

Back Pressure Regulators

BPR-1 Series Back Pressure Diaphragm Regulators

Features

- ⦿ Metal-to-metal seal with convoluted diaphragm
- ⦿ Close pressure differential between crack and reseal
- ⦿ Panel mounting available

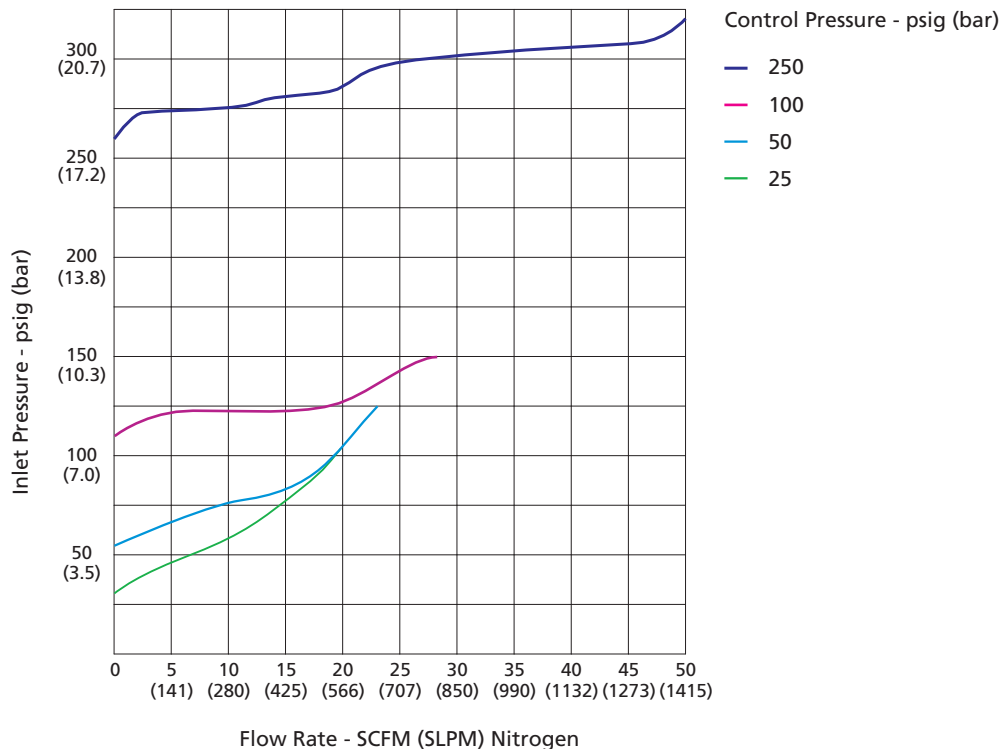
Technical Data

- ⦿ Maximum control pressure: 250 psig
- ⦿ Pressure control range: 0~25, 0~50, 0~100 or 0~250 psig
- ⦿ Material of the main components:
 - Seat: PCTFE
 - Diaphragm: Hastelloy
- ⦿ Temperature: -40°F~+140°F (-40°C~+60°C)
- ⦿ Leak rates:
 - Internal: Bubble-tight
 - External: $\leq 1 \times 10^{-9}$ mbar · l/s helium
- ⦿ Flow coefficient (Cv): 0.3
- ⦿ Weight: ≈ 1.98 lbs (0.9 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet and gauge



