

Back Pressure Regulators

BPR-1 Series Back Pressure Diaphragm Regulators

Features

- ⦿ Excellent sensitivity and set point pressure stability
- ⦿ Reduced inner capacity
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched atmospheres

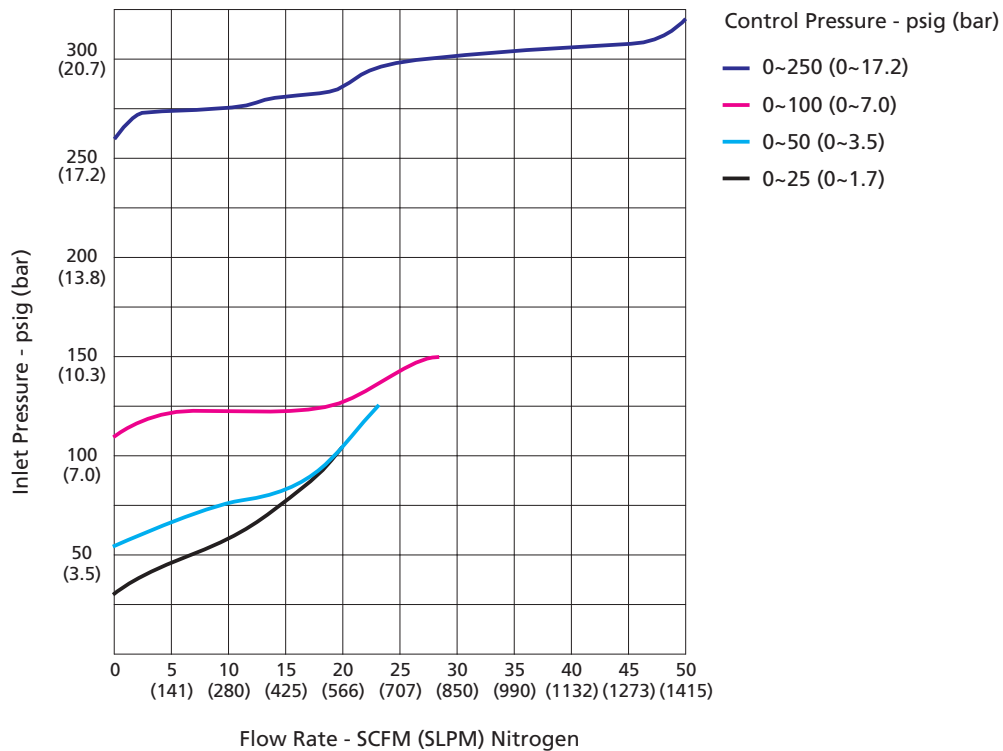
Technical Data

- ⦿ 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: 316L
- ⦿ Temperature: -40 °F ~ 140 °F (-40 °C ~ 60 °C)
- ⦿ Leak rates (helium):
 - Internal: Bubble-tight
 - External: $\leq 1 \times 10^{-9}$ std cm³/s
- ⦿ Flow coefficient (Cv): 0.3
- ⦿ Weight: ≈ 1.98 lbs (0.9 kg)



