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.

**APPLICATIONS**
- Boiler feed water
- Chilled water
- Open and closed loop condenser water
- Irrigation system
- Municipal water distribution
- Process and coolant flow
- Ground water remediation
- Chemical processing
- Pump protection
- Wastewater
- Mining

**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:** High accuracy units: ±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); Standard accuracy units: ±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 full port ball valve options.
- **Outputs:**
  - (1) Analog: 4-20 mA, 0-5 V, 0-10 V or 2-10 V (display selectable);
  - (2) Alarm: (1) Empty pipe detection or minimum/maximum velocity, (display selectable);
  - (1) Reverse flow output (display selectable).
- **Power Requirements:** 12-42.4 VDC, .25 W minimum/maximum velocity, (display selectable).
- **Electrical Connection:** Removable terminal blocks, model selectable 1/2˝ female NPT conduit connection, PG 16 and PG 16 gland with (2) 1/2˝ (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.
- **Conductivity:** >20 microsiemens.
- **Enclosure Material:** Powder coated die cast aluminum.
- **Enclosure Ratings:** NEMA 6P (IP68) (Non display models); NEMA 4X (IP66) (LCD option).
- **Compliance:** BTI, CE, NSF/ANSI 61 and 372.
- **Communications (-COM Option)**
  - Type: BACnet MS/TP or Modbus® RTU communication protocol (default disabled, display selectable).
  - Supported Baud Rates: 9600, 19200, 38400, 57600, 76800, or 115200 bps (display selectable).
  - Device Load: 1/8 unit load.

**ADDITIONAL SPECIFICATIONS**
- **Applicable Pipe Material:** Most popular plastic and metal pipes; i.e. Carbon steel, SS, copper, UPVC/PVDF, galvanized steel, mild steel, and brass.†
- **Applicable Pipe Size:** 4-36˝ (101 to 914 mm), model dependent. See model chart. Diameter Length Requirements: >10 upstream; >5 downstream.
- **Glycol:** 0 to 100% display selectable.

*For max flowrates >10 ft/s (3 m/s) order option -CC.
*Brass fittings and pipe are not to be used with NSF Certified models.

**ACCESSORIES**
- **Model:**
  - A-IEF-CBL-50: Plenum rated cable 50 ft (15.2 m)
  - A-IEF-DSP: Setup display
  - A-IEF-KIT: Setup kit (includes setup display, thickness gage and measuring tape), and universal power adaptor
  - A-IEF-PA: AC wall adaptor
  - A-IEF-VLV-RR*: 1-1/4˝ full port isolation valve brass kit**
  - A-IEF-VLV-SS*: 1-1/4˝ full port isolation valve 316 SS kit

*Brass fittings and pipe are not to be used with NSF Certified models. Brass valves are non-RoHS compliant.