

C15 INLINE FLOW SWITCH

FEATURES

- Choice of two electrical modules
- Very high pressure rating
- Low head loss design
- Fully serviceable
- Spare parts available
- Weatherproof

The C15 Inline flow switch is compact magnetically actuated piston flow switches that switch in response to low fluid flows. They are ideal for many types of pressure boosting and control applications in both hot and cold liquids.



CONSTRUCTION

The C15 flow switch consists of an electrical switching module that saddles a one-piece Brass body. The electrical modules fitted to the C15 inline flow switch is easily removed without disturbing pipe work, and can be reversed or rotated and positioned to suit tight locations. The switch can handle flows up to 30 Litres per minute (water), and can tolerate static or dynamic pressures to 100 Bars (1470PSI) with a 4 to 1 safety factor.

INSTALLATION

The C15 inline flow switch can be positioned in any orientation in pipework. In vertical piping, flow can be either upward or downward through the switch with very little difference in sensitivity. This flow switch is suitable for use with hot or cold liquids up to 90°C. Systems can be steam sterilized at 100°C for short periods without damaging the switch.

SWITCH POINT DATA

Switching point and sensitivity to flow depends on the orientation of the switch, liquid velocity, viscosity and piston clearance. To give users as wide a choice as possible, a non-magnetic piston retainer is supplied with the C15 flow switch. With the switch mounted vertically and with flow passing upward through the switch, the non-magnetic piston retainer reduces the switch on flow rate by a factor of 2. That is, it makes the switch approximately twice as sensitive to flow.

HAZARDOUS APPLICATIONS

The -B version of the C15 inline flow switch can be used in hazardous areas. They are classed as simple devices as they do not contain components capable of storing or producing an electric charge. As simple devices the switches can be used in hazardous applications provided they are isolated by an intrinsically safe barrier.

Standard Switch (as supplied) installed horizontally or vertically and with the magnetic piston retainer fitted

Switch installed vertically with flow passing upward through the switch body and with the non-magnetic piston retainer fitted.

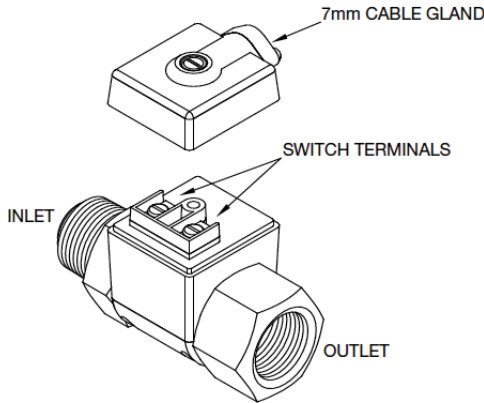
Switching Point on a Slowly Increasing Flow	Switching Point on a Slowly Decreasing Flow	Switching Point on a Slowly Increasing Flow	Switching Point on a Slowly Decreasing Flow
0.35 Litres per Minute	0.30 Litres per Minute	0.15 Litres per Minute	0.10 Litres per Minute

Note : Maximum recommended flow rate through the C15 flow switch is 30 Litres per Minute

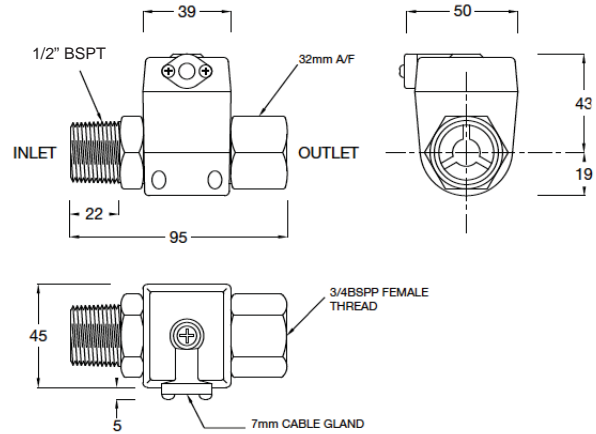
Note: The data shown in the tables above refers to water at ambient temperature as the test medium. Increasing fluid viscosity will decrease the switch on points. Decreasing the fluid viscosity will proportionally increase the switch on points.

C15

GENERAL LAYOUT



DIMENSIONS



ELECTRICAL DATA

Sensor Model	Module Type	Contact Configuration Maximum	Switched Power Maximum	Switched Voltage Resistive AC (rms)	Switched Current	Inductive Loads	Typical Application
B	Dry Contact Reed Switch	S.P.S.T NO or NC	40 Watts	240V AC 200V DC	1 Amp Maximum	Not Suitable	PLC Telemetry and Relay Logic circuits
R	Solid State Relay	S.P.S.T NO or NC	750 Watts	240V AC	4 Amps Maximum	4 Amps at 240V AC	AC control circuits & AC motor control

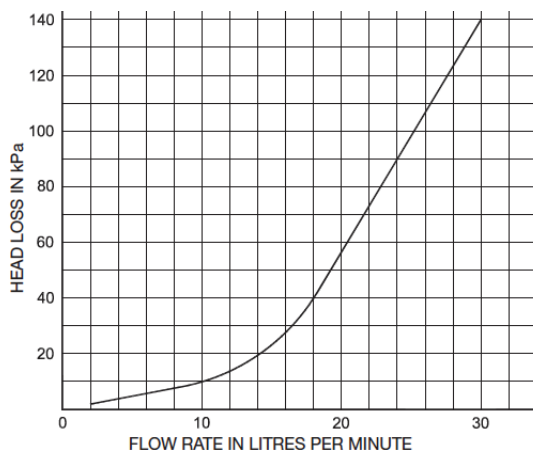
Note: The switched power of the C15-R module given above refers to a switch operating in a water pipe system at ambient temperature. In hot water applications the switched power must be proportionally reduced to avoid overheating the Triac. At the top operating temperature of 90°C the switched power must not exceed 375 Watts. The C15-B modules do not require de-rating at elevated temperatures.

AVAILABLE MODELS

MODEL	DESCRIPTION
C15-B	Dry Reed Switch. S.P.S.T NO. 40 Watt. 240VAC, 200VDC. 1 Amp Max. Suitable for PLC, Telemetry and Logic circuits.
C15-B-D	Diesel Compatible Dry Reed Switch. S.P.S.T NO. 40 Watt. 240VAC, 200VDC. 1 Amp Max. Suitable for PLC, Telemetry and Logic circuits.
C15-R	Solid State Relay. S.P.S.T Normally Open. 1.1kW. 5 to 250VAC. 10mA Min, 5 Amps Max. Suitable for inductive loads.

Please note: Subject to 120 piece minimum order quantities, Stainless body and NPT thread versions of the above models are available.

HEAD LOSS VERSUS FLOW RATE



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