

F SERIES CORROSION RESISTANT FLOW SWITCHES FOR ALL PIPE SIZES 25mm (1") AND LARGER

FEATURES

- 0 to 500V AC 15 Amp S.P.D.T switch
- Low Voltage Gold contact model also available
- 316 Stainless or Polypropylene models
- 3/4" & 1" models available with BSP or NPT threads
- Manual override built in
- Modular construction
- High pressure 400 Bar 5800 psi models available
- Seal-less magnetic drive
- Weatherproof IP67 housing
- Easily serviceable

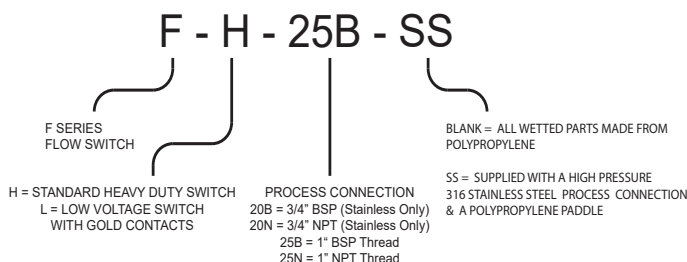
OUTLINE

The F series flow switch is a tough but highly sensitive paddle switch suitable for a wide range of flow control applications in both hot and cold liquids. The electrical housing of the switch is a separate assembly and locks onto the wet end of the switch. It can be easily and safely removed for servicing, without disturbing electrical wiring. This unique feature, and the inclusion of a built in manual override make the F series a very versatile flow switch.

The electrical module of the F series flow switch is completely separate from the process connection and wet end of the switch. The wet end assembly and the electrical module lock together with a single externally accessible screw. This feature allows the flow switch to be disassembled and unscrewed from pipework without the need to disturb electrical wiring. All F series flow switches are supplied with a glass fibre reinforced paddle. The paddle can be cut and shaped as required to suit pipework 25 mm (1") or larger. A unique feature of the F series flow switch is its built in manual override. The manual override allows the flow switch to be switched on at any time at the press of a button regardless of lack of flow. Using the manual override allows pumps to be manually started at any time by simply pressing the button. It also makes the testing and commissioning of systems very simple.



ORDERING



Please Note: 20mm fittings are only available in 316 Stainless

Our well proven magnetic repulsion system is built into each F series flow switch and couples the paddle's movement to the high compliance switch through a double wall of solid material. The result is a high-pressure flow switch with no seals, diaphragms or bellows or other points of potential failure. The F series flow switch is available with a 316 stainless steel or Polypropylene high pressure process connection. There are models to suit most applications including use in seawater, bore water, acids, and alkalis and in many chemical solutions.

F SERIES DATA

ELECTRICAL DATA

The F series flow switch houses a S.P.D.T (Single Pole Double Throw) switch. The standard switch is suitable for all general control circuit applications up to 500V AC. It is ideal for the control of pump starters, relay logic circuits, and for the direct control of contactors and timers.

IMPORTANT

The standard H switch can operate at ANY voltage from 5 to 500VAC. It can be used to directly control pump motors up to 375 Watts (0.5HP) at 240VAC. For larger motors always use an interposing contactor or relay between the flow switch and the motor.

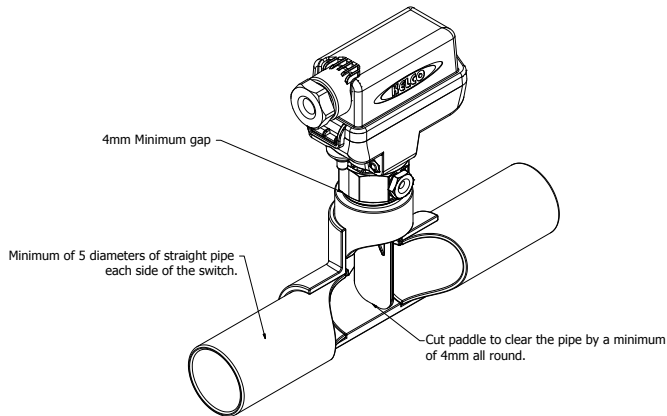
ELECTRICAL LIMITS FOR THE STANDARD H SWITCH