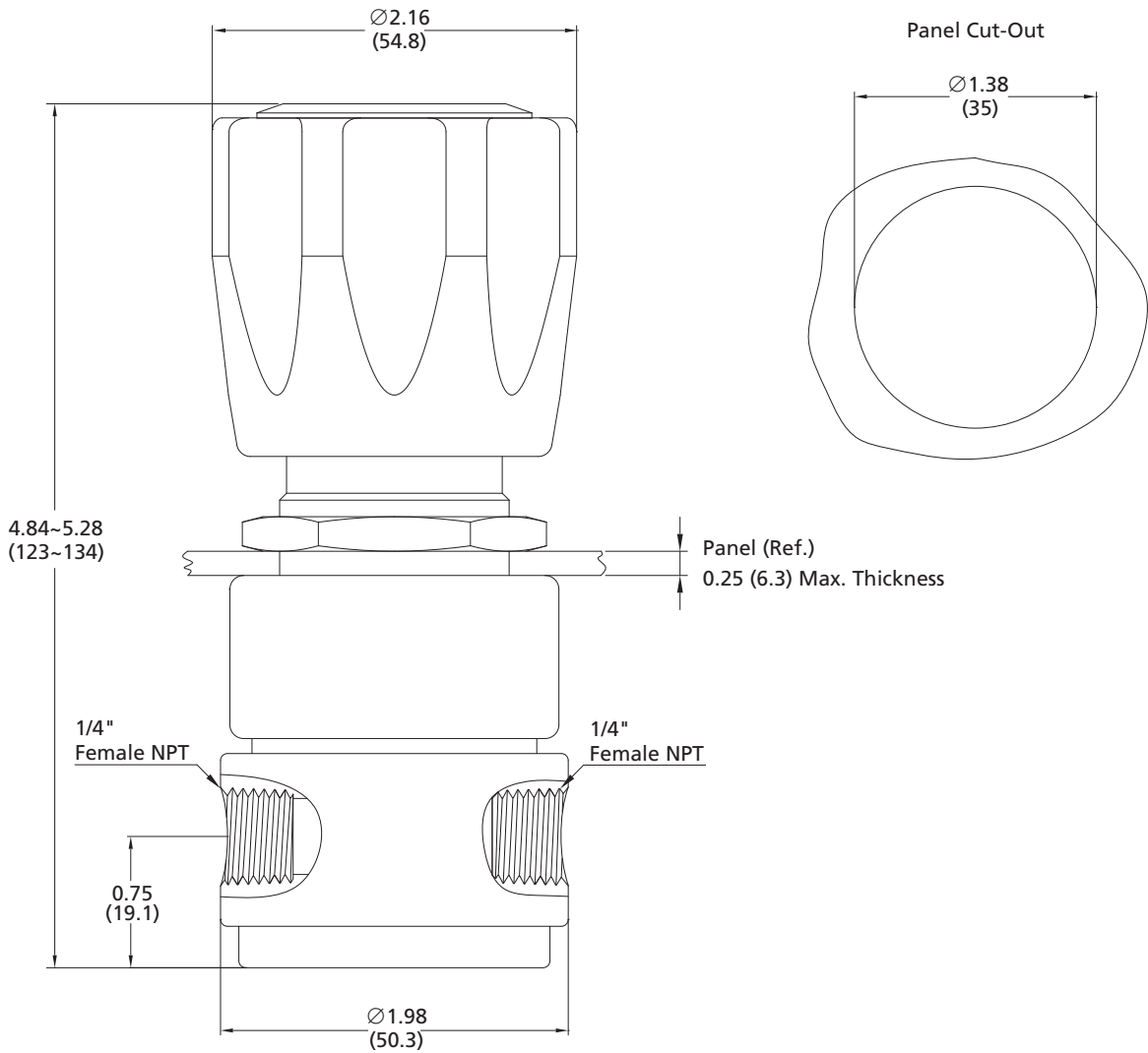
Model: BPR-16L-250-00-00-Z

Typical Flow Chart

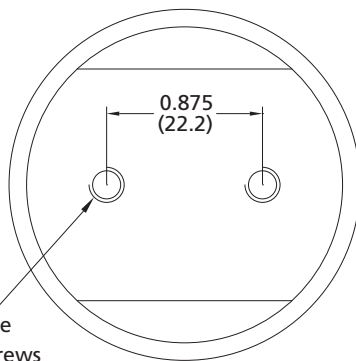


Dimensions

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

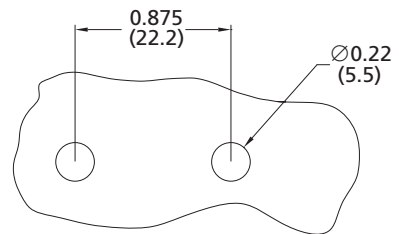


Bottom View

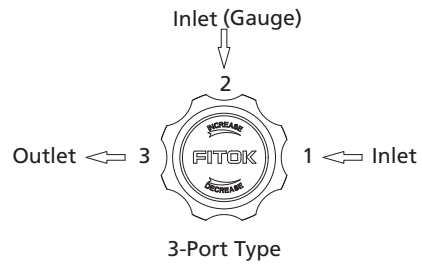
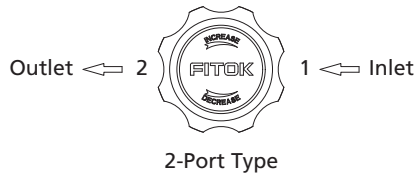


