

Liquid Flow Switch

Features



- IP65 Rated enclosure
- Standard unit is suitable for applications up to 11bar
- Complete with paddles to suit all relevant pipe sizes and flow rates

Specification

Contact Rating	15 (8)A @ 24-250Vac
Switch	Dust tight microswitch
Dimensions	113 x 70 x 65mm max plus paddle length
Paddle lengths	28.5mm, 54.5mm, 83.5mm & 161.5mm
Materials:	
Main Body	Base ABS, transparent PC
Fitting	Brass (Optional stainless steel)
Paddles	Stainless steel.
Ambient:	
Media	-40 to +120°C
Housing	-40°C to +85°C
Humidity	10 to 90% non-condensing
Max Static Pressure	
FS-541	11 bar
FS-541S	30 bar
Pressure loss	0.01 - 0.03bar approx.
Protection	IP65
CE Conformity	EN 60335-1
Country of origin	Italy

Product Codes

FS-541

Standard water flow switch 1" BSP brass fitting

FS-541S

Water flow switch 1" BSP stainless steel fitting for aggressive media

Technical Overview

The FS-541 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-541 screws directly into a 1" BSP boss. The FS-541S has stainless steel wetted parts for aggressive media.

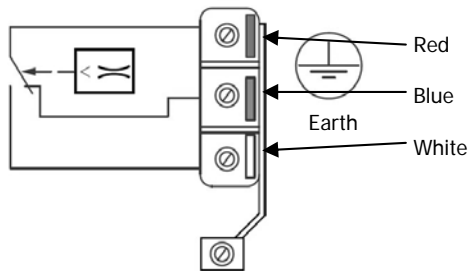
Switching sensitivity can be adjusted by means of a calibration screw within the unit. The paddle can be trimmed to increase sensitivity if necessary.

Installation

The FS-541 can be installed in any position far from elbows or throttlings, with arrow on flow direction. 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.

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.



Adjustment screw for flow rate

Flow:-

Contacts red and blue are made.

No flow:-

Contacts red and white are made.

Flow Rates

The FS-541 is factory calibrated to its minimum sensitivity. To increase the sensitivity, turn the adjustment screw clockwise.

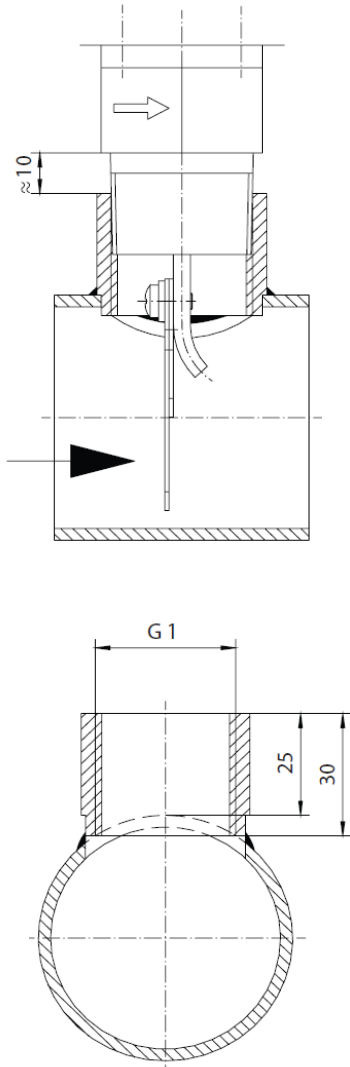
Pipe Size	Min. Adjustment m ³ /h cut-off/cut-in	Max. Adjustment m ³ /h cut-off/cut-in
1"	0.6 (1.0)	2.0 (2.1)
1¼"	0.8 (1.3)	2.8 (3.0)
1½"	1.1 (1.7)	3.7 (4.0)
2"	2.2 (3.1)	5.7 (6.1)
2½"	2.7 (4.0)	6.5 (7.0)
3"	4.3 (6.2)	10.7 (11.4)
4"	11.4 (14.7)	27.7 (29.0)
4" *	6.1 (8.0)	17.3 (18.4)
5"	22.9 (28.4)	53.3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

* Longest paddle must be used

Paddles

Pipe Size	Paddles
1"	1
1¼"	1
1½"	1
2"	1,1
2½"	1,2
3"	1,2,3
4"	1,2,3
4" *	1,2,3,4
5"	1,2,3
5" *	1,2,3,4
6"	1,2,3
6" *	1,2,3,4
8"	1,2,3
8" *	1,2,3,4

Mounting



Dimensions

