

FEATURES

- No moving parts
- Durable
- Adjustable depth
- Hot-tap available
- Brass or stainless steel
- Immersibility available
- Reverse flow output available

APPLICATIONS

- 3"- 48" pipe (up to 72" optional)
- Clean or "dirty" liquids
- Conductive liquids
- Municipal
- Industrial
- Irrigation

GENERAL INFORMATION

The complete lack of moving parts of the **EX100/200-Series** insertion flow sensor is the source of its reliability. Brass and stainless steel models withstand a variety of temperature, pressure, and chemical conditions. The EX-Series has no rotor to stop turning in dirty water and there are no bearings to wear out. 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).

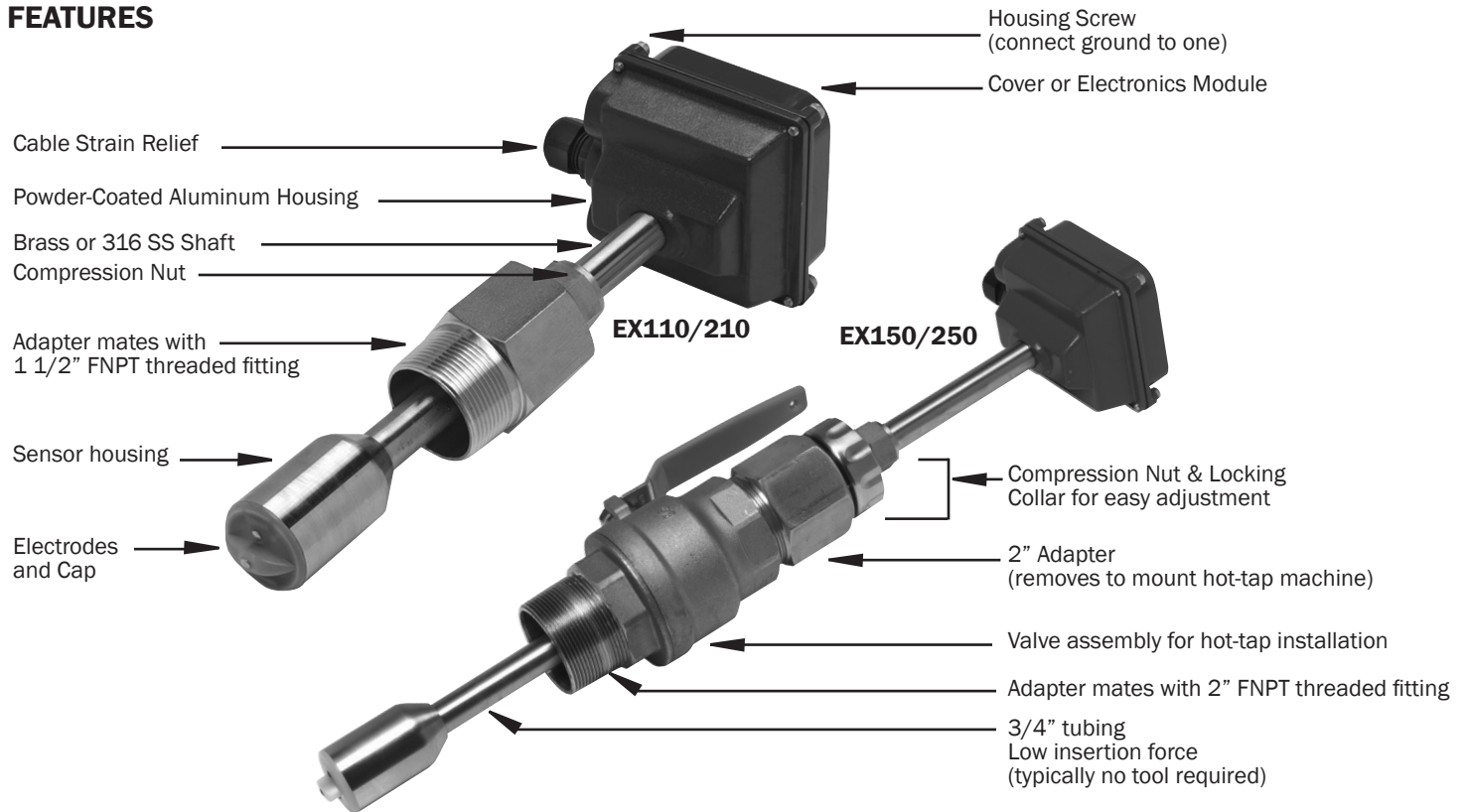
A rapidly reversing magnetic field is produced in the lower housing. As the fluid moves through this field, a voltage is generated that is measured and translated into a frequency signal proportional to flow rate. This square wave signal can be sent directly to a PLC or other control or can be converted using any of the Seametrics family of indicators and converters.

