

Liquid flow switch

FL

Description

The flow switch serie FL is designed for controlling flow rates in pipes and ducts employed in HVAC applications from 3/8" up to 2". In particular for monitoring flow of liquid media, pumps in oil circulation, cooling and lubrication systems, heat exchangers, compressors and is used as flow control device or as water failure protection switch.

Technical specifications

Flow rate	See schedule
Switching output	Dustproof microswitch SPDT contact
Electrical rating	3 A, 250 V AC; 5 A, 125 V AC
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	Female thread T-fitting
Body and lever material	Nickel plated brass
Paddles material	Stainless steel Aisi 316L
Dimensions	See drawing
Weight	See schedule
Protection type	IP65
Protection class	I
Max. pipe temperature	-20 ...+110°C
Working humidity	10...95% RH, non-condensing
Working temperature	-40 ...+90°C
Storage temperature	-40 ...+90°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

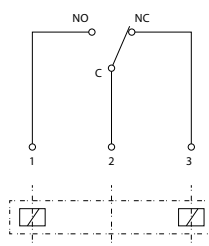


Models	Connection	Flow rate l/min H ₂ O	Max. recommended flow rate l/min H ₂ O
FL10	G 3/8	4.4 (3.7) - 5.9 (5.1)	10
FL15	G 1/2	4.4 (3.7) - 5.9 (5.1)	20
FL20	G 3/4	9.4 (8.0) - 12.8 (10.8)	40
FL25	G 1	14.7 (12.5) - 19.9 (16.9)	60
FL32	G 1 1/4	24.1 (20.5) - 32.7(27.8)	80
FL40	G 1 1/2	37.7 (32.1) - 51.0 (43.4)	100
FL50	G 2	59.0 (50.1) - 79.8 (67.8)	150

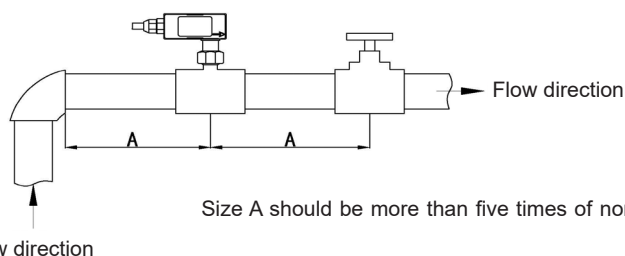
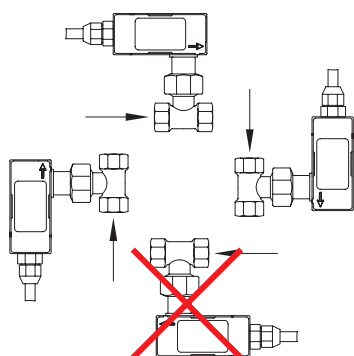
Note: The flow rate values indicate operating point. The values between the brackets indicate reset point and were measured by mounting the flow switch with the body horizontally.



Electrical wirings

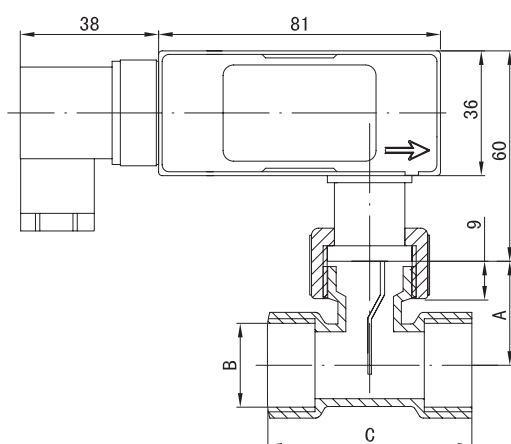


Installation



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

Dimensions (mm)



A mm	B mm	C mm	Weight kg
28	G 3/8	58	0,33
28	G 1/2	58	0,30
28	G 3/4	58	0,32
34	G 1	58	0,40
34	G 1 1/4	72	0,47
34	G 1 1/2	72	0,57
46	G 2	72	0,72