



ADVANCED PRESSURE TECHNOLOGY

# SERIES BP 1000 BACK PRESSURE REGULATOR

PRECISE CONTROL—HIGH RELIABILITY



- ◆ 0.5 psig to 300 psig (0.035 to 21 bar) operating pressure ranges
- ◆ Flow capacity Cv = 0.3
- ◆ Stainless Steel or Brass construction
- ◆ Ni-Cr-Mo alloy internals, 'SH' option, for added corrosion resistance
- ◆ High leak integrity
- ◆ Machined from bar stock
- ◆ Optional features and accessories
- ◆ Fine adjustment control
- ◆ Cleaned for O2 service
- ◆ Field repairable
- ◆ Diffusion resistant Stainless Steel diaphragm
- ◆ Knob LOTO option (refer to AP KL data sheet)
- ◆ Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

## ENGINEERING DATA

### Operating Parameters

Pressure ratings	
BP 1001	0.5 to 10 psig (0.035 to 0.7 bar)
BP 1002	1 to 30 psig (0.07 to 2 bar)
BP 1010	5 to 100 psig (0.35 to 7 bar)
BP 1020	15 to 200 psig (1.05 to 14 bar)
BP 1030	15 to 300 psig (1.05 to 21 bar)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

### Other Parameters

Inlet/outlet ports	1/4" NPT or compression
Flow coefficient, Cv***	0.3
Internal volume	0.49 in <sup>3</sup> (8 cm <sup>3</sup> )
Leak rate	1 x 10 <sup>-9</sup> sccs

## MATERIALS OF CONSTRUCTION

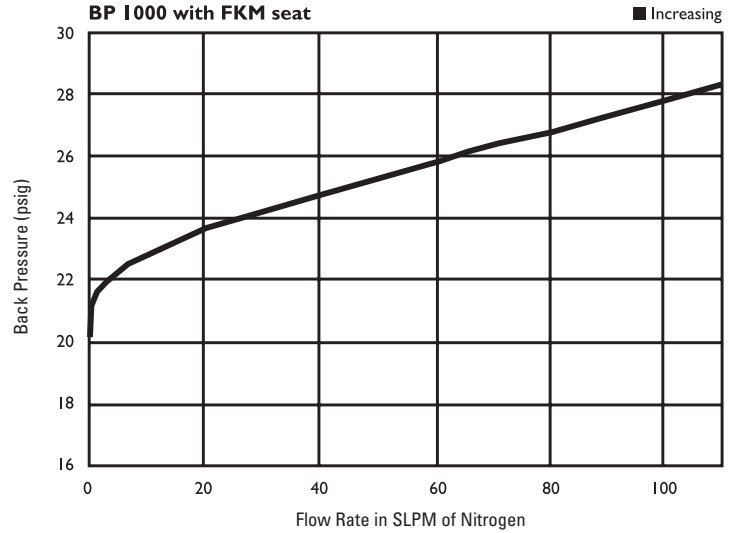
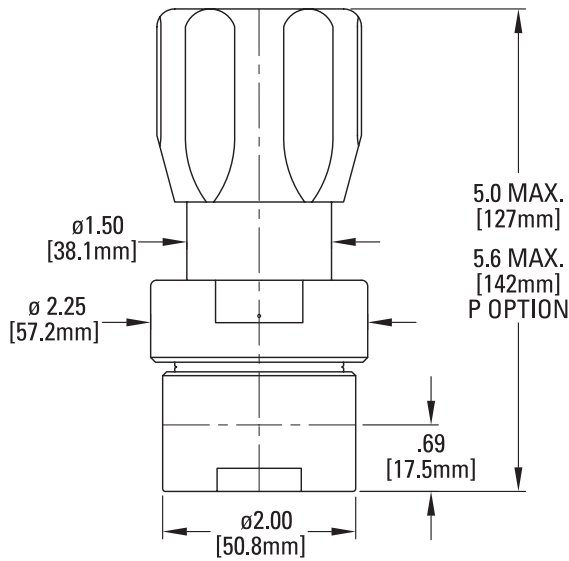
	<b>BP 1000B</b>	<b>BP 1000S</b>	<b>BP 1000SH**</b>
Body	brass	SS 316	SS 316
Nozzle and diaphragm	SS 316	SS 316	Ni-Cr-Mo alloy / UNS 06022**
Seat	Fluoroelastomer / FKM*	Fluoroelastomer / FKM*	Fluoroelastomer / FKM*
Seals	PTFE	PTFE	PTFE
Bonnet	SS 303	SS 303	SS 303

\*Optional seats available, PTFE and Perfluoroelastomer / FFKM.

\*\*BP 1020, 1030SH diaphragm is SS.

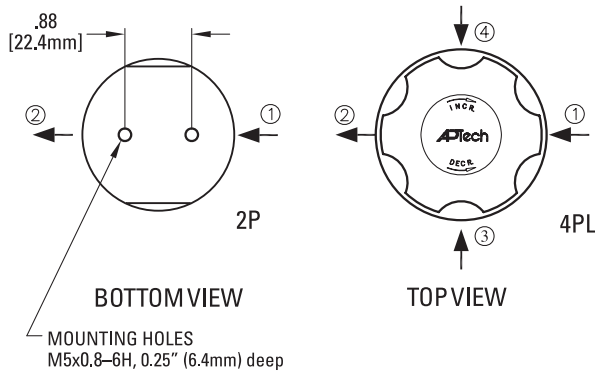
\*\*\*A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range.

All specifications subject to change without notice.



All dimensions in inches. Metric dimensions (mm) are for reference only.

### Porting Configurations



**NOTE:** Brass only available with 4PL porting.

**CAUTION:** Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

### ORDERING INFORMATION

BP 1002 Series	S Material	4PL Port Configuration	4 4 ① ② Ports	0 0 ③ ④ Ports (Gauge/Accessory)	P Options
BP 1001= 0.5-10 psig (.03 to .7 bar) BP 1002= 1-30 psig (.07 to 2 bar) BP 1010= 5-100 psig (.35 to 7 bar) BP 1020= 15-200 psig (1.05 to 14 bar) BP 1030= 15-300 psig (1.05 to 21 bar)		2P = 2 Ports 4PL = 4 Ports	4 = 1/4 inch NPT 4T = 1/4 inch compression	0 = No gauge or device installed V3 = 30-0-30 psig/bar 1 = 30-0-100 psig/bar 2 = 0-200 psig/bar 4 = 0-400 psig/bar	KZ = Perfluoroelastomer seat TF = PTFE seat P = Panel installation* KL = Knob LOTO (refer to AP KL data sheet)
S = Stainless steel (SS) SH = SS with Ni-Cr-Mo alloy internals B = Brass					*Panel hole 1.42" diameter

**NOTE:** Designators required for all ports, but "0" not required if there isn't a port. A 2P has designators only for ① & ② ports, as example BP 1010 S 2P 44 not BP 1010 S 2P 44 00.

AP Tech has product options and variations which are not documented in data sheets. If you have a model number that is not defined by the ordering information, please consult the factory or your local representative.