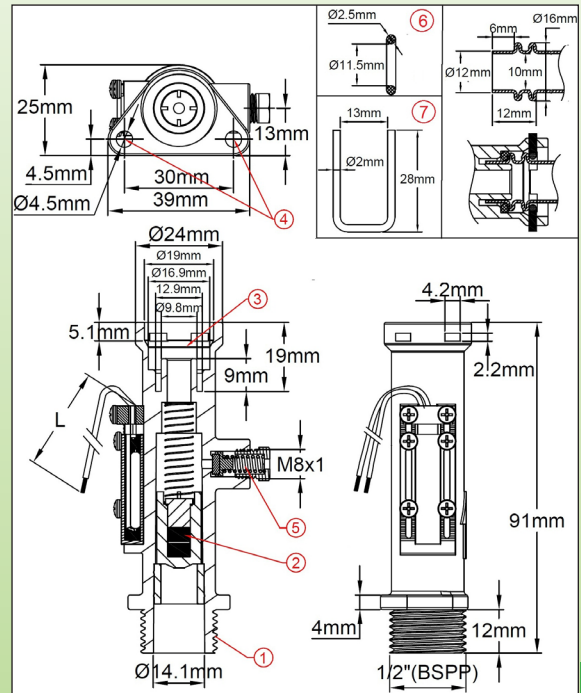
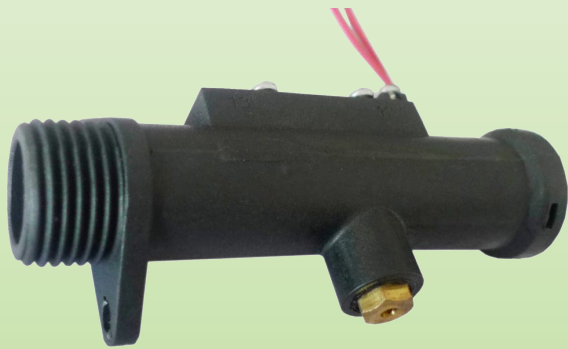


Piston flow switches, reed switch contact, 1/2" BSPP male thread, and snap-on connection for DN10 or 12.7 OD copper tube, Type: R3F

| Pressure and size | Flow sensing: Magnetic piston | Mounting: 1/2" male thread and snap-in dia. 10 mm | Contact: Reed switch, close on flow rise | Electrical rating | Mounting position | Type |
|-------------------|----------------------------------|--|---|---|-------------------|------------|
| PN10 DN10 | | | | $\leq 1A$ $\leq 70W$ $\leq 250V_{\sim}$ | | R3F |



- 1: 1/2" BSPP Water inlet
- 2: Flow detection piston
- 3: DN10 Water outlet
- 4: Mounting bracket
- 5: Over pressure valve
- 6: O-ring
- 7: Snap-on spring

Main applications: Product developed for electrical or gas instantaneous water heaters. Water inlet is done directly by the 1/2" BSPP male thread. Mandatory vertical mounting, with water inlet from the bottom. Connection to internal copper piping DN10 with quick coupling. **Built-in overpressure valve**

Functional principle: Magnetic piston mounted in line with the flow and activating a reed switch through the wall. The return of the piston is by made by spring. No seal or liquid can pass between the piping system and the electrical contact. Suitable for potable water. Must not be used for water containing magnetic particles or high viscosity liquids, which block the movement of the piston.

Adjustment: Can be factory set by adjusting the spring force and/ or changing the piston diameter

Body material: PPO compatible with drinking water.

Piston: PPO

Spring: 304 stainless steel

Electrical rating: Max 1A, Max 70W, Max 250V, resistive load. Use on inductive circuits reduces electrical rating. We recommend to protect the reed switch with contact protection device when used in inductive loads

Electric contact type: Normally open, closes by flow rise

Liquids compatibility: For use with clean water and liquids without magnetic particles and without chemical incompatibility with PPO and stainless steel

Nominal pressure at 20°C: 1MPa (PN10)

Flow detection set point factory setting limits:

Close by flow rise: 4 to 12 L/min

Open by flow decrease: About 0.4 to 0.5L/min lower than close value

Nominal diameter: DN8-DN10

Mandatory mounting position: on vertical pipes, upstream flow

Water pipe connection:

- Water inlet: on male 1/2" fitting with gasket with 2 anti-rotation lugs. recommended torque 5N.m

- Water outlet: fast-on connection with O-ring and clips on DN10 beaded copper tubes. OD 12 to 12.7 mm

Liquids temperature range: 5 to 80°C

Ambient temperature range: 5 to 50°C

Overpressure valve calibration value: 1.5 MPa +0.5, -0

Ingress protection: IP65

Electrical connection: 2 x AWG24 wires (0.2 mm²), PVC insulation, T80°, standard length 300 mm.

Options (MOQ apply): cable with connector or terminals, other cable length, other calibration values. On request it is possible to produce these models with upside water inlet

Important note: Standard copper tube diameters for building applications (Water and gas) are given by the EN1057 standard, which defines the nominal diameter (DN) as the inside diameter. Copper tubes for applications in air conditioning and refrigeration are described in EN 12735-1 and those for vacuum and medical gases are described in EN 13348. The EN127357 standard defines the copper tubes for refrigeration with diameters in inches.

Copper tubes are often described in France by the outside diameter followed by the thickness in mm.

Main references (with 300 mm wires)

| References | Close on flow rise (L/min) | Open on flow decrease (L/min) |
|------------------|----------------------------|-------------------------------|
| R3FA670400150330 | 4 ±0.2 | 1,6±0.2 |
| R3FA670600150330 | 6±0.25 | 2±0.25 |
| R3FA670800150330 | 8±0.3 | 2,5±0.3 |

Other calibration on request

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

