

High Purity Pressure Reducing Regulator

PPR1 Series



- ❖ Maximum rated inlet pressure up to 3500 psig
- ❖ Flow Coefficient $C_v=0.06$
- ❖ Internal surface finished to 10 Ra microinch /0.25 micrometer
- ❖ Metal-to-metal diaphragm seal
- ❖ 316L, 316L VAR S.S.

Pressure Reducing Regulators-PPR1

The CIR-LOK PPR1 series is a economical high purity pressure reducing regulator provides Stainless Steel construction with 10 Ra surface finish and is electronic grade cleaned.

Applications

- ❖ 1/4" point-of-use
- ❖ Gas cabinets
- ❖ Semiconductor manufacturing
- ❖ Valve manifold boxes
- ❖ Research labs

Features

- ❖ Optimum performance and cleanliness at a great value
- ❖ Internal surface finished to 10 Ra microinch /0.25 micrometer ensures minimal particle generation or entrapment
- ❖ True metal-to-metal body diaphragm seal provides enhanced leak integrity
- ❖ No bias spring or friction device in the flow stream
- ❖ Adjustable stop to limit outlet pressure
- ❖ Positionable ported bonnet ring is available

Operating Parameters

- ❖ Maximum Inlet Pressure
3500 psig (241 bar)
- ❖ Outlet Pressure Ranges
0-30 psig (0-2.1 bar), 0-60 psig (0-4.1 bar), 0-100 psig (0-6.9bar), 0-150 psig (0-10.3 bar), 0-250 psig (0-17.2 bar)
- ❖ Design Proof Pressure
150% maximum rated
- ❖ Leakage
Internal: Bubble-tight
External: Design to meet $\leq 2 \times 10^{-9}$ atm cc/sec He
- ❖ Operating Temperature
PTFE Seat: -40°F to 140°F (-40°C to 60°C)
PTFE Seat: -40°F to 160°F (-40°C to 71°C)
PI Seat: -40°F to 350°F (-40°C to 177°C)
- ❖ Flow Capacity
3500 psig (241 bar) Inlet: Cv = 0.06

Internal Surface Finish

- ❖ 10 Ra microinch / 0.25 micrometer

Cleaning

- ❖ DI water electronic grade cleaned and ES 500 Particle Certified for internal electropolish models

Internal Volume

- ❖ 1/4" fitting / 5.75 cc

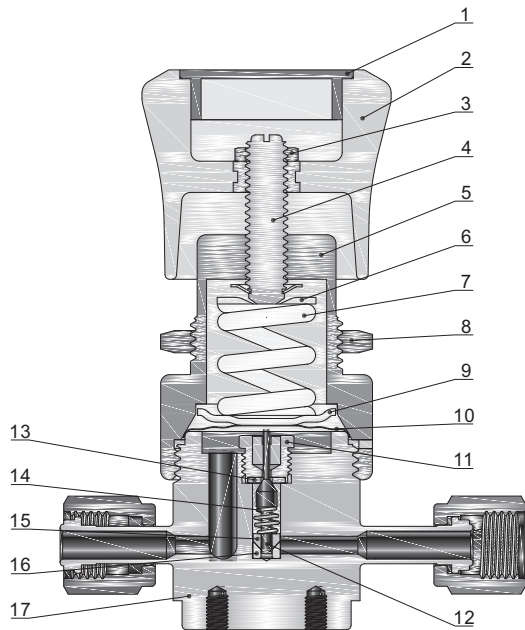
Weight (without gauges)

