



## EFT10 Electromagnetic Flow Transmitter

### Description

Spirax Sarco's EFT10 Electromagnetic Flow Transmitter produces a clean and powerful bidirectional flow signal with unsurpassed fast response and uniquely high signal strength.

By using an innovative and patented Pulsed Hybrid method of coil excitation the EFT10 creates an ultra stable flow signal to media noise ratio up to 50 times higher than other magmeter technologies.

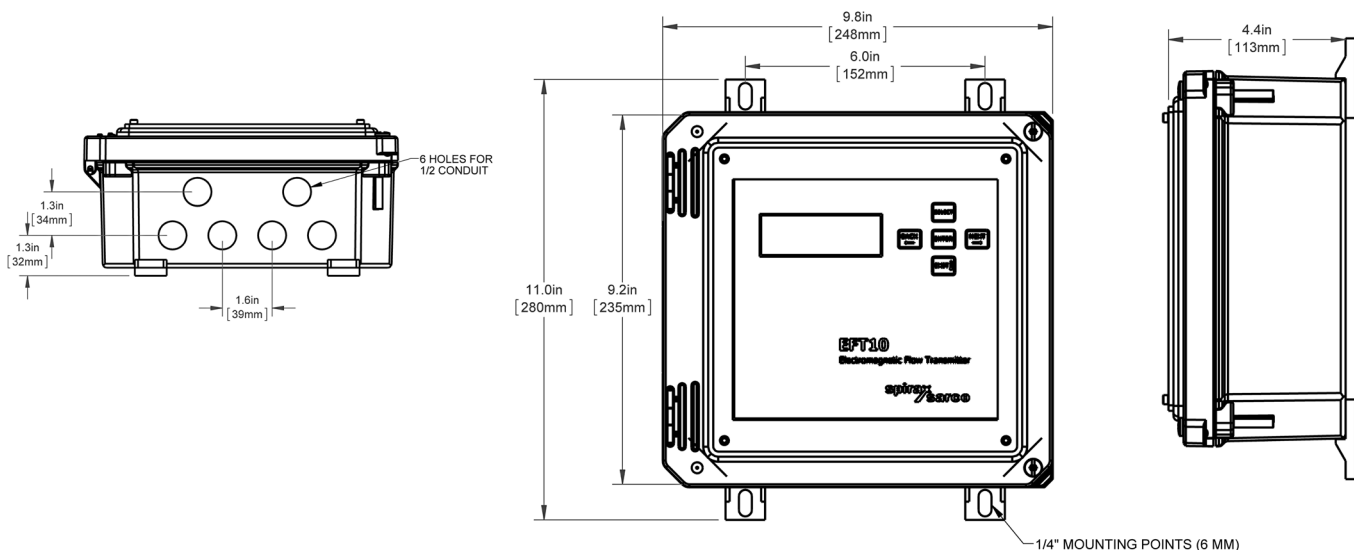
The EFT10 is a versatile and advanced magmeter transmitter with a user-friendly keypad for programming, a 10-year memory, batch control, RS485 Modbus interface, HART, two 4-20mA outputs and a scalable pulse frequency output.

### Features

- High excitation current (to 5.5 A base to peak) and high exciter frequency (40Hz to 33Hz) for all size full pipe sensors.
- 4 lines of 20 character alpha numeric, backlit display with sealed tactile feedback and vandal resistant keyboard
- Suitable for problem media (mining, slurries, and low conductivity media)
- HART, Modbus RTU over RS-485, and two 4-20mA outputs
- Bi-directional flow measurement; accurately eliminates back flow from net totals
- Virtually immune to common noise effects, including eddy currents, radio frequency, and variable frequency drives
- Reference coils to compensate for media temperature



### Dimensions



Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.  
In the interests of development and improvement of the product, we reserve the right to change the specification.

