ELECTROMAGNETIC FLOW TRANSMITTER EPATMAG223 With Local Display

CLIENT FEATURES

- Suitable for conductive liquid.
- Absolutely maintenance free.
- Full bore type.
- Local Indication through 2 Line LED.
- Simple & cost effective construction.
- Outstanding accuracy.
- Flow measurement in forward & reverse direction on demand.
- Empty pipe indication on demand.
- Material options depending upon process data.
- Universal power supply.
- Communication port on demand.

DESCRIPTION

MICRO series EPATMAG-223 are micro-controller based full bore type electromagnetic flow transmitter specially used for various industrial applications. These flow transmitters accurately measures the flow rate of conductive liquids & slurries in closed pipes. Due to simple & rigid design, the flow transmitter is an obstruction less & maintenance free instrument in place of conventional mechanical flow measuring device. The use of ‘Pulsed DC’ technology offers highest ability & better measuring accuracy in the form of electrical signal 4 - 20 mA DC linearly proportional to volumetric flow. The instrument is based on Faraday’s law of electromagnetic induction. A magnetic field is generated by the instrument in the flow tube. The fluid flowing through this magnetic field generates a voltage that is proportional to the flow velocity. Corresponding electrical output is provided with respect to measuring voltage.

TECHNICAL SPECIFICATIONS

- Media: Liquids (Conductive)
- Conductivity: $\geq 5 \mu s/cm$
- Viscosity: 200 cp max
- Line Size: 15 NB to 600 NB
- Excitation: Pulsed DC coil
- Type of Output: 1) 4 to 20 mA DC, Isolated 2) Pulse
- Display: LED - 4 digit for Flow Rate & 9 digit for Totalised Flow
- Calibration Range: As per requirement (Factory Calibrated)
- Accuracy: +/- 0.5% F. S. (For 20 to 100% flow)
- Linearity: +/- 0.5%
- Repeatability: +/- 1%
- Process Temperature: 85°C, 150°C max
- Process Pressure: 10 kg/cm² max
- Material of construction: Lining - Rubber / PTFE (Teflon) Flange - CS / MS / SS Electrode - SS 316 / Hastelloy C Coil Housing - MS / SS 304

- Power Supply: 1) 24 V DC, External 2) 90 - 250 V AC, 50 Hz
- Power Consumption: < 10 VA
- Isolation: 1.4 KV between Input, Output & Power Supply
- Response Time: < 100 mSec
- Temperature Coefficient: +/- 0.1% per °C
- Process Connections: ASA 150 flanged, as per table B
- Mounting: In-Line (Horizontal or Vertical)
- Operating Conditions: Temperature 0 to 55°C / Humidity 5 to 95% non condensing
- Transmitter Enclosure: Aluminum Enclosure IP68 / IP67

OPTIONAL

- Communication Port: RS 485 supporting MODBUS RTU Protocol
- Transmitter Enclosure: Flame-proof, IP-65, IIA, IIB CMRI certified
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<table>
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<th>Sr No.</th>
<th>Line Size in mm.</th>
<th>Min. Flow Rate at 0.5 m/s in m³/h</th>
<th>Max. Flow Rate at 5 m/s in m³/h</th>
<th>Total Length (L) in mm.</th>
<th>Total Width (W) in mm.</th>
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Industries:
- Effluent Treatment Plant
- Sewage Treatment Plant
- Water Supply Scheme
- Steel & Aluminum Industries
- Food & Drug Industries
- Chemical & Fertilizers
- Dairy Industries
- Pump & Valve Calibration Lab
- Sugar Industries

Application:
- Industrial & Domestic Effluent
- Syrup, Molasses, Fruit Juices, Pulp & Beverages
- Acidic & Alkaline Solutions
- Brine Solutions
- Paper Pulp, Black, Green & White Liquor