A modular system of electronics can be attached directly to the flow sensor or remotely mounted. The Seametrics FT420 provides full indication of rate and total, plus 4-20 mA output. The AO55 provides blind 4-20 mA output, and the DL76 is a battery-powered data logger.

Adapters mate with standard 1-1/2" (110/210) or 2" (150/250) FNPT threaded fittings such as saddles and weldolets which may be purchased either locally or from Seametrics. The EX150 and 250 include an isolation valve, allowing hot-tap installation, or installation and removal under pressure; a bronze ball valve is standard, with a 316 stainless steel valve option if needed.

Reverse flow output and immersibility are optional.

FEATURES

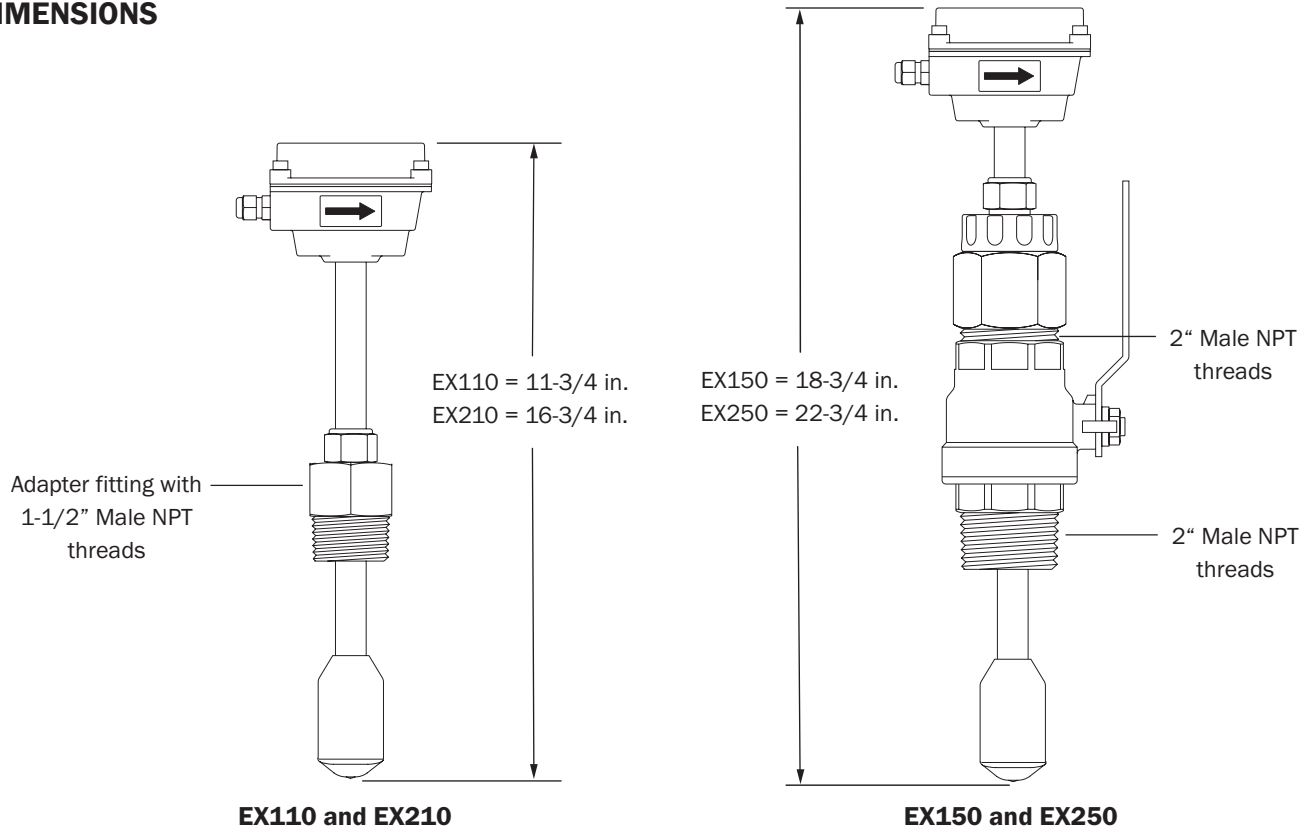


SPECIFICATIONS*

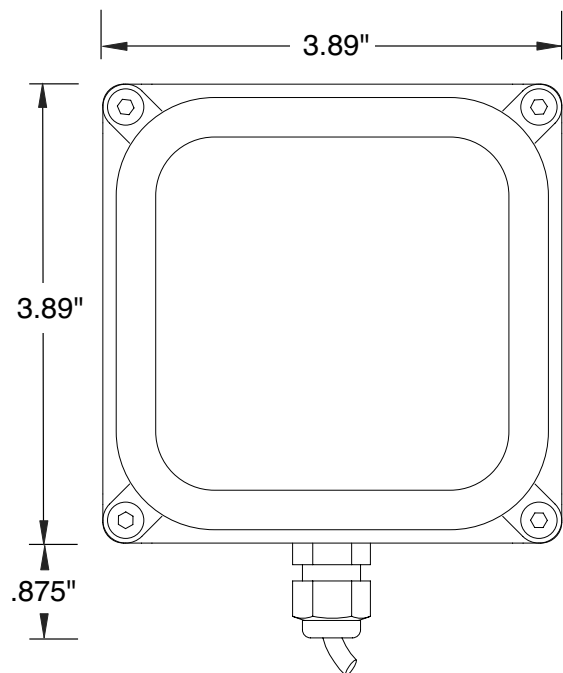
Pipe Sizes	3" to 48" (up to 72" optional)		
Materials	Shaft/Fitting	316 SS or Brass	
	Electrodes	Hastelloy	
	Electrode Cap	PVDF	
	Housing	Cast powder-coated aluminum	