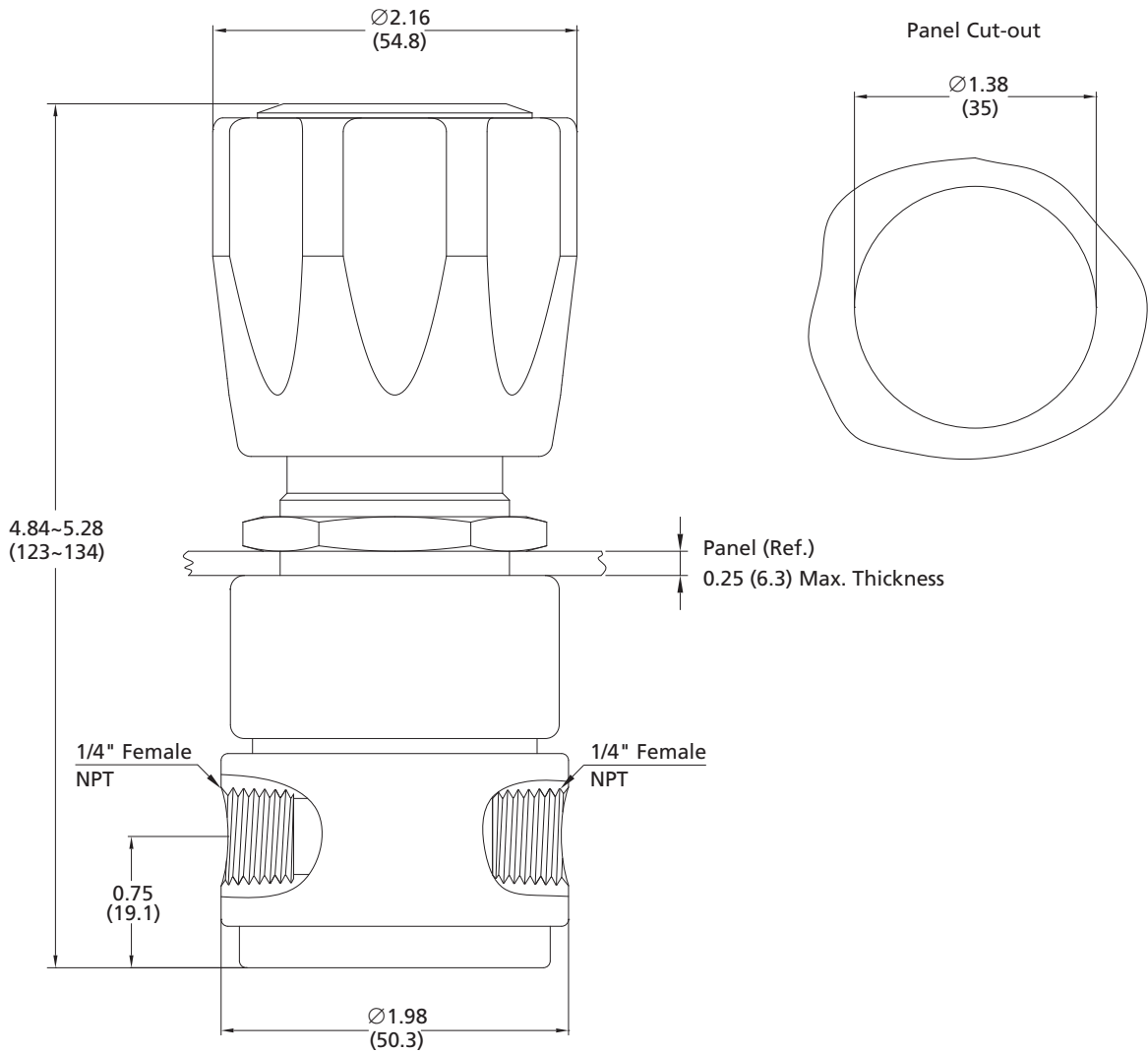
Model: BPR-16L-250-00-00-Z

Typical Flow Chart

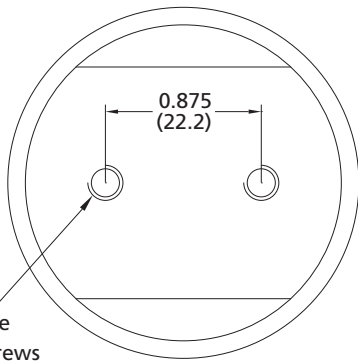


Dimensions

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

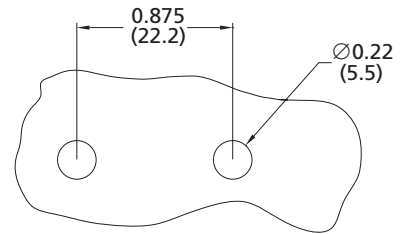


Bottom View

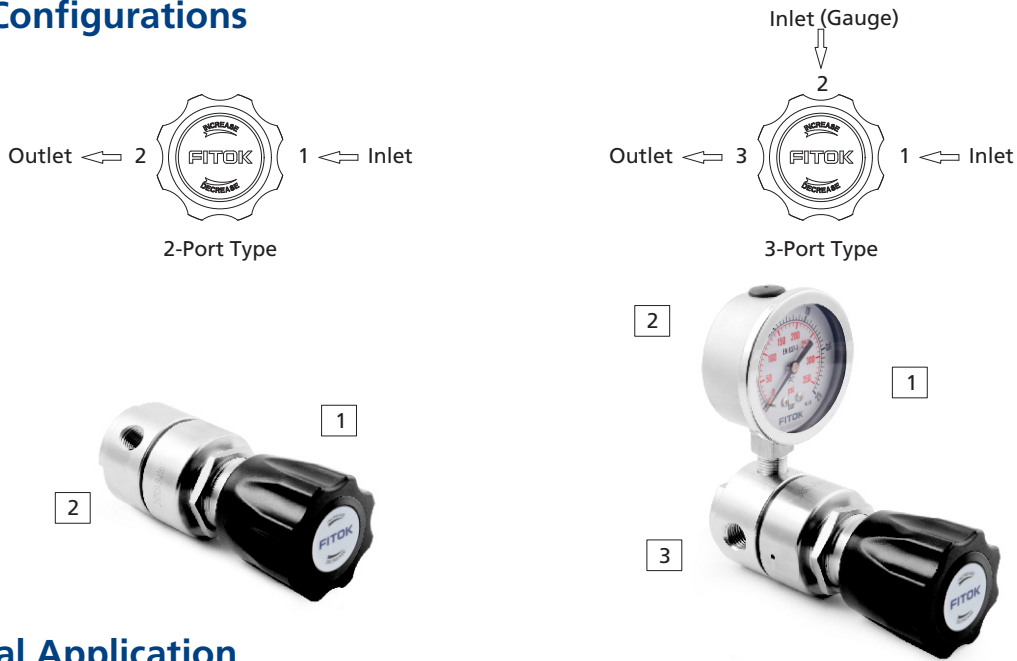


2xM5x0.8-6H thread
The holes are compatible with 10-32 mounting screws

Bottom Panel Cut-out

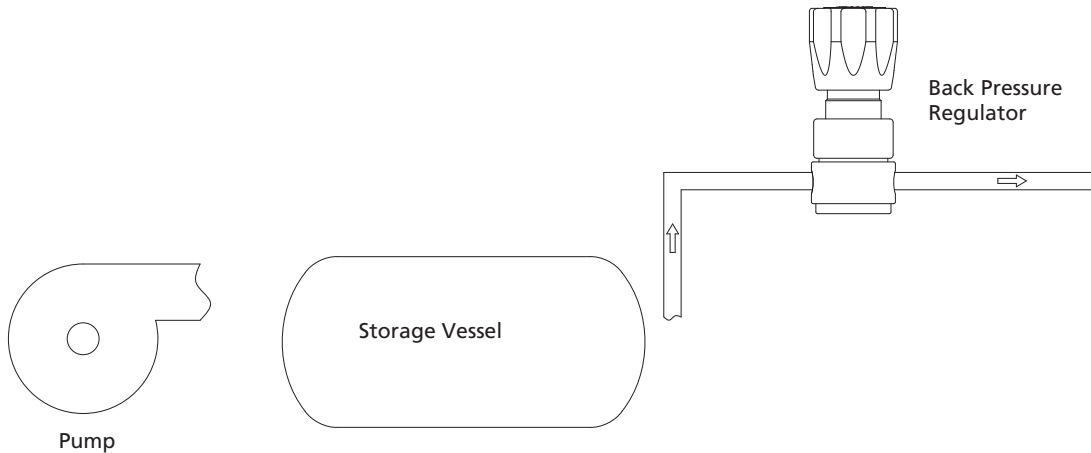


Port Configurations



Typical Application

When the system pressure is lower than the set pressure, the diaphragm obstructs the flow by the force of spring. When the system pressure is higher than the set pressure, the diaphragm compresses the inner spring to connect the flow so as to allow the fluid to pass through the back pressure regulator to keep the pressure of the Storage Vessel stable.



Part Number Description

BPR - 16L - 100 - 10 - M - 11 - Z

Body Material	Control Pressure Range P	Connection 1	Connection 2	Connection 3	Installation Type
6L 316L SS	25 0~25 psig	00 1/4" Female NPT	B With Gauge (psi/bar)	Same as Connection 1	Not Required
SS 316 SS	50 0~50 psig	01 1/4" Male NPT	M With Gauge (psi/MPa)		Z Installed with One Panel Nut
B Brass (Nickel-plated)	100 0~100 psig	10 1/4" Tube Fitting	P Plug	Same as Connection 1	N Installed with Screws at the Bottom
	250 0~250 psig	11 3/8" Tube Fitting	00 1/4" Female NPT		
		20 6 mm Tube Fitting	01 1/4" Male NPT		
		21 8 mm Tube Fitting	10 1/4" Tube Fitting		
		Other connections are available upon request	Other connections are available upon request		