2×M5×0.8-6H thread
The holes are compatible with 10-32 mounting screws

Bottom Panel Cut-Out

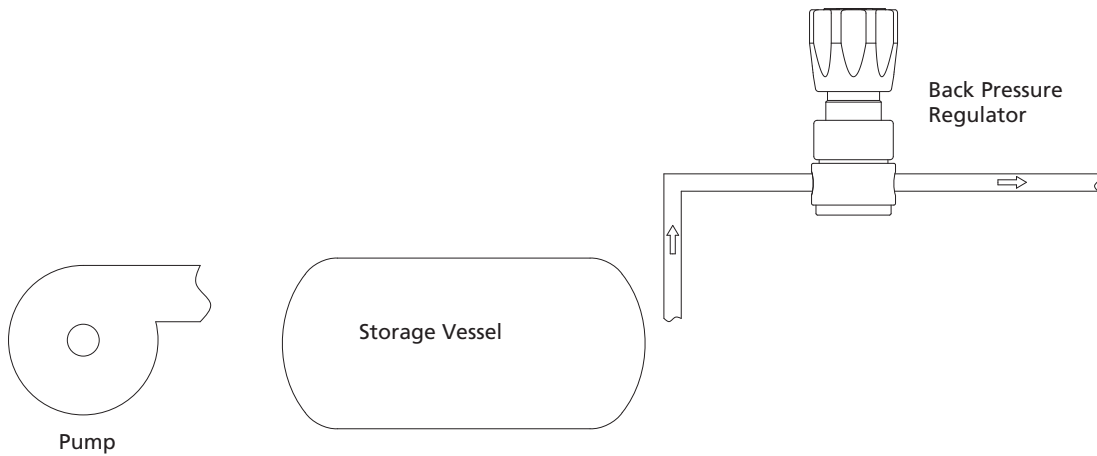


Port Configurations

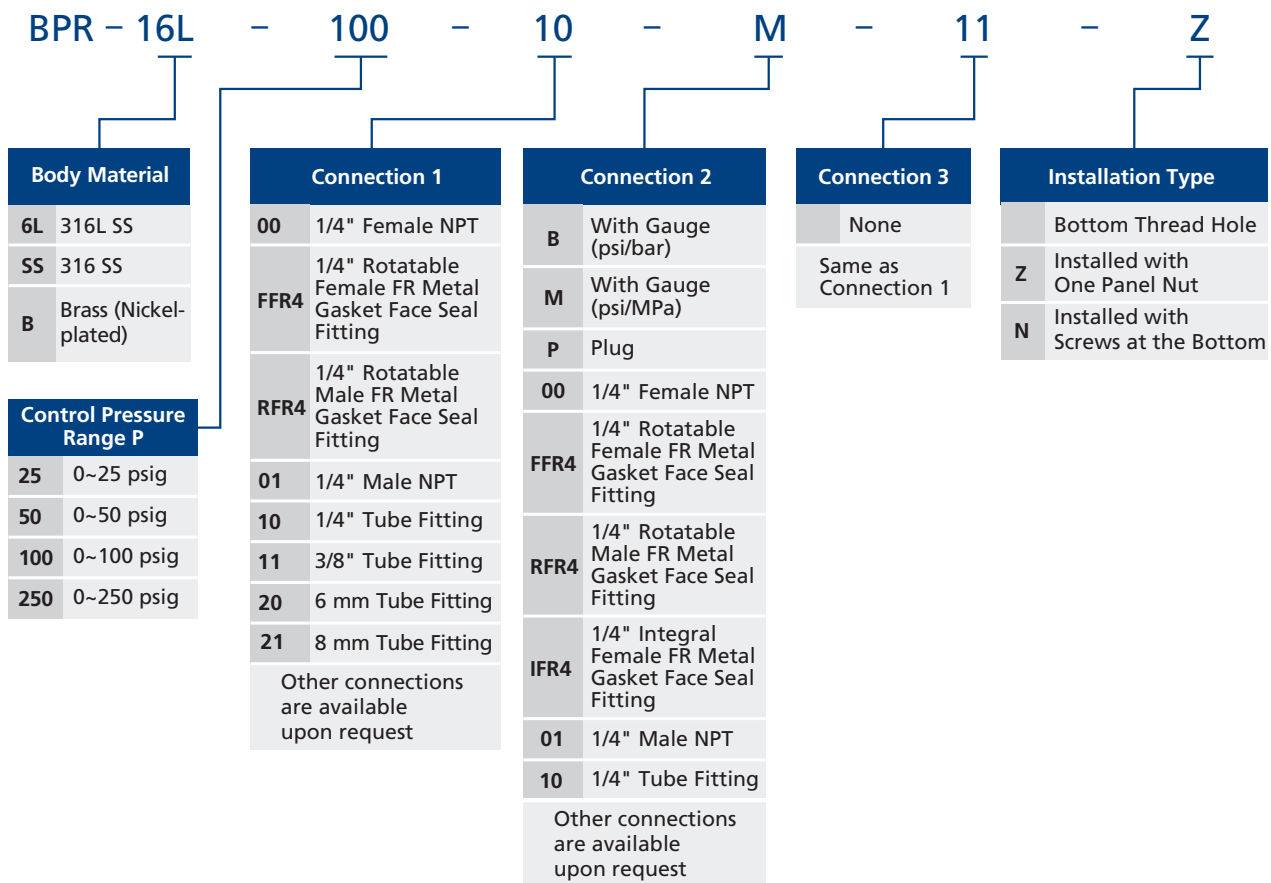


Typical Application

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.



Ordering Number Description



Notes:

1. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.
2. Before ordering, please read **User's Guide** on A-11.
3. For face seal connection, the connection and body are orbital-welded integral structure. The pressure is installed on "RFR4" connection by default.
4. For connections other than face seal connection, the body connections are 1/4" Female NPT by default. Other options are adapted from 1/4" Male NPT.

