

Regulators

High Flow Piston Regulators

RPGN Series

Introduction

RPGN Series High Flow Piston Regulators feature a single-stage pressure reduction design with a piston sensing mechanism that is more resistant to damage caused by pressure spikes and offers a broad outlet pressure range, making them ideal for high flow applications.

Features

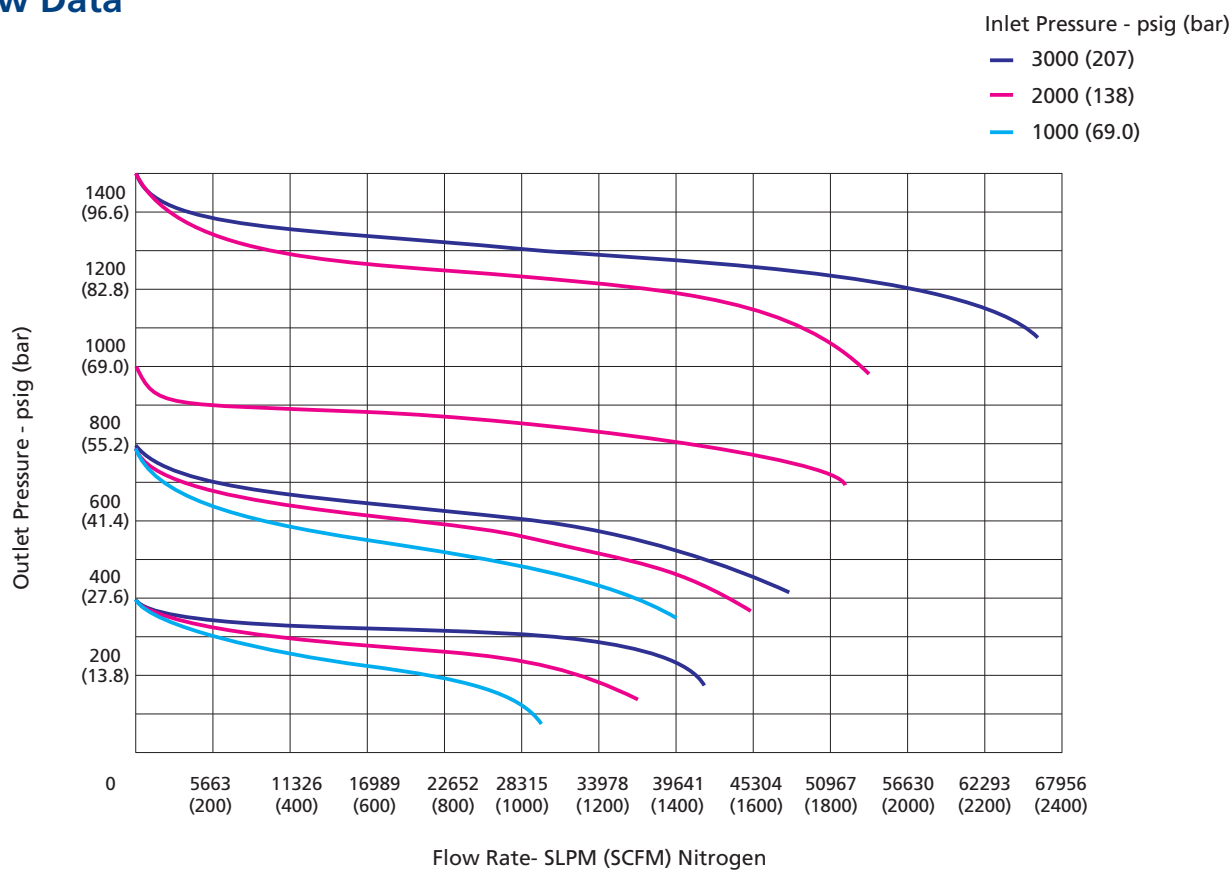
- ◎ Large diameter piston improves pressure sensitivity
- ◎ Optional self-venting feature

