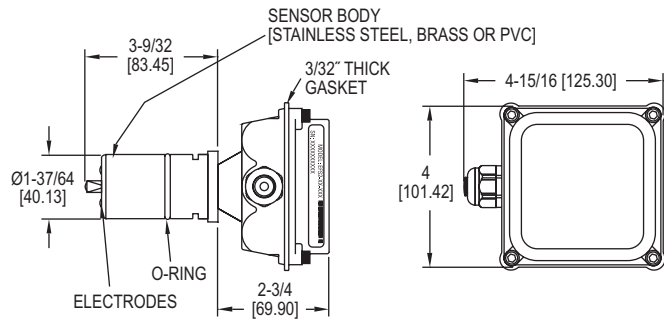


# INSERTION ELECTROMAGNETIC FLOW SENSOR

No Moving Parts, Durable, Easy Installation & Maintenance, 1 to 12" Pipe (25 to 305 mm)



The **SERIES EFS2** Insertion Electromagnetic Flow Transmitters is an economical, fixed insertion flowmeter designed for use with the Series EFF fittings and tees to fit in pipe sizes ranging from 1 to 12" (2.5 to 30.5 cm) pipes. This series provides a pulse rate output of the flow.

### FEATURES/BENEFITS

- Long life cycle and less frequent maintenance with no moving parts to wear or break and electrodes that discourage fouling
- Unaffected by change in temperature, density, viscosity or concentration
- Pulse output for use with a variety of displays and controllers for remote reading
- Easy meter mount display and transmitter accessories for local indication and analog 4 to 20 mA output

### APPLICATIONS

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

MODEL CHART				
Example	EFS2	-1P	-RFO	EFS2-1P-RFO
<b>Series</b>	EFS2			Insertion electromagnetic flow sensor
<b>Size/ Material</b>		1P 1B 1S 2P 2B 2S 3P 3B 3S		1 to 3" pipe, PVC 1 to 3" pipe, brass 1 to 3" pipe, 316 SS 4 to 10" pipe, PVC 4 to 10" pipe, brass 4 to 10" pipe, 316 SS 12" pipe, PVC 12" pipe, brass 12" pipe, 316 SS
<b>Options</b>			BAT RFO IMM FOR LOP	Blind analog transmitter Reverse flow output Immersible (urethane potted electrical connection) Fluoroelastomer O-ring Low power (12 to 25 VDC @ 40 mA) (max 250 mA)

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

MODEL CHART			
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

SPECIFICATIONS	
<b>Service:</b>	Compatible clean or dirty non-coating, conductive liquids.
<b>Range:</b>	0.28 to 20 ft/s (0.08 to 6.09 m/s).
<b>Wetted Materials:</b>	Sensor: 316 SS, brass or PVC; Electrodes: Hastelloy®, metal; Electrode Cap: PVDF; O-ring: EPDM (fluoroelastomer optional).
<b>Accuracy:</b>	±1% FS.
<b>Temperature Limits:</b>	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).
<b>Pressure Limits:</b>	Brass/SS: 200 psi (13.8 bar); PVC: 150 psi (10 bar).
<b>Process Connection:</b>	See page reference 1 below.
<b>Output:</b>	Current sinking, square wave pulse, opto-isolated, 550 Hz @ 20 ft/s.
<b>Power Requirements:</b>	12 to 25 VDC @ 250 mA; (12 to 25 VDC @ 40 mA (max. 250 mA) - LOP option).
<b>Electrical Connection:</b>	Terminal block.
<b>Conductivity:</b>	20 microSiemens/cm.
<b>Enclosure Material:</b>	Housing: Die-cast powder-coated aluminum.
<b>Enclosure Rating:</b>	NEMA 4X (IP66).
<b>Weight:</b>	3 lb (1361 g).

ACCESSORIES	
Series	Description
<b>BAT</b> ①	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 field spannable.
<b>RTI2</b> ②	Rate total indicator; converts pulse output to 4 to 20 mA analog output with local flow rate and totalization display; unit is loop powered, can fit on the enclosure of the meter, and provides a high/low flow alarm.
<b>PWD</b>	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. (See website)

USA: California Proposition 65  
 ⚠️WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Hastelloy® is a registered trademark of Hanes International  
 ①Process Connection: See page 318 (Series EFF)  
 ②See page 326 (Series BAT)  
 ③See page 326 (Series RTI)