Universal® Flow Monitors

Plastic with Brass Insert
Vortex Shedding Flowmeter

Description
This flowmeter is made for water, chemicals and low viscosity fluids compatible with materials of construction.
Features:
• Flow rate transmitter 4-20mA (standard 3-wire version power supplied separate from 4-20)
• High and low solid state relays or single relay with pulse out (100 pulses per gallon)
• LED digital display
• No moving parts to clog or wear
• Certified CSA and CE

Electrical Specifications
• Input Power: 10 - 30 VDC @ 80 mA 3 wire standard
• Electrical Connection
  Pin Connector (standard)

Material Specifications
Flow bodies of Brass and Polysulfone with Viton Seals
Bluffs made of Brass
PEEK sensor for high temperature and chemical compatibility

User-Configurable Options
Features that are selectable
• Solid state relays as (N.O. or N.C.)
• Configure one solid state relay as pulse out
• Engineering units (GPM, LPM)

Instrument Specifications
• Flow
  Visual readout: 3 digit LED, 0.3" digit height
  Response time: 200 ms
  Alarm: 5% F.S. deadband
  Accuracy: ±1 % F.S.
  Repeatability: ±25% of indicated flow
  Turndown (ratio of max to min flow): 10:1 (20:1 available with W1 option)
• Pressure
  200 PSIG (13.6 Bar) operating pressure

General
• Fluid temperature limits: 140-210°F (66-99°C)
• Enclosure rating: IP65; type 4X
• Pipe Connections: Female NPT
• Minimum backpressure required (5 PSI typical at midrange, 10 PSI at high flows)
• Over range to 125% without damage
• Straight run 10 pipe diameters upstream and 5 down for max accuracy

Viton® is a registered trademark for DuPont Performance Elastomers.
How To Order  Select the appropriate symbols to build a model code:

Select the appropriate symbols to build a model code:

Example: CX8-M6T1C1D3E22E28N2

MODEL CODES

<table>
<thead>
<tr>
<th>CX SERIES</th>
<th>Flow Rate GPM (LPM)</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 (190)</td>
<td>1&quot;</td>
<td>CX8</td>
</tr>
<tr>
<td>Body Material</td>
<td>Brass with Polysulfone End Caps</td>
<td>M6</td>
<td></td>
</tr>
<tr>
<td>Connection Type</td>
<td>Female NPT</td>
<td>T1</td>
<td></td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>5 pin male connector</td>
<td>C1</td>
<td></td>
</tr>
<tr>
<td>Display Type</td>
<td>Pulse out with 3 digit display of total</td>
<td>D3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-20 mA out with 3 digit display of rate</td>
<td>D1</td>
<td></td>
</tr>
<tr>
<td>Internals</td>
<td>PEEK sensor &amp; Brass</td>
<td>E22</td>
<td></td>
</tr>
<tr>
<td>Special Options</td>
<td>20:1 extended turndown</td>
<td>W1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Consult Factory for Pulse output designation (100 pulses per gallon standard)</td>
<td>E28*</td>
<td></td>
</tr>
<tr>
<td>Flow Direction</td>
<td>Flow Right, Up, Left or Down</td>
<td>N1-N4</td>
<td></td>
</tr>
</tbody>
</table>

PRESSURE DROP CHARTS

FLOW (GPM) vs. PRESSURE DROP (PSID)

FLOW (LPM) vs. MILLIBAR

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
<th>Length in Meters</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX</td>
<td>5 pin female</td>
<td>1 3 10</td>
<td>6241-1M, 6241-3M, 6241-10M</td>
</tr>
</tbody>
</table>
**INSTALLATION DRAWING FEMALE NPT**

**PIN CONNECTOR STANDARD WIRING**

- **WHITE**: 4-20 mA FLOW SIGNAL OUT
- **BROWN**: +24 Vdc SUPPLY
- **GRAY**: FLOW RELAY CONTACT
- **BLACK**: FLOW RELAY CONTACT
- **BLUE**: SUPPLY GROUND

**W1 OPTION (GROUNDED)**

- **WHITE**: LOAD
- **BROWN**: 4-20 mA FLOW SIGNAL OUT
- **GRAY**: FLOW RELAY CONTACT
- **BLACK**: FLOW RELAY CONTACT
- **BLUE**: SUPPLY & CHASSIS GROUND

**To turn flow relay contact from a switch to a pulse out by externally connecting a 2K - 10K Ohm pull up resistor from power supply to one flow relay contact and connecting the other flow relay contact to supply ground.**

**CONFIGURATION:**
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: supply ground
- 4: flow relay contact
- 5: flow relay contact

**CONFIGURATION:**
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: power supply ground
- 4: flow relay contact
- 5: flow relay contact