Note: Before ordering, please read **Installation Instructions and Cautions** on A-77.
 Examples of part number:
 a. 2-port type (1 in, 1 out): BPR-16L-25-00-00

Back Pressure Regulators

BPR-2 Series Back Pressure Piston Regulators

Features

- ⦿ Durable piston-sensed design
- ⦿ Bubble-tight shutoff at all reseating pressure
- ⦿ Low operating torque
- ⦿ Panel mounting available
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched environments

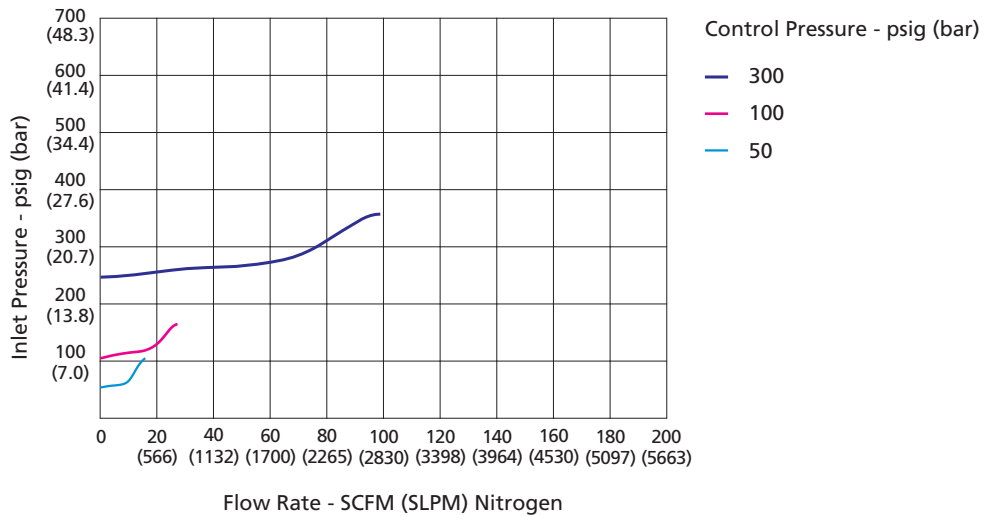
Technical Data

- ⦿ Maximum control pressure: 1000 psig
- ⦿ Pressure control range: 10~300, 10~500 or 10~1000 psig
- ⦿ Material of the main components:
 - Seat: PCTFE
 - Piston: 316L
 - O-rings: Viton or Kalrez
- ⦿ Temperature: -15°F~-165°F (-26°C~-74°C)
- ⦿ Leak rates:
 - Internal: Bubble-tight
 - External: Bubble-tight
- ⦿ Flow coefficient (Cv): 0.3
- ⦿ Weight: ≈1.98 lbs (0.9 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet and gauge



