

PR-59 Series

High Pressure/High Flow Pressure Reducing Regulator



Designed for low and high pressures up to 4000 psig inlet, the PR-59 Series pressure reducing regulator controls high flow with its Cv flow coefficient of 1.2. Though normally supplied without self-relieving capability, this feature can be added as an option.

While primarily designed for use with gas streams, the PR-59 can be used with virtually any liquid systems that are compatible with the seals. A large size piston sensor gives good sensitivity of control even at low outlet pressures and the Kel-F® valve seat assembly gives normal bubble-tight shutoff.

Features & Specifications

- 316L stainless steel, Brass and MONEL® body construction
- Inlet pressure capability up to 4000 psig
- Outlet control ranges from 250 psig up to 4000 psig
- Optional self-relieving feature
- Inlet and outlet ports of ½" or ¾" FNPT with ¼" FNPT gauge ports optional
- ½" FNPT standard
- Balanced poppet valve design for constant pressure control
- Viton® seals (other elastomers optional)
- PCTFE seat
- Cv flow coefficient is 1.2
- Operating temperatures of -40° F to +175° F (-40° C to +80° C)

pressure regulators

How to Order

PR59 –

BODY MATERIAL

- 1 316L stainless steel
- 2 Brass
- 4 MONEL®

PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 5 ½" FNPT (¼" FNPT gauge ports)
- A ¾" FNPT (¼" tube gauge ports)

SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

SEAT MATERIAL

- H PCTFE (formerly Kel-F® 81)
- I PTFE (0–1000 psig maximum inlet)

FLOW COEFFICIENT (Cv)

- 9 1.2

OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel
- 5 Captured vent, stainless steel
- 6 Captured vent, panel mount, stainless steel
- 9 Plastic knob, stainless steel
- A Captured vent, plastic knob, stainless steel
- B Panel mount, plastic knob, stainless steel

PISTON MATERIAL

- 5 Stainless steel
- B MONEL®

PISTON TYPE

- 1 Non-self-relieving
- 3 Self-relieving

OUTLET RANGE

- I 0–250 psig
- J 0–500 psig
- W 0–750 psig
- K 0–1000 psig
- L 0–2000 psig
- N 0–4000 psig

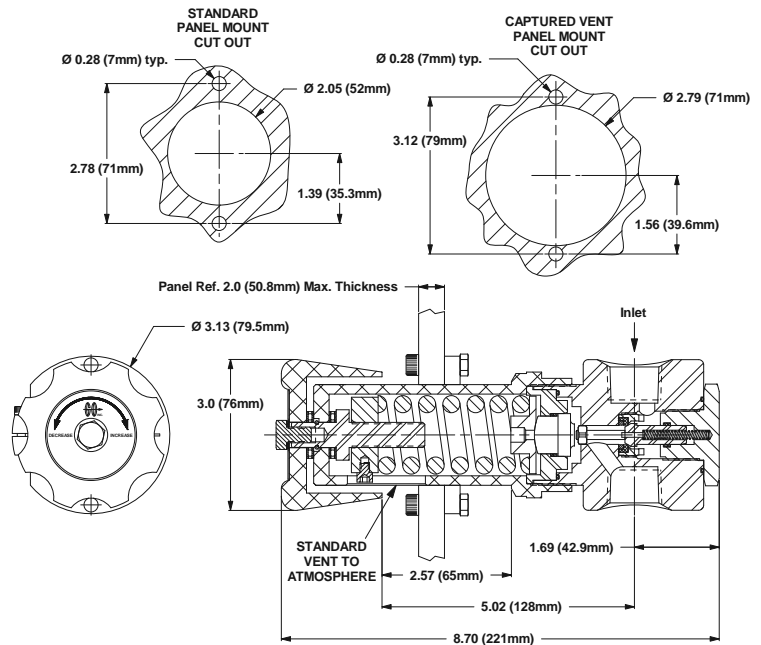
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	4000 psig (27.58 MPa)
PTFE	150° F (66° C)	@	1000 psig (6.90 MPa)

