



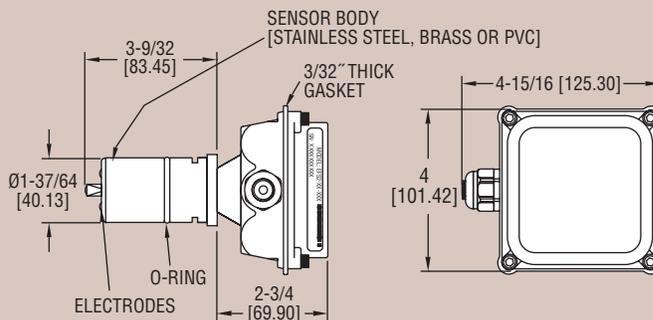
Series
EFS2

Insertion Electromagnetic Flow Sensor

No Moving Parts, Durable, Easy Installation & Maintenance



Scan here to watch product video



The Series EFS2 Insertion Electromagnetic Flow Sensor is designed for pipe sizes from 1 to 12" and comes in three different materials (stainless steel, brass and PVC). There are a variety of custom fittings to choose from to ensure accurate fitting in the pipe. The Series EFS2 is useful for any applications where moving parts would be a problem, such as dirty liquids. It can handle applications where there are rapid changes in viscosity and flow. Other applications include small pipes and chemical metering pumps.

PRINCIPLE OF OPERATION

The EFS2 is a liquid flow meter that uses the conductivity of fluids to measure flow rate. Liquid flow through its magnetic field produces a voltage that is measured and translated into an output signal. It has a pulse frequency output which can be used with the Series RTI to indicate flow rate and total, as well as the Series BAT signal converter which provides an analog signal.

APPLICATIONS

- Industrial process
- Chemical metering pumps
- Fertigation

ACCESSORIES

- Series BAT, Blind Analog Transmitter, converts pulse output to 4 to 20 mA analog output. Unit is loop powered, fits on the enclosure of the meter, and is fields spannable.
- Series RTI, Rate Total Indicator, converts pulse output to 4 to 20 mA analog output with local flow rate and totalization display. Unit is loop powered, fits on the enclosure of the meter, and provides a high/low flow alarm.
- Series PWD, Pulse Divider, for use with pacing electronic metering pumps. Unit divides the input frequency to any number from 1 to 9999 with the use of rotary switches to suit a number of metering pump inputs.

SPECIFICATIONS

Service: Compatible clean or dirty non-coating, conductive liquids.

Range: 0.28 to 20 ft/s (0.08 to 6.09 m/s).

Wetted Materials:

- Sensor: 316 SS, brass or PVC;
- Electrodes: Hastelloy®, metal;
- Electrode Cap: PVDF;
- O-ring: EPDM (fluoroelastomer optional).

Accuracy: ±1% FS.

Temperature Limits:

- Process: Brass/SS: 32 to 200°F (0 to 93°C); PVC: 32 to 130°F (0 to 55°C);
- Ambient: 0 to 160°F (-17 to 72°C).

Pressure Limits:

- Brass/SS: 200 psi (13.8 bar);
- PVC: 150 psi (10 bar).

Process Connection: See page reference **1** below.

Output: Current sinking, square wave pulse, opto-isolated, 550 Hz @ 20 ft/s.

Power Requirements: 12 to 25 VDC @ 250 mA; (12 to 25 VDC @ 40 mA (max. 250 mA) - LOP option).

Electrical Connection: Terminal block.

Conductivity: 20 microSiemens/cm.

Enclosure Material: Housing: Die-cast powder-coated aluminum.

Enclosure Rating: NEMA 4X (IP66).

Weight: 3 lb (1361 g).

Example	EFS2	1P	RFO	EFS2-1P-RFO
Series	EFS2			Insertion Electromagnetic Flow Sensor
Size/ Material		1P		1 to 3" Pipe, PVC
		1B		1 to 3" Pipe, Brass
		1S		1 to 3" Pipe, 316 SS
		2P		4 to 10" Pipe, PVC
		2B		4 to 10" Pipe, Brass
		2S		4 to 10" Pipe, 316 SS
		3P		12" Pipe, PVC
		3B		12" Pipe, Brass
		3S		12" Pipe, 316 SS
Options			RFO	Reverse Flow Output
			IMM	Immersible (*Urethane Potted Electrical Connection)
			FOR	Fluoroelastomer O-ring
			LOP	Low Power (12 to 25 VDC @ 40 mA) (max 250 mA)

Note: Need to purchase with Series EFF fittings for proper installation.

Stocked Model	Description	Pipe Size	Material
EFS2-1P	Insertion Electromagnetic Flow Sensor	1 to 3"	PVC
EFS2-1B	Insertion Electromagnetic Flow Sensor	1 to 3"	Brass
EFS2-1S	Insertion Electromagnetic Flow Sensor	1 to 3"	SS
EFS2-2B	Insertion Electromagnetic Flow Sensor	4 to 10"	Brass
EFS2-3B	Insertion Electromagnetic Flow Sensor	12"	Brass

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1 Process Connection: See page 213 (Series EFF)