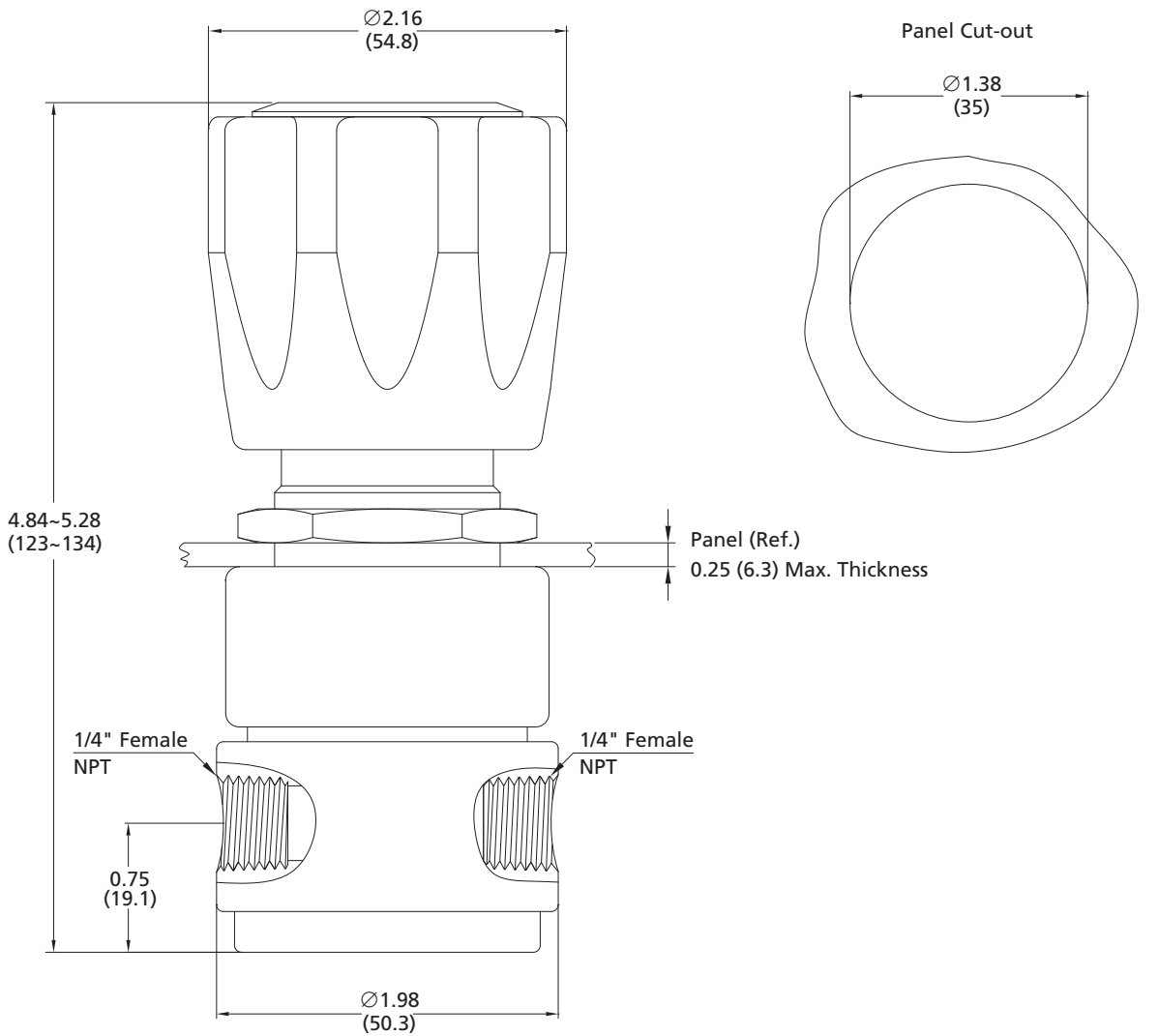
Model: BPR-26LZ-300-00-00-Z

Typical Flow Chart

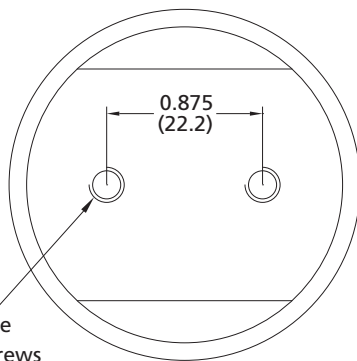


Dimensions

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

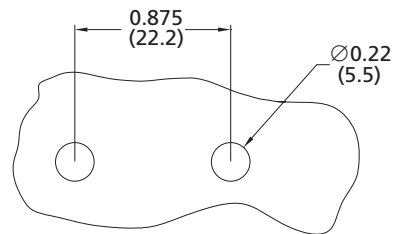


Bottom View

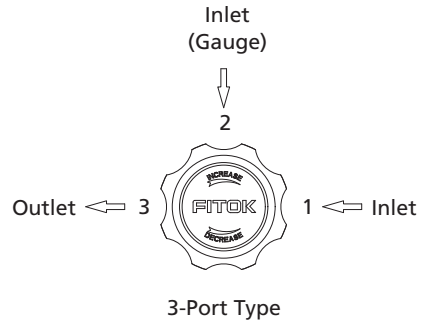
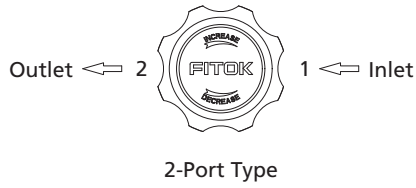


$2 \times M5 \times 0.8-6H$ thread
The holes are compatible with 10-32 mounting screws

