Hikelok®
Solution Provider For Fluid Systems

Back-Pressure Regulators

BR1 Series

- Maximum rated intel pressure 800 psig (55.1 bar)
- Flow Coefficient Cv=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 fo rhydraulic 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

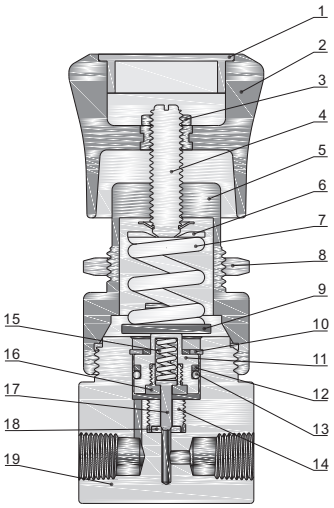
Weight (without gauges)

- 2 lbs / 0.9 kg

Wetted Material

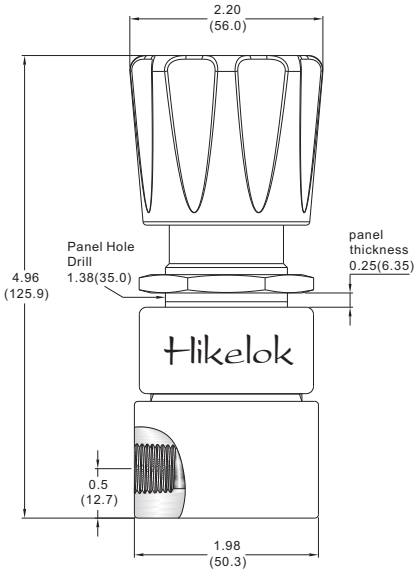
- **Body**
  316 S.S. Brass
- **Bonnet**
  300 series S. S., Brass
- **Diaphragm**
  316 S. S., Elgiloy®
- **Seat**
  PCTFE
  PEEK
  PI
- **Remaining Parts**
  Stainless Model: 316 S.S. Brass
  Model: Brass and 300 S.S. Series

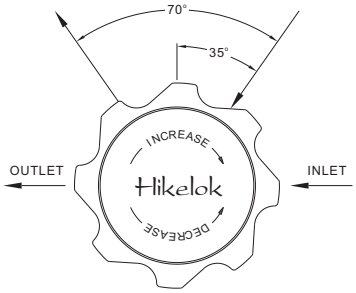
Standard Materials of Construction



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

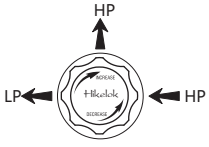
Dimensions In. (millimeter)





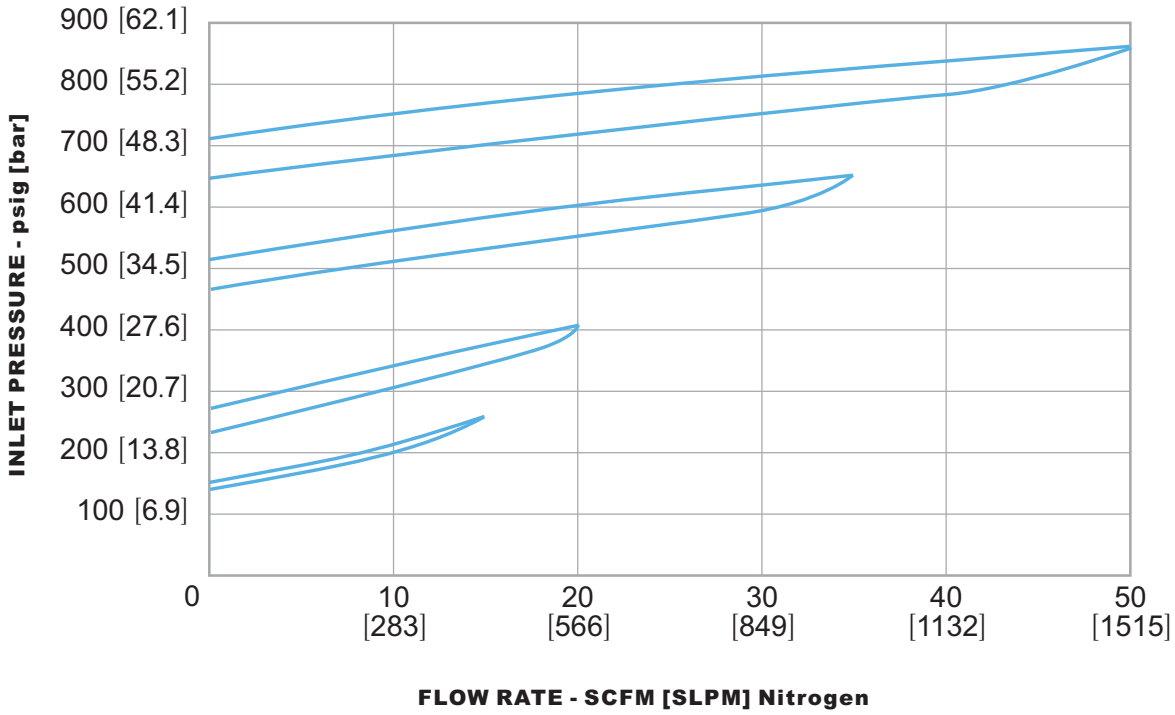
Port Configurations Notes: HP=High Pressure; LP=Low Pressure

Porting Code: N



Porting Code: H

Flow Charts


900 [62.1]
800 [55.2]
700 [48.3]
600 [41.4]
500 [34.5]
400 [27.6]
300 [20.7]
200 [13.8]
100 [6.9]
0
INLET PRESSURE - psig [bar]
10
[283]
20
[566]
30
[849]
40
[1132]
50
[1515]
FLOW RATE - SCFM [SLPM] Nitrogen

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 **FBT** Female BSPT **F** Fractional Tube Fitting **M** Metric Tube Fitting	**2** 1/8 in. **4** 1/4 in. **6** 6 mm **8** 8 mm	PCTFE **P** PEEK **I** PI	**N** No Gauge Ports **H** One Gauge Ports	**8** 800 psig	**800** 100-800 psig **700** 100-700 psig **300** 40-300 psig **150** 40-150 psig	No Gauges **G** With Gauges	**316** 316 S.S. **316L** 316L S.S. **A400** Alloy 400 **A276** Alloy C276 **BR** Brass