

125 BP Series

Bypass Adjustable Flow Monitor

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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)



**Users are solely accountable for product selection, regardless of any recommendations or suggestions provided by ChemTec Equipment Company, Inc. Users should base product selection on their own analysis and testing to determine functionality and material compatibility in relation to their application. To ensure safe and trouble-free performance, it is essential to adhere to proper installation, operation, and maintenance procedures.*

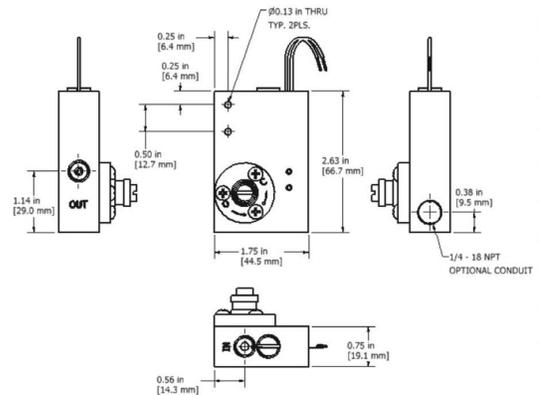
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Switch Data	SPST	SPDT
Maximum Switching Voltage		
DC (V)	250	175
AC (V)	265	120
Contact Rating		
DC (W)	50	5
AC (VA)	50	5
Maximum Switching Current (A)		
DC (A)	1.5	0.25
AC (A)	1.1	0.18

Leads	SPST UL File E471070	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 BPHF Bypass High Flow	C (1/4 FNPT) Blank for Standard Unit	N.O. Single Pole Single Throw Normally Open	TFE Teflon Encapsulated Piston**
				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.

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