Bottom Panel Cut-out

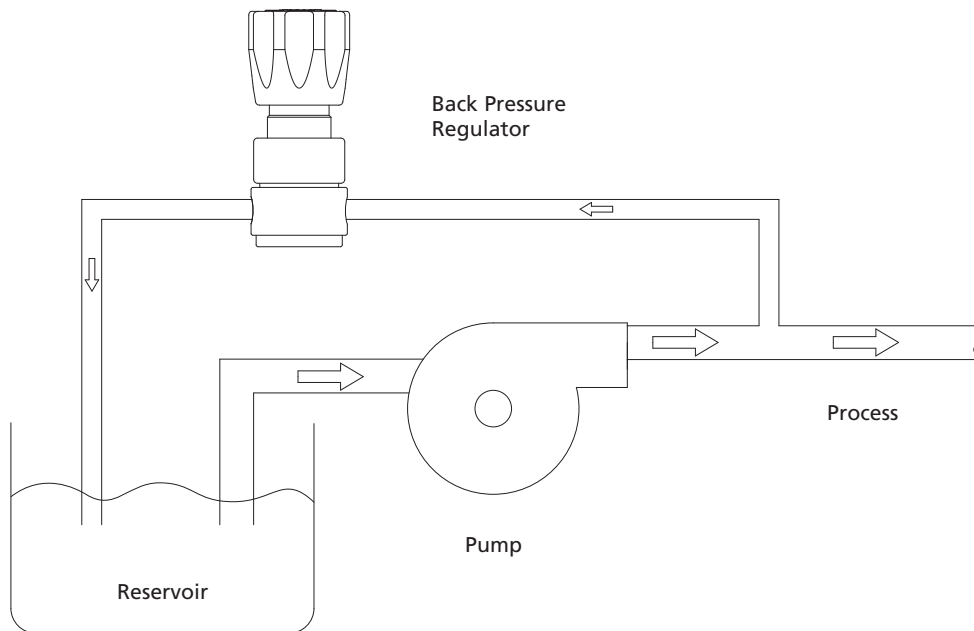


Port Configurations



Typical Application

BPR-2 Series Back Pressure Regulators maintain the required pipeline pressure to ensure the Pump to output fluid stably when system pressure fluctuates.



Part Number Description

BPR – 26L Z – 300 – 10 – M – 11 – Z

Body Material		Control Pressure Range P		Connection 1		Connection 2		Connection 3		Installation Type	
6L	316L SS	300	10~300 psig	00	1/4" Female NPT	B	With Gauge (psi/bar)	Same as Connection 1		Not Required	
SS	316 SS	500	10~500 psig	01	1/4" Male NPT	M	With Gauge (psi/MPa)			Z	Installed with One Panel Nut
B	Brass (Nickel-plated)	1000	10~1000 psig	10	1/4" Tube Fitting	P	Plug			N	Installed with Screws at the Bottom
				11	3/8" Tube Fitting	00	1/4" Female NPT				
				20	6 mm Tube Fitting	01	1/4" Male NPT				
				21	8 mm Tube Fitting	10	1/4" Tube Fitting				
				Other connections are available upon request		Other connections are available upon request					

O-ring Material	
	Viton
Z	Kalrez

Note: Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 2-port type (1 in, 1 out): BPR-2SS-500-00-00

Back Pressure Regulators

BPR-3 Series Back Pressure Piston Regulators

Features

- ⦿ Control of back-pressure up to 10000 psig for gas or liquid application
- ⦿ Safe and reliable piston sensing
- ⦿ 7 pressure control ranges
- ⦿ Panel mounting available
- ⦿ Special cleaning and packaging available for application in oxygen-enriched environments

