



Description

The flow switch serie FS is designed for controlling flow rates in pipes and ducts employed in HVAC applications from 1" up to 8". In particular for monitoring flow in water, for pumps in oil circulation, cooling and lubrication systems, heat exchangers, compressors and is used as flow control device or as water failure protection switch. Models available with brass and stainless steel body for aggressive media.

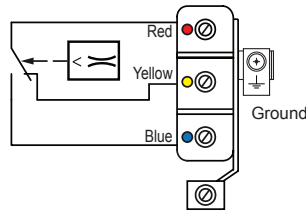
Technical specifications

| | |
|--------------------------------|---|
| Flow rate | See schedule |
| Switching output | Dustproof microswitch as potential-free SPDT contact |
| Electrical rating | 16 (8) A, 24 - 250 V AC, at 24 V AC min. 150 mA |
| Lifetime | 100.000 cycles at nominal load |
| Electrical connection | Screw terminal, wire up to 1,5 mm ² , cable Ø 6...9 mm |
| Max. pressure | See schedule |
| Calibration | The flowswitch is factory calibrated at its min. sensitivity. To increase the set value turn clockwise the adjustment screw. The cut-out value must be >- the minimum flow necessary to guarantee the protection of the plant. The units without "T" fittings are supplied with 4 paddles, which must be cut off according to the pipe. All devices can be supplied with "T" connection on request as schedule indications. |
| Housing | ABS, RAL 9010, UV resistant |
| Cable conduit | M20 x 1,5 mm |
| Body and lever material | 1" GAS, brass or stainless steel Aisi 316 |
| Paddles material | Stainless steel Aisi 316 |
| Dimensions | See drawing |
| Weight | 600 gr |
| Protection type | IP65 |
| Protection class | III |
| Max. fluid temperature | -25 ...+120°C |
| Working humidity RH | 10...95% RH, non-condensing |
| Working temperature °C | -40 ...+85°C |
| Storage temperature | -20 ...+60°C |
| Installation | Horizontal and vertical, screw-in thread, Rp 1" (ISO7/1) shall be installed 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 slags, 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. The paddles must be installed starting from the shortest. |
| Standards | CE conformity, RoHS |



| Models | Fluid | Max. pressure | Body material |
|--------|------------|---------------|--------------------------|
| FS1 | normal | 15 bar | brass |
| FS2 | aggressive | 30 bar | stainless steel Aisi 316 |

Electrical wirings

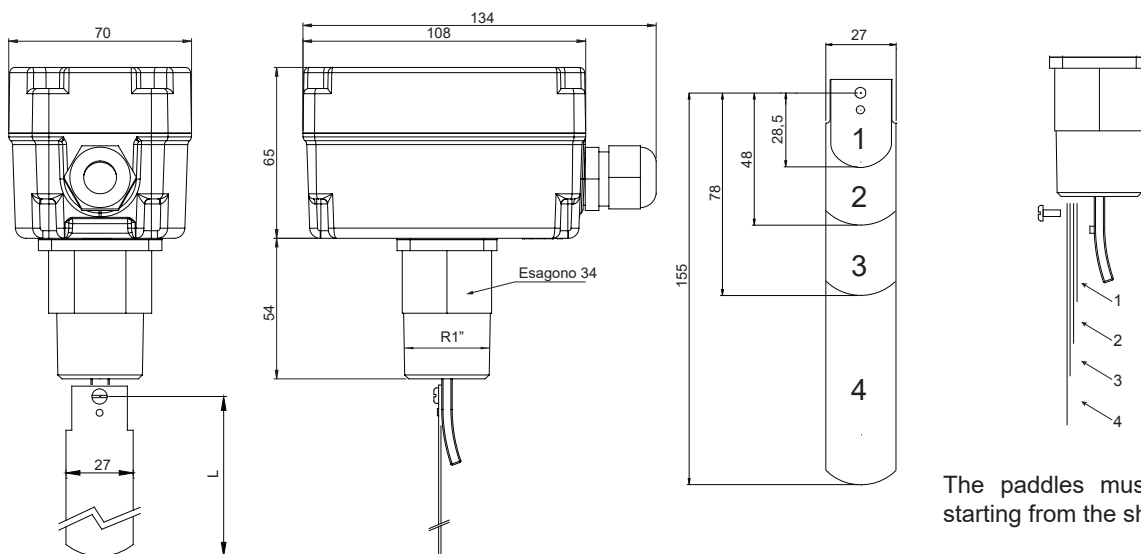


Flow rates in m³/h

| Line pipe size | Paddle size | Flow m ³ /h | | | | |
|----------------|-------------|--|--|--|--|---|
| | | Flow increase Min. flow rate R to B closes | Flow increase Max. flow rate R to B closes | Flow decrease Min. flow rate R to Y closes | Flow decrease Max. flow rate R to Y closes | Max. recommended flow m ³ /h |
| 1" | 1 | 0,8 | 2,2 | 1,2 | 2,3 | 3,6 |
| 1" 1/4 | 1 | 0,93 | 2,52 | 1,5 | 2,8 | 6,1 |
| 1" 1/2 | 1, 2 | 1,1 | 3,9 | 2,37 | 4,3 | 9,2 |
| 2" | 1, 2 | 2,0 | 6,05 | 3,8 | 6,5 | 15 |
| 2" 1/2 | 1, 2, 3 | 3,0 | 7,3 | 4,4 | 8,4 | 24 |
| 3" | 1, 2, 3 | 5,0 | 11,7 | 6,2 | 12,6 | 36 |
| 4" | 1, 2, 3 | 10,0 | 30,0 | 8,06 | 36,0 | 60 |
| 5" | 1, 2, 3 | 21,1 | 51,4 | 24,0 | 69,0 | 94 |
| 6" | 1, 2, 3, 4 | 12,4 | 29,0 | 20,0 | 33,7 | 120 |
| | 1, 2, 3 | 24,0 | 72,0 | 32,7 | 90,0 | 120 |
| 8" | 1, 2, 3, 4 | 23,9 | 83,4 | 34,6 | 96,0 | 240 |
| | 1, 2, 3 | 48,4 | 174 | 66,8 | 200 | 240 |

The values of minimum and maximum flow rate can be changed during installation shortening the paddles.

Dimensions (mm)



The paddles must be installed starting from the shortest.

ATTENTION

If flowswitch is used as a minimum flow controller, it is necessary to add another device downstream for alarm condition activation.