Flow Sensor
For Water and Water Based Liquids/Oil and Oil-Based Liquids

Series FMS Flow Sensor FMS-1 is for applications requiring RELATIVE measurement and set-point of flow rate. This means that the actual velocity of the flow or the quantitative measurement in GPM is not known and is not important. What is important is that the set-point can be set as a “percentage of” or “relative to” the full flow rate. No other flow sensor could do it this simply or effectively.

How It Operates
The model FMS uses a set of flashing LED’s to indicate flow. All 7 of the LED’s will remain lit to show 100% flow rate. The flow OK light will also be lit showing that the established full flow rate is what is flowing in the pipe. When you initially set the flow rate, it will mark that as your 100% mark. If your flow reduces below the 50% mark, you will get an alarm from the sensor. If flow increases beyond the initially established flow rate, the “Overflow” LED light will come on.

SPECIFICATIONS
Service: Water and water based liquids/oil and oil-based liquids.
Wetted Materials: Sensor head: 303 SS.
Low Flow Set Point: Auto set @ 50% adjustable via “set” push button.
Set Point Range: 5.0 ft/s (0-150 cm/s).
Repeatability: <0.5%.
Hysteresis: 10% of set-point value typical.
Medium Temperature Limits: -4 to 176°F (-20 to 80°C).
Pressure Limit: 450 psi (30 bar).
Response Time: 25 seconds (typical).
Switching Current: < 200 mA.
Power Consumption: 6 W max.
Electrical Connection: M12 male 4-pin. Comes with 6.5 ft (2 m) cable with M12 connector and pigtail.
Process Connection: 1/2˝ male NPT.
Enclosure Rating: NEMA 4 (IP56).
Initial Operation: After 15 seconds.
Switch Type: PNP NO (switch closed with flow), PNP NC (switch open with flow).
Weight: .55 lb (.25 kg).

PVC Shuttle Flow Switch
Low Cost Flow/No Flow Monitoring, Visual Flow Indication, Broad Chemical Compatibility

The transparent Series P5 Shuttle Flow Switch features corrosion resistant, durable PVC housing for visual confirmation in flow/no flow applications. The switches have preset actuation points from 0.5 to 2.0 GPM for actuation on increasing flow. Switching is SPST NO flow. Choose from 1/2˝ NPT or 3/4˝ IPS (for 0.5 GPM) or 1˝ IPS (for 2.0 GPM) inlet and outlet ports. The shuttle design has only one moving part for long life and minimum maintenance. Remove the one-piece bonnet and shuttle assembly to quickly clean the unit without disturbing the housing or piping. Rugged construction and excellent chemical compatibility simplify flow/no flow detection.

SPECIFICATIONS
Service: Compatible liquids.
Wetted Materials: Housing, shuttle and bonnet: PVC; O-ring: Buna-N; Epoxy.
Temperature Limits: 120°F (49°C).
Pressure Limit: 120 psig (8.2 bar) @ 70°F (21°C) to 100°F (38°C), 50 psig (3.45 bar) @ 101°F (38.3°C) to 120°F (49°C).
Accuracy: ±20% of set point.
Repeatability: ±1%.
Switch Type: SPST, NO.
Electrical Rating: 17A @ 120 VAC, .08A @ 240 VAC, .13A @ 120 VDC, .06A @ 240 VDC.
Electrical Connection: 22 AWG, 24˝ (61 cm), PVC lead wire.
Process Connection: 1/2˝ female NPT, 3/4˝ IPS or 1˝ IPS.
Required Filtration: 150 microns or better.
Mounting Orientation: Vertical, inlet facing down.
Weight: 6 oz (.17 kg).
Agency Approvals: CE.