Technical Data

Port Size		1/2", 3/4", 16 mm or 18 mm
Max. Working Pressure	F316 SS, F316L SS	4500 psig (310 bar)
	Brass	3800 psig (262 bar)
Outlet Pressure Range		0 ~ 300 psig (0 ~ 20.7 bar)
		0 ~ 600 psig (0 ~ 41.4 bar)
		0 ~ 1000 psig (0 ~ 69.0 bar)
		0 ~ 1500 psig (0 ~ 103 bar)
Flow Coefficient (Cv)		2.0
Working Temperature	FKM	-4 ~ 220 °F (-20 ~ 104 °C)
	FFKM	-1.4 ~ 220 °F (-17 ~ 104 °C)
SPE (Supply Pressure Effect)	Outlet Pressure: 300, 600 psig	1.5 psig per 100 psig source pressure change
	Outlet Pressure: 1000, 1500 psig	4 psig per 100 psig source pressure change
Leak Rate	External	Bubble tight
	Internal	Bubble tight



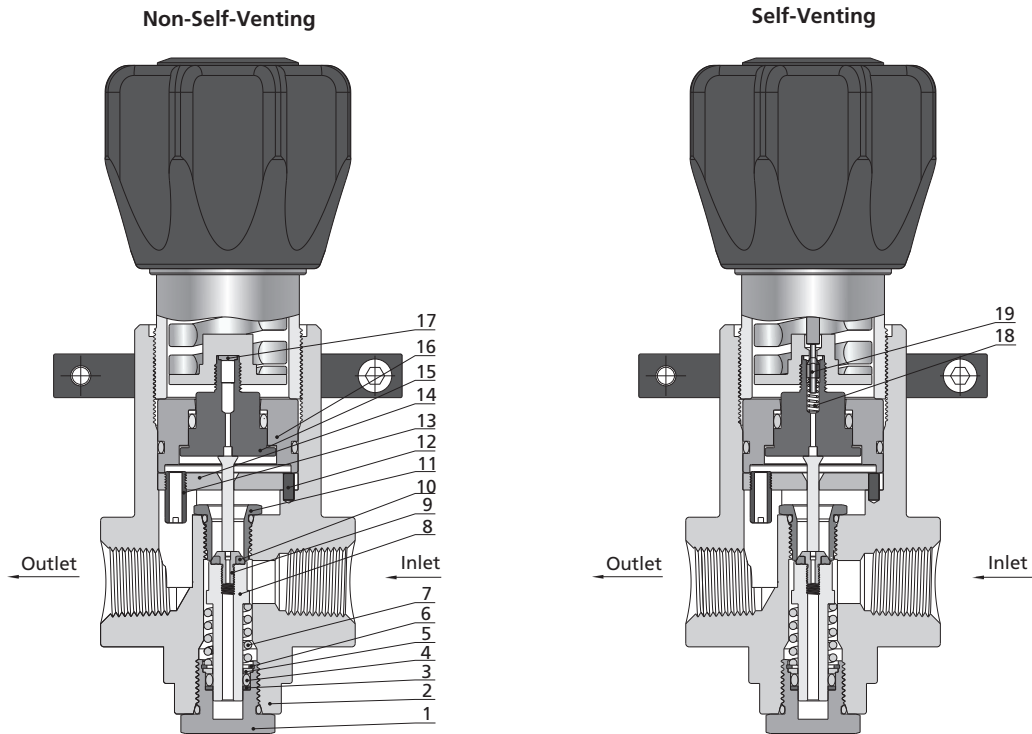
Flow Data



Process Specification

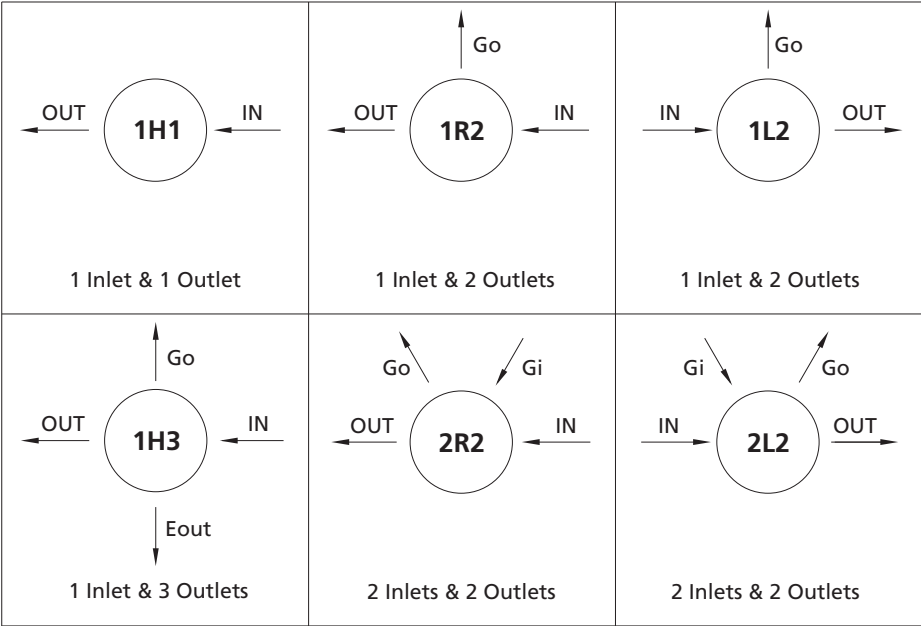
Item	Process Specification	Special Cleaning and Packaging Process (FC-02)
