# LOW COST FLOW SWITCHES

## **FSW300 Series**



- Adjustable Switch Point
- ✓ Low Pressure Drop
- Economical
- Field Installation for ½ to 8" Pipes
- Instant Response
- High Repeatability

The FSW301 flow switch comprises a paddle system (1) with a permanent magnet attached (2). Above that magnet is a reed contact (3), located outside the flow of fluid. A second magnet with opposing poles (4) creates the force necessary to reset the switch back to the no flow position.

When the monitored flow pushes the paddle and changes the position of the magnet (2) in relation to the reed contact (3) it activates the contact. As soon as the flow is interrupted, the paddle moves back to its starting position, which returns the reed contact to the initial position. The force necessary to push the magnet back is provided by the two magnets repelling each other. Using magnetic force instead of the usual leaf spring means the switch is considerably more stable in the long term and much less sensitive to pressure peaks.



The reed contact used as a sensing element consists of two ferro-magnetic contact blades located in a glass bulb filled with inert gas. This practically eliminates wear resulting from contact burning. This construction allows a useful life of up to 100.000.000 switching cycles.

## COMMON SPECIFICATIONS

Max Pressure: 25 bar (365 psi) Max Process Temperature: 110°C (230°F) Max Ambient Temperature: 80°C (176°F) Protection Class: IP65 Connection: ½-14 NPT Materials of Construction: Body: Brass Paddle System: Polypropylene, Noryl® Shaft: Stainless steel

## Insertion Type Switch

## **To Order**

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Model No.	Description	
FSW301	Flow switch, insertion style, 1/2 male NPT	
70A-2	Fast pulse tone audible alarm	

Comes complete with operator's manual.

Ordering Example: FSW301, insertion style flow switch and 70A-2, fast pulse tone alarm.



### FSW301

**CE OMEGA** 

18: 26VA/14/230V 18: 20W 1A/46V4

Timeswit 1010

FSW301 shown

actual size.

Pipe Size mm (in)	Setpoint Range LPM (GPM)
19.0 (¾)	15 (4.0) to 18 (4.7)
25.4 (1)	17 (5.0) to 22 (5.7)
31.75 (1¼)	27 (7.0) to 32 (8.4)
38.1 (1½)	30 (8.0) to 35 (9.3)
50.8 (2)	40 (11) to 45 (11.9)
63.5 (2½)	80 (21) to 85 (22.5)
101.6 (4)	97 (26) to 107 (28.2)
152.4 (6)	238 (63) to 258 (68.2)
203.2 (8)	485 (128) to 500 (132)

## SPECIFICATIONS FSW301

Max Switching Current: 1 A Max Switching Voltage: 230 Vac, 48 Vdc

Maximum Rating: 26 VA, 20 W Set Point Tolerance: ±15%

Plug Connector: DIN 43650 form A/ISO 4400 cable socket with terminal screws, suitable for outer cable diameter 4.57 to 6.85 mm (0.18 to 0.27")

#### Dimensions (Excluding Paddle or Tee): 114 x 38 x 89 mm

(4.5 x 1.5 x 3.5")

## SPECIFICATIONS FSW302, 303, 304

Max Pressure: 25 bar (362 psi) Max Process Temperature: 110°C (230°F) Max Ambient Temperature: 80°C (176°F) Material of Construction: Brass body, pipe section and paddle system



To Order				
Model No.	Description	Setpoint Range LPM (GPM)		
FSW302	Flow switch, inline 1/2", brass tee	3.4 to 4.2 (0.9 to 1.1)		
FSW303	Flow switch, inline 3/4", brass tee	6.8 to 9.1 (1.8 to 2.4)		
FSW304	Flow switch, inline 1", brass tee	13.2 to 16.7 (3.5 to 4.4)		

Comes complete with operator's manual.

Ordering Example: FSW303, inline flow switch, 3/4" brass NPT connection, 70A-2, audible alarm.



SPECIFICATIONS FSW305, 306, 307

Max Pressure: 10 bar (145 psi) Max Process Temperature: 60°C (140°F) Max Ambient Temperature: 60°C (140°F) Materials of Construction: Pipe Section: PVC Body: Polypropylene, Noryl® Paddle System: Polypropylene, Noryl

To Order				
Model No.	Description	Setpoint Range LPM (GPM)		
FSW305	Flow switch inline 1/2" PVC tee	4.9 to 6.8 (1.3 to 1.8)		
FSW306	Flow switch inline 3/4" PVC tee	9.5 to 12.1 (2.5 to 3.2)		
FSW307	Flow switch inline 1" PVC tee	10.6 to 14.8 (2.8 to 3.9)		
Company complete with energia manual				

Comes complete with operator's manual.

Ordering Example: FSW305, inline flow switch, 1/2" PVC tee connection, 70A-2, audible alarm.