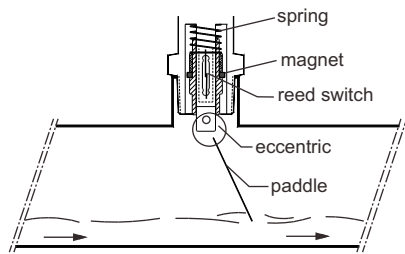


# SF Flow Switch Operation Manual

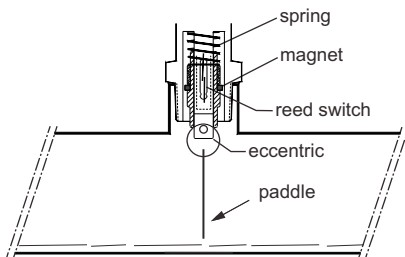
## Principle

Flow Switch utilizes the force of liquid flow to propel its paddle in order to detect the incoming flow or moving of the existing liquid in pipe. In condition of static liquid or no liquid, the spring is expanding and press the magnet downward vertically. Reedswitch contact is N.O.

As flow occurs and the paddle is thrust and raised at an upward angle of 20°~30°, the eccentric of paddle will push the magnet upward to actuate the reed switch which is thus in a close circuit. The length of paddle can be adjusted with the diameter of a pipe.



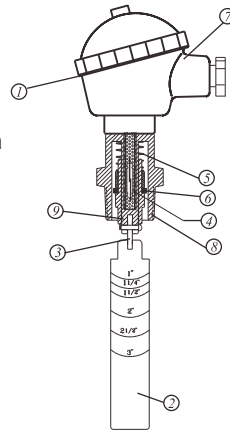
Switch on in case of liquid flowing in pipes



Switch off in case of no moving liquid in pipes

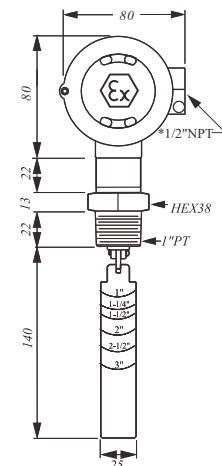
## SECTIONAL DRAWINGS

1. O-Ring
2. Paddle
3. Eccentric
4. Reed switch
5. Spring
6. Magnet
7. Housing
8. Screw
9. Center rod

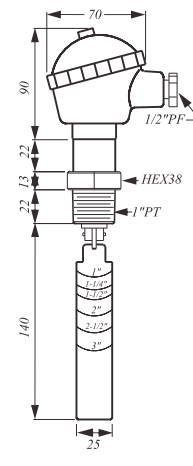


## Dimension

**MODEL: SF1710**  
Explosion proof type



**MODEL: SF1800**  
Standard type



\* Explosion-proof conduit is optional.  
Please contact us if needed.

29-1108: 1/2" NPT



## Specification

Spec.	Model	SF1710	SF1800
Housing Material		Aluminum Alloy, Ex d IIC T6~T4	Aluminum Alloy, IP 65
Operation Temp.		-30° C~100° C	-30° C~150° C
Wetted Material		SUS304	SUS304
Operation Pressure		Max. 355 PSIG	Max. 355 PSIG
Pressure Drop Allowance		3 PSIG	3 PSIG
Set Point Tolerance		±25%	±25%
Repeatability Tolerance		±5%	±5%
Contact Capacity		60W 220Vac / 200Vdc SPDT	60W 220Vac / 200Vdc SPDT

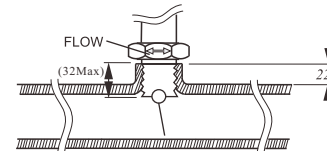
## FLOW CONTROL RANGE TABLE

Pipe spec.	1"		1-1/2"		2"		2-1/2"		3"	
	Act.	De-Act.	Act.	De-Act.	Act.	De-Act.	Act.	De-Act.	Act.	De-Act.
1"	4.7	3.9	10.9	8.3	19.9	16.1				
1-1/4"			7.7	6.1	16.5	12.3	31.3	22.8		
1-1/2"			5.7	4.5	13.4	9.5	25.2	18.5		
2"					8.4	6.3	15.1	12.8	29.7	21.9
2-1/2"							13.9	10	20.4	15.4
3"									17.1	12.8

※1 Gallon=3.7854 Litter

## INSTALLATION

1. Paddle length conditions actuation point. Paddle length is confined by conduit length and desired actuation point. Then cut the paddle from the properly-marked line. (User May also mark the desired length and cut )
  2. The paddle must be parallel to the sectional area of a pipe and the mounting screw is 1" NPT.
  3. The FLOW mark on the screw hexagon must be parallel to the pipe and the ground.
  4. Before installing the unit to T pipe, be sure To apply tape seal to the screw then tighten up.
- It is not recommended to use the 1" NPT plastic pipe.(Please refer to below for installation)



## CAUTION

1. Please confine to the pressure and temperature ranges listed in the catalog. The surge pressure and temperature should be confined as well.
2. Operating temperature changes do affect switch set points. In case of the liquid temperature would vary with the specific gravity changes during processing, please contact us for assistance.
3. The flow switch is designed for shock and vibration resistance. However, shock and vibration should be minimized as low as possible.
4. Excessive contamination in fluid might inhibit Paddle operation, occasional wipe-down would be necessary.
5. Electrical entry and mounting require sealing from moisture.
6. Please don't modify the outlook of product.