Material		F316 SS, F316L SS, Brass
Wetted Surface Roughness		Ra 32 μ in. (0.8 μ m)
Polishing Process		Machine Finished
Assembly Environment		In specially cleaned areas
Packaging		Double bagged

Major Materials of Construction



Item	Component	Material/Specification
1	Plug	316 SS/ASTM A479 or Brass
2	Body	F316 SS/ASTM A182 or F316L SS/ASTM A182 or Brass
3	Circlip	PEEK
4	O-Ring	FKM or FFKM
5	Gland	316 SS/ASTM A479
6	Circlip for Bores	304 SS
7	Poppet Spring	316 SS/ASTM A313
8	Lift Poppet	316 SS/ASTM A479
9	Screw	S17400/ASTM A564
10	Seat	PCTFE/ASTM D1430
11	Seat Retainer	316 SS/ASTM A479
12	Pin	316 SS/ASTM A479
13	Cylinder	316 SS/ASTM A479
14	Guide Block	316 SS/ASTM A479
15	Piston	316 SS/ASTM A479
16	Piston Ring	316 SS/ASTM A479
17	Auxiliary Seat	PCTFE/ASTM D1430
18	Poppet Spring	316L SS/ASTM A313
19	Auxiliary Poppet	S17400/ASTM A564

