The Series IEF Insertion Electromagnetic Flow Transmitter is an adjustable insertion flowmeter featuring electromagnetic technology that accurately and reliably measures fluid velocity in addition to providing several continuous signal outputs. This series is specifically designed to offer superior performance paired with simple installation and use. One unit is adjustable to fit pipe sizes from 4 to 36˝ (102 to 914 mm), and offers several output options including selectable BACnet MS/TP or Modbus® RTU communications protocol over 2-wire RS-485 in addition to the standard analog, frequency and alarm outputs.

FEATURES/BENEFITS
- Field configurable setup displays (-LCD integral option or remote accessory A-IEF-DSP) allow for ultimate flexibility by accommodating a variety of application configurations with one model through multiple display configurations i.e. pipe size, pipe material, liquid type, analog output, pulse/frequency output, alarm outputs, communication outputs, damping, and calibration factors.
- High performance accuracy is maintained through changes in temperature, density or viscosity.
- Setup Wizard and installation tool are simple to use allowing for quick and precise installation.
- Accessory setup kit A-IEF-KIT ensures exact installation application depth with included thickness gage and measuring tape.
- Long Life Cycle and minimal maintenance requirements with no moving parts to wear or break and electrodes that discourage fouling.
- Custom configured for specific installation
- Accessory valve
- Ground water remediation
- Chemical processing
- Pump protection
- Wastewater
- Mining

APPLICATIONS
- Boiler feed water
- Chilled water
- Open and closed loop condenser water
- Irrigation system
- Municipal water distribution
- Mining
- Process and coolant flow
- Process and coolant flow

SPECIFICATIONS
Service: Compatible clean or dirty non coating, conductive liquids.
Range: 0 to 20 ft/s (0 to 6 m/s).
Wetted Materials: Body shaft/fitting: 316 SS; Electrodes: 316 SS; Electrode cap: Polymer/Polystyrene; O-ring: Silicon.
Accuracy: IEF-HX-X: ±0.5% of reading at calibrated velocity; ±1% of reading from 2 to 20 ft/s (0.6 to 6 m/s); ±0.02 ft/s (±0.006 m/s) at < 2 ft/s (0.6 m/s). IEF-SX-X: ±1% FS.
Temperature Limits: Ambient: -20 to 160°F (-29 to 71°C); Process: 15 to 250°F (-9 to 121°C); Storage: -40 to 185°F (-40 to 85°C).
Process Connection: 1˝ NPT or BSPT with accessory full port ball valve options.
Pressure Limits: 400 psi (27.6 bar) @ 100º F (37.8°C).
Power Requirements: 12 to 42.4 VDC, .25 A @ 24 VDC; 12 to 36 VAC.
Communication Protocol: BACnet MS/TP or Modbus® RTU communications protocol (default disabled, (1) Pulse/Frequency: 0 to 15 V peak pulse, 0 to 500 Hz or scalable pulse output (display selectable);
(2) Alarm: (1) Empty pipe detection or minimum/maximum velocity, (display selectable); (1) Reverse flow output indication.
Power Requirements: 12 to 42.4 VDC, .25 A @ 24 VDC; 12 to 36 VAC.
Electrical Connection: Removable terminal blocks, model selectable 1/2” female NPT conduit connection, PG 16 gland or PG 16 gland with (2) 10 ft (3 m) 9 conductor 22 AWG plenum rated cables, accessory cable lengths up to 200 ft (61 m) optional.
Display (-LCD option): 2” (5.08 cm) x 2” (5.08 cm) graphic LCD with backlight.
Enclosure Material: Powder coated die cast aluminum.
Enclosure Ratings: NEMA 6P (IP68) (Non display models); NEMA 4X (IP66) (display selectable).

ACCESSORIES
Model Description
A-IEF-KIT Setup kit (includes setup display, thickness gage and measuring tape), and universal power adapter
A-IEF-DSP Setup display
A-IEF-CBL-50 Plenum rated cable 50 ft (15.2 m)
A-IEF-VLV-BR 1-1/4” full port isolation valve 316 SS
A-IEF-VLV-SS 1-1/4” full port isolation valve 316 SS
A-IEF-INGD Installation alignment kit
A-IEF-PA AC wall adapter

*Brass fittings and pipe are not to be used with NSF Certified models.