

125 BP Series

Bypass Adjustable Flow Monitor

Key Features

Best for applications where the ratio (Normal Flow/Set Point) is 10:1 or less.

Features

- Broad Range of Adjustability
- Compact Size
- High Resolution
- Close On-Off Differential
- Ease of Customer Setting
- Monitors Gases or Liquids
- Materials: 316SS, Brass or Teflon®
- Confirms: Normal Flow Conditions
- Senses: High Flow and Low Flow Conditions
- Output: Switch Contact

Applications

- Vacuum Systems
- Wet Stations
- Gas Analyzers
- Cooling Systems
- Industrial Fluid Lines
- Process Flows

Operation

When no flow is present the free magnetic piston rests on the bottom of the bore, which is in a bypass off the main line. Adjustment of the orifice in the main line creates a small bypass flow to lift the magnetic piston and actuate the reed switch. The magnetic piston actuates a hermetically sealed reed switch, which is encapsulated in the body of the unit, out of the air/water path. When flow decreases, the piston moves downward and the reed switch deactuates.

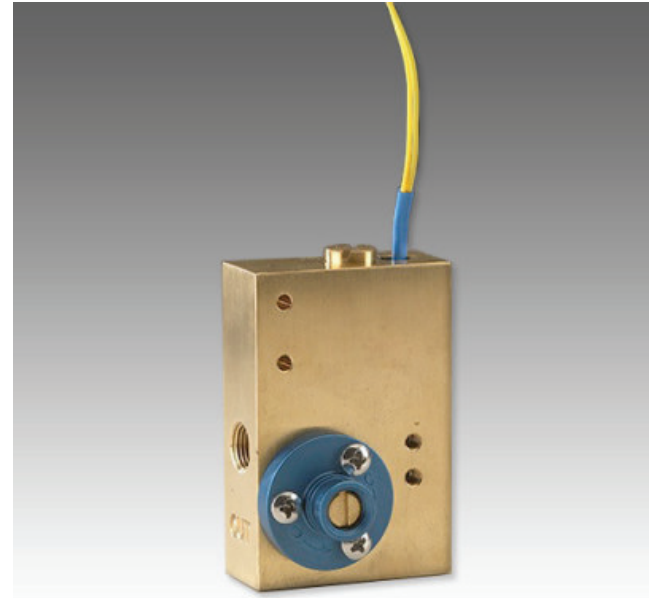
- Actuation Points for air at 68°F and 14.7 PSIA with increasing flow
- Deactuation (decreasing flow) averages 10% less than actuation (increasing flow)
- Repeatability $\pm 2\%$
- Unit will pass greater flows

Correction must be made for other fluids, line pressure and temperatures. Please consult your representative or the factory.

Temperature Operating Range

- 0° to 220°F (-17° to 104°C)
- For other temperature ranges consult factory.

Specifications				
Unit	Weight OZ (gm)	Max Working Pressure PSIG (barg)	Wetted Parts	Seals
Teflon®	4.4 (123.5)	100 (6.89)	Teflon®	Teflon®
Brass	16 (453.6)	1500 (103.42)	Brass, Epoxy	Viton®
316SS	16 (453.6)	3000 (206.84)	316SS, Epoxy	Viton®



Calibration Table

Model		Air SCC/M (SCFH)	Water ML/M (GPH)	Ports FNPT
125 BP	Minimum	100 (0.21)	3 (0.048)	1/8"
	Maximum	20000 (42.4)	500 (7.93)	
125 BPHF	Minimum	200 (0.42)	5 (0.079)	1/8"
	Maximum	60000 (127)*	950 (15.105)	

Pressure Loss

Air Flowrate SCC/M (SCFH)	Water Flowrate ML/M (GPH)	ΔP to Atmosphere MBARS (Inches of Water)
100 (.21)	3 (0.048)	1.2 (0.5)
5500 (11.7)	200 (3.17)	9.3 (3.71)
7000 (14.8)	400 (6.34)	11.7 (4.71)
20000 (42.4)	500 (7.93)	24.7 (9.93)
60000 (127.1)	950 (15.10)	69.7 (28.0)



*At 60 PSIG (4.137 BARG)

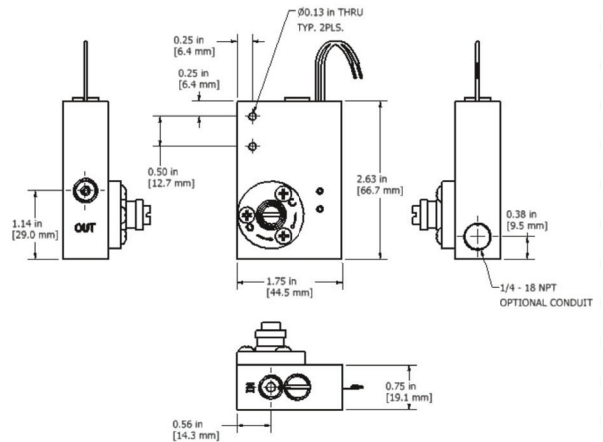


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Switch Data	SPST	SPDT
Maximum Switching Voltage		
DC (V)	250	175
AC (V)	265	120
Contact Rating		
DC (W)	50	5
AC (VA)	50	5
Maximum Switching Current (A)		
DC (A)	1.5	0.25
AC (A)	1.1	0.18

Leads	SPST UL File #E70063	SPDT UL File #E471070
 <p>leads 18 in. min. from body 22 AWG, TFE insulation</p>	 <p>leads 18 in. min. from body 24 AWG, TFE insulation</p> <ul style="list-style-type: none"> • green - N.C. • blue - N.O. • white - Common 	<p>leads 18 in. min. from body 24 AWG, TFE insulation</p> <ul style="list-style-type: none"> • green - N.C. • blue - N.O. • white - Common



Installation

Mount vertically with the inlet port at bottom. A 10 micron filter is recommended.

How to Order

Sales@ChemTec.com | 800.222.2177

Model	Materials	By Pass Design	Electrical Conduit	Switch	Options
125 BP	T Teflon® B Brass 316 Stainless	BP Bypass	C (1/4 FNPT) Blank for Standard Unit	N.O. Single Pole Single Throw Normally Open	TFE Teflon Encapsulated Piston**
		BPHF Bypass High Flow		SPDT Single Pole Double Throw	O2 Oxygen Cleaned HT High Temperature Options 340°F (171°C) metallic body only KZ FFKM Perfluoroelastomer EPR EPR Seals BN Buna N Seals FP Factory Preset

*Consult Factory **Standard with Teflon unit | Viton® - E.I. Dupont & Co | Teflon® - E.I. Dupont & Co | Kalrez® - E.I. Dupont & Co
All dimensions are subject to change for quality improvement. Not responsible for printing errors.