

UB SERIES SUPER SENSITIVE INLINE FLOW SWITCHES



FEATURES

- SUITS 20NB (3/4") OR 25NB (1") PIPEWORK
- VERSATILE ALL POSITION MOUNTING
- 200 BAR 2900 PSI PRESSURE RATING
- SWITCHES AT VERY LOW FLOWS
- IP67 WEATHERPROOF HOUSING
- SOLID MACHINED BRASS BODY
- HIGH FLOW THROUGH RATING
- HANDLES LIQUIDS TO 90°C

APPLICATIONS

- HOT & COLD WATER PRESSURE BOOSTING
- GRAVITY HOT WATER SYSTEM CONTROL
- HOT WATER CIRCULATOR ACTUATION
- SAFETY SHOWER ALARM SENTINEL
- WASH DOWN PUMP CONTROL
- SOLAR HOT WATER CONTROL
- MAINS PRESSURE BOOSTING

DESCRIPTION

The UB 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 UB series flow switches are also ideal for constant pressure pump control.

OPERATING PRINCIPLE

The solid brass body of the UB 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 UB flow switches can be mounted in any orientation including upside down, in either horizontal or vertical pipework.

CONSTRUCTION

The body of the UB flow switch is machined from solid brass. The piston is glass reinforced polypropylene. 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 hoseproof & weatherproof, and is supplied with a 20mm cable gland, for conduit or cable entry. All of the parts of the UB flow switch are available as spare parts. The switch is supplied as standard in either 20mm $\frac{3}{4}$ " B.S.P. (model UB20) or 25mm 1" B.S.P. (model UB25). All models have a male inlet thread and a female outlet thread. Four electrical modules are available to suit the UB flow switches. Details of the various options are set out in the accompanying table.



TECHNICAL DATA

ELECTRICAL DATA

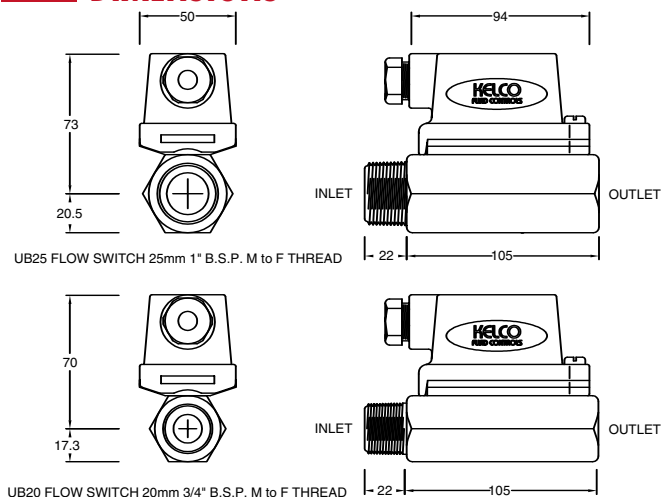
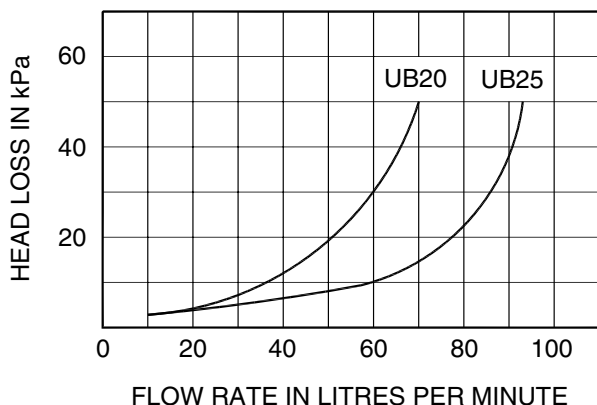
MODEL	Module Type	Contact Configuration	Switched Power Maximum	Switched Voltage Maximum	Switched Current Resistive AC (rms) Maximum	Inductive Loads (Power Factor 0.4)	Typical Application
UB20-B UB25-B	Dry Reed Switch	S.P.S.T. N.O	40W	240V AC 200V DC	1A	Not Suitable	PLC and General Control Circuits
UB20-R UB25-R	Solid State Relay	S.P.S.T. N.O	1500W	12 to 240V AC	Spike to 40A	8A at 240V AC	AC Control Circuits and AC Motor Control to a Maximum of 2 HP1.5kW in Cold Water <40°C. 1HP 0.75kW in Hot Water>40°C.
UB20-A240 UB25-A240	Standard Relay 240V AC Coil	S.P.D.T.	2500VA at 250VAC 300VA at 30VDC	0 to 240 V AC	10A	7.5A at 240V AC 5A at 30V DC	General AC or DC Control (Motors to 0.75kW 1HP Maximum)
UB20-A24 UB25-A24	Standard Relay 24V AC Coil	S.P.D.T.	2500VA at 250VAC 300VA at 30VDC	0 to 240V AC	10A	7.5A at 240V AC 5A at 30V DC	General AC or DC Control (Motors to 0.75kW 1HP Maximum)

OPERATING PARAMETERS

The environmental limitations and the main performance parameters of both the UB20 and the UB25 flow switches are set out in the table below.

MODEL	UB 20	UB25
Switching Point on a Slowly Rising Flow +/-15%	0.25 Litres per Minute	1.5 Litres per Minute
Switching Point on a Slowly Falling Flow +/-15%	0.2 Litres per Minute	1.2 Litres per Minute
Minimum Gravity Head Required to Actuate the Switch	1.2 Metres	1.2 Metres
Maximum Recommended Continuous Flow (Water)	65 Litres per Minute	90 Litres per Minute
Maximum Recommended Operating Pressure, Static or Dynamic.	200 Bars (2940 PSI)	200 Bars (2940 PSI)
Minimum Burst Pressure	400 Bars (5800 PSI)	400 Bars (5800 PSI)
Maximum Liquid Temperature	90°C	90°C
Minimum Liquid Temperature	-30°C	-30°C
Liquid Ph range	6.8 to 8	6.8 to 8
Ingress Protection Rating (Weatherproof Rating)	IP67	IP67

DIMENSIONS



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