

High-Flow Piston-Sensing, Pressure-Reducing Regulators (KPF Series)

The KPF series provides minimum droop across the flow range with high accuracy of outlet pressure.

Features

- High flow coefficient ($C_v = 1.0$)
- Balanced poppet for minimal supply-pressure effect
- High-flow, dual-gauze type filter positively retained in inlet port

Technical Data

Maximum Inlet Pressure

- 6000 psig (413 bar)

Pressure Control Ranges

- 0 to 1000 psig (68.9 bar) through 0 to 4000 psig (275 bar)

Flow Coefficient (C_v)

- 1.0

See page 44 for flow graphs.

Supply-Pressure Effect

Flow Coefficient (C_v)	Supply Pressure Effect, %
1.0	5.3

Maximum Operating Temperature

- 176°F (80°C) with PCTFE seat
- 392°F (200°C) with PEEK seat

Weight

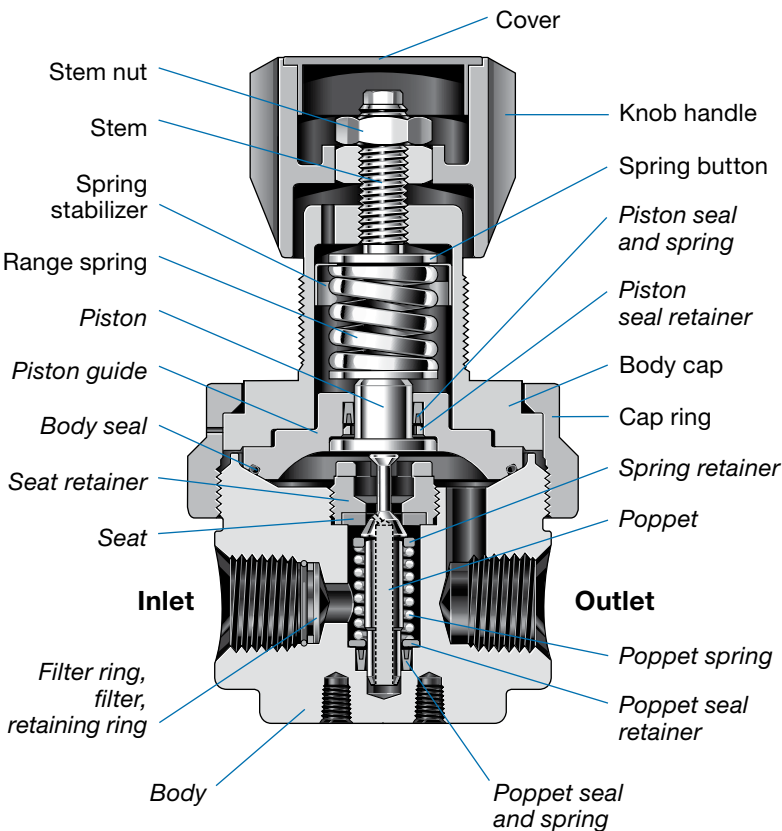
- 4.5 lb (2.1 kg)

Ports

- 1/2 in. female NPT inlet and outlet; 1/4 in. female NPT 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 4000 psig range) Zinc-plated steel (all other ranges)
Spring stabilizer ^①	301 SS
Range spring	Zinc-plated steel
Stem, stem nut, cap ring, body cap, panel nuts ^②	316 SS
Nonwetted lubricant	Hydrocarbon-based
<i>Body, spring retainer, seat retainer, filter, retaining ring, piston, piston guide, poppet seal retainer</i>	316 SS
<i>Seat, piston seal retainer</i>	PCTFE or PEEK
<i>Poppet</i>	S17400 SS
<i>Poppet spring</i>	302 SS
<i>Filter ring, piston seal, poppet seal</i>	PTFE
<i>Piston seal spring, poppet seal spring</i>	Elgiloy
<i>Body seal</i>	Fluorocarbon FKM
<i>Wetted lubricant</i>	PTFE-based

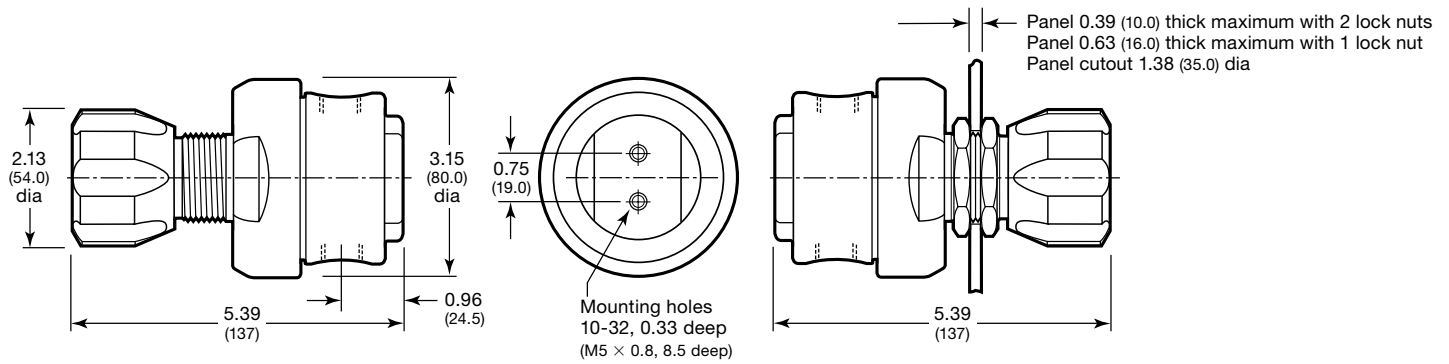
Wetted components listed in *italics*.

① Not included in regulators with 316 SS spring button.

② Not shown.

Dimensions

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



Ordering Information

Build a KPF 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
 KPF 1 L W A 8 A 8 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)
 N = 0 to 2000 psig (0 to 137 bar)
 P = 0 to 3000 psig (0 to 206 bar)
 S = 0 to 4000 psig (0 to 275 bar)

6 Maximum Inlet Pressure

W = 6000 psig (413 bar)

7 Port Configuration

A, B, C, E, F, H, K, L, M, N

See **Port Configurations**, page 52.

8 Ports

8 = 1/2 in. female NPT inlet and outlet;
 1/4 in. female NPT gauge ports

9 Seat, Body Seal Material

A = PCTFE, fluorocarbon FKM
 C = PEEK, fluorocarbon FKM

10 Flow Coefficient (C_v)

8 = 1.0

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