Examples of part number:

- a. 2-port type (1 in, 1 out): BPR-16L-25-00-00, BPR-16L-25-RFR4-RFR4
- b. 3-port type (2 in, 1 out): BPR-16L-50-00-00-00, BPR-16L-50-FFR4-RFR4-FFR4

Back Pressure Regulators

BPR-2 Series Back Pressure Piston Regulators

Features

- ⦿ Piston sensing design with greater pressure control range
- ⦿ Reduced inner capacity
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched atmospheres

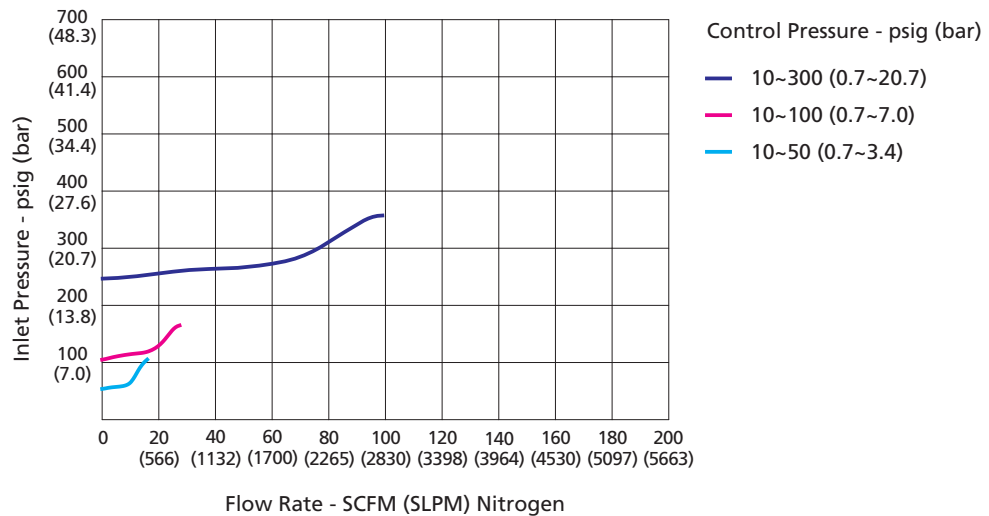
Technical Data

- ⦿ 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: FKM or FFKM
- ⦿ 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)



