

Medium- to High-Pressure Piston-Sensing, Pressure-Reducing Regulators (KPP Series)

The KPP series meets the demands of a wide range of gas or liquid applications in a lightweight, compact installation footprint. These features make the KPP pressure regulator an ideal pressure control solution within high-density OEM equipment.

Features

- Lightweight, compact design
- Live-loaded body seals
- Low internal volume
- High-flow, dual-gauze type filter in inlet ports

Technical Data

Maximum Inlet Pressure

- 6000 psig (413 bar)

Pressure Control Ranges

- 0 to 1000 psig (68.9 bar) through 0 to 3600 psig (248 bar)

Flow Coefficient (C_v)

- 0.02 and 0.06

See page 48 for flow graphs.

Supply-Pressure Effect

Flow Coefficient (C_v)	Supply Pressure Effect, %
0.02	2.2
0.06	7.2

Maximum Operating Temperature

- 392°F (200°C) with 2000 psig (137 bar) maximum inlet pressure
- 212°F (100°C) with maximum inlet pressure greater than 2000 psig (137 bar)

Weight

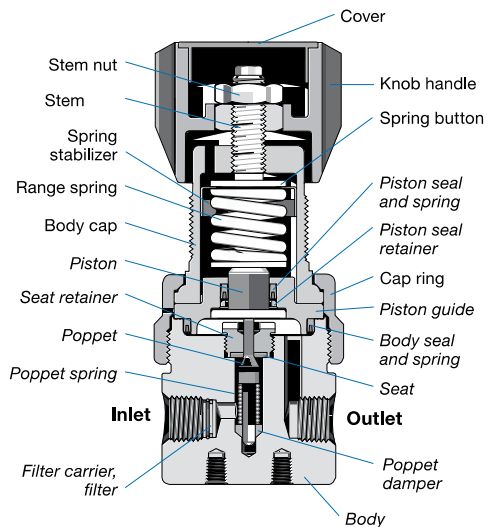
- 2.5 lb (1.2 kg)

Ports

- 1/4 in. female NPT inlet, outlet, and gauge ports



Materials of Construction



Component	Material
Knob handle, cover	Nylon with 316 SS insert
Spring button	316 SS (0 to 3000 and 0 to 3600 psig range) Zinc-plated steel (all other ranges) ^①
Spring stabilizer ^②	301 SS
Range spring	Zinc-plated steel
Stem, stem nut, cap ring, body cap, panel nuts ^③	316 SS
Nonwetted lubricant	Hydrocarbon-based
Body, seat retainer, filter, piston, piston guide	316 SS
Seat, piston seal retainer	PEEK
Poppet	S17400 SS
Poppet spring	Alloy X-750
Piston seal spring, body seal spring	Elgiloy
Poppet damper, filter carrier, piston seal, body seal	PTFE
Wetted lubricant	PTFE-based

Wetted components listed in italics.

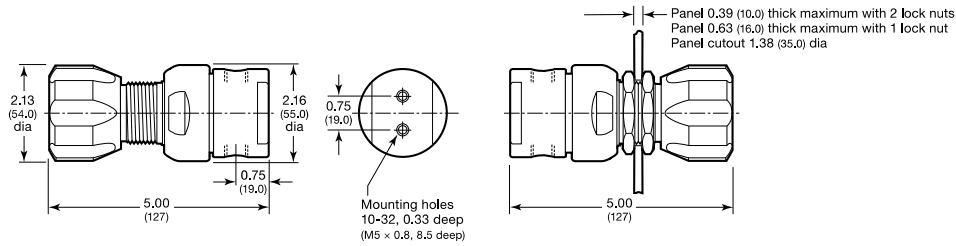
^① 316 SS in regulators with 0 to 2000 psig (0 to 137 bar) control range with 6000 psig (413 bar) inlet pressure and regulators with 0 to 2000 psig (0 to 137 bar) control range, 4000 psig (275 bar) inlet pressure, and 0.06 C_v .

^② Not included in regulators with 316 SS spring button.

^③ Not shown.

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



Ordering Information

Build a KPP series regulator ordering number by combining the designators in the sequence shown below.

4 5 6 7 8 9 10 11 12 13 14 15 16
KPP 1 L W A 4 2 2 P 2 0 0 0 0

4 Body Material

- 1 = 316 SS
- A = 316 SS, ASTM G93 Level E-cleaned

5 Pressure Control Range

- L = 0 to 1000 psig (0 to 68.9 bar)
- M = 0 to 1500 psig (0 to 103 bar)
- N = 0 to 2000 psig (0 to 137 bar)
- P = 0 to 3000 psig (0 to 206 bar)^①
- R = 0 to 3600 psig (0 to 248 bar)^①

^① Not available with 2000 psig (137 bar) maximum inlet pressure.

6 Maximum Inlet Pressure^①

- N = 2000 psig (137 bar)
- S = 4000 psig (275 bar)
- W = 6000 psig (413 bar)

^① For better resolution and control, select a pressure that closely matches system pressure.

7 Port Configuration

- A, B, C, E, F, H, K, L, M, N
- See *Port Configurations*, page 52.

8 Ports

- 4 = 1/4 in. female NPT

9 Seat, Seal Material

- 2 = PEEK, PTFE

10 Flow Coefficient (C_v)

- 1 = 0.02
- 2 = 0.06

11 Sensing Mechanism, Vent

- P = 316 SS piston, no vent
- V = 316 SS piston, captured vent, no self vent

12 Handle, Mounting

- 2 = Knob
 - 3 = 316 SS antitamper nut
 - 6 = Knob, panel mount
 - 7 = 316 SS antitamper nut, panel mount
- For knob handle color options, see page 56.

13 Isolation Valves

- 0 = No valves
- For isolation valve options, see page 54.

14 Cylinder Connections

- 0 = No connections

15 Gauges

- 0 = No gauges
- For inlet and outlet gauge options, see page 54.

16 Options

- 0 = No options