Electrical Data								
RATED VOLTAGE	NON INDUCTIVE LOADS				INDUCTIVE LOADS			
	RESISTIVE LOAD		LAMP LOAD		INDUCTIVE LOAD		MOTOR LOAD	
	NO	NC	NO	NC	NO	NC	NO	NC
125 VAC	15A	3A	1.5A	15A	5A	2.5A		
250 VAC	15A	2.5A	1.25A	15A	3A	1.5A		
500 VAC	10A	1.5A	0.75A	6A	1.5A	0.75		
8 VDC	15A	3A	1.5A	15A	5A	2.5A		
14 VDC	15A	3A	1.5A	10A	5A	2.5A		
30 VDC	6A	3A	1.5A	5A	5A	2.5A		
125 VDC	0.5A	0.5A	0.25A	0.05A	0.05A	0.05A		
250 VDC	0.5A	0.5A	0.25A	0.03A	0.03A	0.03A		

In addition to the standard switch, a S.P.D.T. switch with gold contacts, designated "L" is also available for low voltage and low wetting current signalling applications.

ELECTRICAL LIMITS FOR THE L SWITCH

Maximum Switched Voltage	30VDC
Maximum Switched Current	26mA
Minimum Switched Voltage	5VDC
Minimum Switched Current	1mA



APPROVED STANDARDS

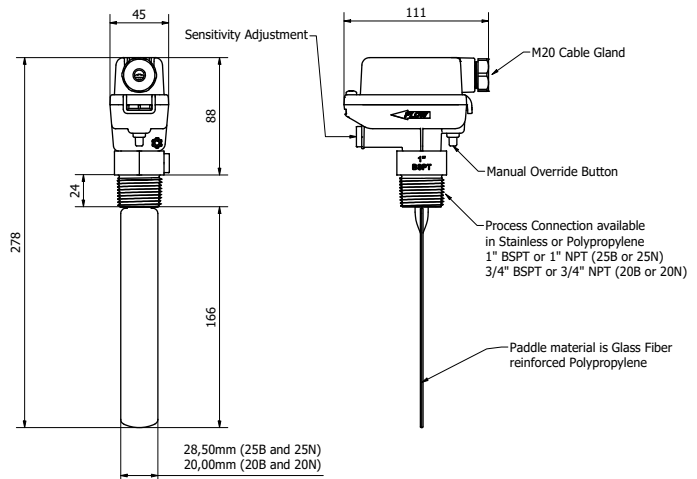
The standard single pole double throw switch used in the F series flow switch is approved to the following international standards: UL (File No. E32667), CSA (File No. LR21642) SEV (File No. S20/163) and CE.

OPERATING LIMITATIONS

Model	F (All Poly Switch)	F - SS (Stainless Fitting + Poly Paddle)
Maximum operating pressure (Static or Dynamic) at ambient temperature	18 Bars (261 PSI)	400 Bars (5800 PSI)
Minimum burst pressure at ambient temperature	45 Bars (652 PSI)	500 Bars (7215 PSI)
Maximum operating temperature	60°C See note below	80°C (176°F)
Minimum operating temperature	-20°C (-4°F)	-20°C (-4°F)
Ingress protection rating	IP67	IP67

Please note: Maximum operating pressure of the all Polypropylene F series switch must be linearly de-rated as operating temperature is increased so that at 60°C (140°F) the maximum permissible operating pressure for the switch does not exceed one Bar (15 psi) absolute.

DIMENSIONS



FLOW SENSITIVITY

The flow rates required to actuate the F series flow switch depends on many variables such as turbulence, liquid viscosity and the exact area of the paddle face exposed to the flow. For an accurate estimate of the switch performance and to determine the effect of paddle trimming, an online flow calculator is available at:

<http://www.kelco.com.au/paddle-trimming-calculator>

HAZARDOUS APPLICATIONS

The F-L flow switches can be used in hazardous areas. The flow switch is classed as a simple device and does not contain components capable of storing or producing an electric charge. As a simple device the F-L can be used in hazardous applications provided it is isolated by an intrinsically safe barrier, a zener barrier.

KELCO Engineering Pty Ltd

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