



300 Series Regulators

312 SERIES

The 312 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
- Chrome-Plated Brass Barstock Body
- Four 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

312 2331-580 shown

Features

- CAPSULE® Seat**
Increased serviceability and life
- 316L Stainless Steel Diaphragm**
No inboard diffusion
- Low Wetted Surface Area**
Minimal purge requirements
- Field-Adjustable Pressure Limit**
Safeguard downstream equipment
- Convolute Diaphragm**
Smooth pressure changes
- Compact Design**
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**
Smooth surface finish
- 10 Micron Filtration in Both Stages**
Fail-safe seat performance
- Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)**
Broad range of applications

Materials

- Body**
Chrome-plated brass barstock
- Bonnet**
Chrome-plated die-cast zinc
- Seats**
PCTFE (first stage)
PTFE (second stage)
- Filter**
10 micron sintered bronze
- Diaphragm**
316L stainless steel
- Internal Seals**
PTFE

Specifications

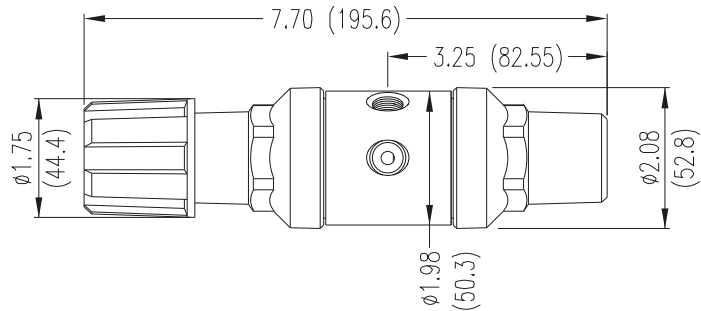
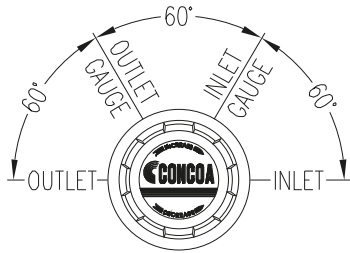
- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
3500 PSIG (240 BAR) optional
4500 PSIG (310 BAR) optional
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2" (53mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.1
See page 202 for flow curves
- Weight (312 2331-580)**
4.4 lbs. (1.98 kg)

CRN 0H5216.5R1

300 Series Regulators



Installation Dimensions



Ordering Information

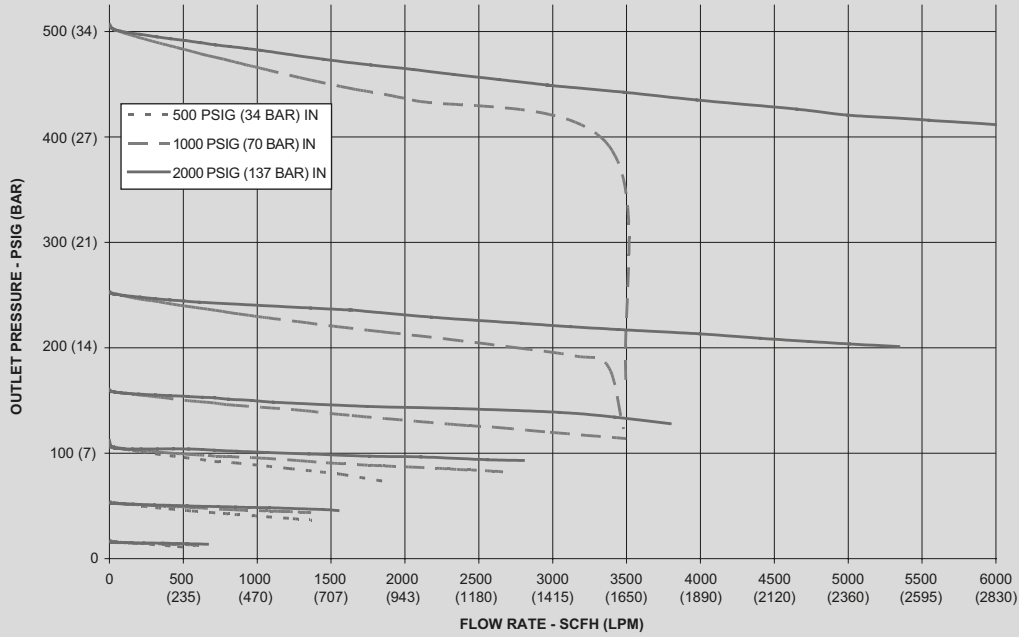
312	A	B	C	D	-CON	Options	
Series 312	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station with pressure switch gauges
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Standard 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: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	E: Protocol alarm station with intrinsically safe transducer for hazardous environments
	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	H: Protocol switchover alarm station with pressure switch gauges
	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	J: Protocol alarm station with standard transducer for non hazardous environments
			8: 0-6000 PSIG/ 0-405 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	K: Protocol switchover alarm station with standard transducer for non hazardous environments
			G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fitting			M: Protocol station
			Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®	7: 3/8" tube fitting			Q: Protocol purge station
				8: Diaphragm valve 1/8" tube fitting			T: Tee purge*
			*Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE	9: Diaphragm valve 1/4" FPT			X: Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				A: 3/8" BSP RH fitting			*Not available with 4500 PSIG (310 BAR) max inlet pressure
				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			

REGULATORS



Regulator Flow Curves

Flow Curves for 302, 304, 305, 307, 322, 324, 327, 401, 402, 408, 420, 422, 426, 427, 428, 429 Series



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

