



SERIES BP 1000–WELDED

BACK PRESSURE REGULATOR

Precision control – high reliability

- 0.5 psig to 300 psig (0.035 to 21 bar) operating pressure ranges
- Flow capacity Cv = 0.3
- SS 316L VAR secondary remelt construction
- Ni-Cr-Mo alloy internals, 'SH' option, for added corrosion resistance
- High leak integrity
- 15 µin. surface finish (10, 7 and 5 µin. optional)
- Fine adjustment control
- Cleaned, assembled and packaged for high purity semiconductor applications
- Knob LOTO option
- Installation and operating instructions available at www.aptech-online.com

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 connectors	1/4 or 3/8 inch face seal or tube weld
Flow coefficient (Cv)**	0.3
Internal volume	0.49 in ³ (8 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	15 µin. (0.4 µm) Ra max standard;
	10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) optional
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He
Leakage across seat	Bubble tight
Installation	surface or panel (optional)

**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.

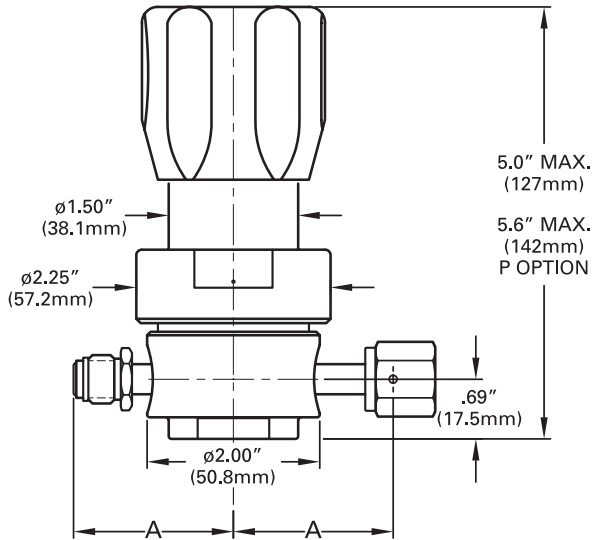
Materials

	Series BP 1000 S Noncorrosive	Series BP 1000 SH Corrosive
Type of Service		
Wetted Parts		
Body	SS 316L secondary remelt	SS 316L secondary remelt
Nozzle and diaphragm	SS 316L	Ni-Cr-Mo alloy / UNS N06022
Seat	Fluoroelastomer / FKM*	Fluoroelastomer / FKM*
Seals	PTFE	PTFE
Bonnet	SS 303	SS 303

*Optional seats available, PTFE and Perfluoroelastomer / FFKM.
All specifications subject to change without notice.

DEFINING NEW LEVELS OF ULTRACLEAN

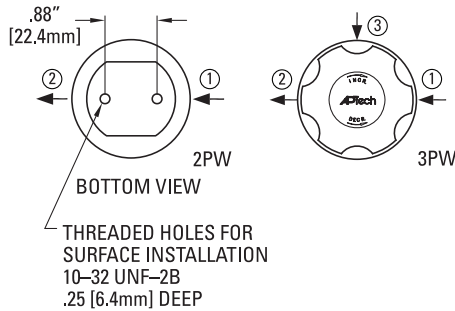
DIMENSIONAL INFORMATION



Connection	A	
	in	mm
FV4, MV4	1.85 ±.01	47.0
FV6, MV6	2.35 ±.01	59.7

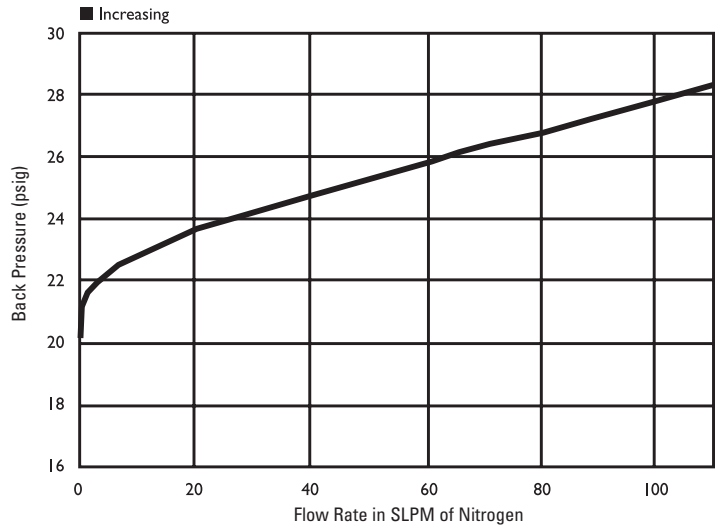
All dimensions in inches (mm). Metric dimensions are for reference only.

PORTING CONFIGURATIONS



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.

BP 1000 with FKM seat



ORDERING INFORMATION

Sample Order Number	BP 1001SM 2PW FV4 FV4	
BP 1001 Series	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)	FV4 FV4 Connections Inlet / Outlet
S Material	S = Stainless steel (SS) SH = SS/Ni-Cr-Mo alloy internals	FV4 = 1/4 inch face seal female MV4 = 1/4 inch face seal male FV6 = 3/8 inch face seal female MV6 = 3/8 inch face seal male Tube weld stub available
M Surface Finish Options	M = 10 µin. Ra V = 7 µin. Ra X = 5 µin. Ra	Gauges* Source / Delivery
2PW Ports	2PW = 2 ports butt weld 3PW = 3 ports butt weld	0 = No gauge V3 = 30-0-30 psig/bar L = 30-0-60 psig/bar 1 = 30-0-100 psig/bar H = 30-0-160 psig/bar 2 = 0-200 psig/bar 4 = 0-400 psig/bar * Standard gauge ports are 1/4 inch face seal male (1/4 inch female available).
		Options

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.

P = Panel installation**
KZ = Perfluoroelastomer / FFKM seat
TF = PTFE seat
KL = Knob LOTO
(refer to AP KL data sheet)

** On panel mount option, bonnet port is not threaded. Panel hole 1.42" diameter.