- ❖ 2 lbs / 0.9 kg

Wetted Material

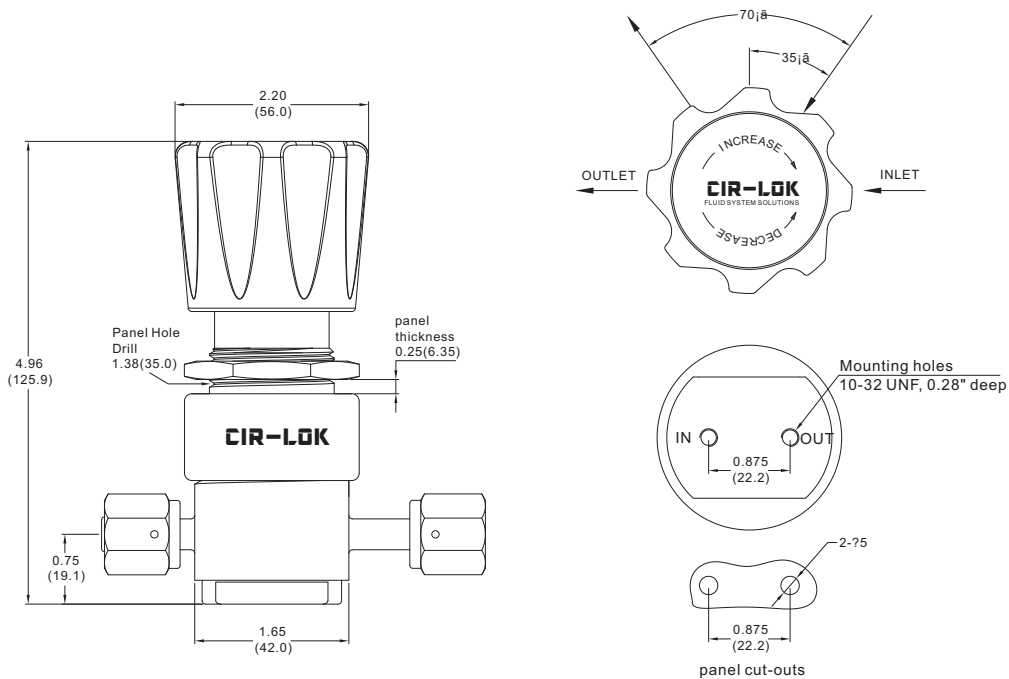
- ❖ Body
316L S.S. or 316L VAR S.S. electropolish
- ❖ Spring
316 Stainless Steel, Elgiloy®
- ❖ Diaphragm
316 Stainless Steel, Elgiloy®
- ❖ Seat
PCTFE, PTFE and PI
- ❖ Stem, Seat Retainer, Valve Guide
316 Stainless Steel, Brass, Hastelloy®* I

Standard Materials of Construction



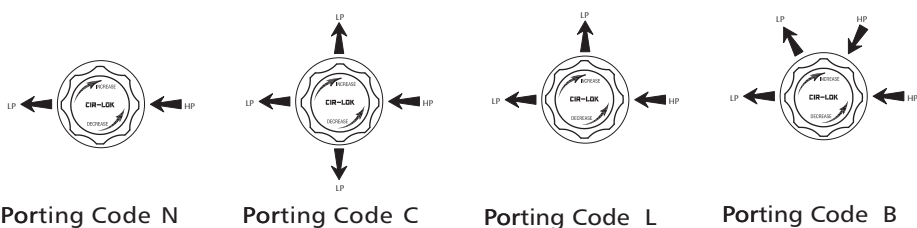
Item	Component	Material Grade/ASTM Specification
		316 S.S.
1	Cover	ABS
2	Knob handle	ABS
3	Stem nut	316 S.S.
4	Stem	316 S.S.
5	Bonnet	316 S.S./A479
6	Spring button	316 S.S./A276
7	Range spring	316 S.S.
8	Mounting nut	316 S.S./A276
9	stop plate	316 S.S./A276
10	Diaphragm	Alloy X-750 or alloy C-276
11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

Dimensions In. (millimeter)

