



MF20 MICRO FLOW SWITCHES

- Detects flows of less than 350ml /hour
- Suits tubes & pipes 6 to 20mm (1/4"to3/4") dia.
- No metal parts in contact with liquids
- Suits pulsed or continuous flows
- 18 bar (260 psi) pressure rating
- Stable electrical response
- Very high flow through

Applications

- Control for backup dosing pumps
- Chemical metering pump control
- Vapour & gas flow detection
- Loss of prime detection
- Batch control



DESCRIPTION: The MF20 micro flow switch is a super sensitive version of our popular P20 in line flow switch. The MF20 is a very simple and reliable mechanical flow switch that can detect extremely low flows; the switch can detect either continuous or pulsed flows. Typical applications include monitoring chemical metering pumps to ensure they are delivering flow, in water treatment, cooling towers and in a multitude of industrial processes. The MF20 flow switch gives a simple on or off response to liquid flow. There are no metal parts in contact with liquids within the switch, so the MF20 is ideal for use in aggressive media such as acids and alkalis and many chemical solutions. The standard switch is supplied complete with tube flare fittings, for 3 popular tube sizes, and a set of pipe spigots and unions, for direct fitting into 15NB PVC or ABS pipe work. In addition, a number of electrical options are available. These include electrical modules with single and multiple reed switches, relays with various coil voltages, and solid-state switches.

OPERATING PRINIPLE The body of the MF20 flow switch houses a fluted piston. Any flow, either pulsed or continuous, causes the piston to be lifted up within the switch body to a point where the liquid can pass over the piston and out of the top of the switch. The piston contains a magnet that actuates a reed switch and this provides the switching output. When flow stops, the piston sinks due to gravity, thus moving the magnet within away from the reed switch. No metal parts are in contact with the process liquid, and the simple gravity return system provides an exceptionally reliable corrosion proof mechanism. The sensitivity of the flow switch is determined by the viscosity of the fluid and by the clearance between the piston and the switch body. Three pistons are supplied with each MF20 flow switch, with accurate and predictable switch points ranging from 0.32 litres per hour to 12.8 litres per hour. The MF20 flow switch must be mounted vertically with flow upward through the switch body. The switch can be mounted directly on the suction or discharge valve of a metering pump.

CONSTRUCTION: The Micro flow MF20 flow switch is available in a variety of materials of construction, for specific chemical applications. The standard switch is made from glass-reinforced polypropylene with EPDM O-ring seals. These are the only materials that come in contact with liquids passing through the switch. A high power rare earth magnet operating through the solid body of the switch actuates the MF20 electrically. The electrical housing is weatherproof to IP67, and is supplied with an integral 20mm cable gland, for conduit or cable entry. The electrical circuit boards used in the switch are interchangeable, and all of the parts of the MF20 flow switch are available as spare parts.

Available from:

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