**INSFORMATION ELECTROMAGNETIC FLOW TRANSUMI**

**Field Configurable, High Accuracy, BACnet or Modbus® Protocol**

**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 factor.
- High performance accuracy is maintained through changes in temperature, pressure, density, viscosity, or density.
- 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 that can discharge fouling.
- Isolation valve accessory options allow for installation in operational systems via hot-tap kit or easy removal without system downtime.
- NIST traceable pass/fail verification certificate included standard for Carbon Steel Schedule 40 pipes sized 4˝ (102 mm), 6˝ (150 mm), 8˝ (200 mm), and 10˝ (250 mm) with high accuracy option; 10˝ (250 mm) with standard option.

**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 fps (0 to 6 m/s).*
- **Wetted Materials:** Body: stainless steel, SS; Electrodes: 316 SS; Electrode cap: Plastic; O-ring: Silicone.
- **Accuracy:** High accuracy units: ±0.5% of reading at calibrated velocity; ±1% of reading from 0 to 20 fps (0 to 6 m/s); ±0.02 fps (±0.006 m/s) at x 2 fps (0.6 m/s).
- **Temperature Limits:** Ambient: -20 to 160°F (-29 to 71°C); Process: -20 to 250°F (-29 to 121°C); Storage: -20 to 185°F (-29 to 85°C).
- **Process Connection:** 1" NST or Bspt with accessory full port ball valve options.
- **Pressure Limits:** 400 psi (27.6 bar) at 100°F (37.8°C).
- **Pressure Drop:** < 0.1 psi at 12 fps in 4˝ (101.6 mm) larger pipe.
- **Outputs:**
  - (1) Analog: 4 to 20 mA, 0 to 5 V, 0 to 10 V or 2 to 10 V (display selectable);
  - (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;
- **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 2 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 (IP66) (Non display models); NEMA 4X (IP66) (-LCD option).
- **Communications (-COM OPTION):** BACnet or Modbus® RTU communication protocol (default disabled, display selectable).
- **Agency Approvals:** BTL, CE, NSF/ANSI 61 and 372.

**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” (100 to 900 mm), model dependent. See model chart. Diameter Length Requirements: >10 upstream; >5 downstream.
- **Glycol:** 0 to 100% display selectable.

**MODEL CHART**

<table>
<thead>
<tr>
<th>Example</th>
<th>IEF</th>
<th>-H</th>
<th>N</th>
<th>-CND</th>
<th>LCD</th>
<th>IEF-HN-CND-LCD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td><strong>IEF</strong></td>
<td><strong>Insertion electromagnetic flow transmitter</strong></td>
<td></td>
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<tr>
<td><strong>Accuracy</strong></td>
<td><strong>LGS FIE TH</strong></td>
<td>Standard accuracy &lt;10” (250 mm) pipe; 1% FS Standard accuracy &gt;10” (250 mm) pipe; 1% FS Standard accuracy 4 to 36” (100 to 900 mm) pipe; 1% FS High accuracy 4” (100 mm) pipe; 1% of reading High accuracy 6” (150 mm) pipe; 1% of reading High accuracy 8” (200 mm) pipe; 1% of reading High accuracy 10” (250 mm) pipe; 1% of reading High accuracy 4” (100 mm) pipe; 1% of reading</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Process Connection</strong></td>
<td><strong>N B</strong></td>
<td>1” male NPT 1” male Bspt</td>
<td></td>
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<tr>
<td><strong>Housing Electrical Connection</strong></td>
<td><strong>CND PG 10</strong></td>
<td>1” male NPT PG gland without cable PG gland with 10’ (3 m) cable</td>
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</tbody>
</table>
| **Options** | **LCD COM NIST CC NW** | BACnet or Modbus® communication protocol (display selectable)
| **Note:** For CC option, must provide completed configuration paper. | **ACCESSORIES**

**Model**

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

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

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