

## Liquid flow switch

# FL200



### Description

The flow switch serie FL200 is designed for controlling flow rates in pipes and ducts employed in HVAC applications from DN32 up to DN200. 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

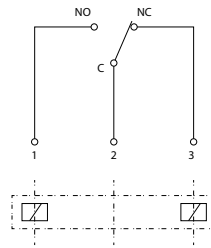
|                         |  |
|-------------------------|--|
| Flow rate               | See schedule   |
| Switching output        | Dustproof microswitch as potential-free SPDT contact   |
| Electrical rating       | See schedule   |
| Lifetime                | 100.000 cycles at nominal load   |
| Electrical connection   | DIN 43650A connector   |
| Max. pressure           | 25 bar   |
| Average pressure loss   | 0.01 bar at Q max  |
| Hysteresis              | min. 0.7 l/min.  |
| Housing                 | ABS, black   |
| Connection              | Male thread fitting 1/2" ISO   |
| Body and lever material | Nickel plated brass  |
| Paddles material        | Beryllium copper alloy   |
| Dimensions              | See drawing  |
| Protection type         | IP65   |
| Protection class        | II   |
| Max. pipe temperature   | -25 ...+110°C  |
| Working humidity        | 10...95% RH, non-condensing  |
| Working temperature     | -25 ...+80°C   |
| Storage temperature     | -40 ...+80°C   |
| Installation            | Horizontal or vertical, 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 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. |
| Standards               | CE conformity, RoHS  |



| Models | Electrical rating                                |
|--------|--|
| FL200A | 0,1 A, 125 V AC; min. 1 mA, 5 V DC               |
| FL200B | 3 A, 250 V AC; 5 A, 125 V AC; min. 160mA, 5 V DC |



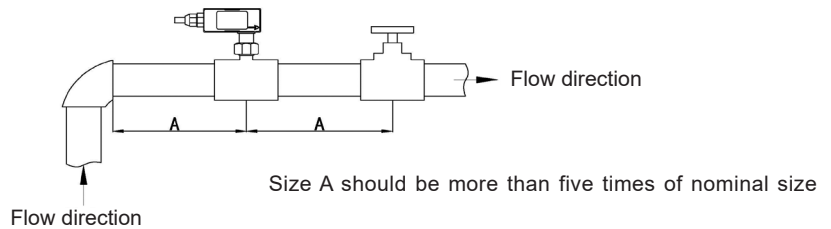
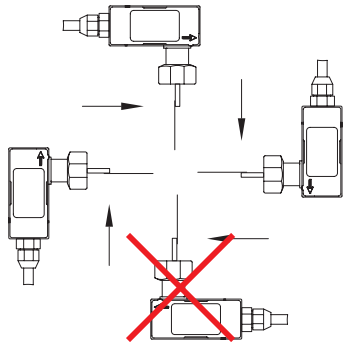
## Electrical wirings



| Pipe DN | Flow m <sup>3</sup> /h    |                           |                         |                       | Max. recommended flow m <sup>3</sup> /h |
|---------|---------------------------|---------------------------|-------------------------|-----------------------|---|
|         | Paddle 1                  | Paddles 1, 2              | Paddles 1, 2, 3         | Paddles 1, 2, 3, 4    |   |
| 32      | 1,7 (1,4)...1,8 (1,5)     | -                         | -                       | -                     | 6                                       |
| 40      | 1,7 (2,4)...1,8 (2,0)     | -                         | -                       | -                     | 9                                       |
| 50      | 4,5 (3,8)...4,9 (4,2)     | 1,2 (1,0)...1,4 (1,2)     | -                       | -                     | 15                                      |
| 65      | 9,5 (8,1)...11,2 (9,5)    | 3,2 (2,7)...3,6 (3,1)     | -                       | -                     | 24                                      |
| 80      | 13,5 (11,5)...14,8 (12,6) | 5,9 (5,0)...7,4 (6,3)     | 1,4 (1,2)...2,7 (2,3)   | -                     | 36                                      |
| 100     | 25,8 (21,9)...30,2 (25,7) | 8,3 (7,1)...8,8 (7,5)     | 3,3 (2,8)...3,9 (3,3)   | 2,3 (2,0)...3,8 (3,2) | 60                                      |
| 125     | 35,5 (30,2)...41,6 (35,4) | 11,7 (9,9)...13,1 (11,1)  | 5,1 (4,3)...5,8 (4,9)   | 3,1 (2,6)...3,8 (3,2) | 85                                      |
| 150     | 49,6 (42,2)...54,7 (46,5) | 14,8 (12,6)...16,9 (14,4) | 6,2 (5,3)...6,6 (5,6)   | 4,0 (3,4)...4,5 (3,8) | 110                                     |
| 200     | 88,2 (75,0)...97,3 (82,7) | 26,3 (22,4)...30,0 (25,5) | 11,0 (9,4)...11,7 (9,9) | 7,1 (6,0)...8,0 (6,8) | 203                                     |

Values with increasing flow, in brackets values with decreasing flow.

## Installation



Attention: the flow direction should be the same as the arrow direction, do not pull the black plastic shell.

## Dimensioni (mm)