	Valve Assembly (115/215 Only)	Bronze (stainless optional) with bronze ball valve	
	O-Ring (115/215 Only)	EPDM	
Power	Full Power	12-25 Vdc, 250 mA	
	Low Power	12-25 Vdc, 40 mA average with 250 mA peaks	
Flow Range	0.28 to 20 ft/sec (0.08 - 6.09 m/sec)		
Fitting Size Required	EX110/210	EX150/250	
	1-1/2" FNPT	2" FNPT	
Temperature	Ambient	0° to 160° F (-17° to 72° C)	
	Fluid	32° to 200° F (0° to 93° C)	
Pressure	200 psi (13.8 bar)		
Minimum Conductivity	20 microSiemens/cm		
Calibration Accuracy	+/- 1% of full scale		
Output	Square wave pulse, opto isolated, 550 Hz @ 20 ft/sec 6 mA max, 30 Vdc forward flow standard; reverse flow optional		
Empty Pipe Detection	Software, defaults to zero flow		

*Specifications subject to change • Please consult our website for current data (www.seametrics.com).

DIMENSIONS



Flow Range (GPM)		
Nominal Pipe Size	Min. Flow	Max. Flow
3	6	440
4	11	783
6	25	1,762
8	44	3,133
10	69	4,895
12	99	7,050
14	134	9,596
16	175	12,533
18	222	15,863
20	274	19,584
24	395	28,200
30	617	44,064
36	888	63,452
48	1,580	112,804





