

# 125 BP Series

**BYPASS  
ADJUSTABLE  
FLOW MONITOR**

Monitor Flows of Corrosive and Non-Corrosive Liquids and Gases

## 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, Teflon®
- Confirms: Normal Flow Conditions
- Senses: High Flow or Low Flow conditions
- Output: Switch Contact

## APPLICATIONS

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

## 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. 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 ±2%
- Unit will pass greater flows


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

## TEMPERATURE OPERATING RANGE

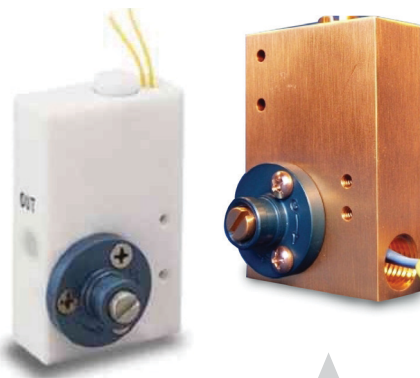
- 0° to 220° F (-17° to 104° C)

*For other temperature ranges consult factory.*

 Recognized 73/23/EEC/93/68/EEC

 Recognized File E75356

\* At 60 PSIG (4.137 BARG)




## CALIBRATION RANGE

MODEL		AIR SCC/M(SCFH)	WATER ML/M(GPH)	PORTS FNPT
125 BP	Minimum	100 (0.21)	3 (0.048)	1/8"
	Maximum	20,000 (42.4)	500 (7.93)	
125 BPHF	Minimum	200 (0.42)	5 (0.079)	1/8"
	Maximum	60,000 (127)*	950 (15.105)	

## PRESSURE LOSS TABLE

AIR FLOW RATE CC/M (SCFH)	WATER FLOW RATE ML/M (GPH)	ΔP TO ATMOSPHERE MBARS (Inches of Water)
100 (0.21)	3 (0.048)	1.2 (0.50)
5500 (11.7)	200 (3.17)	9.2 (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 (28.00)

## SPECIFICATIONS

BODY MATERIAL	WEIGHT OZ. (gm)	MAX WORKING PRESSURE PSIG (barg)	WETTED PARTS	SEAL
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®

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SWITCH DATA	SPST	SPDT
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### Maximum Switching Voltage

DC (V)	200	175
AC (V)	150	120

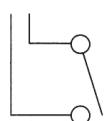
### Contact Rating

DC (W)	50	5
AC (VA)	70	5

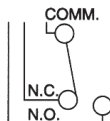
### Maximum Switching Current (A)

DC (A)	1.0	.25
AC (A)	0.7	.25

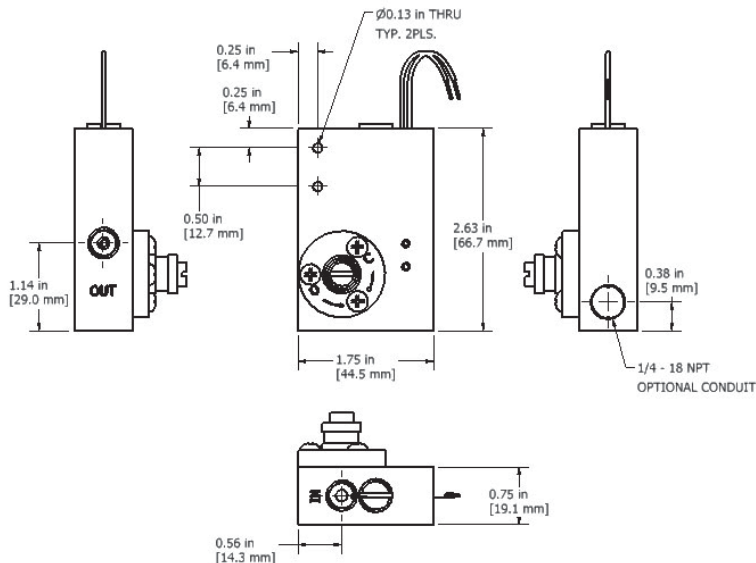
LEADS	SPST	SPDT (optional)
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leads 18 in. min. from body 22 AWG, TFE insulation



leads 18 in. min. from body 24 AWG, TFE insulation  
 • green - N.C.  
 • blue - N.O.  
 • white - Common



### INSTALLATION

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

Above values for resistive loads only. For inductive loads, surge current and rush current - contact protection is required, consult your local representative. SPDT UL Recognized (E47258).

## HOW TO ORDER (Sales@ChemTec.com | (800) 222-2177)

Model	Materials	Bypass Design	Electrical Conduit (Optional)	Switch	Options
125	T Teflon <sup>®</sup> ** B Brass 316 316SS	BP By Pass BPHF By Pass High Flow	C (Blank for Standard Unit) (1/4" FNPT)	N.O. Single Pole Single Throw Normally Open N.C. Single Pole Single Throw Normally Closed (not available on conduit unit) SPDT Single Pole Double Throw*	TFE Teflon <sup>®</sup> Encapsulated Piston** O2 Oxygen Cleaned HT High Temperature Option 340° F (171° C) metallic body only KZ Kalrez <sup>®</sup> Seals EPR EPR Seals BN Buna N Seals

\*Consult factory

\*\*Standard with Teflon<sup>®</sup> unit

Ⓢ Viton - E.I. Dupont & Co

Ⓢ Teflon - E.I. Dupont & Co

Ⓢ Kalrez - E.I. Dupont & Co

Note: All dimensions and specifications are subject to change for quality improvement. Not responsible for printing errors.

