

Compact, General-Purpose, Spring-Loaded Back-Pressure Regulators—BS(H)2 Series

Features

- Piston sensing
- Bottom mounting
- Low-friction piston for better control

Options

- NACE MR0175/ISO 15156-compliant models
- Special cleaning to ASTM G93 Level C
- Panel mounting kit sold separately—no disassembly required



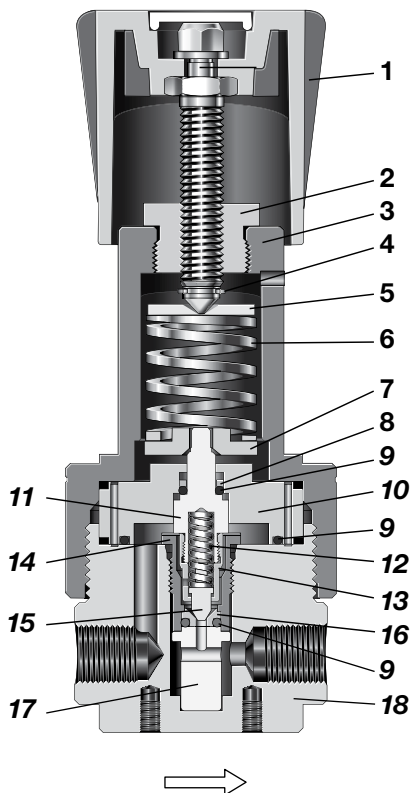
Technical Data

Series	Maximum Inlet Pressure psig (bar)	Maximum Inlet Control Pressure psig (bar)	Sensing Type	Temperature Range °F (°C)	Flow Coefficient (C _v)	Seat Diameter in. (mm)	Inlet and Outlet Connections	Gauge / Vent Connection	Weight lb (kg)
BS2	5 800 (400)	5 075 (350)	Piston	-4 to 176 (-20 to 80)	0.10	0.087 (2.2)	1/4 in. NPT	Gauge: 1/4 in. NPT Vent: 1/8 in. NPT	3.3 (1.5)
BSh2	10 150 (700)	10 150 (700)		See Pressure-Temperature Ratings , page 60.					

See page 63 for flow data.

Materials of Construction

BS2 Series Regulator
with Standard Threaded Vent



Component	Material / Specification
1 Knob assembly with adjusting screw, nuts, washer	Blue ABS with A2-70
2 Spring housing cover	431 SS / A276
3 Spring housing	316L SS / A479 or EN10088
4 C-ring	A2
5 Spring guide	316L SS / A479 or EN10088
6 Set spring	CR50V4
7 Bottom spring guide	316L SS / A479 or EN10088
8 Backup ring (BSh only)	PTFE
9 O-rings	<i>EPDM, FKM, FFKM, or nitrile</i>
10 Piston plate	316L SS / A479 or EN10088
11 Piston	
12 Overtravel spring	302 SS / A240
13 Piston screw	316L SS / A479 or EN10088
14 Body plug	
15 Poppet	431 SS / A276
16 Seat	PCTFE or PEEK
17 Seat retainer	316L SS / A479 or EN10088
18 Body	316L SS / A479 or EN10088

Wetted lubricants: Silicone-based and synthetic hydrocarbon-based

Wetted components listed in italics.

Gauge plugs (not shown): 431 SS / A276.

Flow Data

The graphs illustrate the change in inlet or outlet pressure as the flow rate increases. For more flow curve information, contact your authorized Swagelok representative.

