

9001:2008 CERTIFIED COMPANY

# **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



#### **GENERAL INFORMATION**

**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 A055. The PD10 can be used to divide the pulse for pacing chemical metering pumps. Electronic modules can be wall- or meter- mounted. If the EX800 meter is used with a programmable controller, the output signal can be fed direct, with no other conditioning required.

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.



# EX800-SERIES Insertion Electromagnetic Flow Sensor

# **FEATURES**

Cover, or electronics module		
Powder-coated aluminum housing		22
Power cord strain relief		
O-ring, EPDM (Viton <sup>®</sup> optional) ————————————————————————————————————		
Sensor body (Stainless, Brass, PVC)		
PVDF electrode cap		
Hastelloy electrodes	1	-

## SPECIFICATIONS\*

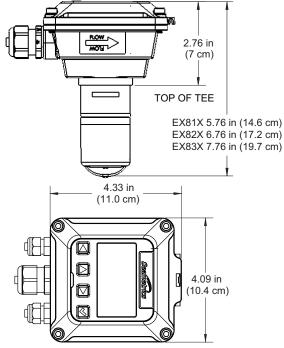
Pipe Size		1" to 12"		
Materials	Mechanical	316 SS/Brass/PVC Hastelloy		
	Electrodes			
	Housing	Cast powder-coated aluminum		
	Electrode Cap	PVDF (Kynar®)		
	0-Ring	EPDM standard (Viton <sup>®</sup> optional)		
Power	Full Power	12 - 25 Vdc, 250 mA		
	Low Power	12 - 25 Vdc, 40 mA average with 250 mA peaks		
Flow Rate		0.28 - 20 ft/sec (0.08 - 6.09 m/sec)		
Temperature Ambient Temp		0° to 160° F (-17° to 72° C)		
	Fluid Temp : Brass/SS	32° to 200° F (0° to 93° C)		
	Fluid Temp: PVC	32° to 130° F (0° to 55° C) @ 0 psi		
Pressure	Brass/SS	200 psi (14 bar)		
	PVC	150 psi (10 bar) @ 75° F (24° C)		
Minimum Conductivity		20 microSiemens/cm		
Calibration Ac	ccuracy	+/- 1% of full scale		
Output		Square wave pulse, opto isolated, 550 Hz @ 20 ft/sec		
Empty Pipe D	etection	Software, defaults to zero flow		
Regulatory		( E (Standard power only)		

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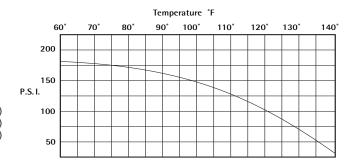


# **EX800-SERIES Insertion Electromagnetic Flow Sensor**

#### **DIMENSIONS**



#### **PRESSURE VS. TEMPERATURE (PVC)**



#### **FLOW RANGE**

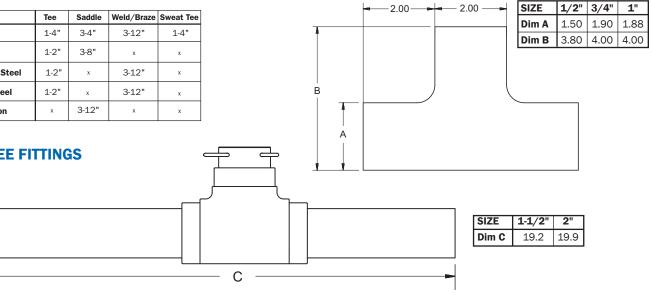
Nominal Pipe Size	1"	<b>1</b> ½"	2"	3"	4"	6"	8"	10"	12"
Min GPM	.69	<b>1.5</b>	<b>2.7</b>	6.2	<b>11</b>	<b>25</b>	<b>43</b>	68	<b>99</b>
Min LPM	2.61	5.68	10.22	23.47	41.64	94.64	162.77	257.41	374.76
Max GPM	<b>49</b>	<b>110</b>	<b>196</b>	440	<b>783</b>	<b>1760</b>	<b>3130</b>	4900	7050
Max LPM	185.49	416.40	741.94	1665.58	2963.98	6662.33	11848.34	18548.52	26687.15

# **EX800-COMPATIBLE FITTINGS**

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

## **PVC TEE FITTINGS**

### **PVC BLOCK TEE FITTING**



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# **EX800-SERIES Insertion Electromagnetic Flow Sensor**

### **HOW TO ORDER**

~ or	Description	Size	Sensor Material	Options
only	Sensor Only.	1" - 3" = EX810 4" - 10" = EX820 12" = EX830	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15         Viton® O-Ring = -125           *Immersible = -40         Low Power Option = -50
	Description	Size	Sensor Material	Options
A055 Mounted on Sensor	Blind 4-20 mA analog transmitter (A055) 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
o d	Description	Size	Sensor Material	Options
FT430 Mounted on Sensor	Rate & total indicator with pulse, externally powered (FT430) mounted on the sensor.	1" - 3" = EX813 4" - 10" = EX823 12" = EX833	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b>	Reverse Flow Output = -15 Tamper Evident Kit = -32 Low Power Option = -50 Non-resettable Total = -64       Viton® O-Ring = -125 Hinged Display Cover= -126
o d	Description	Size	Sensor Material	Options
DL76 Mounted on Sensor	Data logger (DL76) mounted on the sensor.	1" - 3" = <b>EX816</b> 4" - 10" = <b>EX826</b> 12" = <b>EX836</b>	Brass = B 316 Stainless Steel = S PVC = P	Reverse Flow Output = -15 Tamper Evident Kit = -32 Low Power Option = -50
J M R				Viton® O-Ring = <b>-125</b>
ΞΞ5	Description	Size	Sensor Material	Viton® O-Ring = -125 Options
	Description Pulse Divider (PD10) mounted on the sensor.	Size 1" - 3" = EX818 4" - 10" = EX828 12" = EX838	Sensor Material Brass = B 316 Stainless Steel = S PVC = P	
ounted Mo Sensor on	Pulse Divider (PD10)	1" - 3" = <b>EX818</b> 4" - 10" = <b>EX828</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b>	Options           LMI Pump Connector = -06         Roytronic® Series-A Pump / Reverse Flow Output = -15           10 Ft. Cable for LMI Connector = -37         Viton® O-Ring = -125

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

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### **CONTACT YOUR SUPPLIER**