

Back-Pressure Regulators

BR1 Series



- ❖ Maximum rated inlet pressure 800 psig (55.1 bar)
- ❖ Flow Coefficient $C_v=0.10$
- ❖ Single stage
- ❖ Metal-to-metal diaphragm seal
- ❖ 316 S.S., 316L S.S., Brass, Alloy 276 and Alloy 400 body material

Back-Pressure Regulators

The Hikelok BR1 Series is a compact, lightweight high purity single-stage regulator for specialty, flammable and industrial gas.

Applications

- ❖ Industrial equipment for hydraulic or pneumatic service

Features

- ❖ Economical, compact design
- ❖ Piston sensed design is safe and reliable
- ❖ Available in a Stainless Steel or Brass design
- ❖ Optional gauge ports and panel mounting
- ❖ Flow capacity Cv=0.10
- ❖ Low handknob torque for easy operation
- ❖ Bubble-tight shutoff at all reseating pressures

Operating Parameters

- ❖ **Maximum Inlet Pressure**
800 psig (55.1 bar)
- ❖ **Controlled Pressure Ranges**
40-150 psig (2.75-10.3 bar), 40-300 psig (2.75-20.6 bar), 100-700psig (6.89-48.2 bar), 100-800 psig (6.89-55.1 bar)
- ❖ **Design Proof Pressure**
150% maximum rated
- ❖ **Leakage**
Bubble-tight
- ❖ **Operating Temperature**
PCTFE: -15°F to 140°F (-26°C to 60°C)
PEEK: -40°F to 392°F (-40°C to 200°C)
PI: -40°F to 250°F (-40°C to 121°C)
- ❖ **Flow Capacity**
Cv=0.10

Cleaning

- ❖ CGA4.1 and ASTM G93

Internal Volume

- ❖ 6 cc

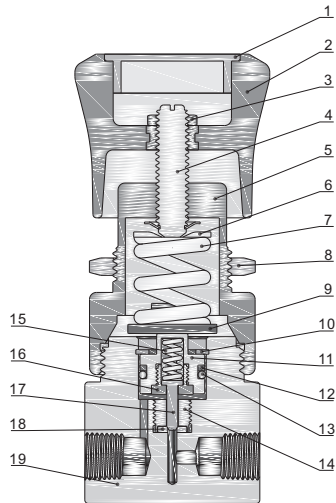
Weight (without gauges)

- ❖ 2 lbs / 0.9 kg

Wetted Material

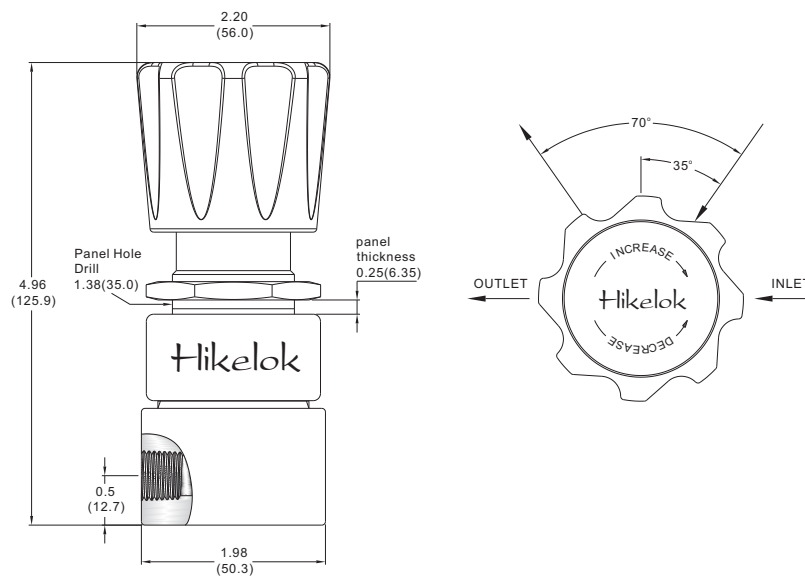
- ❖ **Body**
316 S.S. Brass
- ❖ **Bonnet**
300 series S. S., Brass
- ❖ **Diaphragm**
316 S. S., Elgiloy®
- ❖ **Seat**
PCTFE
PEEK
PI
- ❖ **Remaining Parts**
Stainless Model: 316 S.S. Brass
Model: Brass and 300 S.S. Series

