

ZNC-LSFS-F Paddle Type Flow Switch



I. Overview

The LSFS paddle type flow switch is primarily used to detect whether a liquid is in a flowing state. When the liquid is not flowing, the paddle remains in its natural vertical position. When the liquid flows, the impact force of the fluid causes the paddle to deflect, which in turn drives the magnetic reed switch via a transmission shaft, thereby outputting a switch signal.

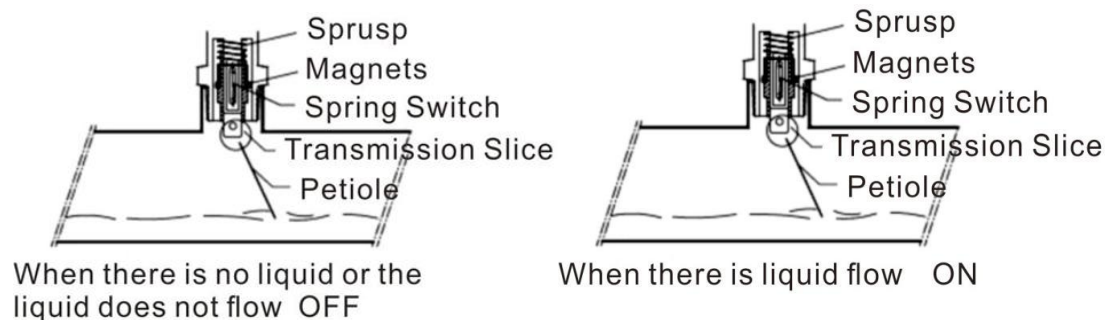
II. Working Principle

The LSFS paddle type flow switch operates by utilizing the dynamic force of water to move the paddle and determine whether liquid is flowing inside the pipeline.

When there is no fluid flow, a spring pushes the magnet downward, keeping the paddle in a vertical position. At this point, the reed switch remains inactive, and the contact is in the Normally Open (NO) position.

Once the fluid in the pipeline starts flowing with enough force to push the paddle upward by 20° – 30° , the eccentric transmission piece above the paddle pushes the magnet upward. The magnetic force then activates the reed switch, closing the contact.

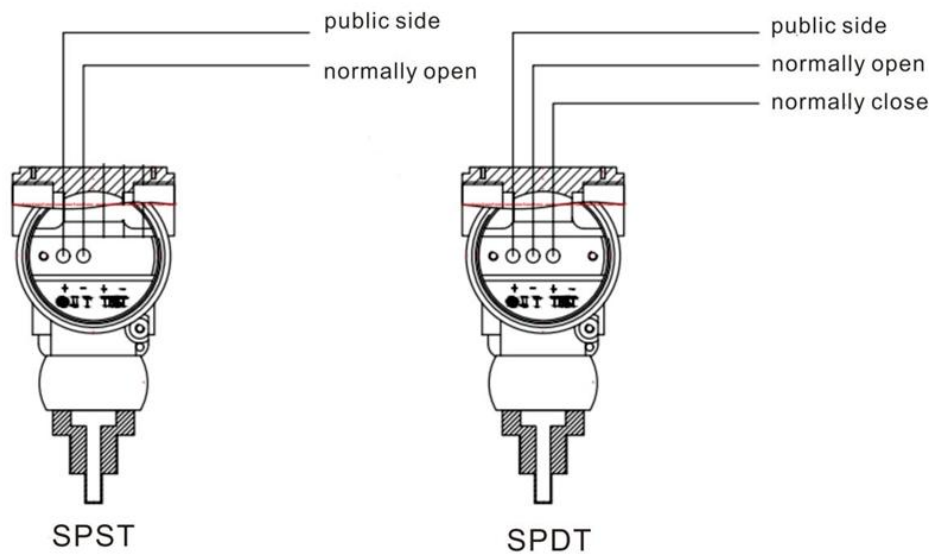
Note: The paddle length must be adjusted according to the pipe diameter to ensure proper function.



III. Dimensional Drawing



IV. Wiring Diagram



V. Technical Specifications

Model / Specification	LSFS-F
Terminal Box Material	Cast Aluminum
Output Signal	Reed Switch
Operating Temperature	-30°C to 120°C
Wetted Material	SUS316L / 304 Stainless Steel
Operating Pressure	Max. 355 PSIG
Maximum Allowable Pressure Drop	3 PSIG
Setpoint Tolerance	±25%
Repeatability	±5%
Contact Rating	220V, 0.5A

Piping specifications Blade length	1"		1-1/2"		2"		2-1/2"		3"	
	movement	reset	movement	reset	movement	reset	movement	reset	movement	reset
Flow rate value (Gallons/minute)										
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 liters

VI. Model Selection

Selection					Instructions
FRC-LSFS-F	/□	/□	/□	/□	
Connection method	G3/4				Process Connection Thread: G3/4 (Standard thread G3/4, special order please note, thread size should be ≥ G3/4)
Catch material			1		SS304
			2		SS316
Probe length				L + lengths (unit: mm)	Example: L20 (stopper length 20mm, standard length 125mm)

VII. Accessories

Welding Base	T-pipe
	