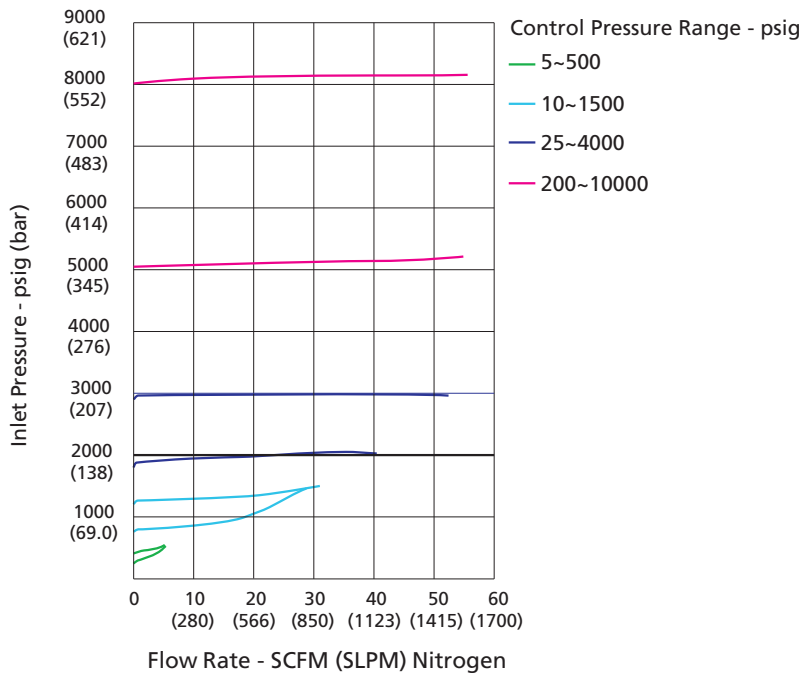
Technical Data

- ⦿ Maximum control pressure:
Stainless steel: 10000 psig
Brass: 6000 psig
- ⦿ Pressure control ranges: 5~500, 5~800, 10~1500, 15~2500, 25~4000, 50~6000, 200~10000 psig
- ⦿ Material of the main components:
Body: 316 SS or brass
Seat: PEEK
Piston: 316L
O-rings: Viton or Kalrez
- ⦿ Temperature: -15°F~+165°F (-26°C~+74°C)
- ⦿ Leak rates:
Internal: Bubble-tight
External: Bubble-tight
- ⦿ Flow coefficient (Cv): 0.25
- ⦿ Weight(regulator): ≈5.7 lbs (2.6 Kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet, and gauge



