

Pressure Reducing Regulators

PR1 Series



- ❖ Maximum rated inlet pressure 3500 psig (241 bar)
- ❖ Flow Coefficient $C_v=0.06$
- ❖ Single stage
- ❖ Metal-to-metal diaphragm seal
- ❖ 316, 316L, Brass, Alloy 276 and Alloy 400 body material

Pressure Reducing Regulators-PR1

The Hikelok PR1 Series is a compact, lightweight high purity single-stage regulator for specialty, flammable and industrial gas.

Applications

- ❖ Laboratory and point-of-use gas systems
- ❖ Sampling systems, zero, span and calibration analyzer gases
- ❖ Specialty and industrial gas cylinder regulator
- ❖ Chromatograph flame detector fuel supply

Features

- ❖ Compact
- ❖ Designed to minimize contamination and provide accurate regulation of any corrosive, noncorrosive, or toxic gas
- ❖ Brass model provides added economy for control of non-corrosive media
- ❖ Metal-to-metal diaphragm to body seal ensures minimum inboard and outboard leakage
- ❖ Convoluted diaphragm delivers excellent accuracy and long service life
- ❖ Panel mounting is available

Operating Parameters

- ❖ Maximum Inlet Pressure
3500 psig (241 bar)
- ❖ Outlet Pressure Ranges
0-25 psig (0-1.7 bar), 0-50 psig (0-3.4 bar), 0-100 psig (0-6.9 bar), 0-250 psig (0-17.2 bar), 0-500 psig (0-34.5 bar)
- ❖ Design Proof Pressure
150% maximum rated
- ❖ Leakage
Internal: bubble-tight
External: design to meet $\leq 2 \times 10^{-8}$ atm cc/sec He
- ❖ Operating Temperature
PCTFE: -40°F to 176°F (-40°C to 80°C)
PEEK: -40°F to 392°F (-40°C to 200°C)
PI: -40°F to 500°F (-40°C to 260°C)
- ❖ Flow Capacity
Cv = 0.06

Cleaning

- ❖ CGA4.1 and ASTM G93 Grade C

Internal Volume

- ❖ 6 cc

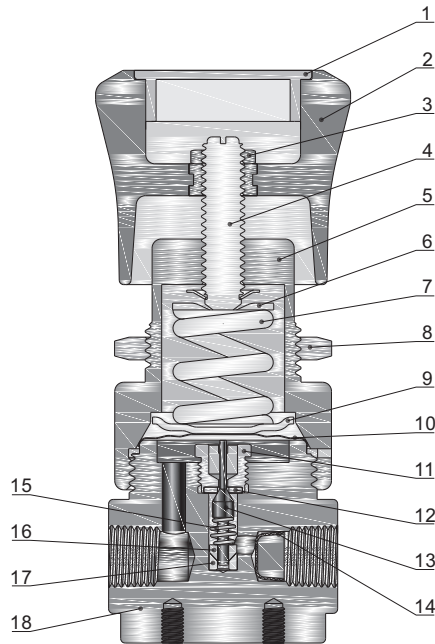
Weight (without gauges)

- ❖ 2 lbs / 0.9 kg

Wetted Material

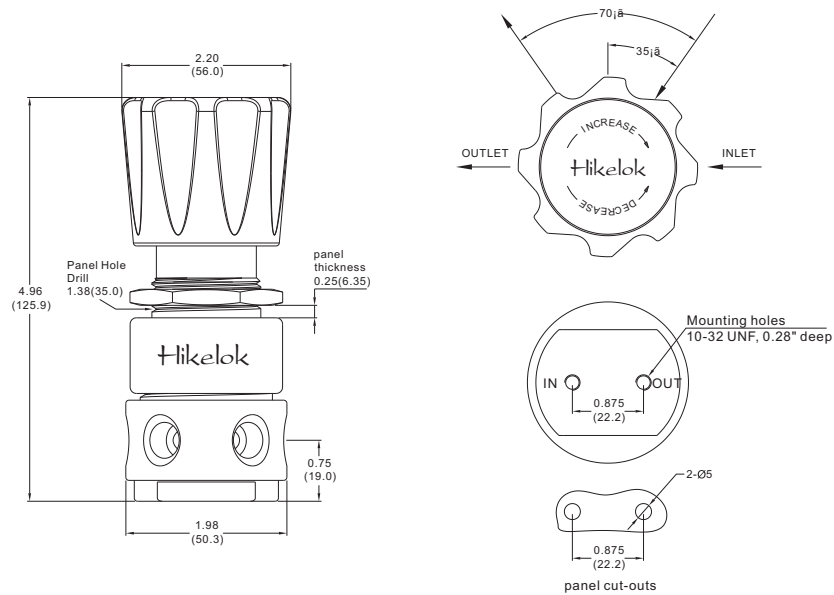
- ❖ Body
316L S. S., Brass, Alloy276 or Alloy400
- ❖ Bonnet
300 series S. S., Brass
- ❖ Diaphragm
316 S. S., Elgiloy®
- ❖ Seat
PEEK, PCTFE, PI
- ❖ Remaining Parts
316 S. S., Brass, Alloy276 or Alloy400

