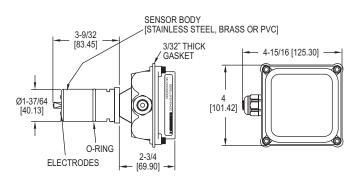


## INSERTION ELECTROMAGNETIC FLOW SENSOR No Moving Parts, Durable, Easy Installation & Maintenance, 1 to 12" Pipe (25 to 305 mm)





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		
Series	EFS2			Insertion electromagnetic flow sensor		
Size/		1P		1 to 3" pipe, PVC		
Material		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			BAT	Blind analog transmitter		
			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 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** 

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 • 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).

ACCES	ACCESSORIES				
Series	Description				
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 field spannable.				
RTI29	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.				
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. (See website)				

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

> Hastelloy® is a registered trademark of Hanes International **OProcess Connection: See page 318 (Series EFF) @**See page 326 (Series BAT) See page 326 (Series RTI)