

# EX100-200 Electromagnetic Flow Sensors

Adjustable Depth Electromagnetic Insertion Flow Sensors for Full Pipe Flows



## Description

The EX100-200 Electromagnetic Flow Sensors are highly reliable adjustable depth insertion flow sensors. The meters have no moving parts, no rotors to stop turning in dirty water, and no bearings to wear out.

## How it Works

The sensor produces a rapidly reversing magnetic field in the lower housing. As fluid moves through this field, a voltage is generated. This voltage is measured and translated into a frequency signal that is proportional to flow rate. This square wave signal can then be sent directly to a PLC or other control system, or it can be converted using optional output displays and converters. The EX115-215 Hot Tap meters incorporate an isolation valve and a longer tube, which allows these meters to be easily inserted into or removed from the pipe while it is under pressure.

## Versatile Output

Designed for modularity and versatility, the EX100-200 sensors have a current-sinking pulse output that you can integrate with an appropriate transmitter or indicator depending on your application. For a scaled pulse and 4-20 mA output display, you can use the FT420M meter mounted display or the FT420W wall mounted display. For a 4-20 mA analog output only, you can mount the AO55M blind 4-20 mA converter directly onto the meter. If you are using an EX100-200 meter with a programmable controller, the output signal can be fed directly with no other conditioning required.

## Easy Installation

The installation fitting included with the EX100-200 sensors is standard male NPT, which can be directly threaded into ordinary saddles or threaded weld fittings.

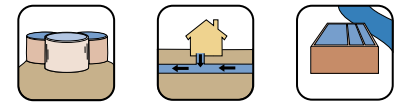
## Specifications

Accuracy	1% full scale
Output	Square wave pulse, opto isolated, 500 Hz @ 20 ft/sec
Bi-Directional	Direction output, opto isolated
Empty Pipe Detection	Flow defaults to zero
Flow Range	0.2 to 20 ft/sec (.06 to 6.09 m/sec)
Maximum Pipe Pressure	200 psi (13.8 bar)
Temperature	Ambient: 0° to 180°F (-17 to 82° C) Fluid: 32° to 212° F (0° to 100° C)
Minimum Conductivity	20 microsiemens/cm
Power	12 to 24 VDC, 250 mA
Installation Fitting	1-1/2" Male NPT
Materials	Mechanical: 316 SS/Brass Electrodes: Hastelloy Electrode plate: PVDF Housing Cast: Powder-coated aluminum O-rings: EPDM
Weight	EX101: 3lbs (1.36kg) EX201: 3.4 lbs (1.54kg)
Dimensions	EX101: 4" square x 12" long (10cm square x 30.5cm long) EX201: 4" square x 17" long (10cm square x 43.2cm long)

## Features

- Ideal for turbid water applications
- Depth adjustable sensors
- EX101 fits any 1/2" pipe fitting (standard saddle, for instance) and adjusts to pipe sizes 3-10"
- EX201 adjusts to pipe sizes 10 to 48"
- Meter extends only about 1/8 of pipe diameter, minimizing potential for clogging with debris
- Optional 4-20 mA flow rate and totalizer display
- Alternatively, signal can be sent directly to a PLC or other controller
- Available in brass or 316 stainless steel

## Applications



Ideal for metering pipe flows, wastewater effluent, industrial water processing, and other difficult environments.

## Ordering & Options

### Electromagnetic Flow Sensors

Order No.	Material	Pipe Dia.
EX101B	Brass	3" to 10"
EX101S	Stainless Steel	3" to 10"
EX201B	Brass	10" to 48"
EX201S	Stainless Steel	10" to 48"

### Hot Tap Electromagnetic Flow Sensors

Order No.	Material	Pipe Dia.
EX115B	Brass Unit/Bronze Ball Valve	3" to 10"
EX115S	316 SS Unit/Bronze Ball Valve	3" to 10"
EX215B	Brass Unit/Bronze Ball Valve	10" to 48"
EX215S	316 SS Unit/Bronze Ball Valve	10" to 48"

### Optional Output Displays & Converters

Order No.	Description
FT420M	Pulse to 4-20 mA Output and Meter Mounted Display
FT420W	Pulse to 4-20 mA Output and Wall Mounted Display
AO55M	Blind 4-20 mA Converter
AO55W	Blind 4-20 mA Converter



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