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 display setups (-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 factor.
- High performance accuracy is maintained through changes in temperature, density or viscosity.
- Setup Wizard and installation tool are simple to use for 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.
- With accessory full port ball valve options.
- Six point NIST traceable calibration certificate included standard for Carbon Steel models. Brass valves are non-RoHS compliant.
- A-IEF-PA
- A-IEF-VLV-BR
- A-IEF-CBL-50
- A-IEF-DSP
- A-IEF-KIT

**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 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 x 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 with accessory full port ball valve options.
- Pressure Limits: 400 psi (27.6 bar) @ 100°F (37.8°C).
- Pressure Drop: < 0.1 psi at 12 ft/s in 4˝ (101.6 mm) and larger pipe.
- 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).
- Enclosure Ratings: NEMA 6P (IP66) (Non display models); NEMA 4X (IP66) (-LCD option).
- 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/PVF, 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.

The device is designed for durability and longevity, ensuring reliable performance over extended periods.

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-IEF-KIT</td>
<td>Setup kit (includes setup display, thickness gage and measuring tape), and universal power adapter</td>
</tr>
<tr>
<td>A-IEF-DSP</td>
<td>Setup display</td>
</tr>
<tr>
<td>A-IEF-CLA-50</td>
<td>Plenum rated cable 50 ft (15.2 m)</td>
</tr>
<tr>
<td>A-IEF-VLV-50</td>
<td>1-1/4” full port isolation valve brass**</td>
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<td>1-1/4” full port isolation valve brass**</td>
</tr>
<tr>
<td>A-IEF-P</td>
<td>AC wall adapter</td>
</tr>
</tbody>
</table>

*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.

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