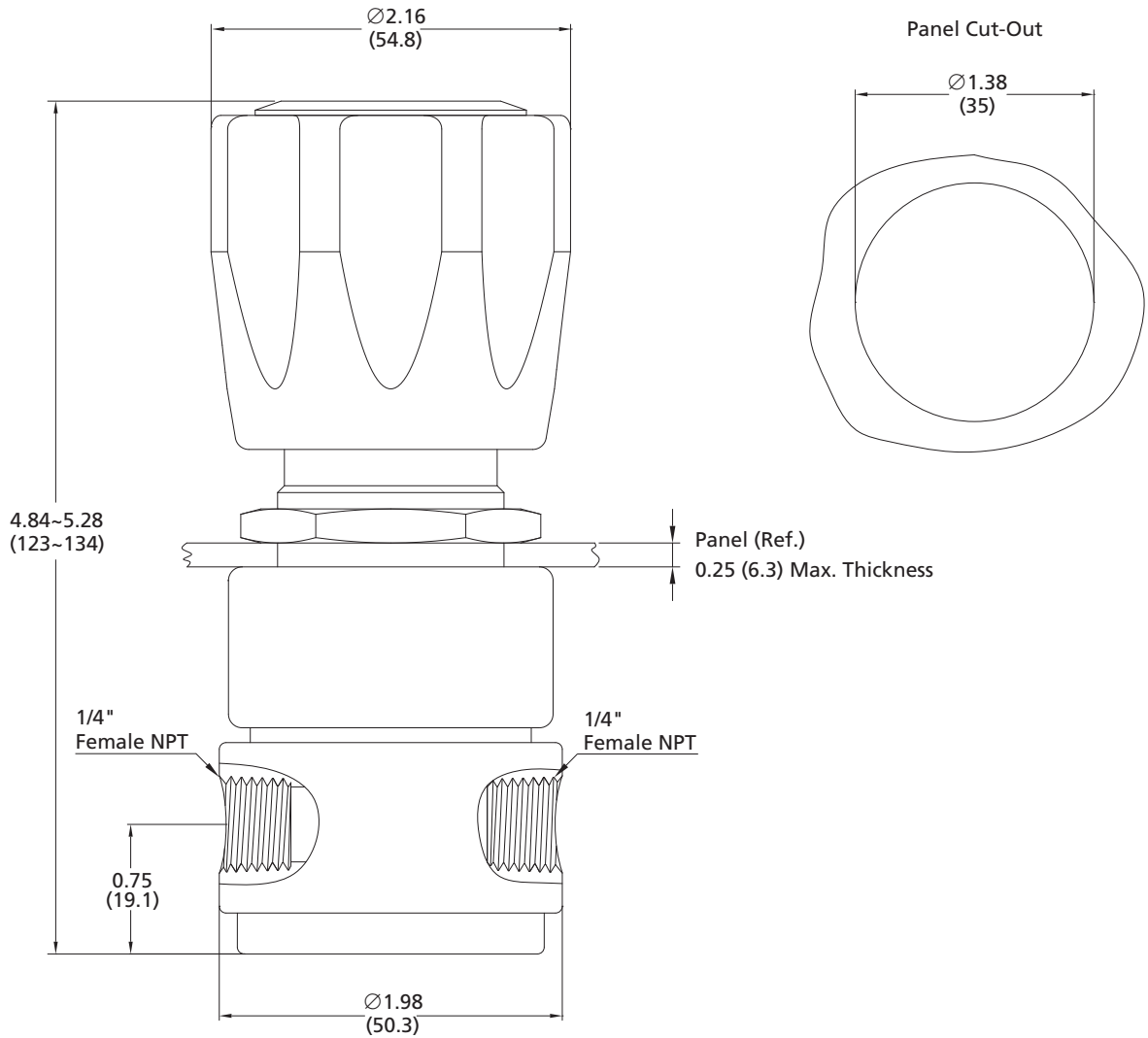
Model: BPR-26LZ-300-00-00-Z

Typical Flow Chart

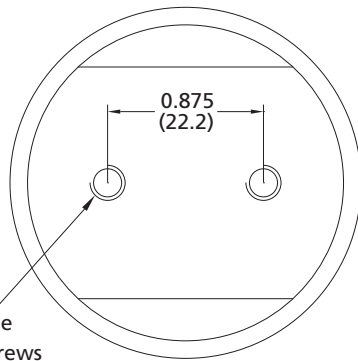


Dimensions

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

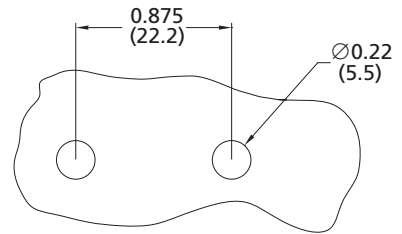


Bottom View

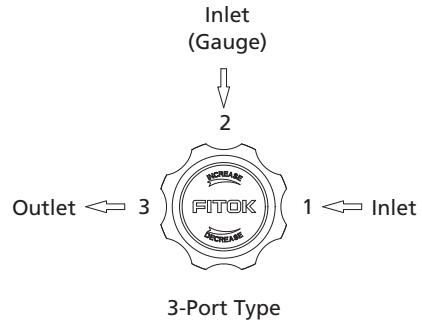
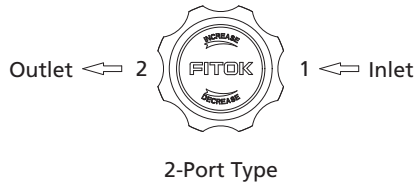


2xM5x0.8-6H thread
 The holes are compatible
 with 10-32 mounting screws

Bottom Panel Cut-Out

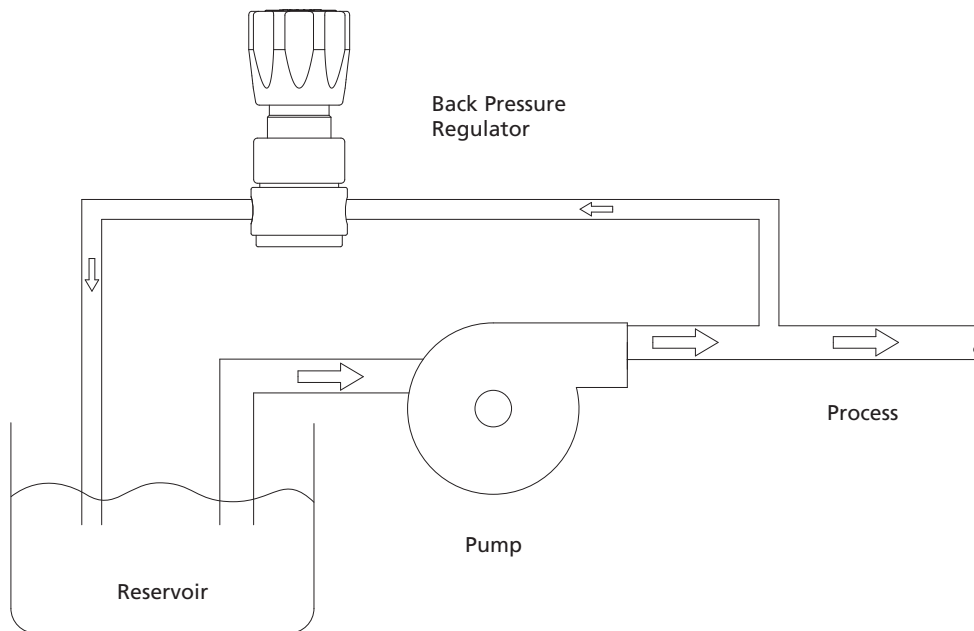


Port Configurations



Typical Application

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



Ordering 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)		None		Bottom Thread Hole
SS	316 SS	500	10~500 psig	01	1/4" Male NPT	M	With Gauge (psi/MPa)		Same as Connection 1	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	
	FKM
Z	FFKM