Porting Configurations



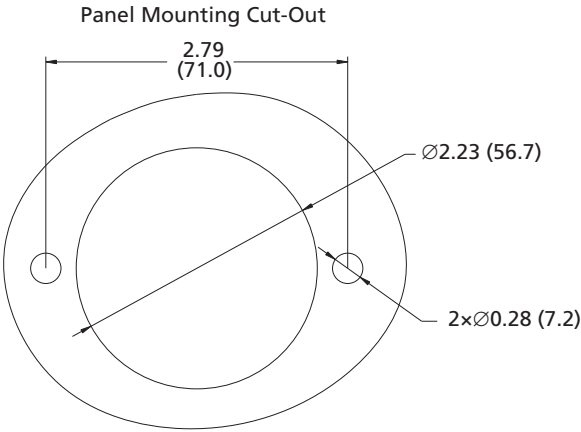
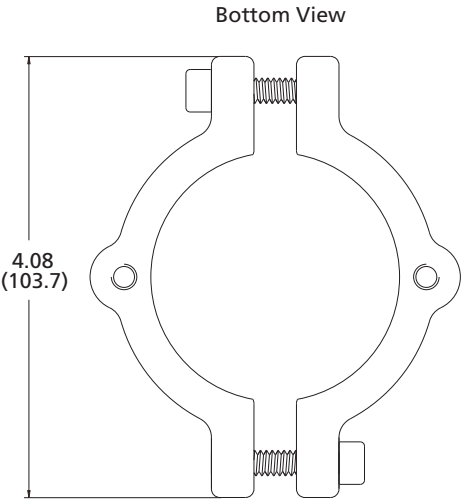
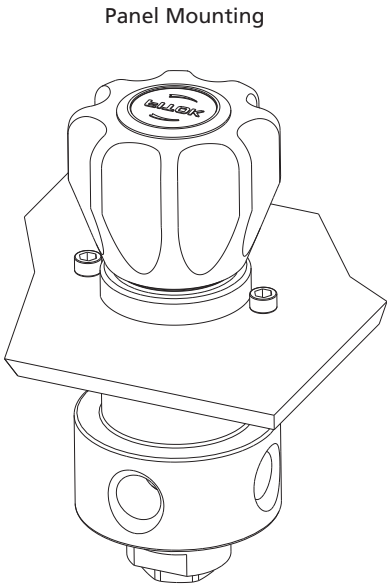
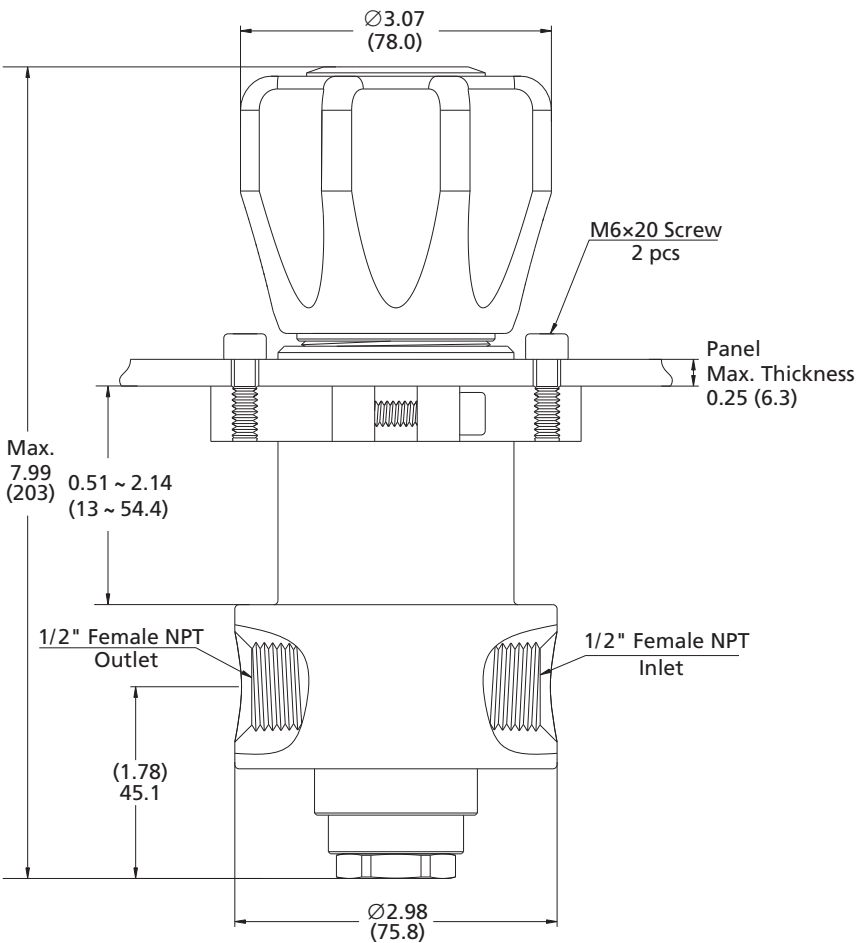
Porting Configuration Symbol

IN	OUT	Gi	Go	Eout
Inlet	Outlet	Inlet Pressure Gauge Port	Outlet Pressure Gauge Port	Auxiliary Outlet

