



400 Series Regulators

- 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.

Typical Applications

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



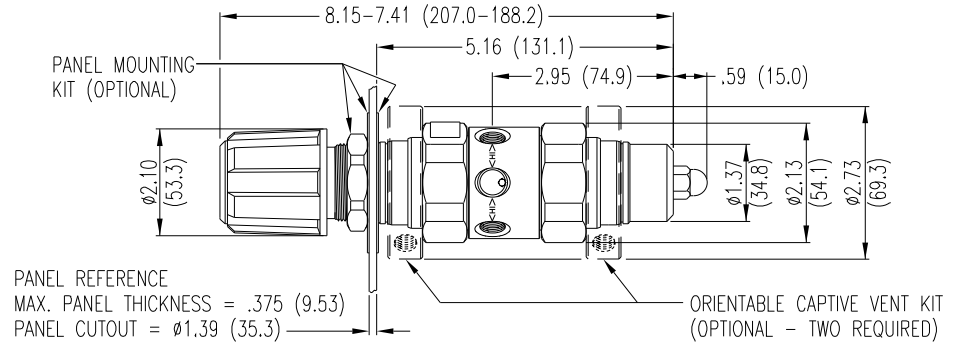
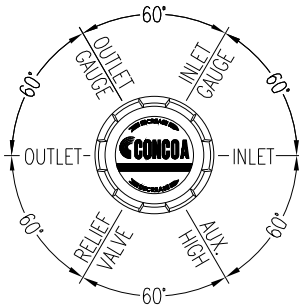
412 1331 shown

| 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 0-250 PSIG 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 PTFE PCTFE with 4500 PSIG inlet option</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) 4500 PSIG (310 BAR) optional</p> <p>Temperature Range -40°F to 140°F (-40°C to 60°C)</p> <p>Gauges 2" diameter brass</p> <p>Ports 1/4" FPT</p> <p>Helium Leak Integrity 1 x 10⁻⁹ scc/sec</p> <p>Cv 0.1</p> <p>Weight (412 2331-580) 5.3 lbs. (2.40 kg)</p> |

400 Series Regulators



Installation Information



Ordering Information

| 412 | A | B | C | D | -CON | Options |
|------------|-----------------------|---|---|---|--|--|
| Series 412 | Outlet Pressure 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: Cleanroom 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: Cleanroom 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 | | TF6: 3/8" tube D: Deep purge* |
| | 7: 0-150 | 30"-0-200 PSIG | 7: 0-400 PSIG | 4: Diaphragm valve 1/4" MPT | | M06: 6mm tube G: Protocol switchover station with alarm (110V) |
| | | 8: 0-6000 PSIG* | 5: Needle valve 1/4" MPT | | CGA DIN 477 BS 341 and others available | H: Protocol switchover station with alarm (220V) |
| | | <i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat Capsule®</i> | 6: 1/8" tube fitting | | | M: Protocol station |
| | | | 7: 3/8" tube fitting | | | Q: Protocol purge station* |
| | | | 8: Diaphragm valve 1/8" tube fitting | | | <i>*Not available with 4500 PSIG max inlet pressure</i> |
| | | | 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 |

400 SERIES

Flow Curves for 312, 315, 332, 412, 430 432 Series Regulators

