



### Features and Benefits

- Adjustable switching point
- Suitable for applications up to 11bar
- Lid-mounted screws provide tamper proofing
- Well suited for many general industrial plant applications

### Technical Overview

The FS-W is a paddle switch intended to monitor liquid flow within pipes and provide a switch output on detection of either a specific flow rate or flow failure. The FS-W screws directly into a 1" BSP boss.

Switching sensitivity can be adjusted by means of a calibration screw within the unit. The paddle can be trimmed to increase sensitivity if necessary.

### Product Codes

**FS-W** Water flow switch 1" BSP brass fitting

### Specification

Contact Rating	15(8)A @ 24 to 250Vac
Switch	Dust tight micro-switch
Housing dimensions	140 x 62 x 65mm
Materials:	
Main Body	ABS
Cover	Transparent PC
Boss	Brass
Rod	Brass
Paddles	Stainless steel 316
Ambient:	
Media	-40 to +120°C
Ambient	-40 to +85°C
Humidity	10 to 90% non-condensing
Max Static Pressure	11 bar
Pressure loss	Approx. 0.01 to 0.03bar
Protection	IP65
Country of origin	Italy
Conformity	LVD, CE & UKCA Marked

#### WEEE Directive:

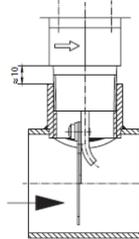


At the end of the products useful life please dispose as per the local regulations. Do not dispose of with normal household waste. Do not burn.

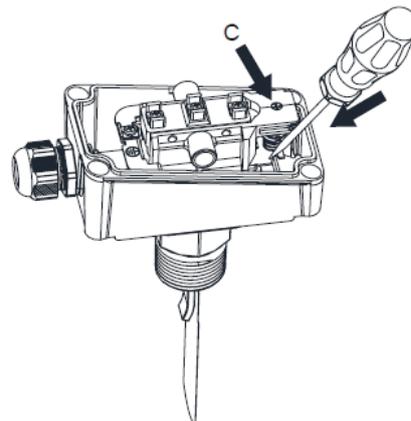


## Installation

- The FS-W may be positioned with the housing above in horizontal or in vertical position away from elbows and narrowing of the pipe-work.
- The directional arrow must be orientated downstream:



- If pipe is vertical, recalibrate range to balance paddle weight.
- If the device is downwards mounted take care to slugs, and apply it in a straight pipe far from filters, valves, etc with length at least 5 times the diameter of pipe upstream and downstream the unit.
- After installation check that the paddle moves freely within the pipework. With a screwdriver press lightly until you hear a click from the micro-switch. Apply the minimum flow rate and adjust screw "C" to obtain the opening of the red/white contact:

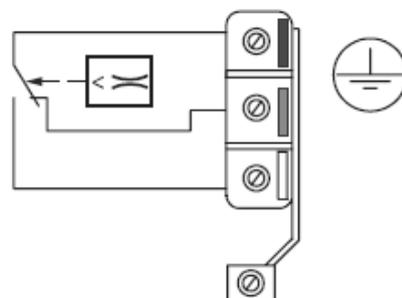


The FS-W is factory calibrated to its minimum sensitivity. To increase the sensitivity, turn the adjustment screw clockwise. The cut-out value must be > the minimum flow necessary to guarantee operation.

## Connections



Dangerous voltages may exist within this unit. Connection should be carried out by a competent and suitably qualified electrician only. The relevant earthing requirements should be observed when connecting the unit, especially when using higher voltages. Do not over tighten the terminals.