Standard Materials of Construction



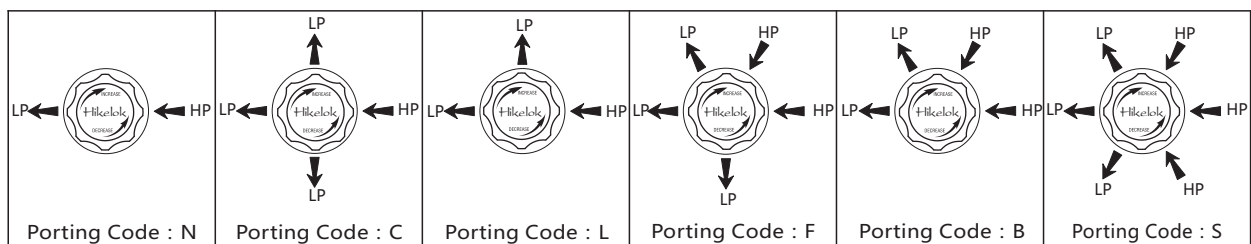
Item	Component	Material Grade/ASTM Specification
		316 S.S.
1	Cover	ABS
2	Knob handle	ABS
3	Stem nut	316 S.S.
4	Stem	316 S.S.
5	Bonnet	316 S.S./A479
6	Spring button	316 S.S./A276
7	Range spring	316 SS
8	Mounting nut	316 S.S./A276
9	stop plate	316 S.S./A276
10	Diaphragm	Alloy X-750 or alloy C-276
11	Seat retainer	316 S.S./A276
12	Seat	PCTFE or PEEK or PI
13	Poppet	316 S.S./A276
14	Filter	316 S.S.
15	Poppet spring	Alloy X-750
16	Poppte damper	PTFE/D1710
17	Friction sleeve	316 S.S./A276
18	Body	316 S.S./A479

