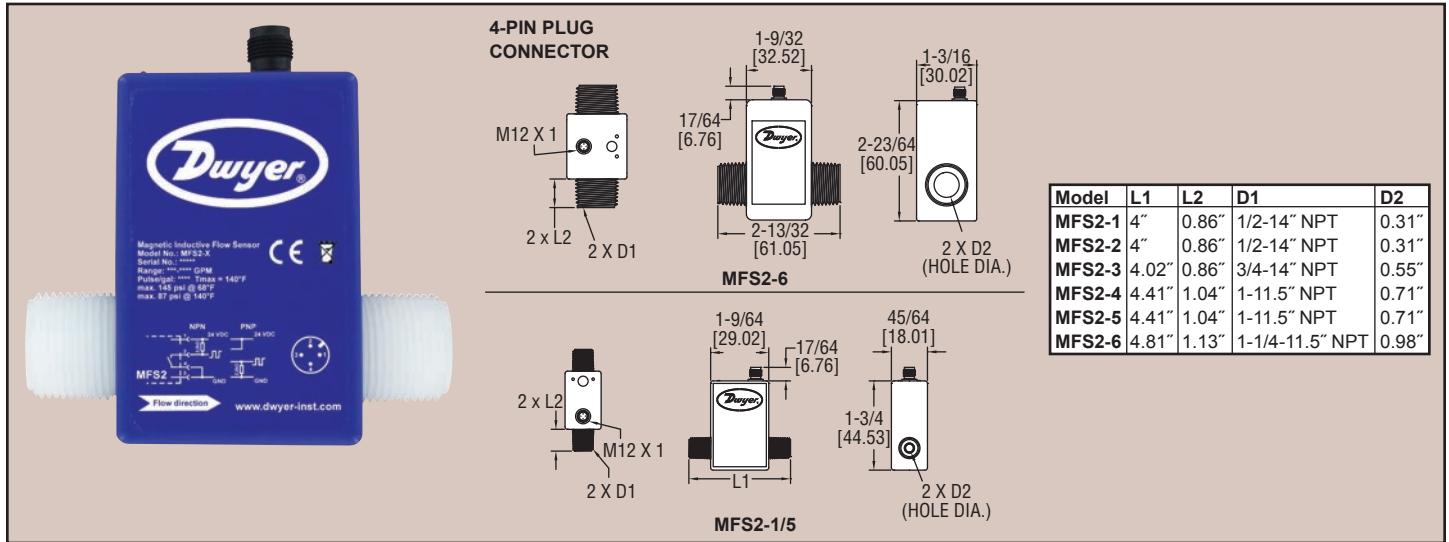




Series
MFS2

Magnetic Inductive Flow Sensor

Lower Cost PVDF Design, Frequency Output, ±1% Accuracy, Maintenance-Free



The Series MFS2 Magnetic Inductive Flow Sensor is a compact, lower cost plastic alternative to the Series MFS. Unlike sensors with moving parts, the MFS2 can be used in applications dealing with contaminated media. This series provides a reliable measuring technique, an obstruction free pipe cross-section, as well as a quick response time, making this series ideal for interference free operation. Any change in temperature, density, viscosity, concentration or electrical conductivity of the liquid, does not affect the output signal of this Magnetic Inductive Flow Sensor. This, in addition to its longlife cycle and PVDF process connection, makes this series perfect for accurate reversible gauging of volume flow of conductive liquids in closed piping.

Principles of Operation

The measuring pipe is in a magnetic field. If an electrically conductive medium with a certain flow passes through the pipe, it passes at a right-angle to the magnetic field, creating a voltage that is proportional to the average flow velocity and picked up by two electrodes within the MFS2. A frequency output signal is obtained that is proportional to the flow (analog output option available).

FEATURES

- No moving parts
- No mechanical wear
- Maintenance-free

| Model | Range GPM (LPM) | Process Connection |
|--------|---------------------------|--------------------|
| MFS2-1 | 0.07 to 1.3 (0.25 to 5) | 1/2" male NPT |
| MFS2-2 | 0.26 to 5.3 (1.0 to 20) | 1/2" male NPT |
| MFS2-3 | 0.66 to 13.2 (2.5 to 50) | 3/4" male NPT |
| MFS2-4 | 1.3 to 26.4 (5.0 to 100) | 1" male NPT |
| MFS2-5 | 2.6 to 52.8 (10 to 200) | 1" male NPT |
| MFS2-6 | 3.3 to 66.0 (12.5 to 250) | 1-1/4" male NPT |

ACCESSORIES

- MFS-C3, 4-Pin Cable Socket M12x1 Connect, 9.8 ft (3 m)
- MFS-C5, 4-Pin Cable Socket M12x1 Connect, 16.4 ft (5 m)
- MFS-C10, 4-Pin Cable Socket M12x1 Connect, 32.8 ft (10 m)



SPECIFICATIONS

Service: Compatible, non-coating, conductive liquids.

Range: See model chart.

Wetted Materials:

- Grounding Rings and Electrodes: 316 SS;
- Process Connections: PVDF;
- O-rings: EPDM.

Accuracy: ±1% of reading.

Repeatability: 1%.

Temperature Limits:

- Process: 14 to 140°F (-10 to 60°C);
- Ambient: 41 to 140°F (5 to 60°C).

Pressure Limits:

- 145 psi (10 bar) @ 68°F (20°C);
- 116 psi (8 bar) @ 104°F (40°C);
- 87 psi (6 bar) @ 140°F (60°C).

Response Time: < 100 ms.

Power Requirements: 24 VDC ±15%.

Power Consumption: 0.6 W.

Output: Frequency: Square-wave, NPN or PNP.

Flow Indication: LED green, flow proportional blinking.

Enclosure Rating: IP65.

Enclosure Material: ABS plastic.

Process Connection: See model chart.

Electrical Connection: Plug connector M12x1.

Conductivity: > 20 µS/cm min.

Weight:

- MFS2-1, -2, -3, -4, -5: 8 oz (226.8 g);
- MFS2-6: 1 lb (0.45 kg).

Agency Approvals: CE.

FLOW

Flow Transmitters,
Electromagnetic, In-Line