WFS Series
General Purpose Liquid Flow Switches

General

The paddle-type WFS Series liquid flow switches are specifically designed for use on liquid lines with water or any fluid that is not harmful to brass or tinned bronze and which is not classified as a hazardous fluid.

The WFS Series liquid flow switches are recommended for use on indoor or outdoor applications in high humidity atmospheres.

When a WFS Series liquid flow switch is used as an operating control device and where an operating control device failure would result in personal injury and/or loss of property, it is the responsibility of the user to add safety devices that protect against control device failure.

Mounting

The liquid flow switch can be mounted in a horizontal or vertical pipeline but must be located in a section of pipe where there is a straight run of at least 5 pipe diameters on each side of the switch.

Ordering Instruction

To order, specify complete model number.

Specifications

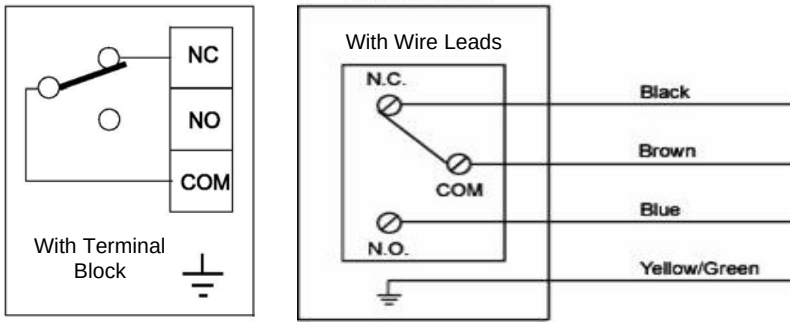
Model Numbers	WFS-25B	25mm (1") with male BSP pipe connection and wire leads
	WFS-25B-1	25mm (1") with male BSP pipe connection and terminal block
	WFS-25N	25mm (1") with male NPT pipe connection and wire leads
	WFS-25N-1	25mm (1") with male NPT pipe connection and terminal block
Materials	Housing	Die cast aluminum alloy
	Pipe Connection	Brass
	Bellow	Tinned bronze
	Paddle	Stainless steel
Maximum Operating Pressure	10 bar (1,000 kPa)	
Liquid Temperature	1 to 110^{o}C	
Ambient Temperature Limits	0 to 55^{o}C	
Set point Adjustment	Screw under cover	
Flow Rates	See Figure 1: flow rates in m^3/h	
Bellow Life	100,000 cycles	
Switch Action	SPDT	
Electrical Ratings	Up to 250 V, 10(3) A, 50/60 Hz	
Connections	Choice of 1m 4-core PVC/PVC 1.5 mm^2 color coded wire leads or non-removable terminal block	
Paddles	Supplied in 4-piece package in sizes of 34 mm (factory mounted), 57 mm, 88 mm and 167 mm	
Enclosure Protection Class	IP64	
Agency Approval	CE Mark compliant to Low Voltage Directive 73/23/EEC amended by Directive 93/68/EEC based on the EN60730-1 Standard	
Dimensions	See Figure 4: Dimensions in mm	
Shipping Weight	0.8 kg	

The performance specifications above are nominal and subject to tolerances and application variables of generally acceptable industry standards. The manufacturer shall not be liable for damages resulting from misapplication or misuse of its products.

Figure 1: Flow Rates in m^3/h

Pipe Diameter mm (inches)	Paddle Length mm	Flow Rates with Min. Setting m^3/h (Factory Set)		Flow Rates with Max. Setting m^3/h	
		Switch Action	Switch Return	Switch Action	Switch Return
25 (1)	34	1.3	0.8	2.0	1.5
32(11/4)	34	1.5	1.0	2.6	2.0
40(11/2)	57	1.9	1.3	3.3	2.6
50(2)	57	3.2	2.2	6.6	6.1
65(21/2)	88	4.2	3.2	8.0	7.0
80(3)	88	6.3	4.7	12.0	11.0
100(4)	88	8.5	6.0	18.0	17.0
125(5)	167	13.1	9.0	27.0	25.0
150(6)	167	17.2	12.0	33.0	31.0
200(8)	167	47.0	39.0	94.0	91.0

Figure 2: Wiring Diagram



1. **NC and COM make contact when flow decreases below set point.**
2. **NO and COM make contact when flow increases above set point.**

Figure 3: Typical Installation

With appropriate fittings, the water flow switch is designed for mounting on pipes of 25 mm through 200 mm diameter. It is recommended to mount the switch on the return pipe of the water system horizontally. Refer to the piping diagram for other requirements.

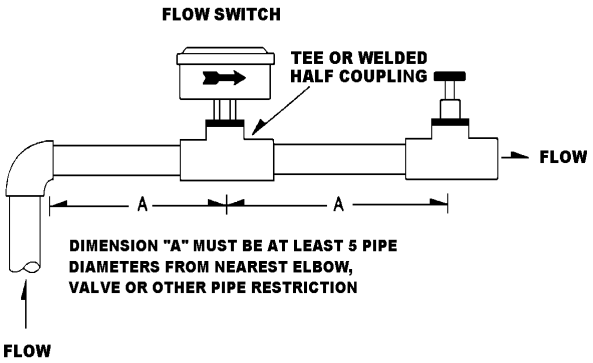
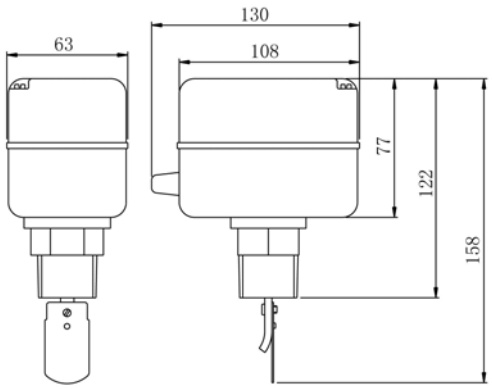


Figure 4: Dimensions in mm



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