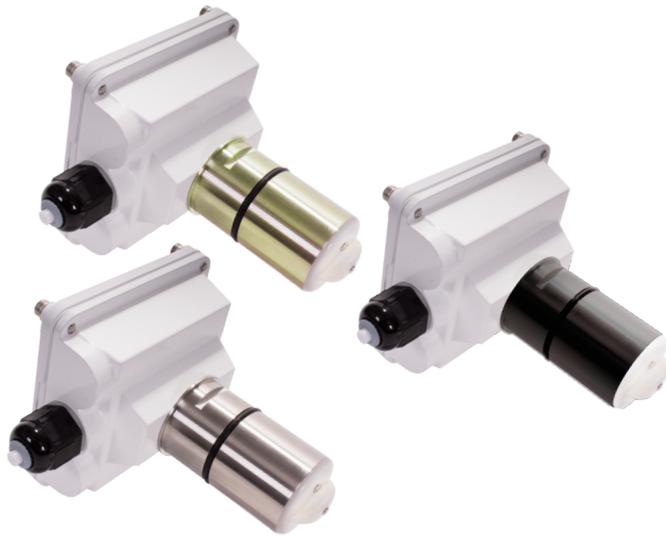


# EX800-SERIES

## INSERTION ELECTROMAGNETIC FLOW SENSOR



### APPLICATIONS

Conductive fluids

Small pipe applications  
(1" -12")

Industrial processes

Chemical metering pumps

Fertigation

### Features

- No moving parts
- Economical
- Durable
- Easy to install
- Easy to maintain

**EX800-Series** insertion electromagnetic flowmeters are designed for use with conductive liquids in 1 to 12" pipe. A choice of materials (stainless steel, brass, and PVC) allows the meter to adapt to a range of temperature, pressure, and corrosive environments.

The EX800 is highly suitable for difficult applications with changing viscosities and pulsating flows, such as air-driven diaphragm pumps. With no moving parts, these meters can be used in "dirty water" applications where debris would foul a mechanical meter. Like all magmeters, when used in chemical injection applications, these meters should be installed upstream of the chemical line (or far enough downstream to allow complete mixing of fluids before the meter).

Designed for modularity and versatility, the EX800-Series has a current-sinking pulse output that can be combined with the appropriate transmitter or indicator for the application. For basic rate/total and pulse output, the FT430 is best. For analog output and display of rate and total, the FT440 can be used. Blind analog output is provided by the AO55. The PD10 can be used to divide the pulse for pacing chemical metering pumps. Electronic modules can be wall- or meter- mounted. (Note: PD10 available only as wall-mounted unit.) If the EX800 meter is used with a programmable controller, the output signal can be fed direct, with no other conditioning required.

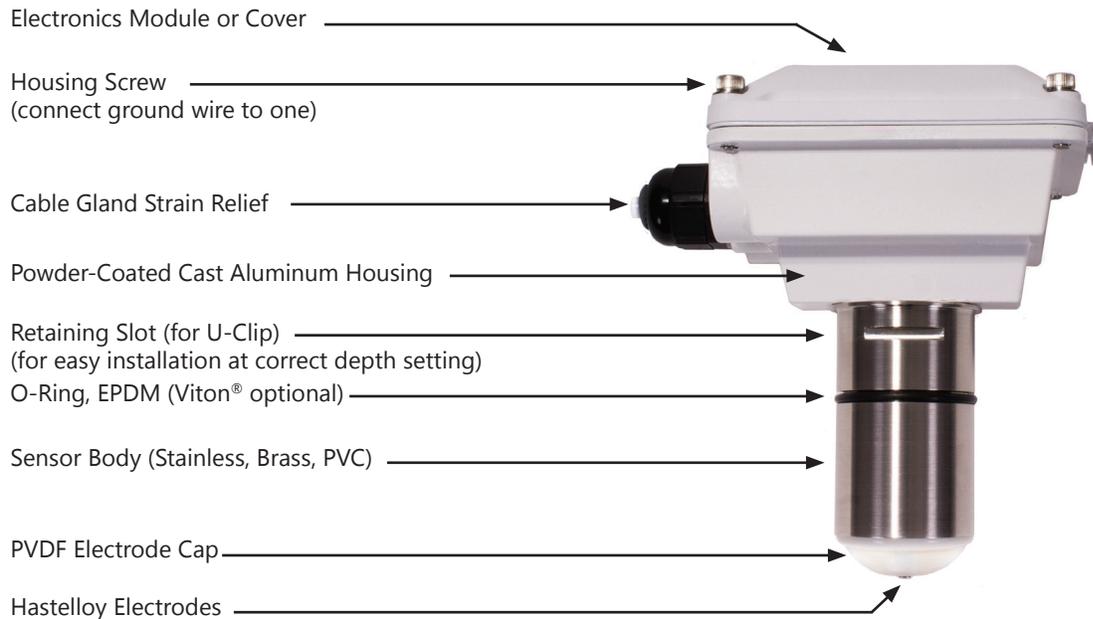
### Contact Your Supplier

EX800-Series fixed depth insertion meters require special fittings. Factory installation in the fitting ensures correct depth placement in the pipe. The EX800-Series meter can be ordered in a full power model when a source of electricity is available, or in a low power model that can run on an external battery with solar panel.

