

## Medium- to High-Pressure Piston-Sensing Back-Pressure Regulators (KPB Series)

The KPB series provides back-pressure control in gas or liquid applications. This compact and lightweight regulator provides an ideal pressure-control solution within high-density compact OEM equipment, as well as other applications.

### Features

- Integral high-pressure overrange protection
- Lightweight, compact design

### Technical Data

#### Maximum Inlet Pressure

- Equal to pressure control range

#### Pressure Control Ranges

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

#### Flow Coefficient (C<sub>v</sub>)

- 0.06 and 0.2

See page 50 for flow graphs.

#### Maximum Operating Temperature

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

#### Weight

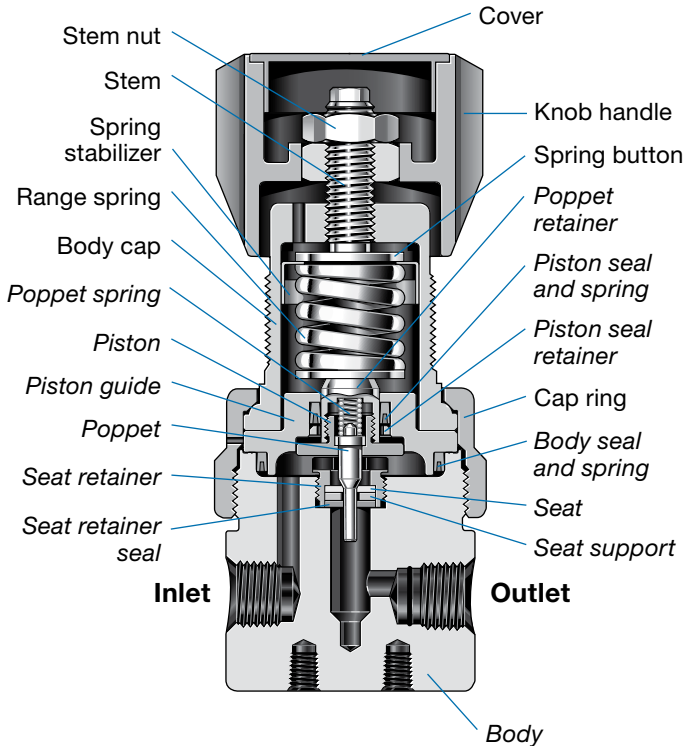
- 2.5 lb (1.2 kg)

#### 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 500 psig range) Zinc-plated steel (all other ranges)
Spring stabilizer <sup>①</sup>	301 SS
Range spring	316 SS (0 to 3000 and 0 to 4000 psig range) Zinc-plated steel (all other ranges)
Stem, stem nut, cap ring, body cap, panel nuts <sup>②</sup>	316 SS
Nonwetted lubricant	Hydrocarbon-based
<i>Body, seat retainer, seat support, poppet retainer, piston, piston guide</i>	316 SS
<i>Seat, seat retainer seal</i>	PCTFE or PEEK
<i>Piston seal retainer</i>	PEEK
<i>Poppet</i>	S17400 SS
<i>Poppet spring</i>	302 SS
<i>Piston seal, body seal</i>	PTFE
<i>Piston seal spring, body seal spring</i>	Elgiloy
<i>Wetted lubricant</i>	PTFE-based

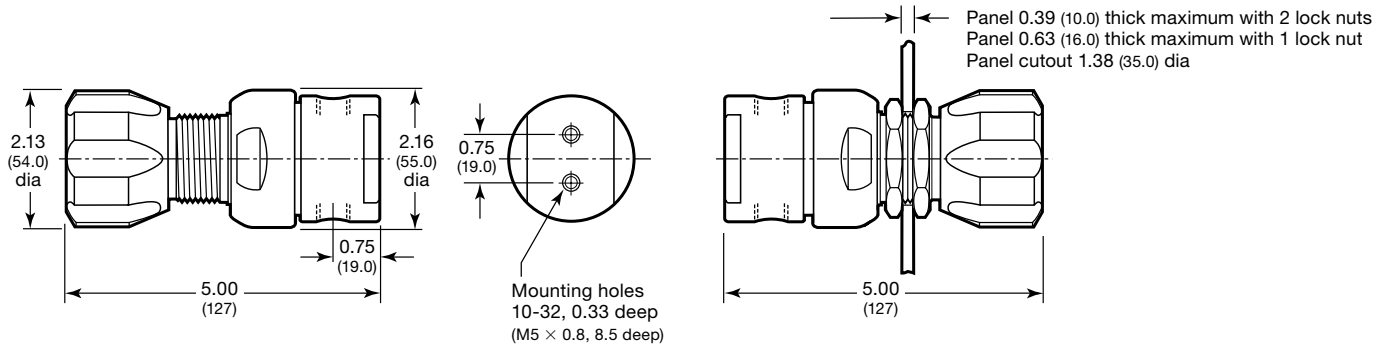
Wetted components listed in *italics*.

<sup>①</sup> Not included in regulators with 0 to 3000 psig (0 to 206 bar) and 0 to 4000 psig (0 to 275 bar) control ranges.

<sup>②</sup> Not shown.

## Dimensions

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



## Ordering Information

Build a KPB 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  
**KPB 1 L 0 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)  
 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

0 = Not applicable (equal to pressure control range)

### 7 Port Configuration

A, D, G, V

See *Port Configurations*, page 52.

### 8 Ports

4 = 1/4 in. female NPT

### 9 Seat, Seal Material

1 = PCTFE  
 2 = PEEK

### 10 Flow Coefficient (C<sub>v</sub>)

2 = 0.06  
 5 = 0.20

### 11 Sensing Mechanism

P = 316 SS piston

### 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 Valves

0 = No valves

### 14 Cylinder Connections

0 = No connections

### 15 Gauges

0 = No gauges

For inlet gauge options, see page 54.

### 16 Options

0 = No options