Dimensions

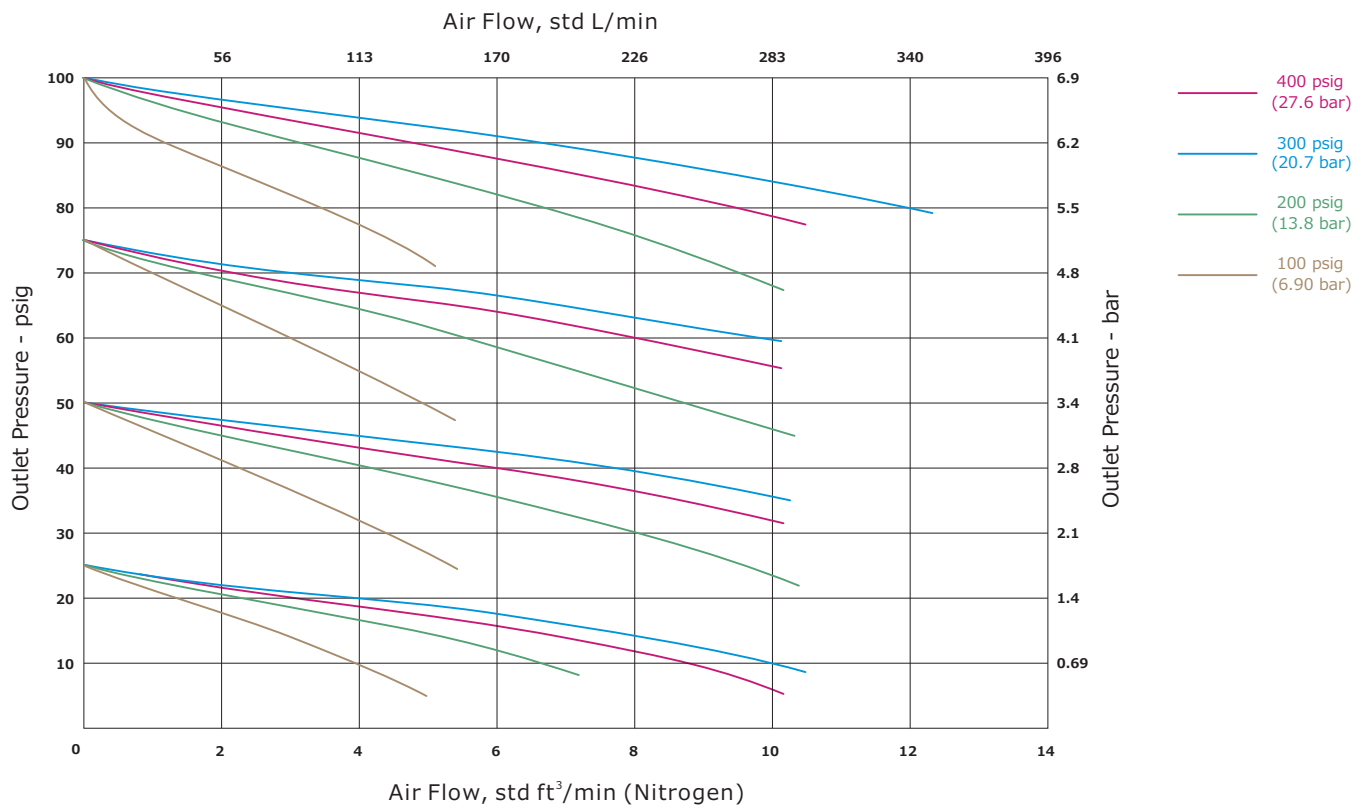
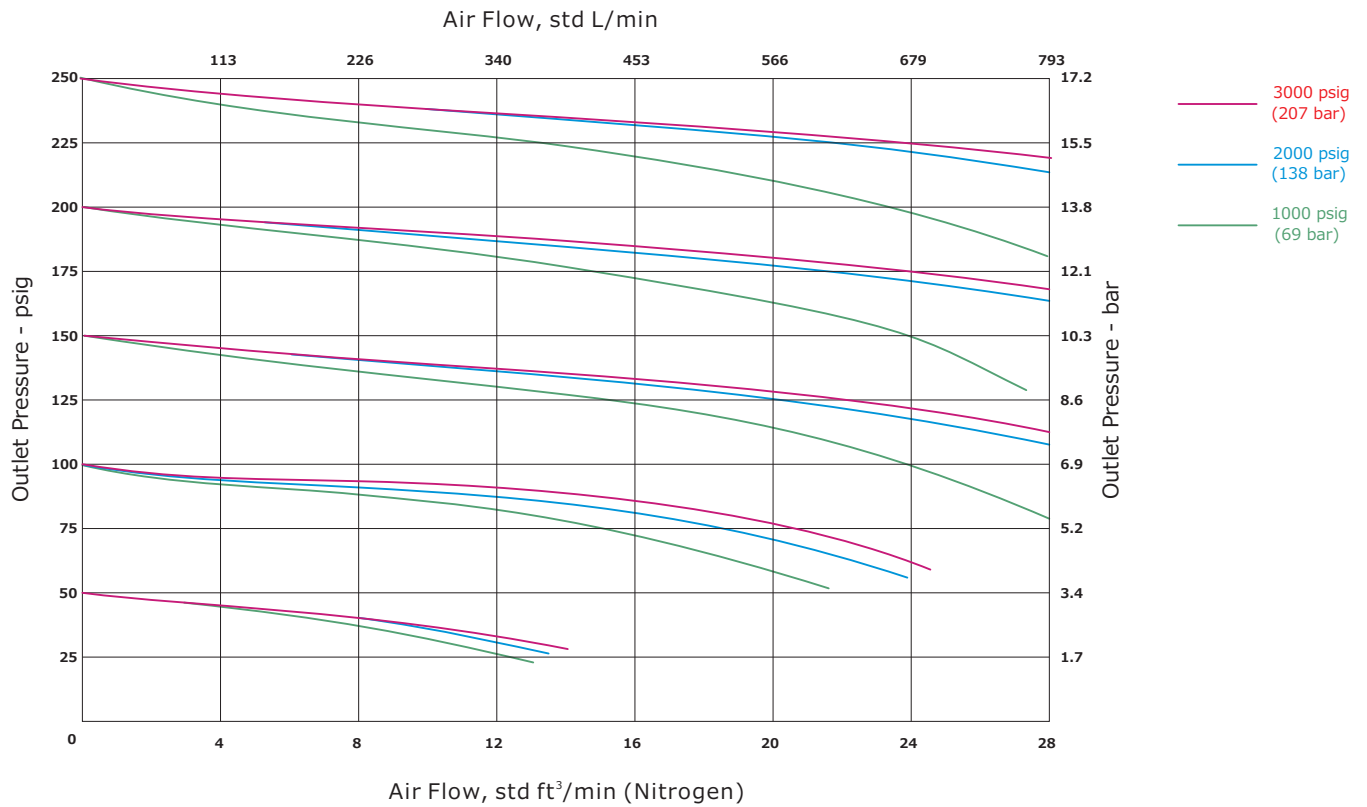


Port Configurations

Notes: HP=High Pressure; LP=Low Pressure



Flow Charts



How to Order

PR1 — FNPT4 — IB — 3500G — 316L

Series	Inlet Type Outlet Type	Inlet Size Outlet Size	Seat Material	Porting	Intel Pressure	Out Pressure	Gauges	Body Material
PR1	FNPT Female NPT	2 1/8 in.	PCTFE	N No Gauge Ports	3 3500 psig	500 0-500 psig	G No gauges with gauges	316 316 S.S.
	NPT Male NPT	4 1/4 in.	P PEEK	L One Gauge Ports		250 0-250 psig		316L 316L S.S.
	FBT Female BSPT	6 6 mm	I PI	C One Gauge Ports		100 0-100 psig		A400 Alloy 400
	MBT Male BSPT	8 8 mm		B Two Gauge Ports		50 0-50 psig		A276 Alloy C276
	F Fractional Tube Fitting			F Two Gauge Ports		25 0-25 psig		BR Brass
	M Metric Tube Fitting			S Two Gauge Ports				