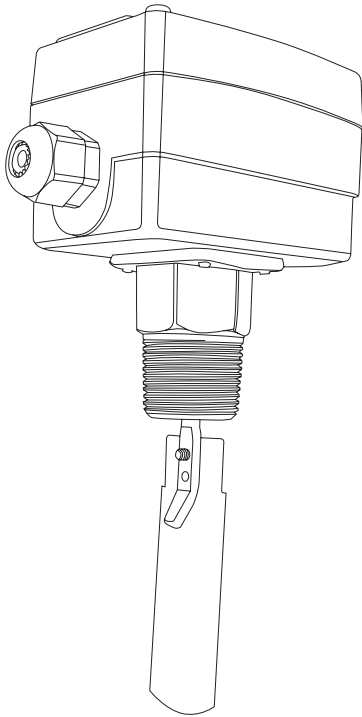


# Liquid Flow Switch

## LFS-1 Series - Installation Instructions



### INTRODUCTION

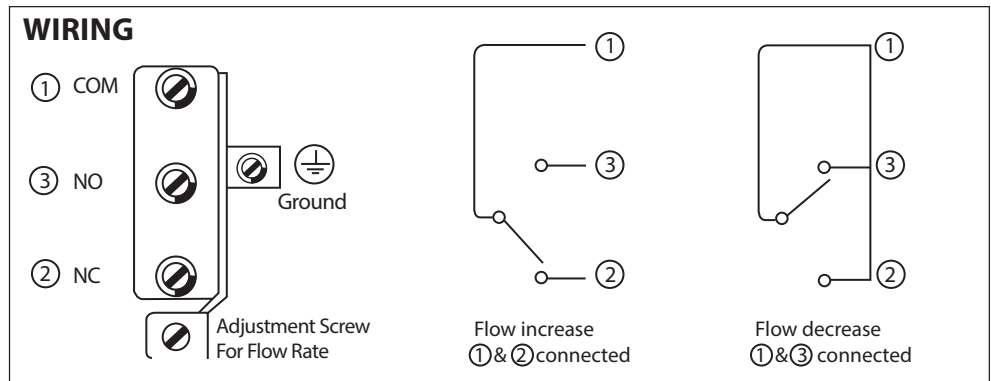
The Liquid Flow Switch is suitable for flow control of water and normal media in industrial plants, heating, air conditioning, and refrigeration systems. With water-proof IP65 enclosure, it includes multiple stainless steel paddle size for pipes up to 203.2mm (8") in diameter. The switch is suitable for liquid temperatures up to 120°C (248°F) and a maximum working pressure of up to 13.5 Bar (195.8 PSI).

### MOUNTING

The flow switch is to be installed in any position away from elbows, valves, or any other flow disturbances with arrow pointing in direction of flow. If pipe is vertical, equalize range to balance paddle weight. If the device is bottom mounted, take care of slag and install in a straight length at least 5 times the pipe diameter away from elbows, valves, etc. both upstream and downstream.

Remove the cover using a Philips screw driver and set it aside to complete the wiring as instructed below.

Once wiring is complete, replace the cover.



### LIQUID FLOW RATE

LINE PIPE SIZE (IN)		1	1 1/4"	1 1/2"	2	2 1/2"	3	4	4Z	5	5Z	6	6Z	8	8Z
MINIMUM FLOW GPM (M <sup>3</sup> /H)	Flow Increase 1 & 2 Connected	4.2 (1.0)	5.8 (1.3)	7.5 (1.7)	13.7 (3.1)	17.6 (4.0)	27.5 (6.2)	64.7 (14.7)	35.2 (8.0)	12.5 (28.4)	57.01 (12.9)	90.0 (43.1)	74.0 (16.8)	374.7 (85.1)	204.7 (46.5)
	Flow Decrease 1 & 3 Connected	2.5 (0.6)	3.7 (0.8)	5.0 (1.1)	13.7 (2.2)	11.9 (2.7)	19 (4.3)	50.1 (11.4)	26.9 (6.1)	101.1 (22.9)	41.0 (9.3)	158.0 (35.9)	54.0 (12.3)	319.7 (72.6)	170.0 (38.6)
MAXIMUM FLOW GPM (M <sup>3</sup> /H)	Flow Increase 1 & 2 Connected	9.2 (2.1)	13.3 (3.0)	17.6 (4.0)	26.9 (6.1)	30.8 (7.0)	50.2 (11.4)	127.6 (29.0)	81.0 (18.4)	245.0 (55.6)	18.0 (18.4)	374.7 (85.1)	144.0 (32.7)	759.5 (172.5)	415.0 (94.2)
	Flow Decrease 1 & 3 Connected	8.1 (1.9)	12.5 (2.8)	16.3 (3.7)	25.1 (5.7)	28.6 (6.5)	47.1 (10.7)	122.0 (27.7)	76.2 (17.3)	234.7 (53.3)	111.0 (25.2)	359.7 (81.7)	134.7 (30.6)	729.6 (165.7)	400.6 (90.8)

### SPECIFICATIONS

Type of Operation .....On/Off, single-stage, micro switch  
 Output .....SPDT 15 (8A) 24/250 Vac  
 Flow Rates .....See flow rate table  
 Flow Rate Setting Adjustment.....Internal screw  
 Sensing Element.....Stainless steel paddle  
 Typical Liquid Applications.....Hot, chilled, well, pool and sea water,  
 brine or ethylene glycol  
 Process Connection.....1" NPT  
 Parts Material in Contact with Fluid.....Brass  
 Paddle Material .....Stainless steel  
 Liquid Temperature .....-20°C to 120°C (68°F to 248°F)  
 Ambient Operating Range.....-40°C to 85°F (-40°F to 185°F),  
 10 to 90 %RH, non-condensing  
 Cable Entry.....M18 cable gland fitting  
 Enclosure .....White ABS or PC, IP65 (NEMA 4X)  
 98mm H x 70mm D x 65mm W  
 (3.85" x 2.75" x 2.55")

### PADDLE SIZES

Pipe	Number
1"	1
1 1/4"	1
1 1/2"	1
2"	1, 2
2 1/2"	1, 2
3"	1, 2, 3
4"	1, 2, 3
4" Z	1, 2, 3, 4
5"	1, 2, 3
5" Z	1, 2, 3, 4
6"	1, 2, 3
6" Z	1, 2, 3, 4
8"	1, 2, 3
8" Z	1, 2, 3, 4

# DIMENSIONS

