

High-Pressure Piston-Sensing Back-Pressure Regulators (KHB Series)

The KHB series provides control of back pressures up to 10 000 psig (689 bar) with high sensitivity across the control range.

Features

- Thrust roller bearing eases operation
- Panel-mounting configuration available

Technical Data

Maximum Inlet Pressure

- Equal to pressure control range

Pressure Control Ranges

- 0 to 500 psig (34.4 bar) through 100 to 10 000 psig (6.8 to 689 bar)

Flow Coefficient (C_v)

- 0.06 and 0.25

See page 51 for flow graphs.

Maximum Operating Temperature

- 212°F (100°C)

Weight

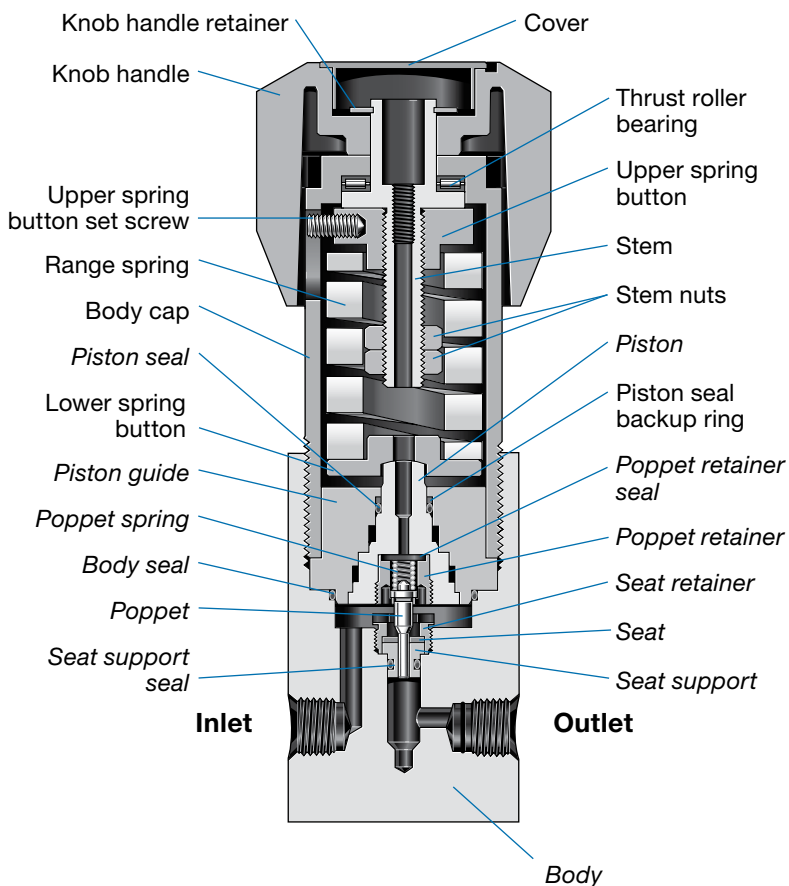
- 5.7 lb (2.6 kg)

Ports

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



Materials of Construction

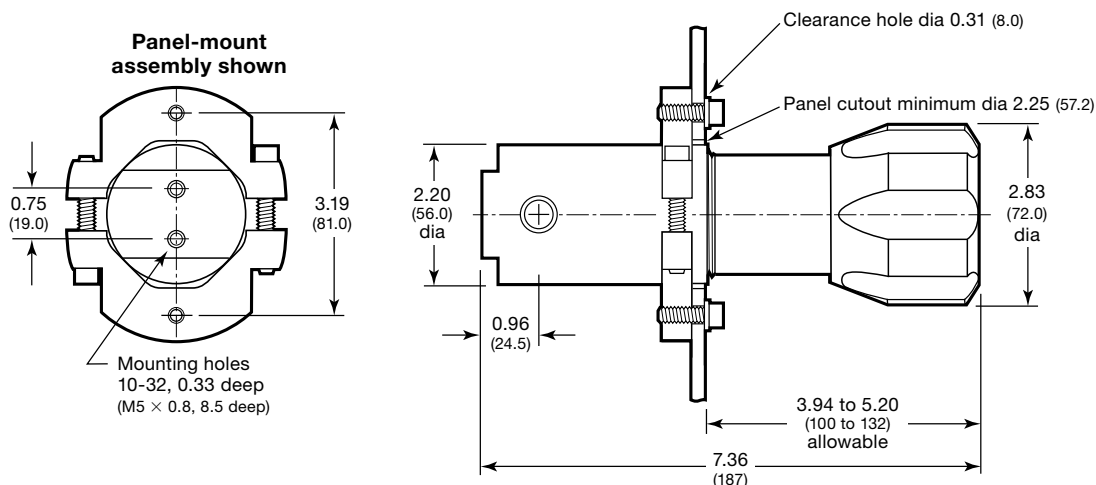


Component	Material
Knob handle, cover	Nylon with 316 SS insert
Spring buttons, upper spring button set screw, knob handle retainer, stem nuts, body cap	316 SS
Stem	CZ114 bronze
Thrust roller bearing	Hardened carbon steel
Range spring	Chrome vanadium steel
Piston seal backup ring	PEEK
Nonwetted lubricant	Hydrocarbon-based
<i>Body, poppet retainer, seat retainer, seat support, piston, piston guide</i>	316 SS
<i>Seat</i>	PEEK or 316 SS
<i>Poppet retainer seal</i>	PEEK
<i>Poppet</i>	S17400 SS
<i>Poppet spring</i>	302 SS
<i>Piston seal, body seal, seat support seal</i>	Fluorocarbon FKM
<i>Wetted lubricant</i>	PTFE-based

Wetted components listed in italics.

Dimensions

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



Ordering Information

Build a KHB 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
KHB 1 T 0 D 4 C 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

- J = 0 to 500 psig (0 to 34.4 bar)
- K = 0 to 750 psig (0 to 51.6 bar)
- T = 10 to 1500 psig (0.68 to 103 bar)
- U = 15 to 2500 psig (1.0 to 172 bar)
- V = 25 to 3600 psig (1.7 to 248 bar)
- W = 50 to 6000 psig (3.4 to 413 bar)
- X = 100 to 10 000 psig (6.8 to 689 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, Piston/Body/Seat Support Seal Material

- C = PEEK, fluorocarbon FKM
 - J = 316 SS, fluorocarbon FKM^①
- ^① Not suitable for gas service.

10 Flow Coefficient (C_v)

- 2 = 0.06
- 6 = 0.25

11 Sensing Mechanism

- P = 316 SS piston

12 Handle, Mounting

- 2 = Knob
- 6 = Knob, 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