

# FS Series NON-ADJUSTABLE FLOW MONITOR

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

## 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

## KEY FEATURES

Economical Liquid Flow Sensor.

## 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

## 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.*

## PRESSURE LOSS

**$\Delta P$  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
Brass	250 (17.22)	Brass, Epoxy, 316SS
316SS	500 (34.45)	316SS, Epoxy, 316SS®




# ChemTec

## 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-I	-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)

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SWITCH DATA	SPST	SPDT
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### Maximum Switching Voltage

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

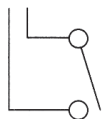
### Contact Rating

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

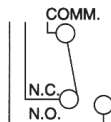
### Maximum Switching Current (A)

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

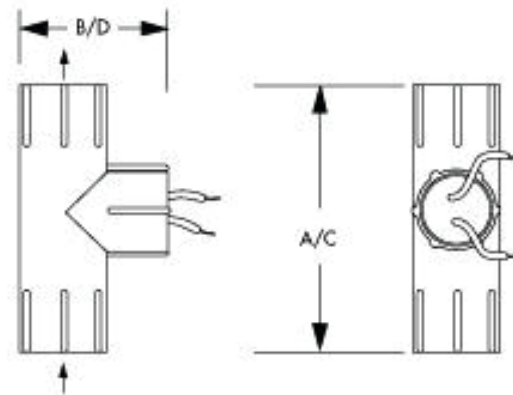
LEADS	SPST	SPDT (optional)
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leads 18 in. min. from body 22 AWG, TFE insulation



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



### INSTALLATION

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

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-I	1"	1"

### DIMENSIONS INCHES (MM)

		FS-50	FS-75	FS-I
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 (Sales@ChemTec.com | (800) 222-2177)

Model	Size	Materials	Conduit	Switch Options	Options
FS	-50	P PVC	C	N.O. Single Pole Single Throw Normally Open Leads Up	Any of the following options may be added.  HT High Temperature Option 340° F (171°C) (metallic body only)
	-75	B Brass	(PVC Model Only)	N.C. Single Pole Single Throw Normally Closed Leads Down	
	-1	S 316SS		SPDT Single Pole Double Throw	

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