EX100/200-SERIES Insertion Electromagnetic Flow Sensor

HOW TO ORDER

Sensor Only				
Description	Size	Sensor Material	Options (110/210)	Options (150/250)
Sensor Only.	3" - 10" pipe = EX110 10" - 40" pipe = EX210 Hot Tap 3" - 10" pipe = EX150 10" - 40" pipe = EX250	PVC = P Brass = B 316 Stainless = S	Brass Adapter Fitting 2" NPT = -02 SS Adapter Fitting 2" NPT = -02 Reverse Flow Output = -15 Brass Adapter 1 1/2" BSP = -23 SS Adapter 1 1/2" BSP = -24 Old Style Adapter 1 1/2" NPT = -35 Immersible = -40 Low Power = -50 12" Extension (210/250 Series Only) = -72	316 SS Valve Assembly = -08 No Valve Assembly = -09 316 SS Valve Assembly = -08 Reverse Flow Output = -15 Immersible = -40 Low Power = -50 12" Extension (210/350 Series Only) = -72
FT420 Mounted on Sensor				
Description	Size	Sensor Material	Options (111/211)	Options (151/251)
Rate & total indicator with pulse & 4-20 mA output, externally powered (FT420) mounted on the sensor.	3" - 10" pipe = EX111 10" - 40" pipe = EX211 Hot Tap 3" - 10" pipe = EX151 10" - 40" pipe = EX251	PVC = P Brass = B 316 Stainless = S	Brass Adapter Fitting 2" NPT = -02 SS Adapter Fitting 2" NPT = -02 Reverse Flow Output = -15 Brass Adapter 1 1/2" BSP = -23 SS Adapter 1 1/2" BSP = -24 Tamper Evident Kit = -32 Old Style Adapter 1 1/2" NPT = -35 Immersible = -40 Low Power = -50 Non-resettable Total = -64 12" Extension (210/250 Series Only) = -72 Dual Relay Output = -98 Hinged Display Cover = -126	316 SS Valve Assembly = -08 No Valve Assembly = -09 Reverse Flow Output = -15 Tamper Evident Kit = -32 Immersible = -40 Non-resettable Total = -64 12" Extension (210/350 Series Only) = -72 Dual Relay Output = -98 Hinged Display Cover = -126
A055 Mounted on Sensor				
Description	Size	Sensor Material	Options (112/212)	Options (152/252)
Blind 4-20 mA analog transmitter (A055) mounted on the sensor.	3" - 10" pipe = EX112 10" - 40" pipe = EX212 Hot Tap 3" - 10" pipe = EX152 10" - 40" pipe = EX252	PVC = P Brass = B 316 Stainless = S	Brass Adapter Fitting 2" NPT = -02 SS Adapter Fitting 2" NPT = -02 Standard Power, LMI 4-pin Connector = -06 Reverse Flow Output = -15 Brass Adapter 1 1/2" BSP = -23 SS Adapter 1 1/2" BSP = -24 Old Style Adapter 1 1/2" NPT = -35 Immersible = -40 Low Power = -50 12" Extension (210/250 Series Only) = -72 Roytronics Series-A 5-Pin Connector = -106	Standard Power, LMI 4-pin Connector = -06 316 SS Valve Assembly = -08 No Valve Assembly = -09 Reverse Flow Output = -15 Immersible = -40 Low Power = -50 12" Extension (210/350 Series Only) = -72 Roytronics Series-A 5-Pin Connector = -106
DL76 Mounted on Sensor				
Description	Size	Sensor Material	Options (116/216)	Options (156/256)
Data logger (DL76) mounted on the sensor.	3" - 10" pipe = EX116 10" - 40" pipe = EX216 Hot Tap 3" - 10" pipe = EX156 10" - 40" pipe = EX256	PVC = P Brass = B 316 Stainless = S	Brass Adapter Fitting 2" NPT = -02 SS Adapter Fitting 2" NPT = -02 Reverse Flow Output = -15 Brass Adapter 1 1/2" BSP = -23 SS Adapter 1 1/2" BSP = -24 Tamper Evident Kit = -32 Old Style Adapter 1 1/2" NPT = -35 Immersible = -40 Low Power = -50 12" Extension (210/250 Series Only) = -72	316 SS Valve Assembly = -08 No Valve Assembly = -09 Reverse Flow Output = -15 Tamper Evident Kit = -32 Immersible = -40 Low Power = -50 12" Extension (210/350 Series Only) = -72
PD10 Mounted on Sensor				
Description	Size	Sensor Material	Options (118/218)	Options (158/258)
Pulse Divider (PD10) mounted on the sensor.	3" - 10" pipe = EX118 10" - 40" pipe = EX218 Hot Tap 3" - 10" pipe = EX158 10" - 40" pipe = EX258	PVC = P Brass = B 316 Stainless = S	Brass Adapter Fitting 2" NPT = -02 SS Adapter Fitting 2" NPT = -02 LMI Pump 4-pin Connector = -06 Reverse Flow Output = -15 Brass Adapter 1 1/2" BSP = -23 SS Adapter 1 1/2" BSP = -24 Old Style Adapter 1 1/2" NPT = -35 10 Ft. Cable for LMI Connector = -37 Immersible = -40 Low Power = -50 12" Extension (210/250 Series Only) = -72 Roytronics Series-A 5-Pin Connector = -106	LMI Pump 4-pin Connector = -06 316 SS Valve Assembly = -08 No Valve Assembly = -09 Reverse Flow Output = -15 10 Ft. Cable for LMI Connector = -37 Immersible = -40 Low Power = -50 12" Extension (210/350 Series Only) = -72 Roytronics Series-A 5-Pin Connector = -106

*Total Units must be specified at time of order **Requires appropriate fitting.