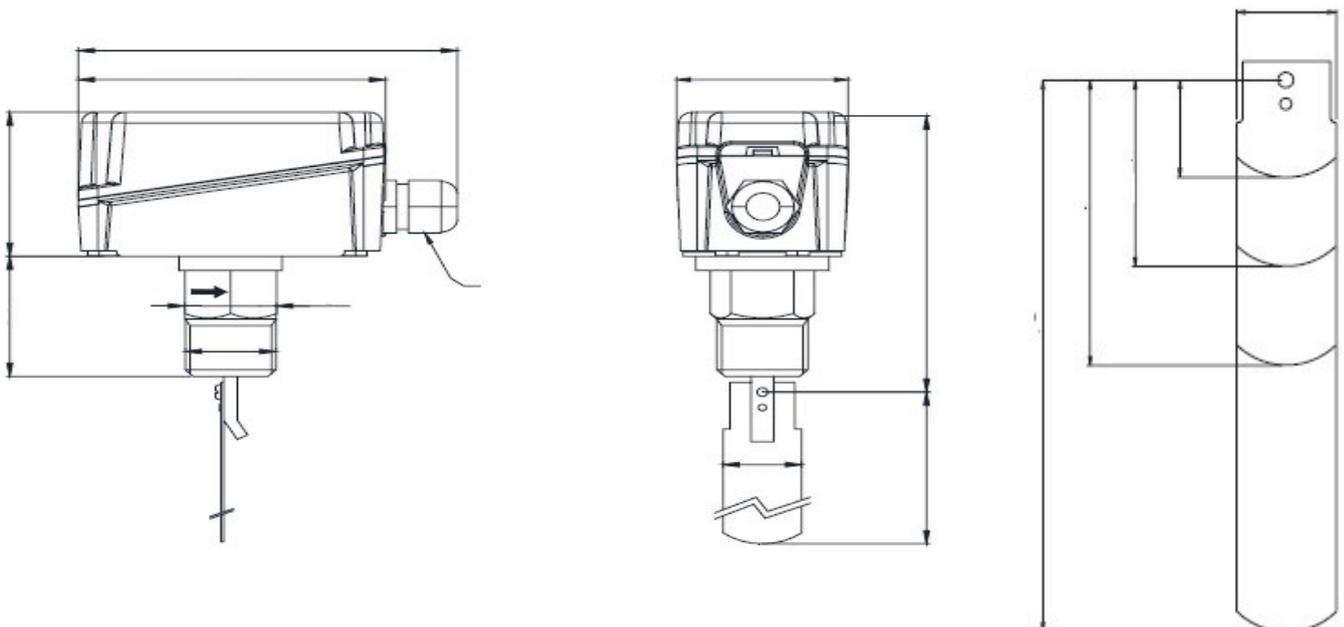
**Flow Rates, Paddle Requirements & Dimensions**

Pipe Size	Paddles	Qmax m <sup>3</sup> /h Recommended	Min. Adjustment m <sup>3</sup> /h cut-off/cut-in	Max. Adjustment m <sup>3</sup> /h cut-off/cut-in
1"	1	3.6	0.6 (1.0)	2.0 (2.1)
1¼"	1	6	0.8 (1.3)	2.8 (3.0)
1½"	1	9	1.1 (1.7)	3.7 (4.0)
2"	1 & 2	15	2.2 (3.1)	5.7 (6.1)
2½"	1 & 2	24	2.7 (4.0)	6.5 (7.0)
3"	1, 2 & 3	26	4.3 (6.2)	10.7 (11.4)
4"	1, 2, & 3	60	11.4 (14.7)	27.7 (29.0)
4" *	1, 2, 3 & 4	60	6.1 (8.0)	17.3 (18.4)
5"	1, 2 & 3	94	22.9 (28.4)	53.3 (55.6)
5" *	1, 2, 3 & 4	94	9.3 (12.9)	25.2 (26.8)
6"	1, 2 & 3	120	35.9 (43.1)	81.7 (85.1)
6" *	1, 2, 3 & 4	120	12.3 (16.8)	30.6 (32.7)
8"	1, 2 & 3	240	72.6 (85.1)	165.7 (172.5)
8" *	1, 2, 3 & 4	240	38.6 (46.5)	90.8 (94.2)

For pipe sizes with suffix "\*" the longest paddle must be used to obtain the values indicated in this table.

Pressure drop at the max. flow (Qmax) 0.08bar

When using multiple paddles, they must be arranged in order of decreasing length downstream, i.e. with the longest paddle facing the oncoming liquid.



Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

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