

FS-541 Liquid Flow Paddle Switch



Features:

- Adjustable switching point
- High capacity, fully encapsulated N/C, N/O micro-switch
- Standard FS-541 is suitable for applications up to 11bar (195.5 psi)

Benefits:

- Lid-mounted screws provide tamper proofing
- Well suited for many general industrial plant applications

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.

Specification:

Contact Rating	15 (8)A @ 24-250Vac
Switch	Dust tight microswitch
Dimensions	113 x 70 x 65mm max plus paddle length (4.47 x 2.56 x 2.44")
Paddle lengths	28.5, 54.5, 83.5 & 161.5mm (1.12, 2.15, 3.29, & 6.36")
Materials:	
Main Body	ABS
Fitting;	
FS-541	Brass
FS-541S	Stainless steel
Paddles	Stainless steel.
Ambient:	
Media	-40 to +120°C (-40 to +248°F)
Housing	-40 to +85°C (-40 to +185°F)
Humidity	10 to 90% non-condensing
Max Static Pressure	
FS-541	11 bar (195.5 psi)
FS-541S	30 bar (434 psi)
Pressure loss	0.01 - 0.03bar approx. (0.1 – 0.4 psi)
Protection	IP65
CE Conformity	EN 60335-1
Country of origin	Italy

Part Codes:

FS-541	Standard water flow switch 1" BSP brass fitting
FS-541S	Water flow switch 1" BSP stainless steel fitting for aggressive media



The products referred to in this data sheet meet the requirements of EU 2004/108/EC and 2006/95/EC

Installation:

- The FS-541 can be installed in any position far from elbows or throttling's, 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.

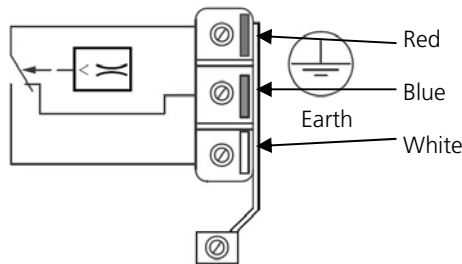
Connections:



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.

Flow:-
Contacts red and blue are made.

No flow:-
Contacts red and white are made.

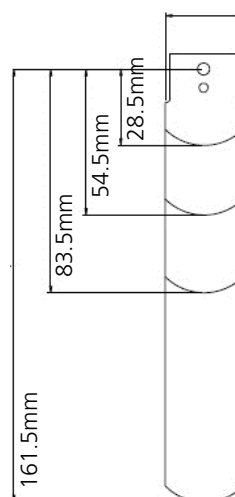


Adjustment screw for flow rate

Flow rates & Paddles:

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)



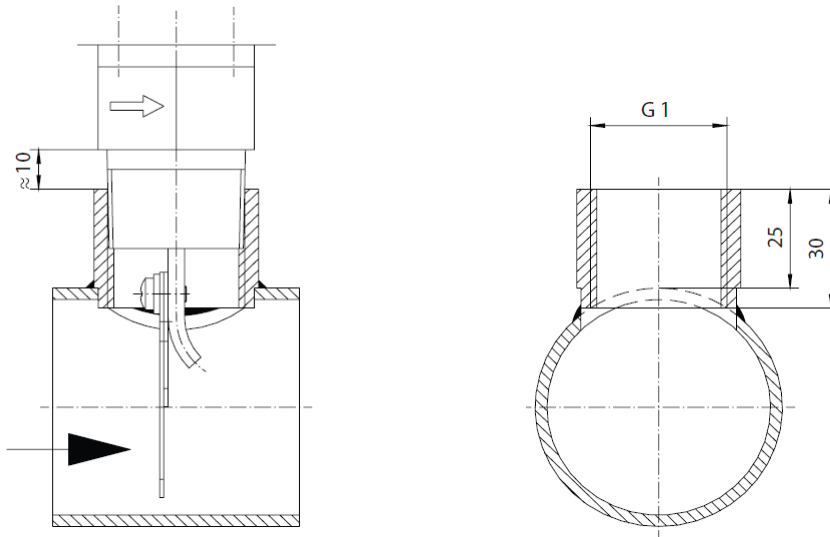
Pipe Size	Paddles
1"	1
1¼"	1
1½"	1
2"	1,1
2½"	1,2
3"	1,2,3
4"	1,2,3
4" *	1,2,3,4
5"	1,2,3
5" *	1,2,3,4
6"	1,2,3
6" *	1,2,3,4
8"	1,2,3
8" *	1,2,3,4

* Longest paddle must be used

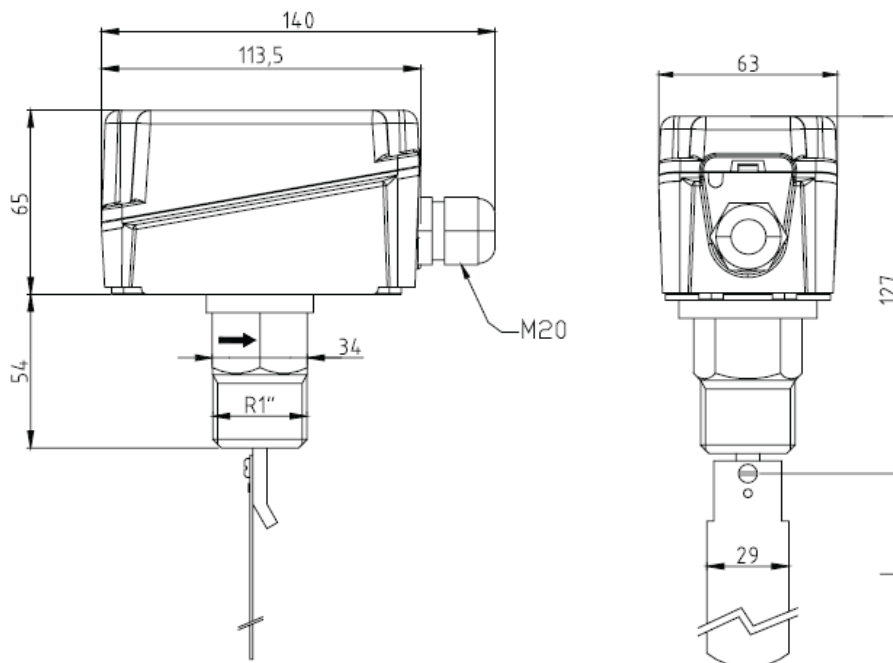
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Mounting:



Dimensions:



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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