

Compact Flow Switch

Continuous Monitoring of Flow Rates with No Wetted Metals



Features:

- Ideal for confirming operation of pressure relief, regulating or actuated valves.
- Flow switch performance Independent of pressure and temperature.
- Customizable design.
- Extremely Wide Operating Range: .7 – 25 GPM
- Higher flow rates/pipe sizes available on special order.
- Maximum flow may be five times normal flow.
- Positive stop essentially eliminates fatigue effects of turbulence, vibration and flow surge on flow detecting element.
- Very low pressure drop - typically less than 1.0 psig at normal flow rate.
- Accuracy $\pm 10\%$ with $\pm 5\%$ repeatability.
- Nema 4 design.
- Switches 5 VDC to 240 VAC.
- Provides dry circuit interface with computer and PLC modules.
- Small size and low profile provides easy mounting in crowded installations.

Ordering Information

| | | | | | | | | |
|----------------------------|------------------|------------|------------------------|-------------------------|------------------------------|---------------------|---------------------------|----------------------------------|
| Example: | FS | 075 | A | C | A | E | -PV | -1 |
| <u>Series FS</u> | <u>Pipe Size</u> | | <u>Blade</u> | | <u>Electrical Connection</u> | | <u>Material</u> | <u>Length of Cable (in feet)</u> |
| Non-Adjustable Flow Switch | 075 = 3/4" | | A = 3 | | A = Spade/Conduit | | PV = PVC | 1, 2, 3 . . 9 |
| | 100 = 1" | | B = 4S | | B = Potted Cable | | CP = CPVC | |
| | 150 = 1 1/2" | | C = 6S | | C = Tapered Grommet | | | |
| | 200 = 2" | | D = 4L | | D = Conduit | | | |
| | 250 = 2 1/2" | | | | | | | |
| Special Order | 300 = 3" | | | <u>Switch Operation</u> | | <u>Grommet Size</u> | (for tapered option only) | |
| | 400 = 4" | | | C = Closed | | A = 0.25 | | |
| | 500 = 5" | | | O = Open | | B = 0.30 | | |
| | 600 = 6" | | | | | C = 0.37 | | |
| | 800 = 8" | | | | | D = 0.50 | | |
| | | | (see chart on reverse) | | | E = None | (for all other options) | |



Compact Flow Switch

Specifications

Electrical Switch Characteristics

SPNO/SPNC

AC Voltage (maximum switching): 300 VAC

DC Voltage (maximum switching): 350 VDC

Current (maximum switching-DC): 0.5 amp

Current (maximum carrying-DC): 2.5 amp

Power (maximum resistance load): 50 watts

Contact resistance (maximum initial): 0.15 ohms

Insulation resistance: 1010 ohms
SPDT, 3 Watt, 100 VAC/VDC optional

Pressure/Temperature

Maximum Pressure 150 PSI/10.3 Bar

Max. Temperature PVC 140°F/60°C

Max. Temperature CPVC 180°F/82°C

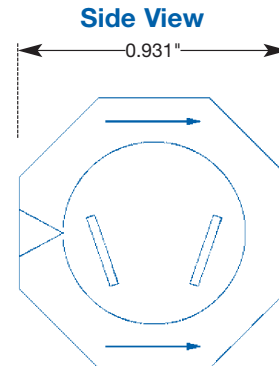
Materials of Construction

Wetted materials are PVC or CPVC as specified; PFA, and EPOCAP 16505 Epoxy. Non-wetted materials include ferrite magnet and reed switch (fully encapsulated in body material), and steel bending beam target (PFA coated).

Inductive Loads:

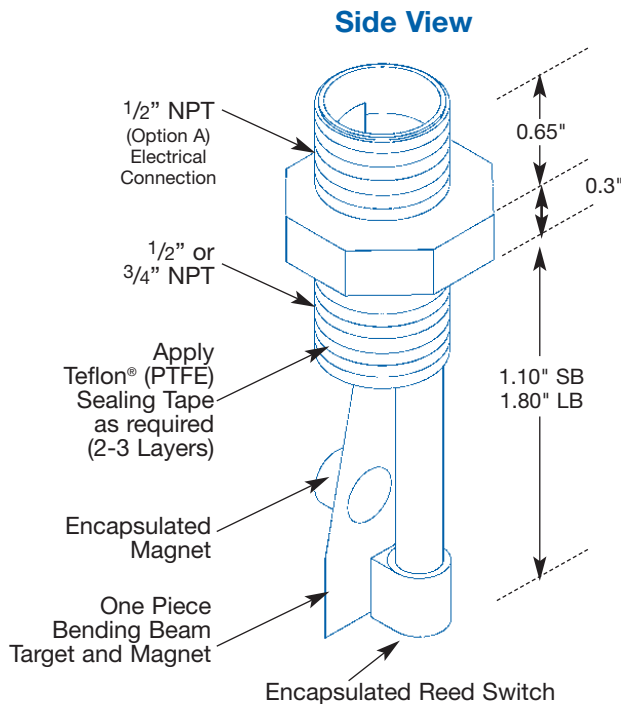
Switch contacts have been tested with small relays and 30 amp J-C relay inductive driving coils at 120/240 VAC to 500,000 operations without failure.

Note: Employs magnetic coupling between float arm and switch body. Magnetic particles can accumulate on and around magnetic housing which may affect proper operation. Please conduct appropriate fluid magnetic particle evaluation and operational tests prior to and during installation and use.



- Pressure drop typically less than 1.0 psi at rated flow
- Mount in any position

Diagram and Dimensions



Ordering Information

| Pipe Size | GPM | Body | Blade* | GPM | |
|-----------|------|--------|--------|------|------|
| | | | | On | Off |
| 0.75 | Low | SB 3/4 | 3 | 0.9 | 0.8 |
| | Med | SB 3/4 | 4S | 2.0 | 1.0 |
| | High | SB 3/4 | 6S | 4.0 | 3.0 |
| 1 | Low | SB 3/4 | 3 | 1.0 | 0.8 |
| | Med | SB 3/4 | 4S | 3.0 | 2.0 |
| | High | SB 3/4 | 6S | 6.0 | 5.0 |
| 1.5 | Low | LB 3/4 | 4L | 3.0 | 2.5 |
| | Med | LB 1/2 | 4S | 13.0 | 12.0 |
| | High | LB 1/2 | 6S | 19.0 | 17.0 |
| 2 | Low | LB 3/4 | 4L | 4.5 | 4.0 |
| | Med | LB 1/2 | 4S | 20.0 | 18.0 |
| | High | LB 1/2 | 6S | 25.0 | 20.0 |

* The number = the mil thickness of the blade and letter is S = short, L = long. For example, 4S is a 4 mil short blade.

On/Off is estimated in schedule 80 reducing tee.

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PLAST-O-MATIC
VALVES, INC.

1384 Pompton Avenue, Cedar Grove, NJ 07009-1095

(973) 256-3000 • Fax (973) 256-4745

www.plastomatic.com • info@plastomatic.com