



PR-1 Series®

Adjustable Pressure Control Regulator



The PR-1 Series is a versatile specialty pressure-reducing control regulator designed to fulfill a wide range of needs in instrumentation sample systems and other applications such as semiconductor processing gases. The many features of the PR-1 make it ideal for a wide range of applications controlling pressures at low to moderate flows in gas or liquid service. This material is used to fabricate welded connections, stainless steel caps and adjusting screws present atmospheric corrosion and moisture appearance. Inherent internal body surface finish of better than 316 type also resputtering allows easier cleaning and generally less particle contamination in the flow stream.

To different user materials, three stem and coffee sizes and eight pressure control ranges with stainless diaphragms offer the user a wide spectrum of capabilities for pressure control with inlet pressures up to 6000 psig and standard operating temperatures up to 500°F (260°C).

*Options available on all items.

Features & Specifications

- ISO 22 Signal service
- 316 stainless steel, Inconel®, Monel®, and Hastelloy® only in flow stream
- Gas-tightness (100% leaky with better than 20 ft Hg diaphragm cavity surface finish)
- Stainless steel cap with stainless steel adjusting screw
- Inlet pressures of up to 6000 psig
- Adjustable outlet pressure range of 0.1 to 4 psig, 0.1 to 10 psig, 0.1 to 30 psig, 0.1 to 100 psig, 0.1 to 200 psig, 0.1 to 300 psig, and 0.1 to 600 psig
- Operating temperatures of -20°F to +300°F (-30°C to +150°C)
- 1/4" NPT inlet
- Stainless steel standard under most conditions
- 1.25 flow coefficient (Cv)

Options

- Wetted materials of construction Monel®, Hastelloy® and Inconel®
- Diaphragm attached pressure
- Special fittings
- Diaphragm made spring for vacuum purging
- Larger (1) or (2) and (3), smaller (1) or (2) size
- Panel mount (1) mounting hole

Maximum Temperature &

Operating Inlet Pressures

Gas Service	Maximum Temperature*	g	Maximum Operating Inlet Pressure
Acetylene	200°F (93°C)	2	200 psig (13.8 bar)
High-purity Helium	200°F (93°C)	2	200 psig (13.8 bar)
O ₂ service	200°F (93°C)	2	200 psig (13.8 bar)
With Service Gas Filter	200°F (93°C)	2	200 psig (13.8 bar)
Hydrogen	200°F (93°C)	2	200 psig (13.8 bar)
Ammonia	200°F (93°C)	2	200 psig (13.8 bar)
H ₂ S	200°F (93°C)	2	200 psig (13.8 bar)
Hydrocarbons	200°F (93°C)	2	200 psig (13.8 bar)

* Temperature in excess of 200°F (93°C) requires the use of a metal grade in the service and/or filter.

pressure regulators

Circle Seal Controls

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