Notes:

1. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.
2. Before ordering, please read **User's Guide** on A-11.
3. The body connections are 1/4" Female NPT by default. Other options are adapted from 1/4" Male NPT.
Examples of part number:
 - a. 2-port type (1 in, 1 out): BPR-2SS-300-00-00
 - b. 3-port type (2 in, 1 out): BPR-26LZ-500-00-B-00

Back Pressure Regulators

BPR-3 Series Back Pressure Piston Regulators

Features

- ⦿ Piston sensing design with greater pressure control range
- ⦿ Thrust roller bearings make operation easier

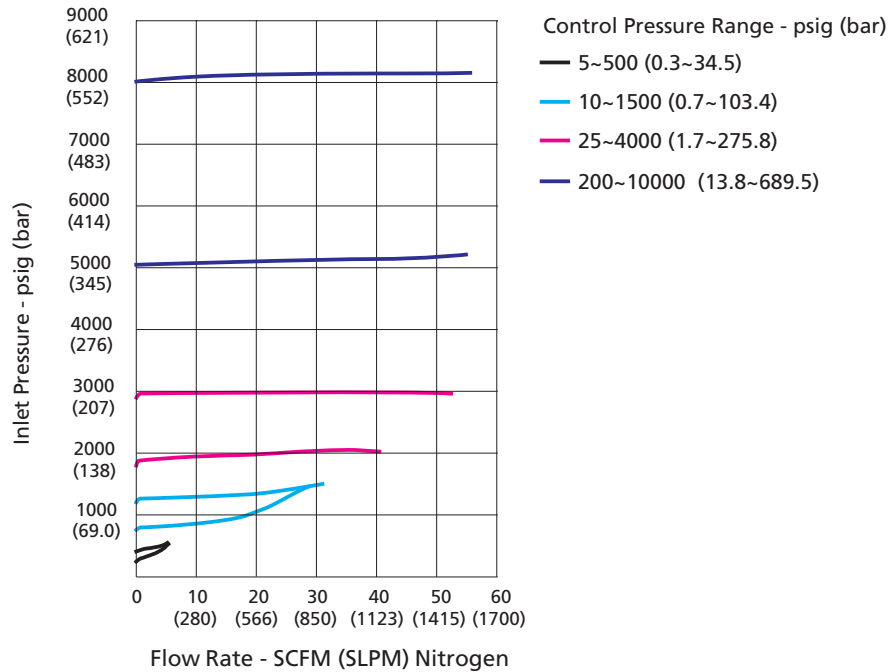
Technical Data

- ⦿ 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: 316 SS
 O-rings: FKM or FFKM
- ⦿ 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)



