

FS SERIES

NON-ADJUSTABLE FLOW MONITOR

For Economical Monitoring of Higher Flows of Corrosive and Non-Corrosive Liquids

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: 316ss, 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



CALIBRATION POINTS

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)

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). This force causes it to progress fully upward to actuate the dry reed switch. This is a snap action and occurs in the decreasing mode as well.

- Actuation Points for increasing flow
- Flow Setting Accuracy $\pm 10\%$ of actuation point
- Deactuation (decreasing flow) averages 10% less than actuation (increasing flow)
- Repeatability $\pm 2\%$
- Unit will pass greater flows

PRESSURE LOSS TABLE

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)

SPECIFICATIONS

MATERIAL	MAX WORKING PRESSURE PSIG (barg)	WETTED PARTS
PVC	100 (6.89)	PVC, Epoxy, 316ss
Brass	250 (17.22)	Brass, Epoxy, 316ss
316ss	500 (34.45)	316ss, Epoxy, 316ss [®]

TEMPERATURE OPERATING RANGE

- 0° to 228° F (-17° to 104° C) for Brass and Stainless Steel.
- 32° to 120° F (0° to 49° C) for PVC.

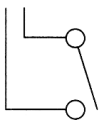
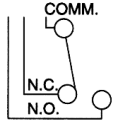
For other temperature ranges consult factory.

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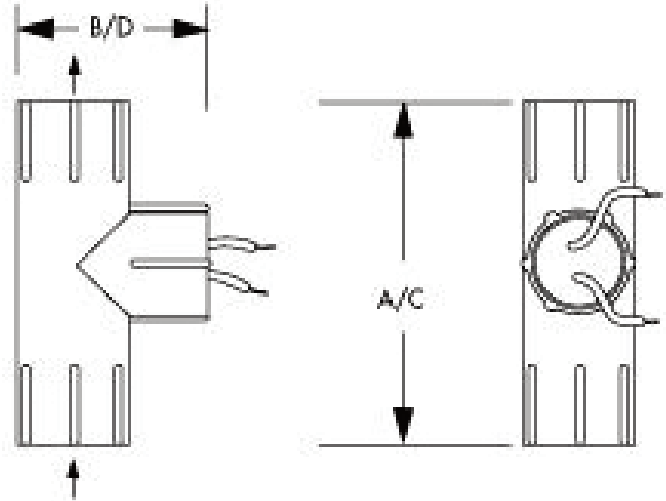
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SWITCH DATA	SPST	SPDT
Maximum Switching Voltage		
DC (V)	200	175
AC (V)	150	120
Contact Rating		
DC (W)	50	5
AC (VA)	70	5
Maximum Switching Current (A)		
DC (A)	1.0	.25
AC (A)	0.7	.25

LEADS	SPST	SPDT(Optional)
	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

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).



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"

INSTALLATION

Metallic Bodies Only: Mount with inlet down vertically.

Leads up - Normally Open

Leads Down - Normally Closed

PVC - N.O. Conduit Offset Up

N.C. - Conduit Offset Down

Filtration - 100 Micron Filter Recommended

DIMENSIONS INCHES (MM)

		FS-50	FS-75	FS-1
PVC	A	3.2 (81.3)	3.5 (88.9)	4.3 (109.2)
PVC	B	2.0 (50.8)	2.0 (50.8)	2.2 (55.9)
METAL	C	4.0 (101.6)	4.0 (101.6)	4.5 (114.3)
METAL	D	1.2 (30.5)	1.4 (35.6)	1.7 (43.2)

HOW TO ORDER (Please see Custom Page for Special Options.)

Model	Size	Materials	Conduit	Switch Options	Options
FS	-1	P PVC	C	SPDT	Any of the following options may be added. 1 All Wetted Parts PVC HT High Temperature Option 340° F (171°C) (metallic body only)
	-50	B Brass	(PVC Model Only)	N.O.	
	-75	S 316ss		N.C.	

*Consult Factory

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

