

Electromechanical Liquid Flow Switch

Product Overview

The AX-FSL range of electro-mechanical flow switches is intended for flow control of water or corrosive media in heating and cooling systems. They are well suited for pipes used in industrial plants, such as heating and air conditioning systems, refrigeration systems sprinkler or anti-fire systems, heat pumps, devices for oil monitoring and lubrication circuits. They have a built in safety switch with an alarm signal for flow shortage signalling.



Products Features

- Hot water, chilled water, well, pool and sea water
- Available for use in seawater or corrosive media
- Adjustable or fixed hysteresis
- Breaking capacity 15(8)A @ 230Vac
- Protection class IP65
- Max. liquid temp 120°C

Product Specifications

Contacts:	SPDT Microswitch with switching contacts (NC/NO)
Switch Capacity :	24 - 230 Vac/ 15A (resistive load) or 8A (inductive load)
Operating Temperature :	-40°C to 85°C
Humidity:	10 - 90% RH, non-condensing
Max. liquid temperature:	-20°C to 120°C
Process connection:	1" BSP
Paddles:	Stainless steel AISI 316L
Housing:	Fire Resistance ABS & PC
Max working pressure:	13.5 Bar
Protection class:	IP65
Size:	125x65x65 mm
Fitting:	See flow rate table below
Cable Entry:	M18 fitting
Compliances:	CE, EU
Country of origin :	United Kingdom

Product Order Codes

Part Number	Description
AX-FSL-1	Liquid Flow Switch - 1" BSP
AX-FSL-2	Liquid Flow Switch - 1/2" BSP
AX-FSL-3	Liquid Flow Switch - 3/4" BSP

Electromechanical Liquid Flow Switch

Installation

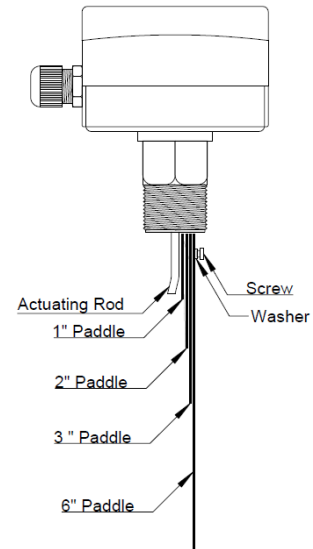
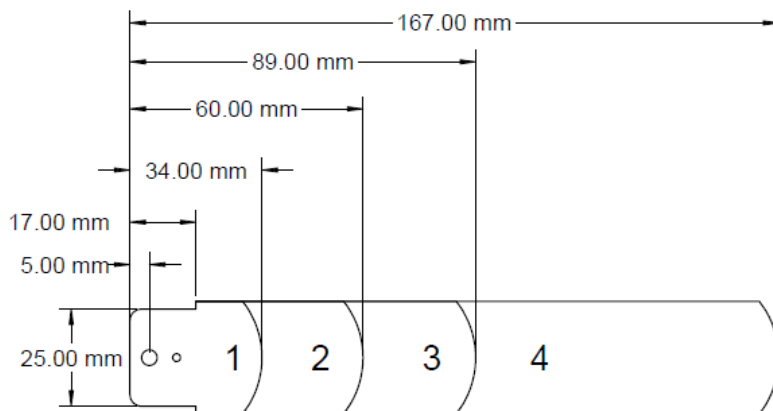
The flow switch can be installed in either a horizontal or vertical position. It must be fitted away from any pipe elbows or choke points. If the paddle is located close to the bottom of the pipe, care should be taken to ensure that the pipe is free from slag. The device should be mounted so that the arrows match the flow direction of the media inside the pipe (see picture). If the pipe is vertical, the range of the flow switch must be re calibrated so that the paddle weight is properly balanced.

If fitted for downward flow, AX-FSL must be installed in a straight pipe, far from any filters or valves, etc. An unimpeded length of pipe at least 5 times the pipe diameter must be available both upstream and downstream of the unit.

Note: If the flow switch is used as a minimum flow controller, it is necessary to add another device downstream of the first one for alarm condition activation.

Adjustment of flow paddle

The AX-FSL flow switch comes with additional 1-inch, 2-inch, 3-inch, and 6-inch flow paddles at the factory, which can be installed as needed. Example: If using a 3-inch pipeline, it is necessary to install 1-inch, 2-inch, and 3-inch paddles (refer to the following figure). If using 1-1/2 inch pipes, trim the 2-inch paddle or use a 1-inch paddle.

