FS Series

Non-Adjustable Flow Monitor

Key Features

Economical Liquid Flow Sensor

Features

- Non-Adjustable Flow Monitor
- Low Maintenance
- Close On-Off Differential
- No Seals
- Single Moving Part
- In Line Vertical Plumbing
- Materials: 316 SS, Brass or PVC
- Confirms: Normal Flow Condition
- Senses: High Flow or Low Flow Conditions
- Output: Switch Contact

Applications

- Laser Cooling Systems
- Heat Pumps
- Cooling Systems

Operation

As flow is established upward through the unit and continues to increase, the pressure differential across the magnetic piston increases until it overcomes the magnetic piston's resistance (mass). The magnetic piston actuates a hermetically sealed reed switch, which is encapsulated in the body of the unit, out of the air/water path. This is a snap action and occurs in the decreasing mode as well.

- Actuation Points for increasing flow
- Calibration Accuracy ±10% of actuation point
- Deactuation (decreasing flow) averages 10% less than actuation (increasing flow)
- Repeatability ±2%
- Unit will pass greater flows

Temperature Operating Range

- 0° to 228°F (-17° to 104°C) for Brass and Stainless Steel
- 32° to120° F (0° to 49°C) for PVC

For other temperature ranges consult factory.

Specifications

Body Material	Weight	Max Working Pressure PSIG (barg)	Wetted Parts
PVC	1/2" 0.2lb	100 (6.89)	PVC, Epoxy
Brass	1/2" 0.7lb	250 (17.22)	Brass, Epoxy
316SS	1/2" 0.7lb	500 (34.45)	316SS, Epoxy
PVC	3/4" 0.3lb	100 (6.89)	PVC, Epoxy
Brass	3/4" 1.0lb	250 (17.22)	Brass, Epoxy
316SS	3/4" 0.1lb	500 (34.45)	316SS, Epoxy
PVC	1" 0.4lb	100 (6.89)	PVC, Epoxy
Brass	1" 1.2lb	250 (17.22)	Brass, Epoxy
316SS	1" 1.2lb	500 (34.45)	316SS, Epoxy

Calibration Table

Model	PVC LPM (GPM)	Brass or 316SS LPM (GPM)
FS-50		
-A	0.57 (0.15)	0.95 (0.25)
-B	0.95 (0.25)	1.89 (0.50)
-C	1.89 (0.50)	3.79 (1.00)
-D	2.84 (0.75)	5.68 (1.50)
-E	3.79 (1.00)	7.57 (2.00)
-F	4.73 (1.25)	9.46 (2.50)
FS-75		
-A	0.76 (0.20)	1.89 (0.50)
-B	1.89 (0.50)	3.79 (1.00)
-C	2.84 (0.75)	7.57 (2.00)
-D	3.79 (1.00)	11.4 (3.00)
-E	3.68 (1.50)	15.1 (4.00)
-F	7.57 (2.00)	21.8 (5.75)
FS-1		
-A	0.95 (0.25)	7.57 (2.00)
-B	2.84 (0.75)	9.46 (2.50)
-C	3.79 (1.00)	11.4 (3.00)
-D	7.57 (2.00)	15.1 (4.00)
-E	11.4 (3.00)	22.7 (6.00)
-F	15.1 (4.00)	32.2 (8.50)

Pressure Loss

ΔP to atmosphere at set point PSID (BARD)

Water PVC Units
All set points - 0.50 (0.034)

Metal Units
All set points - 1.00 (0.069)

CE cULus

**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.*

FS Series

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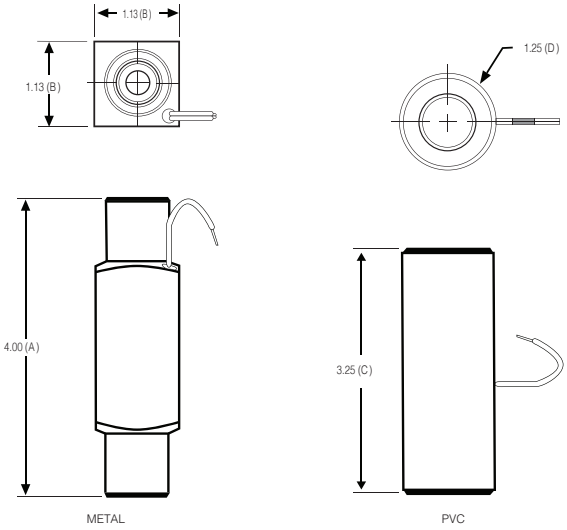
Switch Data	SPST	SPDT
Maximum Switching Voltage		
DC (V)	250	175
AC (V)	265	120
Contact Rating		
DC (W)	50	5
AC (VA)	50	5
Maximum Switching Current (A)		
DC (A)	1.5	0.25
AC (A)	1.1	0.18

Leads	SPST UL File #E471070	SPDT UL File #E471070
	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, inlet down.
Filtration - 100 Micron Filter Recommended.

Fluid	Ports: Inlet/Outlet	Ports Inches
Model	FNPT (PVC)	MNPT (Brass or 316SS)
FS-50	1/2”	1/2”
FS-75	3/4”	3/4”
FS-1	1”	1”

Dimensions Inches (mm)				
		FS-50	FS-75	FS-I
METAL	A	4.00 (101.6)	4.50 (114.3)	4.50 (114.3)
METAL	B	1.125 (28.70)	1.25 (31.75)	1.50 (38.10)
PVC	C	3.25 (88.52)	3.75 (95.25)	4.50 (114.3)
PVC	D	1.25 (31.75)	1.50 (38.10)	1.75 (44.45)

How to Order

Sales@ChemTec.com | 800.222.2177

Model	Size	Calibration	Materials	Switch	Options
FS	-50 -75 -1	A B C D E F	P PVC B Brass S 316SS	N.O. Single Pole Single Throw Normally Open SPDT Single Pole Double Throw	HT High Temperature Option 340˚F (171˚C) (metallic body only)

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