# EFT10 Electromagnetic Flow Transmitter

## EFT10 Specifications

<b>Enclosure</b>	Wall mounted, UV resistant fiberglass with stainless steel screws
<b>Front Panel Keypad</b>	Tactile feedback, waterproof, vandal resistant
<b>Environmental Protection</b>	NEMA 4X (IP65)
<b>Ambient Temperature</b>	-4 to 140 °F (-20 to 60 °C)
<b>Supply Voltage</b>	120VAC 60Hz, 120VAC 50Hz, 230VAC 50Hz, 230VAC 60Hz
<b>Power Consumption</b>	EFT10 Transmitter 6 watts typical Max for Sensors 65 watts typical
<b>Diagnostics</b>	All necessary diagnostics, readings and system status are available via the front panel keypad without opening the door. A user security password is programmable, allowing revalidation of the magmeter's NIST traceable Calibration Certificates. A separate calibration box is not necessary
<b>Windows Interface Program</b>	Computer interface via RS-232 serial connection, enabling programming of setup, and downloading diagnostics and status.
<b>Magnetizing Current</b>	Up to 5.5 A base to peak, depending on sensor size
<b>Exciter Frequency</b>	40Hz (with 60Hz supply) or 33.3Hz (with 50Hz supply)
<b>Time Constant (T)</b>	Minimum of 30 milliseconds
<b>Signal Averaging (ST)</b>	0 to 300 seconds
<b>Optional Batch Control</b>	For batch control, the total set amount is entered via the keypad and displayed. Keypad activation of batch flow via a EFT10 relay initiates flow, counting from zero to the total set point amount.
<b>Frequency Mode</b>	0 - 1,000Hz, 0 - 2,000Hz, 0 - 5,000Hz, 0 - 10,000Hz
<b>Analog Outputs</b>	Two, 4-20mA outputs from separate terminals are available for bi-directional flow. Either may be configured as an internally powered 2-wire output or an externally powered 2-wire output
<b>Pulsed Outputs</b>	An externally powered, 2 wired scaled output (for totalizing flow), or frequency output (for rate of flow)
<b>Relay Outputs</b>	Two user configurable form C (changeover) relays with contact rate 125VAC, 1A, 30VA
<b>Contact Inputs</b>	Two user configurable inputs, rated 12volts DC, 10 mA. These inputs require a contact closure or transistor switch between the terminals.
<b>Modbus Output</b>	Modbus RS-485 ( RTU)
<b>HART Output</b>	Supports HART 7 protocol; HART registration pending
<b>Input Impedance</b>	10 <sup>12</sup> Ohms
<b>Pre-Amp Supply</b>	A pre-amp is supplied standard on all products, for use on media with conductivity > 0.8µS/cm
<b>Maximum Cable Length</b>	Max cable length for fluids with conductivity < 5 µS/cm, 50 feet Max cable length for fluids with conductivity > 5µS/cm , 300 feet
<b>UniMag products supported</b>	Full pipe meters only. UniMag M, DT, DM, DL, Delta Kit, DeltaMass
<b>Flow Range</b>	0.6 to 32 feet/second (0.2 to 9.7 m/sec)
<b>System Accuracy (with flow tube)</b>	UniMag M, DT, DM, DL, and DeltaMass velocities +/- 0.5% of rate for flows to >8.0 fps; +/- 0.048 fps for flows <8.0 fps. DeltaKit +/- 1.0% of rate for flows to >8.0 fps ; +/-0.096 fps for flows to <8.0 fps
<b>Approvals</b>	UL pending

## Part Numbers

### Description

EFT10 with 120VAC, 60Hz power  
EFT10 with 120VAC, 50Hz power  
EFT10 with 230VAC, 50Hz power  
EFT10 with 230VAC, 60Hz power

### Part Number

EC007102  
EC007100  
EC007101  
EC007103

## Notes

- <sup>1</sup> The EFT10 Flow Transmitter must be operated in a safe area.
- <sup>2</sup> Currently the EFT10 is NOT PED approved for sales into European Union countries.