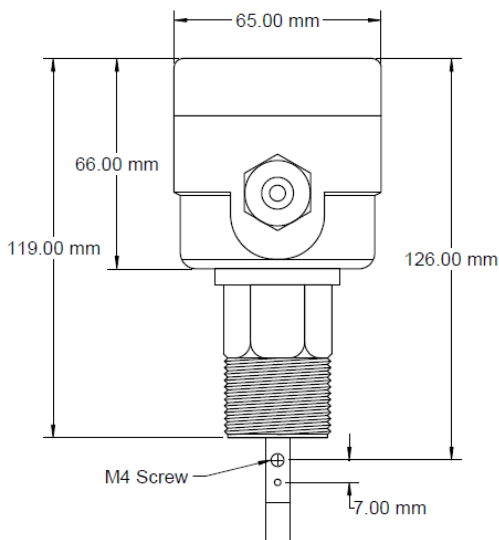
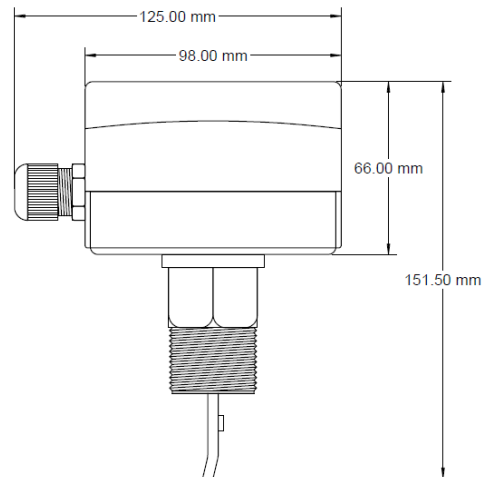
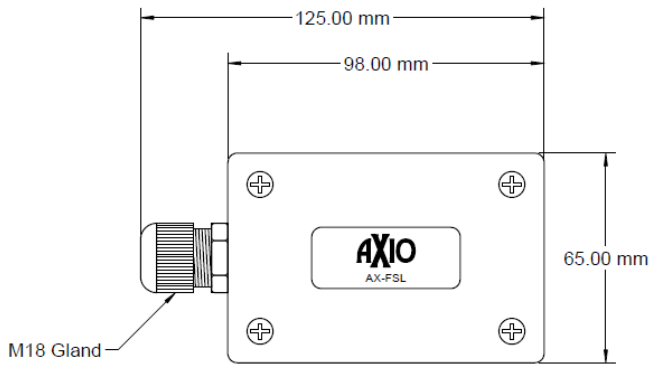


Pipe Size	1"	1¼"	1½"	2"	2½"	3"	4"	4"Z	5"	5"Z	6"	6"Z	8"	8"Z
Paddle No	1	1	1	1,2	1,2	1,2,3	1,2,3	1,2,3,4	1,2,3	1,2,3,4	1,2,3	1,2,3,4	1,2,3	1,2,3,4

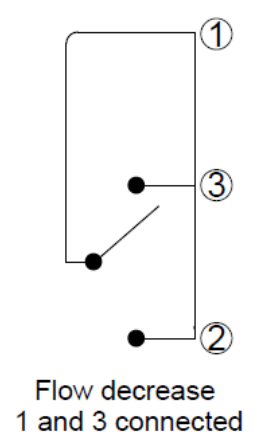
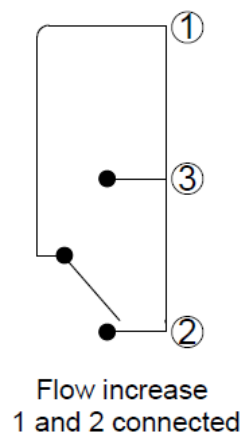
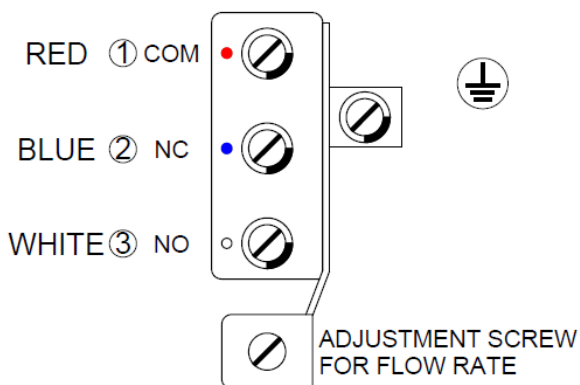
Liquid Flow Rate Table

Line Pipe Size (Inch)		Ø 1"	Ø 1-¼"	Ø 1-½"	Ø 2"	Ø 2-½"	Ø 3"	Ø 4"	Ø 4"Z	Ø 5"	Ø 5"Z	Ø 6"	Ø 6"Z	Ø 8"	Ø 8"Z
Minimum Flow	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	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)	118.0 (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)

Dimensions



Electrical Connections



Datasheet Contents

Every effort has been taken in the production of this data sheet to ensure accuracy. Annicom do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Annicom has a policy of continuous improvement and reserves the right to change this specification without notice.