

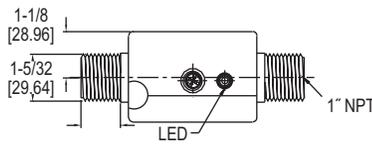
# MAGNETIC INDUCTIVE FLOW SENSORS

No Moving Parts, Frequency and 4-20 mA Output, Maintenance-Free

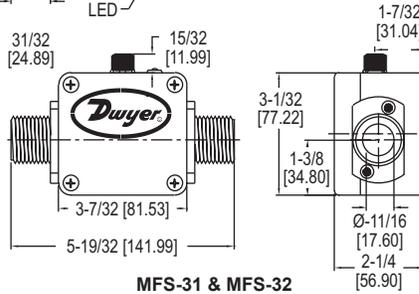


MFS

Model	L1	L2	D1	D2
MFS2-1	4"	0.86"	1/2-14" NPT	0.31"
MFS2-2	4"	0.86"	1/2-14" NPT	0.31"
MFS2-3	4.02"	0.86"	3/4-14" NPT	0.55"
MFS2-4	4.41"	1.04"	1-11.5" NPT	0.71"
MFS2-5	4.41"	1.04"	1-11.5" NPT	0.71"
MFS2-6	4.81"	1.13"	1-1/4-11.5" NPT	0.98"



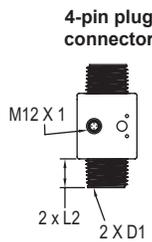
MFS-31 & MFS-32



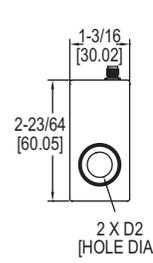
MFS-11 & MFS-12  
MFS-21 & MFS-22



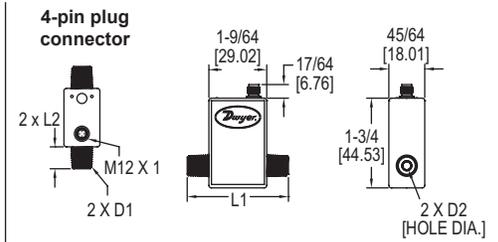
MFS2



MFS2-6



MFS2-1/5



The **Series MFS & MFS2 Magnetic Inductive Flow Sensors** are compact, 316 SS body, in line flowmeters with pulse and optional analog 4-20 mA output. It is available in a variety of flow ranges from 0.25 to 52.8 GPM (1 to 200 LPM) and process connection sizes of 1/2" and 1" NPT.

**FEATURES/BENEFITS**

- Long life cycle with no moving parts to wear or break
- Can be applied in applications dealing with contaminated media with no mechanical component in the flow
- Obstruction free pipe cross-section yields low pressure drop
- Unaffected by change in temperature, density, viscosity or concentration

**APPLICATIONS**

- Contaminated liquid flow monitoring
- Flow of conductive liquids
- Water & wastewater treatment
- Industrial systems
- Irrigation applications

**SPECIFICATIONS**

**Service:** Compatible, non-coating, conductive liquids.  
**Range:** See model chart.  
**Wetted Materials:** Electrodes: 316 SS; Process connections: MFS: 316 SS; MFS2: PVDF; Measuring pipe: MFS: PEEK-GF30; Gasket: EPDM.  
**Accuracy:** MFS: ±2% of reading; MFS2: ±1% or reading.  
**Repeatability:** 1%.  
**Temperature Limits:** MFS: Process: 32 to 194°F (0 to 90°C); Ambient: 41 to 158°F (5 to 70°C); MFS2: Process: 14 to 140°F (-10 to 60°C); Ambient: 41 to 140°F (5 to 60°C).  
**Pressure Limits:** MFS: 232 psi (16 bar); MFS2: 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:** MFS: < 500 ms; MFS2: < 100 ms.

**Power Requirements:** 24 VDC ±10%.  
**Power Consumption:** 0.6 W.  
**Output: Frequency:** Square-wave, NPN or PNP; Analog: 4-20 mA.  
**Loop Resistance:** 250 Ω.  
**Current Consumption:** Max 80 mA.  
**Minimum Conductivity of Medium:** 50 µS/cm.  
**Flow Indication:** LED green, flow proportional blinking.  
**Enclosure Rating:** NEMA 4 (IP65).  
**Process Connection:** See model chart.  
**Electrical Connection:** Plug connector M12x1.  
**Weight:** MFS-1X: 1.5 lb (0.68 kg); MFS-2X: 1.7 lb (0.77 kg); MFS-3X: 1.9 lb (0.87 kg); MFS2-1, -2, -3, -4, -5: 8 oz (226.8 g); MFS2-6: 1 lb (0.45 kg).

MODEL CHART				
Model	Range GPM (LPM)	Minimum Output Signal GPM (LPM)	Process Connection	Output
MFS-11	0.25 to 5.3 (1 to 20)	0.13 (0.5)	1/2" NPT	Frequency
MFS-21	0.5 to 10.5 (2 to 40)	0.25 (1)	1/2" NPT	Frequency
MFS-31	2.5 to 52.8 (10 to 200)	1.3 (5)	1" NPT	Frequency
MFS-12	0.25 to 5.3 (1 to 20)	0.13 (0.5)	1/2" NPT	Frequency & analog

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

ACCESSORIES	
Model	Description
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)



MFS-X 4 pin cable