BS(H)2 Series

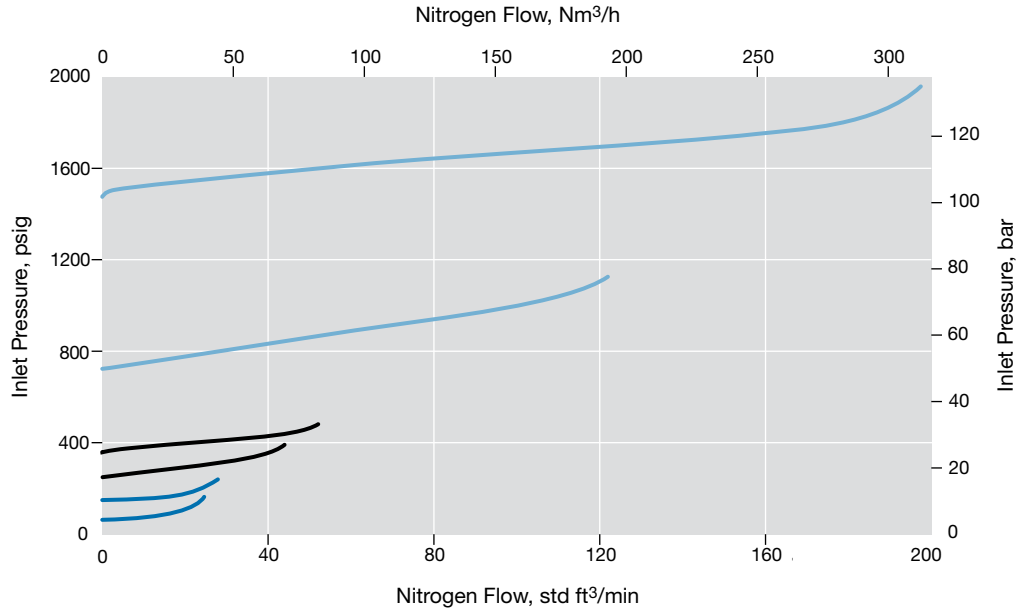
Flow Coefficient: 0.10

Maximum Inlet Pressure: BS2—5800 psig (400 bar); BSH2—10 150 psig (700 bar)

Inlet Pressure Control Range: 0 to 1450 psig (0 to 100 bar)

Pressure Control Range

- 0 to 145 psig (0 to 10.0 bar)
- 0 to 362 psig (0 to 25.0 bar)
- 0 to 1450 psig (0 to 100 bar)



BS(H)2 Series

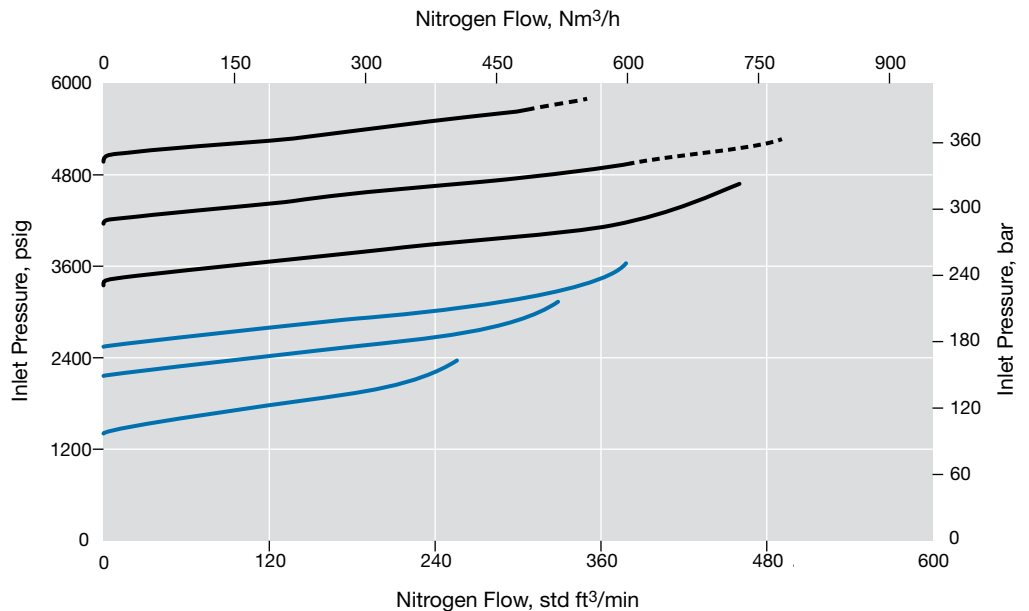
Flow Coefficient: 0.10

Maximum Inlet Pressure: BS2—5800 psig (400 bar); BSH2—10 150 psig (700 bar)

Inlet Pressure Control Range: 0 to 5075 psig (0 to 350 bar)

