Flow Monitors - Flow Switches
Excess Flow Valves - Flow Meters

Welcome to CTE Chem Tec Equipment.
Leading manufacturers of Flow Monitors, Flow Meters, Flow Switches, and Excess Flow Valves for 35 years.

Flow Switches (also known as Flow Monitors and Flow Sensors) give switch contact at a predetermined flow rate. Flow Meters provide varying electrical output with fluid flow. Excess Flow Valves are normally open valves that close automatically at a predetermined flow rate.

We specialize in the lower flow ranges -- i.e. 120 SCFM air, 20 GPM water, or less. Flow Switches have fixed and adjustable models. All categories have a variety of flow ranges and pipe sizes.

CTE is the only manufacturer of all Teflon® Flow Switches and Flow Meters.

Important Notice: All of our products containing reed switches are now available with digital solid state switching.

Please check out our exciting and innovative NEW PRODUCTS and ADD-ON's to our existing product line.

INSTALLATION & MAINTENANCE MANUALS are now available in PDF format.

www.flw.com/chemtec Distributed By FLW Inc, *(800) 576 -6308*

FLOW MONITORS 500 BYPASS

For monitoring higher flows of corrosive and non-corrosive gases and liquids

c UL us Recognized File E75356

CE Recognized 73/23/EEC,93/68/EEC

KEY FEATURES

Best for applications where the normal flow to set point is 10:1 or less

APPLICATIONS

Wet Stations
Shipboard Water Systems
CVD Furnaces Cooling Water
Biomedical Instruments
Vacuum Systems
Coolant Failure Alarm

Features

- Low Minimum Operating Pressure
- Close ON-OFF differential
- Ease of adjustability
- In Line 180 Degree Porting
- Monitors Gases or Liquids
- Confirms: Normal flow conditions
- Senses: High Flow or Low Flow Conditions
- Water or Explosion Proof Covers
- Output: Switch Contact

- Materials: 316ss, Brass, Teflon

Operation

With no flow present, the magnetic piston rests on the bottom of the bypass bore. When flow is established the piston is forced upward by the bypass flow and actuates the reed switch. The bypass flow is controlled by manual adjustment of the flow control vane. 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 gases, line pressure and temperatures. Please consult your representative or the factory.

Calibration Range

MODEL	AIR SLPM (SCFM)		WATER LPM (GPM)	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
500BP	6 (0.20)	991 (35)	0.11 (0.03)	15.14 (4)
500BPHF	23 (0.80)	2124 (75)	0.38 (0.10)	37.85 (10)

Pressure Loss Table

AIR FLOW RATE SLPM (SCFM)	WATER FLOW RATE LPM (GPM)	• P TO ATMOSPHERE MBARS (PSID)
84.9 (3)	3.8 (1)	17.2 (0.25)
566.3 (20)	15.1 (4)	51.7 (0.75)
1557.4 (55)	30.3 (8)	233.0 (3.38)
1925.5 (68)	37.9 (10)	362.0 (5.25)
2265.3 (80)	64.4 (17)	517.1 (7.50)
At any given flow rate, pressure differential remains the same regardless of the actuation point.		

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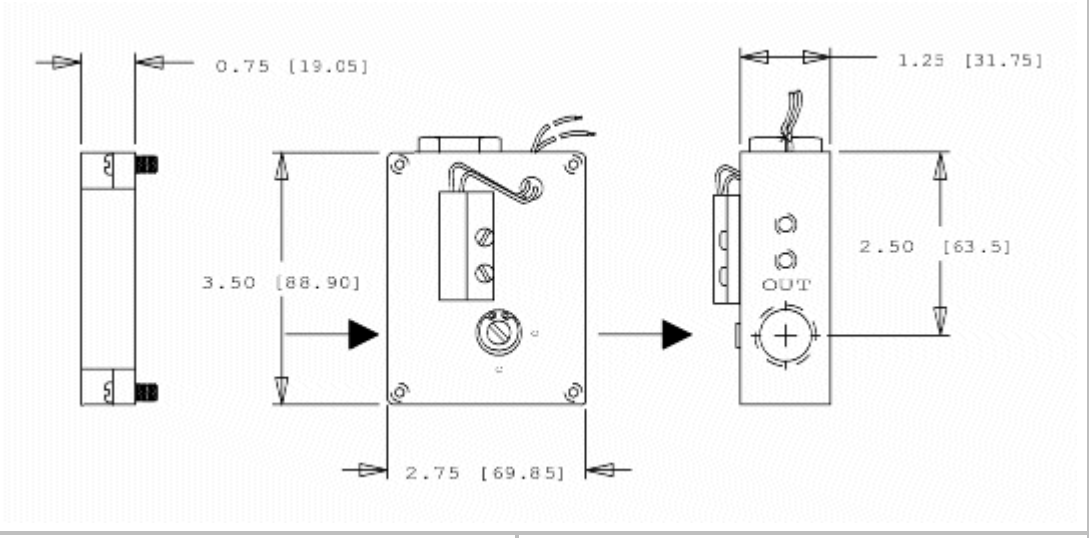
CTE CHEM TEC



Switch Data	
SPST Hermetically Sealed Reed Switch	**SPDT** Hermetically Sealed Reed Switch
Max Switching Voltage DC (V) 200 AC (V) 150	Max Switching Voltage DC (V) 175 AC (V) 120
Contact Rating DC (W) 50 AC (VA) 70	Contact Rating DC (W) 5 AC (VA) 5

Leads	
SPST Leads 18 in. min. from body 22 AWG, TFE insulation.	
SPDT (optional) Leads 18 in. min. from body 24 AWG, TFE insulation. • green - N.C. • blue - N.O. • white - Common	

Max. Switching Current DC (A) 1.0 AC (A) 0.7	Max. Switching Current DC (A) .25 AC (A) .25

Above values for resistive loads only. For inductive loads, surge current and rush current contact protection is required; consult your local representative. SPDT is UL recognized.

Specifications

Unit	Weight Lbs. (Kg.)	Working Pressure PSIG (BARG)	Wetted Parts	Seals
Teflon®	1.5 (0.68)	80 (5.51)	Teflon®	Teflon®
Brass	4.0 (1.81)	1500 (103.42)	Brass, Epoxy	Viton®
316ss	4.0 (1.81)	3000 (206.84)	316ss, Epoxy	Viton®

Fluid Ports: Inlet/Outlet 1/2" FNPT

Electrical Conduit Optional: 1/4" FNPT

Temperature Operating Range: 32° to 220° F (0° to 104° C). For other temperature ranges, consult factory.

Installation: Mount Vertically (leads up) with horizontal piping. A 100 micron filter is recommended.

How to Order

500 Model	316 Body Material	BP Bypass Design	W Cover Type	SPDT Switch Options	OPTIONS Any of the following options may be added:
	T — Teflon®** B — Brass 316 — 316ss	BP Bypass BPHF Bypass High Flow	W NEMA IV Water Proof X NEMA VII Explosion Proof	N.O. — Single Pole Single Throw Normally Open SPDT — Single Pole Double Throw	TFE — Teflon® Encapsulated Piston ** O2 — Oxygen Cleaned HT — High Temperature Option 340° (171° C) KZ — Kalrez® Seals

					EPR: EPR Seals
					S: Special Custom Option Welded Fittings*

* Consult Factory
** Standard with Teflon® unit

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