

PVR Series

Low Pressure Regulator

Inlet 0 to 3,000 psig & Outlet 2" H₂O to 60 psig



Features

- Low pressure control
- Exceptional accuracy & response
- Compatible with corrosive and non-corrosive gases & liquids

Applications

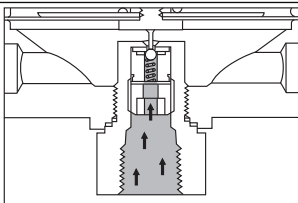
- Chromatography
- Process stream sampling
- Bubbling operations
- Medical instrumentation
- Research laboratories
- Instrument calibration

Technical Data

Body Construction Material	Polyvinyl chloride
Spring Housing Materials	• PVR1, PVR2 & PVR3: Polyvinyl chloride • PVR4 & PVR5: Aluminum alloy
Seat Materials	Kel-F® with synthetic sapphire ball poppet
Diaphragm Material	Teflon®
Adjustment Screw Material	Delrin®
Trim Material	316 stainless steel or Monel®
Port Sizes	1/4" NPT female
Pressure Ratings	Inlet: 3,000 psig (207 BAR) Outlet: 2" H ₂ O to 60 psig (4 BAR), 5 ranges
Temperature Range	0° F to +125° F (-18° C to +52° C)
Flow Capacity	Cv = 0.011 maximum Orifice diameter = 0.025"
Weight	PVR1, PVR2 & PVR3: 14 oz PVR4 & PVR5: 1.5 lbs
Leakage	Bubble-tight
Sensitivity	Less than 1/2 psi on all ranges over 2 psig

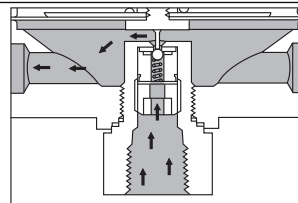
Note: Proper filtration is recommended to prevent damage to sealing surfaces.

How it Works



Closed

With the poppet against the seat, full upstream pressure is applied to the poppet effecting a bubble-tight seal.



Regulating

When the downstream process demands flow, the pressure acting on the bottom of the diaphragm decays, allowing the adjusting spring force to push the poppet down. This in turn unseats the poppet, allowing flow to begin and pressure under the diaphragm to increase until balance is achieved between adjusting spring force and downstream pressure. This condition continues until process ceases. At this point, increasing pressure overcomes spring force, moving diaphragm up and allowing the poppet to close.

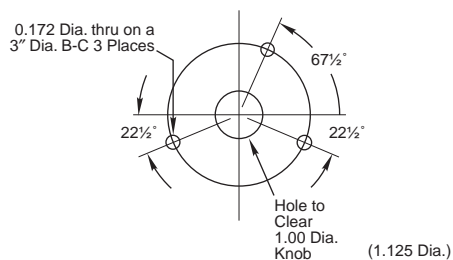
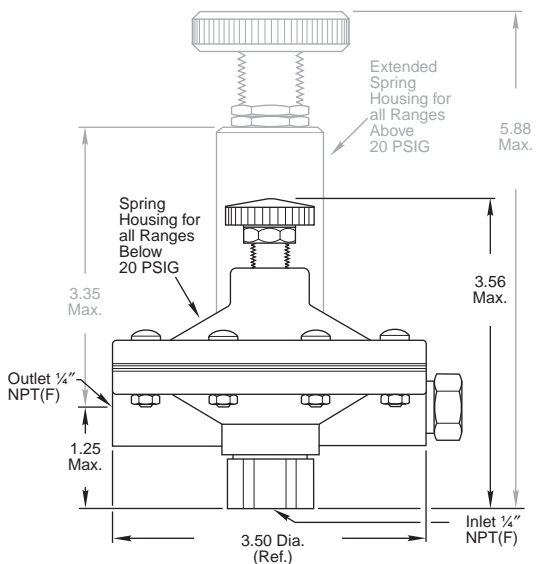
Circle Seal Controls

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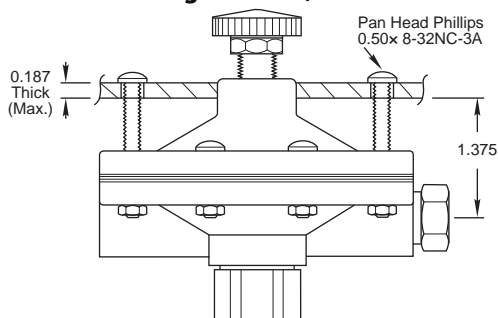
pressure regulators

PVR Series

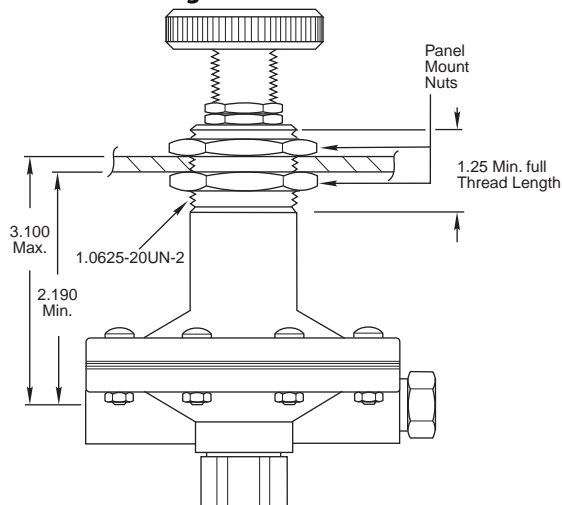
Dimensions



Panel Mounting for PVR1, PVR2 & PVR3



Panel Mounting for PVR4 & PVR5



How to Order

K/ PVR 3 M PM

REPAIR KIT

PRESSURE RANGE

- 1 2" to 27" H₂O*
- 2 1 to 6 psig
- 3 6 to 20 psig
- 4 20 to 40 psig
- 5 40 to 60 psig

OPTIONS

- Blank None
- PM Panel mount

TRIM MATERIAL

- Blank 316 stainless steel
- M Monel®

* 27" H₂O model is not recommended for dead-end service

Note: if this regulator is to be used in oxygen service, specify "GENERAL OXYGEN SERVICE" when ordering or furnish the factory a copy of the special requirements.

Please consult your Circle Seal Controls distributor, representative, or the factory for information on special connections, operating pressures and temperature ranges.

For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

Kel-F® is a registered trademark of 3M Company.
 Teflon® is a registered trademark of the DuPont Company.
 Delrin® is a registered trademark of DuPont.
 Monel® is a registered trademark of Special Metals Corporation.