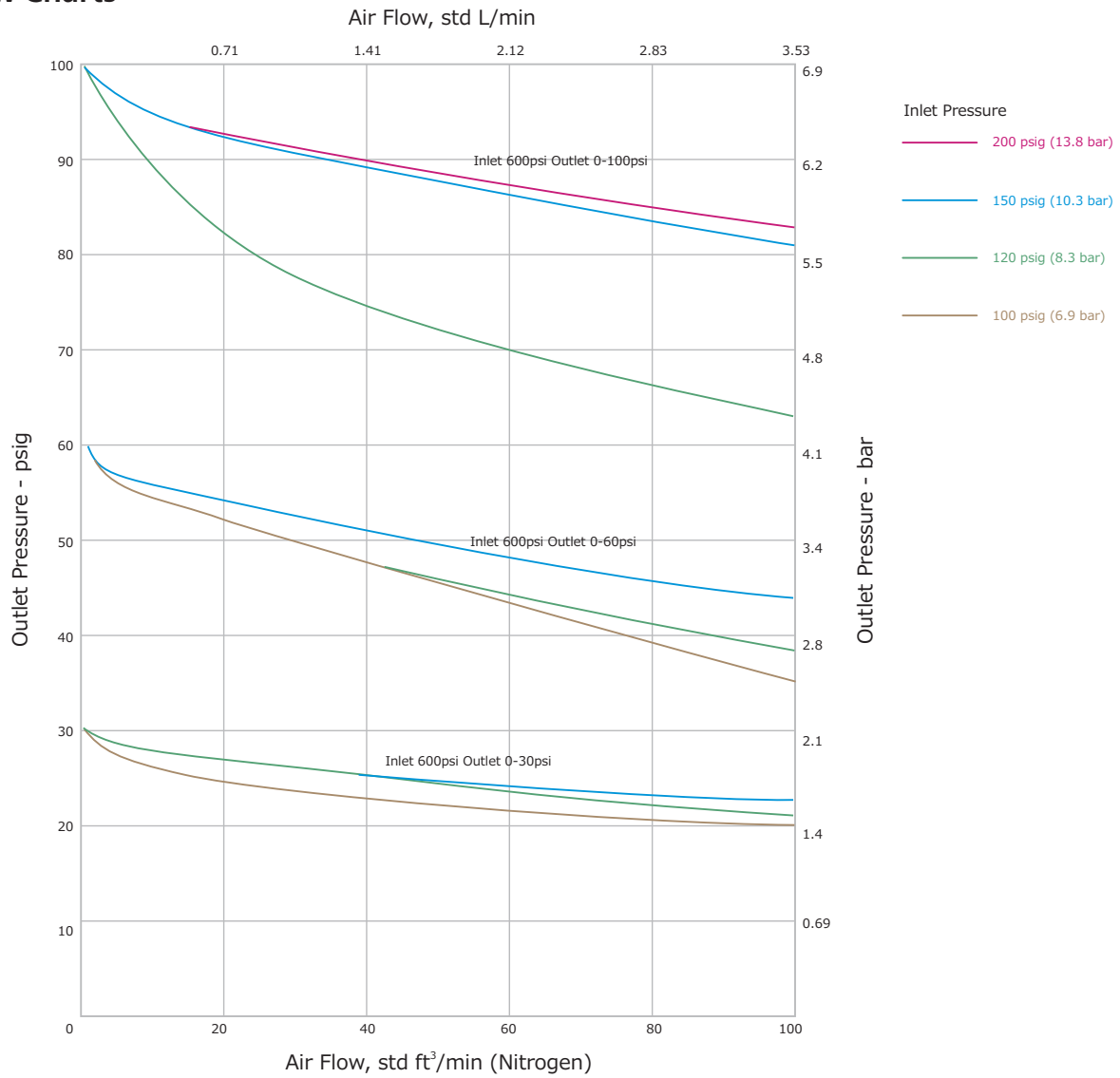


Port Configurations

Notes: HP=High Pressure; LP=Low Pressure



Flow Charts



How to Order

PPR1 — **FGFS4** — **IB** — **3250G** — **316L**

Series	Inlet Type Outlet Type	Inlet Size Outlet Size	Seat Material	Porting	Intel Pressure	Out Pressure	Gauges	Body Material
PPR1	GFS Male GFS Fitting	2 1/8 in.	PCTFE	N No Gauge Ports	3 3500 psig	250 0-250 psig	W No Gauges	316L 316L S.S.
	FGFS Female GFS Fitting	4 1/4 in.	I PI	L One Gauge Ports		150 0-150 psig	G With Gauges	
	F Fractional Tube Fitting	6 6 mm		C One Gauge Ports		100 0-100 psig		
	M Metric Tube Fitting	8 8 mm		B Two Gauge Ports		60 0-60 psig		
	FBW Fractional Tube Butt Weld					30 0-30 psig		
	MBW Metric Tube Butt Weld							