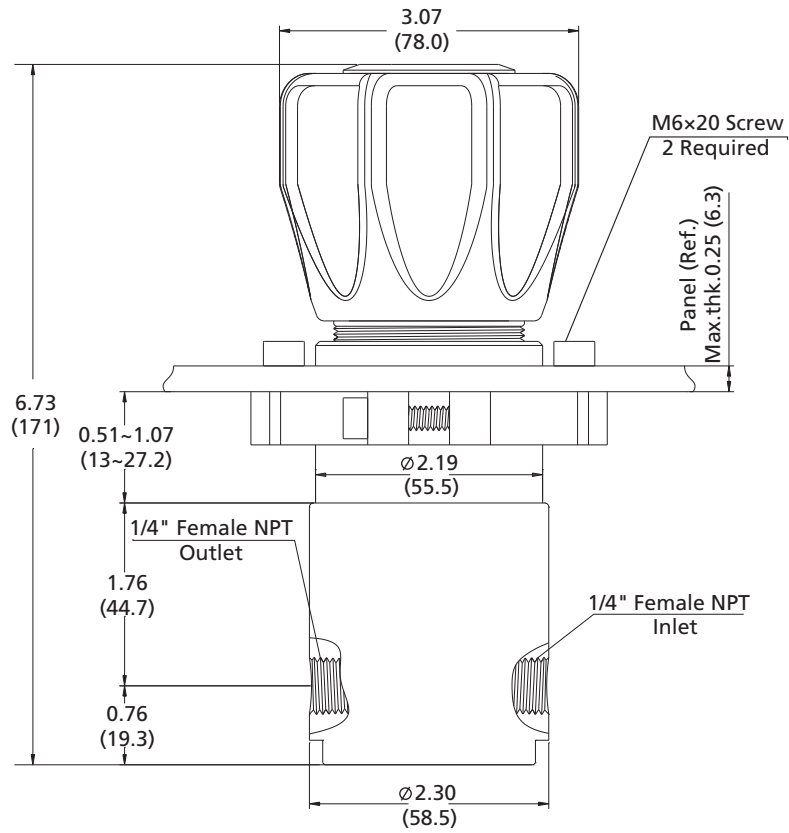
Model: BPR-355-40-00-00-Z

Typical Flow Chart

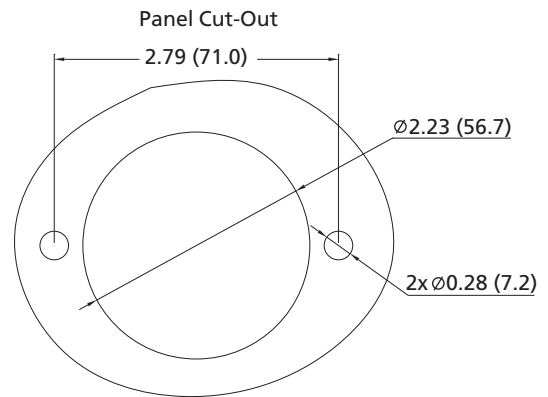
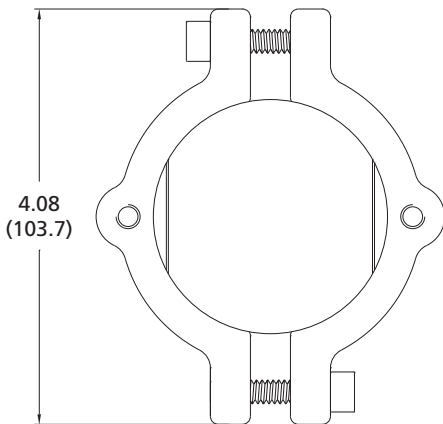


Dimensions

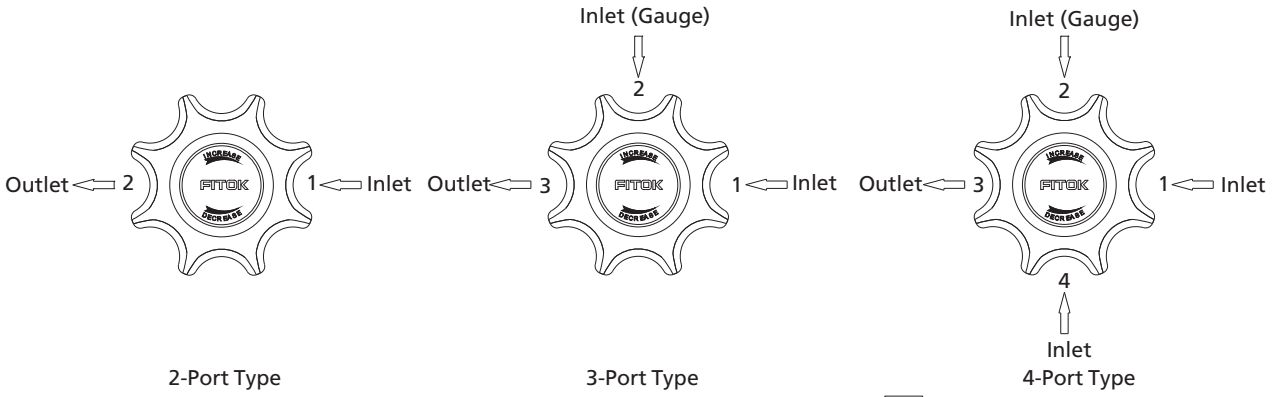
Dimensions, in inches (millimeters), are for reference only.