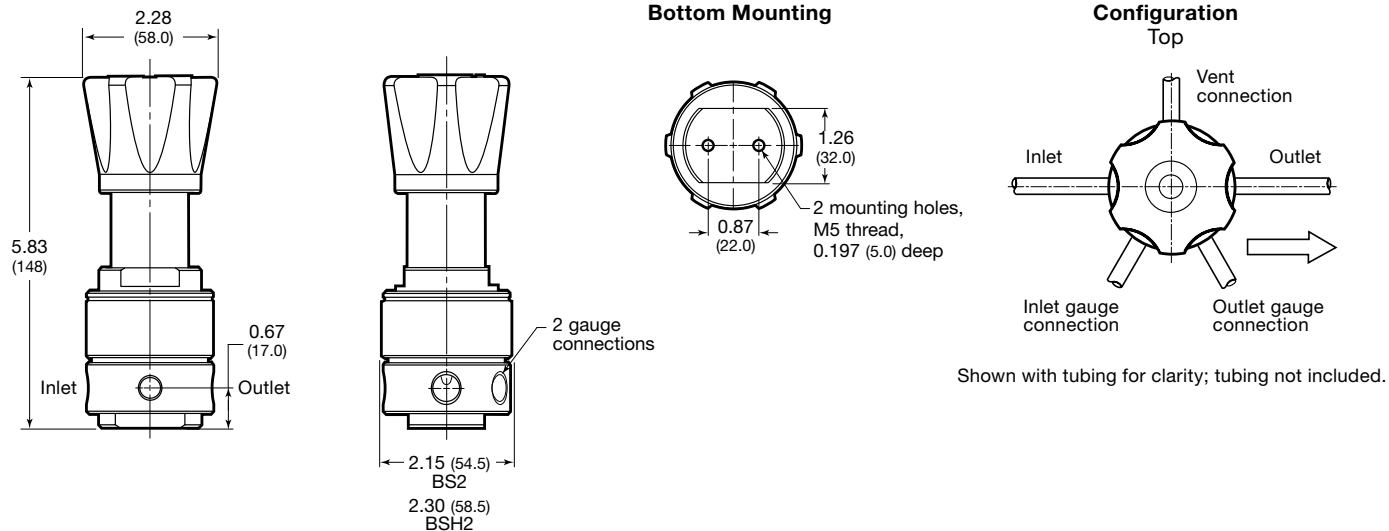
Pressure Control Range

- 0 to 2537 psig (0 to 175 bar)
- 0 to 5075 psig (0 to 350 bar)
- - - 0 to 5075 psig (0 to 350 bar), calculated



Dimensions

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

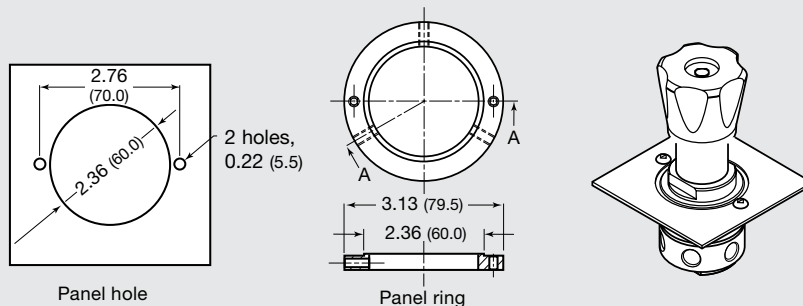


Panel Mounting Kit

No disassembly required when using panel mount kit. Panel mounting kit ordering numbers:

BS2 series: **RS2-P-02**

BSH2 series: **RSH2-P-02**



Ordering Information

Build a BS2 or BSH2 series regulator ordering number by combining the designators in the sequence shown below.

1 2 3 4 5 6 7 8
BS N2 - 02 - 1 - V V K - N

1 Series

BS = 5800 psig (400 bar) maximum inlet pressure
BSH = 10 150 psig (700 bar) maximum inlet pressure

2 Inlet / Outlet

N2 = 1/4 in. female NPT

3 Body Material

02 = 316L SS

4 Pressure Control Range

BS and BSH series

- 1** = 0 to 145 psig (0 to 10.0 bar)
- 2** = 0 to 362 psig (0 to 25.0 bar)
- 3** = 0 to 1450 psig (0 to 100 bar)
- 4** = 0 to 2537 psig (0 to 175 bar)
- 5** = 0 to 5075 psig (0 to 350 bar)

BSH series only

- 6** = 0 to 10 150 psig (0 to 700 bar)

5 Seal Material

V = Fluorocarbon FKM
N = Nitrile
E = EPDM
F = FFKM

6 Piston Seals

V = Fluorocarbon FKM
N = Nitrile
E = EPDM
F = FFKM

7 Seat Material

BS series

- K** = PCTFE
- P** = PEEK

BSH series

- P** = PEEK

8 Options

N = NACE MR0175/ISO 15156
G93 = ASTM G93 Level C-cleaned