

UB25 SUPER SENSITIVE IN LINE FLOW SWITCH

FEATURES

- Suites 25NB (1 inch) Pipes
- Versatile all position mounting
- 200 Bar 2900 PSI Pressure rating
- Switches at very low flows
- IP67 Weatherproof housing
- Solid machined metal body
- High flow through rating
- Handles liquids up to 90°C

APPLICATIONS

- Hot and cold water pressure boosting
- Gravity hot water system control
- Hot water circulation actuation
- Safety shower alarm sentinel
- Wash down pump control
- Solar hot water control
- Mains pressure boosting

CONSTRUCTION

The body of the UB25 flow switch is machined from solid Stainless Steel. The piston is glass reinforced Polypropylene for water applications or Nylon for oil applications. The piston return mechanism and the electrical switching action within the switch are achieved using high power magnets operating through the solid body of the switch. The electrical housing is hose-proof & weatherproof, and is supplied with a 20mm cable gland, for conduit or cable entry. The switch has 25mm 1" BSPT male Inlet and 1" BSPT female outlet. Three electrical modules are available to suit the UB25 flow switch. Details of these options are set out in the table below.

DESCRIPTION

The UB25 series inline flow switches are magnetically actuated piston style sensors that switch in response to very low fluid flows. They are ideal for all types of pressure boosting pump control and for the control of commercial or domestic hot and cold water systems. They find application in monitoring industrial safety showers and in many applications where extreme reliability is paramount. The UB25 series flow switches are also ideal for constant pressure pump control.



OPERATING PRINCIPLE

The Metal body of the UB25 flow switch houses a free sliding piston. Any flow, either pulsed or continuous, causes the piston to be pushed back within the switch body to a point where liquid can pass around it and out of the switch. When pushed back by flow, the piston actuates a magnetically linked switch. When flow stops, the piston is pushed back to the off position by magnetic repulsion. There are no springs in the wet area of the switch, and the magnetically isolated piston provides an exceptionally reliable mechanism. The UB25 flow switches can be mounted in any orientation including upside down, in either horizontal or vertical pipework.

ORDERING

UB25 - B - D

Model

B = S.P.S.T NO Reed Switch
C = S.P.D.T NO / NC Reed Switch
R = S.P.S.T NO Solid State Relay

Blank = Standard
D = Dieseline Model

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

UB25

ELECTRICAL DATA

MODEL	MODULE TYPE	CONTACT CONFIGURATION	SWITCHED POWER MAXIMUM	SWITCHED VOLTAGE MAXIMUM	SWITCHED CURRENT RESISTIVE AC (RMS) MAXIMUM	INDUCTIVE LOADS (POWER FACTOR 0.4)	TYPICAL APPLICATION
UB25-B	Dry Reed Switch	S.P.S.T.N.O	40W	240V AC 200V DC	1 Amp	Not Suitable	PLC and General Control Circuits
UB25-C	Dry Reed Switch	S.P.D.T. Break Before Make	20W	140V AC 150V DC	1 Amp	Not Suitable	PLC Control and Safety Showers
UB25-R	Solid State Relay	S.P.S.T.	750W	12 TO 240V AC	Spike to 40 Amp	4A at 240V AC	AC Control Circuits and AC Motor Control to a Maximum of 1 HP, 0.75KW

OPERATING PARAMETERS

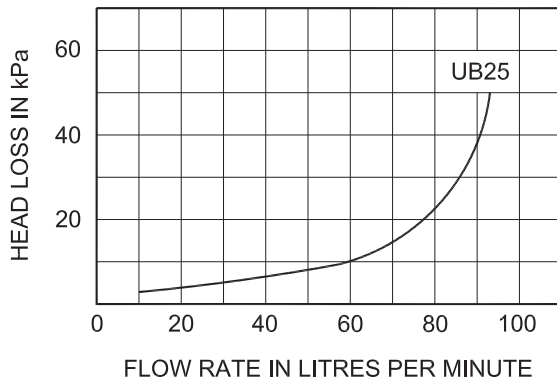
The UB25 flow switch is supplied as standard fitted with a magnetic piston retainer that allows the switch to be oriented in any required position in pipework. In vertical pipe work flow can be either upward or downward through the switch.

In addition to the standard magnetic piston retainer, a non-magnetic piston retainer is also supplied with each switch. When the non-magnetic piston retainer is fitted to the switch, the switch must be oriented vertically with flow passing upward through its body. When set up this way the flow rate required to actuate the switch will be approximately 6.5 times lower than it is with the magnetic piston retainer fitted. The non-magnetic piston retainer is commonly used to enhance the sensitivity of the switch in gravity head applications such as boosting water pressure in gravity fed hot water systems.

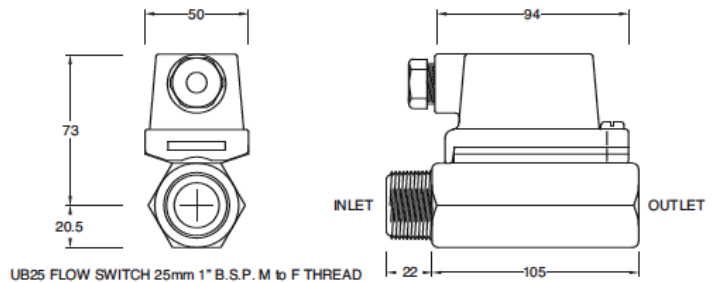
The table below sets out the main operating limitations of the UB25 flow switch.

Standard UB25 Flow Switch	As Supplied Standard with Magnetic Piston Retainer Fitted)	With Non-Magnetic Piston Retainer Fitted
Switching Point on a Slowly Rising Flow +/-15%	1.5 L/min.	0.23 L/min.
Switching Point on a Slowly Falling Flow +/- 15%	1.2 L/ min.	0/18 L/min.
Minimum Gravity Head Required to Actuate the Switch	1.5 Metres	
Maximum Recommended Continuous Flow (Water)	100 L/min	
Maximum Recommended Operating Pressure, Static or Dynamic	200 Bars (2900 PSI)	
Minimum Burst Pressure	400 Bars (5800 PSI)	
Maximum Liquid Temperature	90°C	
Minimum Liquid Temperature	-20°C	
Ingress Protection Rating (Weatherproof Rating)	IP67	

HEAD LOSS GRAPH



DIMENSIONS



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