

## High-Flow, High-Sensitivity Diaphragm-Sensing Back-Pressure Regulators (KFB Series)

The KFB series regulator is designed to maintain back-pressure control in high-flow applications with a  $C_v$  of 1.0.

### Features

- Large-diameter convoluted, nonperforated diaphragm for increased pressure sensitivity
- Metal-to-metal diaphragm seal

### Technical Data

#### Maximum Inlet Pressure

- Equal to pressure control range

#### Pressure Control Ranges

- 0 to 10 psig (0.68 bar) through 0 to 250 psig (17.2 bar)

#### Flow Coefficient ( $C_v$ )

- 1.0

See page 49 for flow graphs.

#### Maximum Operating Temperature

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

#### Weight

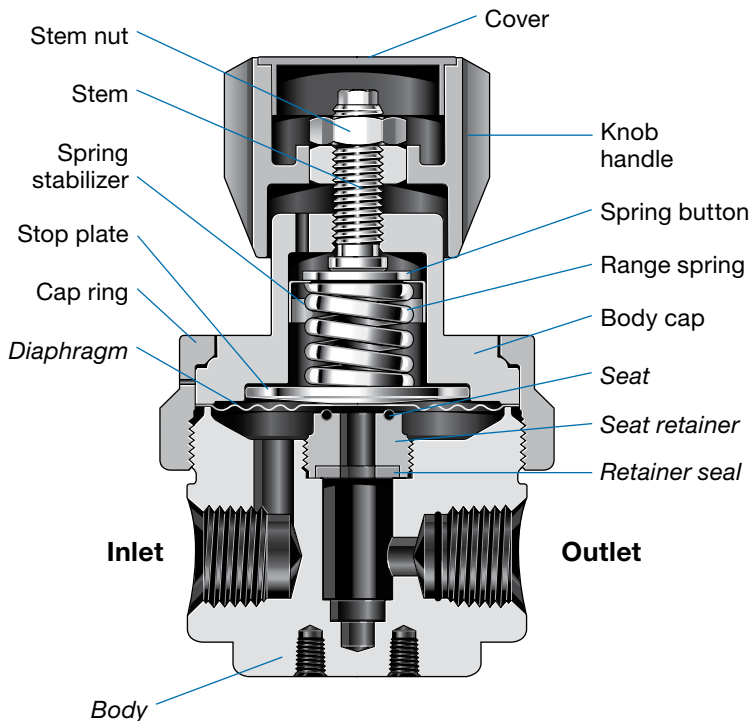
- 4.4 lb (2.0 kg)

#### Ports

- 1/2 in. female NPT inlet and outlet;  
1/4 in. female NPT gauge port



### Materials of Construction



Component	Material
Knob handle, cover	Nylon with 316 SS insert
Spring button	316 SS (0 to 250 psig range) Zinc-plated steel (all other ranges)
Spring stabilizer <sup>①</sup>	301 SS
Range spring	316 SS (0 to 10 and 0 to 25 psig control ranges) Zinc-plated steel (0 to 50 through 0 to 250 psig control ranges)
Stem, stem nut, cap ring, stop plate, body cap, panel nuts <sup>②</sup>	316 SS
Nonwetted lubricant	Hydrocarbon-based
Body, seat retainer	316 SS
Retainer seal	PCTFE or PEEK
Seat	Fluorocarbon FKM
Diaphragm <sup>③</sup>	Alloy X-750
Wetted lubricant	PTFE-based

Wetted components listed in *italics*.

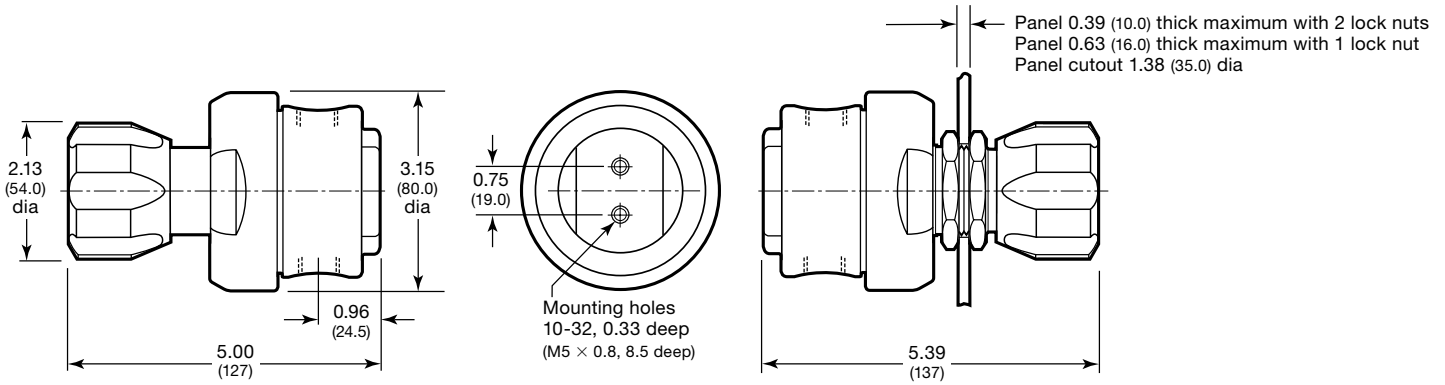
① Not included in regulators with 0 to 250 psig (0 to 17.2 bar) control range.

② Not shown.

③ Regulators with control range 0 to 250 psig (0 to 17.2 bar) are assembled with two diaphragms.

## Dimensions

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



## Ordering Information

Build a KFB 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  
 KFB 1 F 0 D 8 A 8 A 1 0 0 0 0

### 4 Body Material

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

### 5 Pressure Control Range

- C = 0 to 10 psig (0 to 0.68 bar)
- D = 0 to 25 psig (0 to 1.7 bar)
- E = 0 to 50 psig (0 to 3.4 bar)
- F = 0 to 100 psig (0 to 6.8 bar)
- G = 0 to 250 psig (0 to 17.2 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

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

### 9 Seat, Seal Material

- A = Fluorocarbon FKM, PCTFE
- C = Fluorocarbon FKM, PEEK

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

- 8 = 1.0

### 11 Sensing Mechanism, Vent

- A = Alloy X-750 diaphragm, no vent
- E = Alloy X-750 diaphragm, 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 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