Reverse flow output and immersibility are optional.



## Features



## Specifications\*

<b>Pipe Size</b>	1" to 12"	
<b>Power</b>	<b>Full Power:</b> 12 - 24 Vdc, 250mA	<b>Low Power:</b> 12 - 24 Vdc, 40mA average with 250mA peaks
<b>Materials</b>	<b>Housing</b>	Powder-coated cast aluminum
	<b>Sensor Body</b>	316 Stainless Steel, Brass, or PVC
	<b>O-ring</b>	EPDM (Viton® optional)
	<b>Electrodes</b>	Hastelloy
	<b>Electrode Cap</b>	PVDF (Kynar®)
<b>Maximum Pressure</b>	<b>Brass/Stainless Steel</b>	<b>PVC</b> (See Pressure vs. Temp. Chart)
	200 psi (14 bar)	150 psi (10 bar) @ 75° F (24° C)
<b>Temperature</b>	<b>Ambient</b>	0° to 160° F (-17° to 72° C)
	<b>Fluid</b>	32° to 200° F (0° to 93° C)
		32° to 130° F (0° to 55° C) @ 0 psi
<b>Minimum Conductivity</b>	20 microSiemens/cm	
<b>Flow Velocity</b>	0.28 to 20 ft/sec (0.08 - 6.09 m/sec)	
<b>Accuracy</b>	± 1% of full scale	
<b>Output</b>	Square wave pulse, opto-isolated, 500 Hz @ 20 ft/sec	
<b>Empty Pipe Detection</b>	Software, defaults to zero flow	
<b>Cable</b>	Standard 18' (6m), #22 shielded twisted pair, 4-conn. Max. cable run at 24 Vdc = 1000' (300m); at 12 Vdc = 500' (150m). For other circumstances, contact the factory.	
<b>Environmental</b>	See meter mounted electronic specification for rating.	
<b>Regulatory</b>	C E Mark	

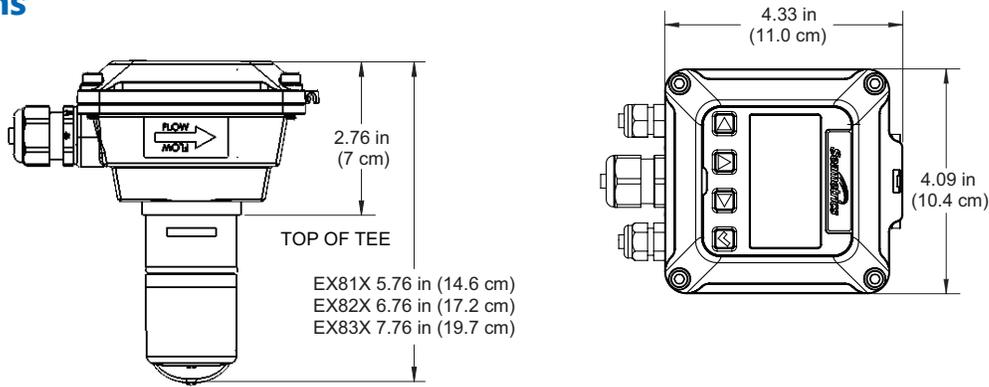
\*Specifications subject to change • Please consult our website for current data ([www.seametrics.com](http://www.seametrics.com)).

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## Flow Range

Nominal Pipe Size	1"	1½"	2"	3"	4"	6"	8"	10"	12"
<b>Min GPM</b>	.69	1.5	2.7	6.2	11	25	43	68	99
<b>Min LPM</b>	2.6	5.6	10.2	23.4	41	94	162	257	374
<b>Max GPM</b>	49	110	196	440	783	1760	3130	4900	7050
<b>Max LPM</b>	185	416	741	1665	2963	6662	11848	18548	26687