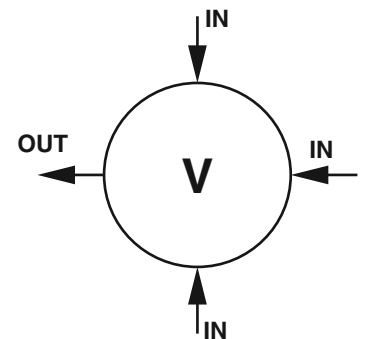
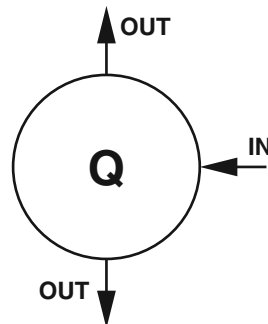
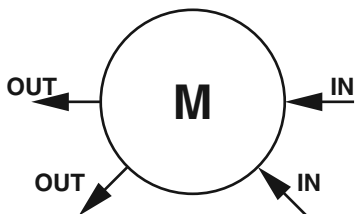
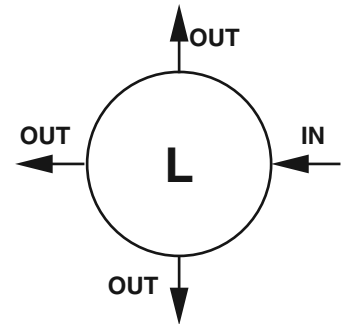
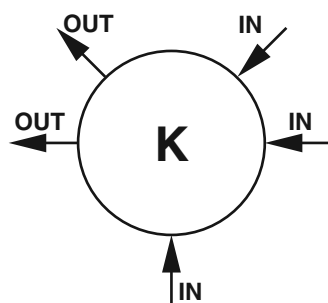
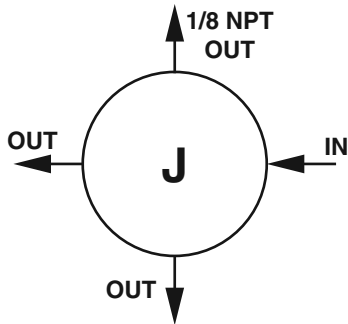
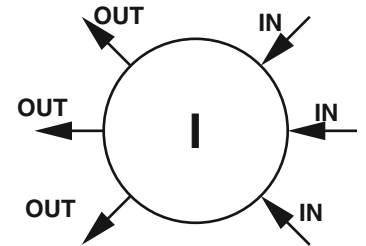
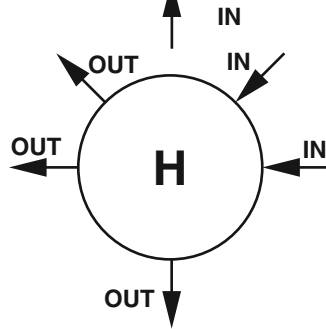
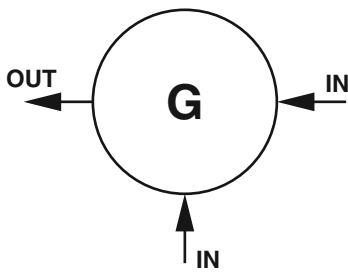
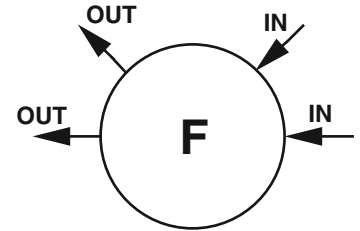
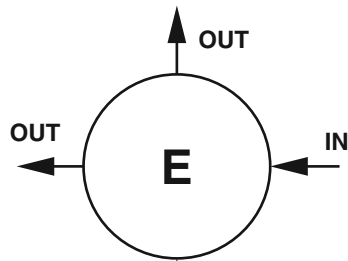
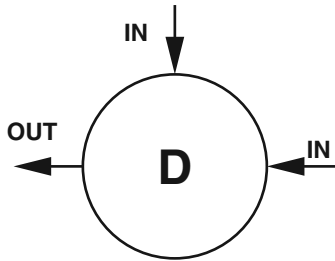
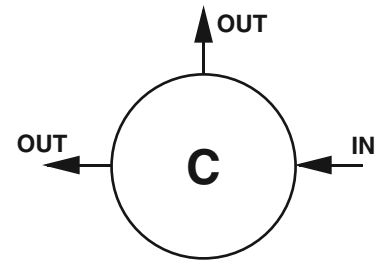
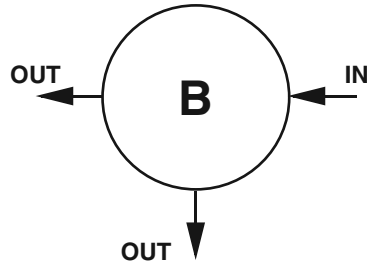
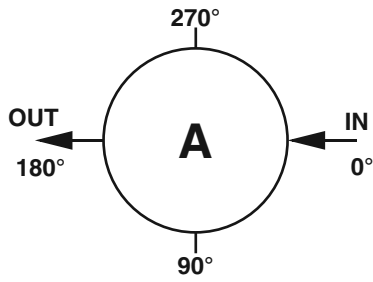
Outline and Mounting Dimensions

Weight = 4.6 lbs (2.1kg)



Kel-F® is a registered trademark of 3M Company.
 Viton® is a registered trademark of DuPont Dow Elastomers.
 MONEL® is a registered trademark of Special Metals Corporation.

Port Locations (Back Pressure Regulators)



LOCATION OF PORTS FROM TOP VIEW