Bottom View

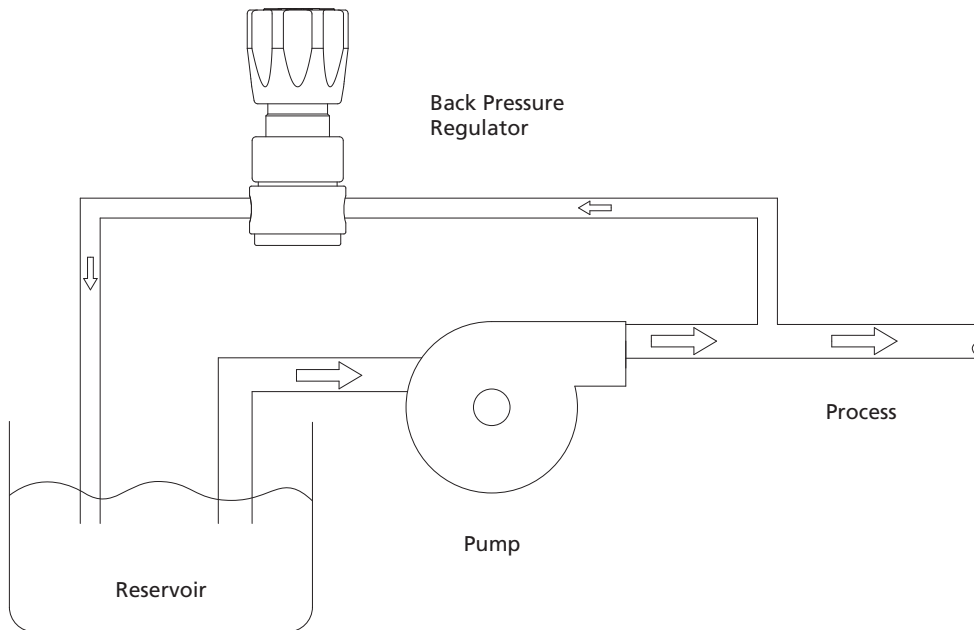


Port Configurations

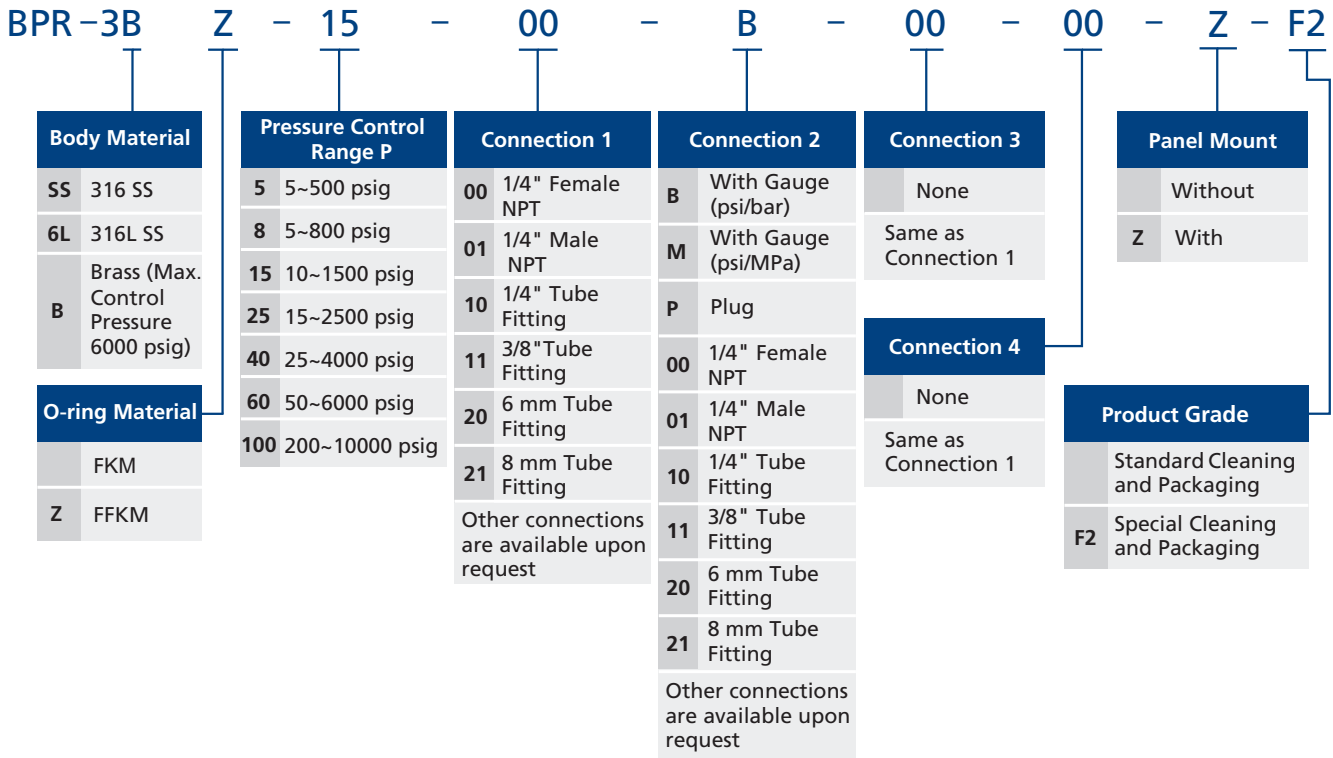


Typical Application

BPR-3 Series Back Pressure Regulators maintain the required pipeline pressure to ensure the Pump to output fluid stably when system pressure fluctuates.



Ordering Number Description



Notes:

1. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.
2. Before ordering, please read **User's Guide** on A-11.
3. The body connections are 1/4" Female NPT by default. Other options are adapted from 1/4" Male NPT.
 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