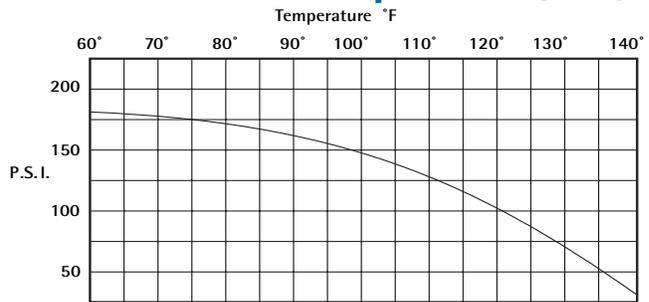
**Dimensions**



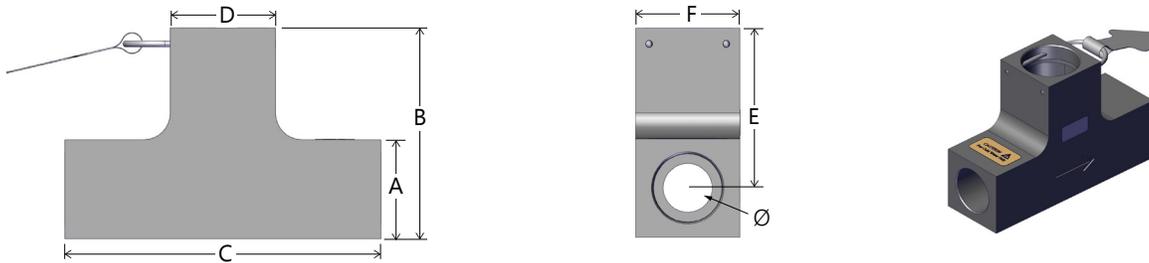
**EX800-Compatible Fittings**

	Tee	Saddle	Weld/Braze	Sweat Tee
<b>Bronze</b>	1" - 4"	3" - 4"	3" - 12"	1" - 4"
<b>PVC</b>	1" - 2"	3" - 8"	x	x
<b>Stainless Steel</b>	1" - 2"	x	3" - 12"	x
<b>Carbon Steel</b>	1" - 2"	x	3" - 12"	x
<b>Ductile Iron</b>	x	3" - 12"	x	x

**Pressure vs. Temperature (PVC)**



**PVC Block Tee Fitting (Figure 1)**



**PVC Tee Fittings (Figure 2)**

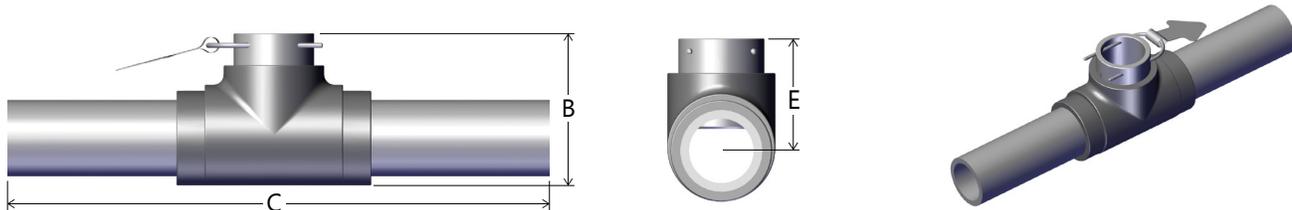


Figure	Pipe Size	A	B	C	D	E	F	Ø
1	1"	1.88" (4.77 cm)	4.00" (10.16 cm)	6.00" (15.24 cm)	2.00" (5.08 cm)	3.06" (7.77 cm)	2.00" (5.08 cm)	1.325" (3.36 cm)
2	1 1/2"	—	4.50" (11.43 cm)	19.4" (49.28 cm) <i>(nominal)</i>	—	3.35" (8.51 cm)	—	—
2	2"	—	4.90" (12.45 cm)	19.9" (50.55 cm) <i>(nominal)</i>	—	3.45" (8.76 cm)	—	—

## How to Order

Sensor Only	Description	Size	Sensor Material	Options
	Externally powered (12 - 24Vdc) sensor only.	1" - 3" = EX810 4" - 10" = EX820 12" = EX830	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 *Immersible = -40 Low Power Option = -50 Viton® O-Ring = -125

AO55 Mounted on Sensor	Description	Size	Sensor Material	Options
	Externally powered (12 - 24Vdc) sensor with AO55 blind 4-20mA analog transmitter mounted on the sensor.	1" - 3" = EX812 4" - 10" = EX822 12" = EX832	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 Low Power Option = -50 Viton® O-Ring = -125

FT430 Mounted on Sensor	Description	Size	Sensor Material	Options
	Externally powered sensor (12 - 24Vdc) with FT430 rate and total indicator (with pulse outputs) mounted on the sensor.	1" - 3" = EX813 4" - 10" = EX823 12" = EX833	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 Tamper Evident Kit = -32 Low Power Option = -50 Non-resettable Total = -64 Viton® O-Ring = -125 Hinged Display Cover = -126

DL76 Mounted on Sensor	Description	Size	Sensor Material	Options
	Externally powered sensor (12 - 24Vdc) with self powered DL76 data logger mounted on the sensor.	1" - 3" = EX816 4" - 10" = EX826 12" = EX836	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 Tamper Evident Kit = -32 Low Power Option = -50 Viton® O-Ring = -125

FT440 Mounted on Sensor	Description	Size	Sensor Material	Options
	Externally powered sensor (12 - 24Vdc) with FT440 rate and total indicator (with pulse and 4-20mA outputs) mounted on the sensor.	1" - 3" = EX819 4" - 10" = EX829 12" = EX839	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 Tamper Evident Kit = -32 Low Power Option = -50 Non-resettable Total = -64 Viton® O-Ring = -125 Hinged Display Cover = -126

\* Immersible to maximum of 3 ft (1m), up to 2 weeks

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