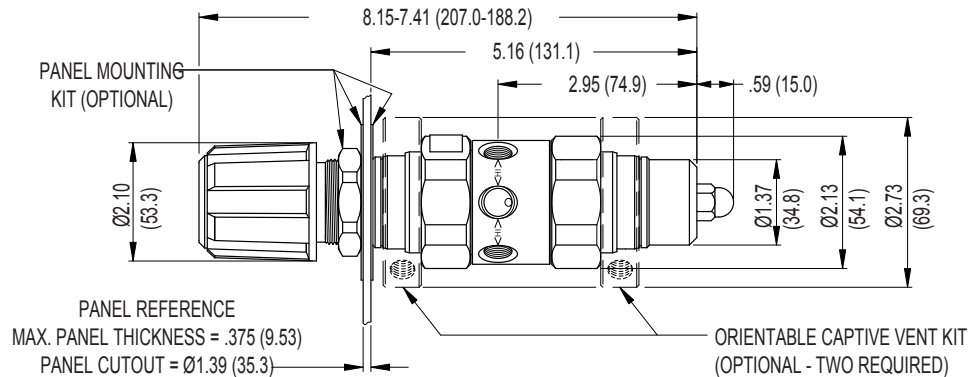
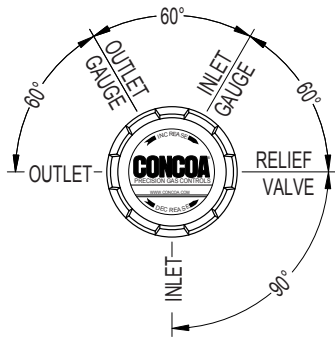
Specifications

- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
3500 PSIG (240 BAR) optional
4500 PSIG (310 BAR) optional
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2" (53mm) diameter brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁹ scc/sec
- Cv**
0.1
See page 202 for flow curves
- Weight (412 2331-580)**
5.3 lbs. (2.40 kg)

400 Series Regulators



Installation Dimensions



Ordering Information

414	A	B	C	D	-CON	
Series 414	Max Outlet Pressure	Max Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/-1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR	3: 0-4000 PSIG/0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube
	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
	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
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR	7: 0-400 PSIG/0-27 BAR	4: Diaphragm valve 1/4" MPT		M06: 6mm tube
	E: 0-350 PSIG (0-24 BAR)	0-400 PSIG/0-27 BAR	8: 0-6000 PSIG/0-415 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available
			G: 0-4000 PSIG/0-275 BAR†	6: 1/8" tube fitting		
			*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®	7: 3/8" tube fitting		
			†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE	8: Diaphragm valve 1/8" tube fitting		
				9: Diaphragm valve 1/4" FPT		
				A: 3/8" BSP RH fitting		
				B: Diaphragm valve 3/8" tube fitting		
				C: 3/8" BSP LH 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		

Related Options

Order No.	Description
550 0002	Panel mount kit
550 0001	Captured vent kit
476 0002	Helium Leak certification

Flow Curves for 312, 315, 332, 411, 412, 414, 415, 430, 432 Series