Standard Materials of Construction



Item	Component	Material Grade /ASTM Specification
		316 S.S.
1	Cover	ABS
2	Knob handle	ABS
3	Stem nut	316 S.S.
4	Stem	316 S.S.
5	Bonnet	316 S.S. /A479
6	Spring button	316 S.S. /A276
7	Range spring	316 SS
8	Mounting nut	316 S.S. /A276
9	Spring seat	Brass
10	Stretch block	304 S.S.
11	Piston	316 S.S. /A276
12	Retainer-ring	PTFE/D1710
13	O-ring	Viton
14	Seat retainer	316 S.S. /A276
15	Poppte spring	302 S.S.
16	Piston guide	316 S.S. /A276
17	Poppet	316 S.S. /A276
18	Seat	PCTFE or PEEK or PI
19	Body	316 S.S. /A479

Dimensions In. (millimeter)

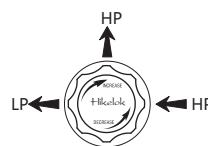


Port Configurations

Notes: HP=High Pressure; LP=Low Pressure

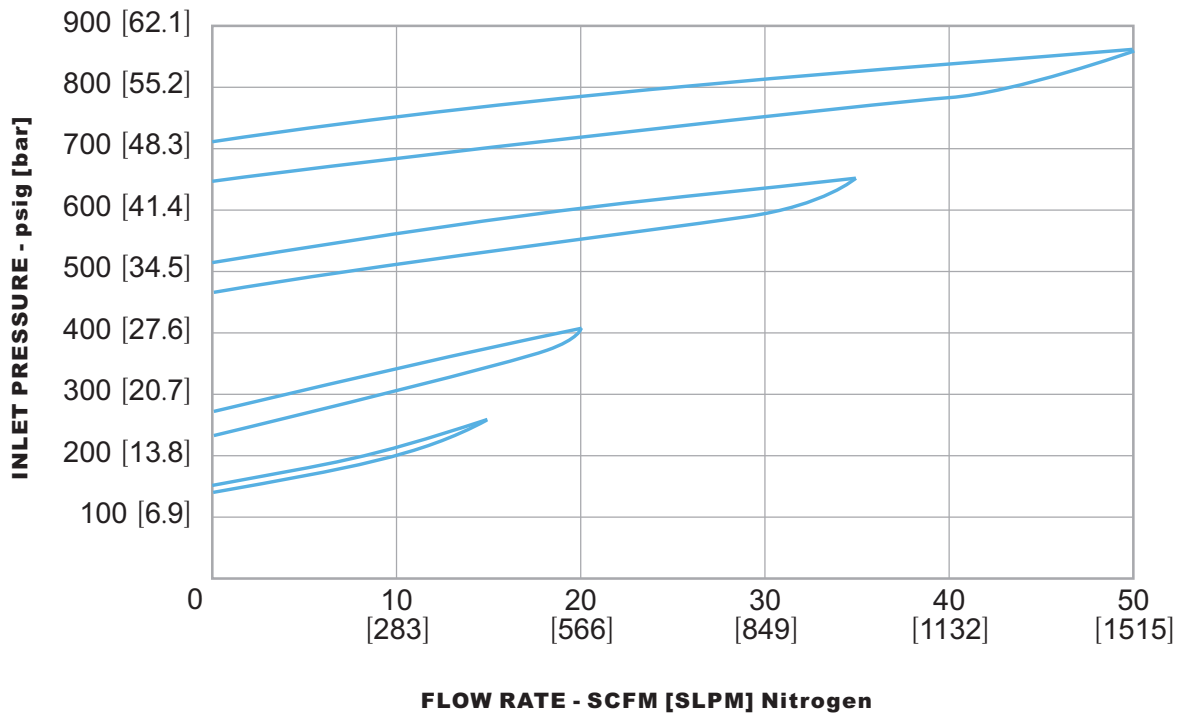


Porting Code: N



Porting Code: H

Flow Charts



How to Order

BR1 — FNPT4 — IN — 8700G — 316L

Series	Inlet Type Outlet Type	Inlet Size Outlet Size	Seat Material	Porting	Intel Pressure	Out Pressure	Gauges	Body Material	
BR1	FNPT Female NPT	2 1/8 in.	PCTFE	N No Gauge Ports	8 800 psig	800 100-800 psig	G No Gauges With Gauges	316 316 S.S.	
	FBT Female BSPT	4 1/4 in.	P PEEK	H One Gauge Ports				700 100-700 psig	316L 316L S.S.
	F Fractional Tube Fitting	6 6 mm	I PI					300 40-300 psig	A400 Alloy 400
	M Metric Tube Fitting	8 8 mm						150 40-150 psig	A276 Alloy C276 BR Brass