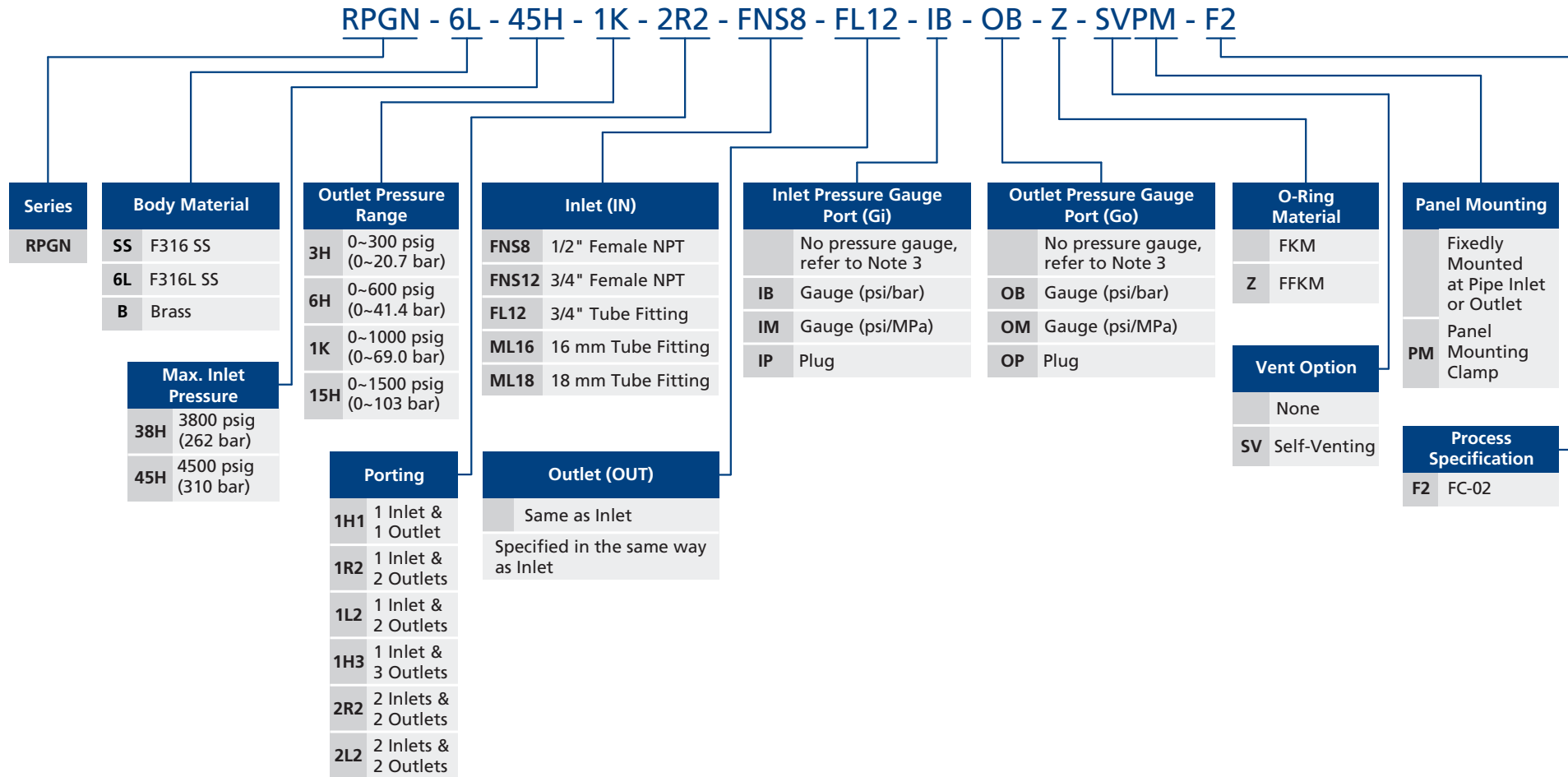
- Notes:
- 1. IN and OUT are the inlet and outlet ports for connecting the valve to the system. Ports other than IN and OUT should not be used for system connections.
 - 2. Porting configuration is viewed from the top.

Dimensions

Dimensions, in inches (millimeters), are for reference only.



Ordering Number Description



Notes:

- "Ordering Number Description" is a reference to understanding the combination rules of FITOK product part numbers. Not all combinations are available. Should you have any questions, please contact FITOK Group or our authorized distributors.
- When choosing NPT or Metric/Fractional Tube Fitting ports, the regulator body comes with 1/2" Female NPT inlet and outlet by default. Other options are adapted from 1/2" Male NPT.
- When choosing NPT or Metric/Fractional Tube Fitting for inlet and outlet, gauge ports (Gi, Go) and auxiliary outlet (Eout) are 1/4" Female NPT.
- When using the vent function, media will be discharged into the atmosphere from beneath the handle.