

# F25 SERIES CORROSION RESISTANT FLOW SWITCH

#### **FEATURES**

- Reliable robust construction
- Weatherproof IP56 enclosure
- All wetted parts in thermoplastic
- No metal parts in contact with fluids
- Fully adjustable flow sensitivity
- Suits pipe sizes 25mm to 150mm +
- Reed switch or solid state relay output
- Seal-less magnetic drive
- 18 Bar pressure rating
- Energy authority approved

### **APPLICATIONS**

- Loss of flow protection for pumps
- Control of flow in ultra pure water systems
- Flow status signalling in water treatment plants
- Control of effluent and fluid neutralising systems
- Corrosive and saline ground water applications
- Applications involving sea water or brine solutions
- Safety and control signalling for chemical handling
- Control and protection of chemical pumps
- Irrigation and turf watering systems control
- Horticultural and hydroponics system control

The F25 series flow switch has been specifically developed to fill the need for a flow sensor, capable of working reliably in applications in which metal flow switches fail. Typical areas include chemical, process, pharmaceutical, scientific and agricultural uses in which the metal components of traditional flow switches either interfere with, or are attacked by, the liquids being handled.

Modern thermoplastic pipe systems are used extensively in agriculture, industry, and in commercial and domestic fluid handling. The F25 flow switch has been specifically designed to integrate into plastic piping systems, and to enhance the advantages of such systems. Total avoidance of metal components, in the fluid stream, has been achieved. In addition, an advanced frictionless sensitivity adjusting system gives total external control over the switching threshold.





# **F25 SERIES**

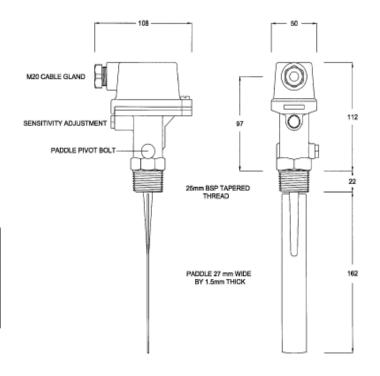
## **CONSTRUCTION**

The F25 series flow switch is made from glass reinforced polypropylene. Polypropylene is non-ageing and is unaffected by ground water conditions. It will not support algae or bacterial growth, and has exceptional resistance to most acids, alkalis and solvents. The F25 series flow switch can not be used with organic solvents.

# **OPERATING ENVIRONMENT**

Maximum operating pressure (static or dynamic) at ambient temperature	18 Bars (261 PSI)		
Minimum burst pressure at ambient temperature	70 Bars (1015 PSI)		
Maximum operating temperature	60° C See note below		
Minimum Operating Temperature	-20° C		
Ph range	1 to 14		

**Please note:** Maximum operating pressure of the Kelco F25 Series flow switch must be linearly de-rated as operating temperature is increased so that at 60°C the maximum permissible operating pressure for the switch does not exceed one Bar absolute.



### **ELECTRICAL DATA**

Switch Model	Module Type	Contact Configuration	Switched Power	Switched Voltage Maximum	Switched Current AC (RMS) Maximum	Inductive Loads (Power factor 0.4)	Typical Application
F25-B	Dry Reed Switch	S.P.S.T NO/NC	40 Watt	240V AC 200V DC	1 Amp	Not Suitable	PLC & Control circuits
F25-C	Dry Reed Switch	S.P.D.T	40 Watt	240V AC 200V DC	1 Amp	Not Suitable	PLC & Control circuits
F25-R	Solid State Relay	S.P.S.T	750 Watt	240V AC	10 Amp	4A at 240V AC	AC Control circuits & motor control

The circuit boards fitted to the F25-B and the F25-R switches are supplied as normally open switches that close when flow starts. Turning the circuit board end for end will reverse this standard switch function. The F25-C does not need be reversed as normally closed and normally open functions are available directly from the terminal block of this switch.

Data on maximum and minimum flow rates needed to actuate F25 flow switches is not included. Pipe size, paddle arm trimming and sensitivity settings all interact to determine the switching thresholds. The unique magnetic system employed in the Kelco F25 series provides a range of settings unequalled - covering extreme sensitivity to very low flows through to relative insensitivity to quite high flow rates. To determine the correct paddle length for a given application, please download our spreadsheet paddle cutting calculator from: http://www.kelco.com.au/paddle-trimming-calculator-2

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