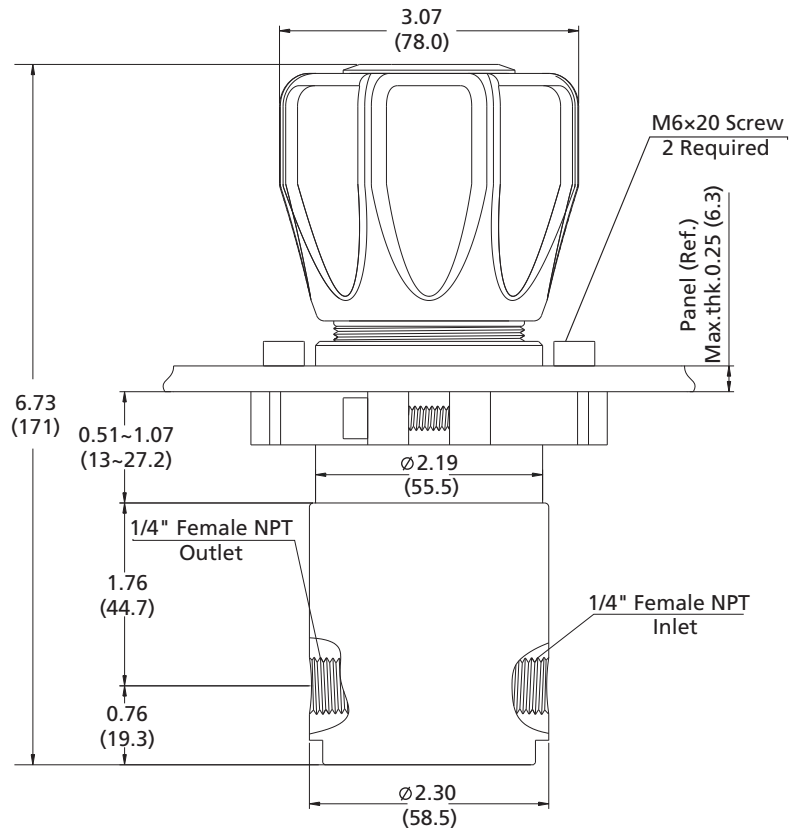
Model: BPR-3SS-40-00-00-Z

Typical Flow Chart

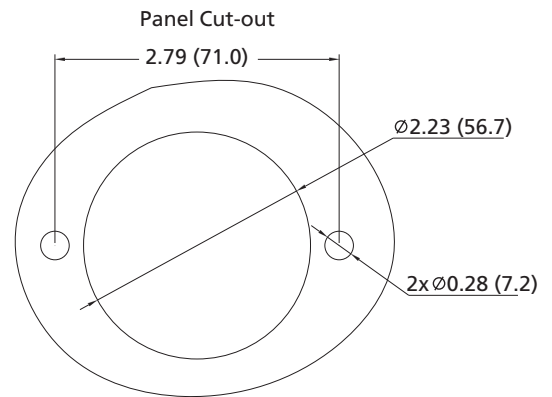
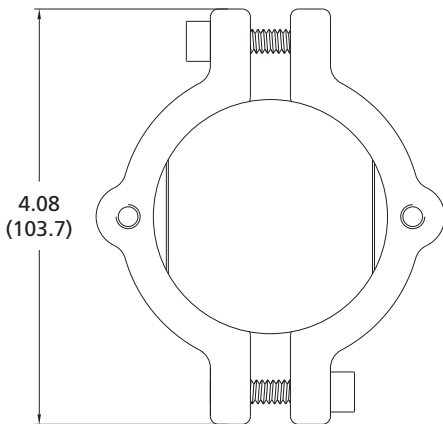


Dimensions

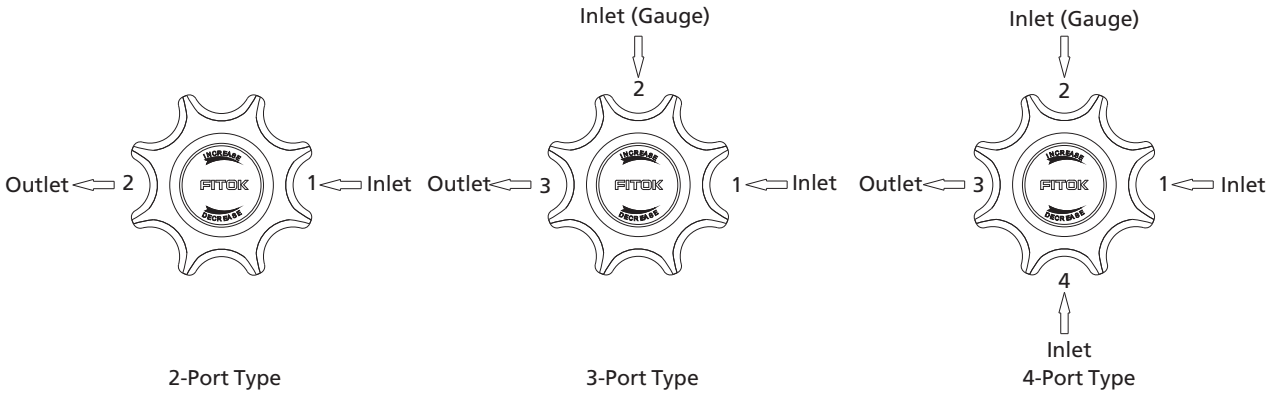
Dimensions, in inches (millimeters), are for reference only.



Bottom View



Port Configurations



Part Number Description

BPR-3B Z-15-00-B-00-00-Z-F2

Body Material	Pressure Control Range P	Connection 1	Connection 2	Connection 3	Connection 4	Panel Mount	Product Technology Grade
SS 316 SS	5 5~500 psig	00 1/4" Female NPT	B With Gauge (psi/bar)	Same as Connection 1	Same as Connection 1	Without	General Purpose
6L 316L SS	8 5~800 psig	01 1/4" Male NPT	M With Gauge (psi/MPa)			z With	
B Brass (Max. Control Pressure 6000 psig)	15 10~1500 psig	10 1/4" Tube Fitting	P Plug				
	25 15~2500 psig	11 3/8" Tube Fitting	00 1/4" Female NPT				
	40 25~4000 psig	20 6 mm Tube Fitting	01 1/4" Male NPT				
O-ring Material	60 50~6000 psig	21 8 mm Tube Fitting	10 1/4" Tube Fitting				F2 Special Cleaning and Packaging
	Viton	100 200~10000 psig	11 3/8" Tube Fitting	20 6 mm Tube Fitting			
			21 8 mm Tube Fitting	21 8 mm Tube Fitting			
Z Kalrez		Other connections are available upon request	Other connections are available upon request				

Note: Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 2-Port type (1 in, 1 out): BPR-3B-25-00-00
- b. 3-Port type (2 in, 1 out): BPR-3B-40-00-M-00
- c. 4-Port type (3 in, 1 out): BPR-3B-60-00-M-00-00