

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.**



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Distributed By  Inc, (800) 576 -6308

FLOW MONITORS
500 BYPASS HIGH PRESSURE

For monitoring lower flows of corrosive and non-corrosive gases and liquids.



UL Recognized File E75356
CE Recognized 73/23/EEC,93/68/EEC

KEY FEATURES

Higher Working Pressure

APPLICATIONS

High Pressure Systems
Hydraulic Fluid
Coolants
Process Chemicals
Gas & Liquid Sampling

Features

- | | |
|---|--|
| <ul style="list-style-type: none"> • Broad Range of Adjustability • Close On-Off Differential • Ease of Adjustment | <ul style="list-style-type: none"> • Confirms: Normal Flow Conditions • Senses: High Flow, Low Flow conditions |
|---|--|



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- In Line 180 Degree Porting
- High Resolution
- Materials: 316ss

- Water and Explosion Proof Covers
- Output: Switch Contact
- Best for Ratio (normal flow/set point) of 10:1 or less

Operation

When no flow is present the free magnetic piston rests on the bottom of the bypass bore. When flow is established the piston is forced upward 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. The adjustment assembly is then locked down to prevent any inadvertent readjustment.

- 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
500BPHP	6 (0.21)	993 (35)	0.11 (0.03)	15.14 (4)

Pressure Loss Table

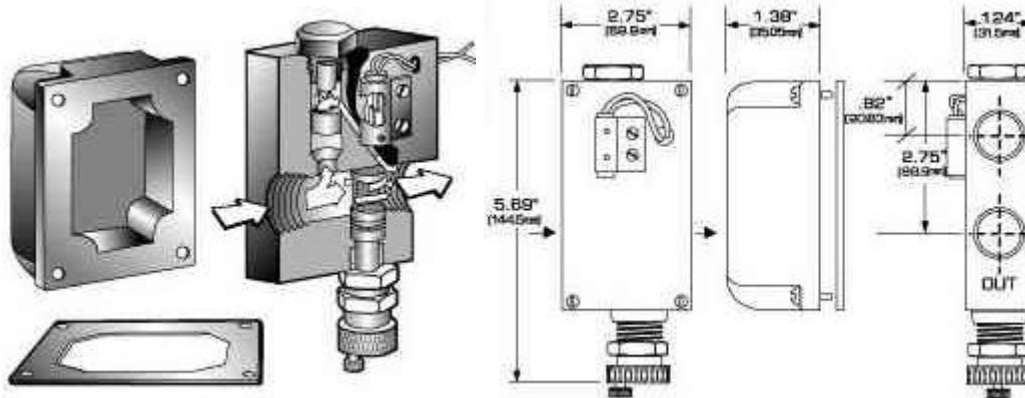
AIR FLOW RATE SLPM (SCFM)	WATER FLOW RATE LPM (GPM)	• P TO ATMOSPHERE MBARS (PSID)
84.9 (3)	3.8 (1)	17.2 (0.25)
566.3 (20)	15.1 (4)	51.7 (0.75)
1557.4 (55)	31.3 (8)	233.0 (3.38)
1925.5 (68)	37.8 (10)	362.0 (5.25)

At any given flow rate, pressure differential remains the same regardless of the actuation point.



FLOW MONITORS
500 BYPASS HIGH PRESSURE

For monitoring high pressure flows of corrosive and non-corrosive gases and liquids.



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

Leads	
SPST Leads 18 in. min. from body 22 AWG, TFE insulation.	
SPDT (optional) Leads 18 in. min. from body 24 AWG, TFE insulation.	
<ul style="list-style-type: none"> • green - N.C. • blue - N.O. • white - Common 	

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
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316ss	5 (2.27)	6000 (413.4)	316ss, Epoxy	Viton®
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Fluid Ports: Inlet/Outlet 1/2" FNPT

Electrical Conduit: 1/2" FNPT

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

Installation: Mount vertically (leads on the side) with horizontal piping. A 100 micron filter is recommended.

How to Order

500 Model	316 Body Material	BPHP Bypass High Pressure Design	W Cover Type	SPDT Switch Option	OPTIONS Any of the following option may be added:																						
	<table border="1"> <tr> <td>316</td> <td>316ss</td> </tr> </table>	316	316ss		<table border="1"> <tr> <td>W</td> <td>NEMA IV Waterproof</td> </tr> <tr> <td>X</td> <td>NEMA VII Explosion Proof</td> </tr> </table>	W	NEMA IV Waterproof	X	NEMA VII Explosion Proof	<table border="1"> <tr> <td>N.O.</td> <td>Single Pole Single Throw Normally Open</td> </tr> <tr> <td>SPDT</td> <td>Single Pole Double Throw</td> </tr> </table>	N.O.	Single Pole Single Throw Normally Open	SPDT	Single Pole Double Throw	<table border="1"> <tr> <td>TFE</td> <td>Teflon® Encapsulated Piston **</td> </tr> <tr> <td>O2</td> <td>Oxygen Cleaned</td> </tr> <tr> <td>KZ</td> <td>Kalrez® Seals</td> </tr> <tr> <td>EPR</td> <td>EPR Seals</td> </tr> <tr> <td>BN</td> <td>Buna N Seals</td> </tr> <tr> <td>S</td> <td>Special Custom Welded Fittings</td> </tr> </table>	TFE	Teflon® Encapsulated Piston **	O2	Oxygen Cleaned	KZ	Kalrez® Seals	EPR	EPR Seals	BN	Buna N Seals	S	Special Custom Welded Fittings
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* Consult Factory

Note:

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

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