UNIVERSAL® Flow Monitors

CoolPoint™ CX (Polysulfone)

Plastic Vortex Shedding Flowmeter with 4-20mA, pulse out and switching

CSA Certified
CE Marked

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)
- 2-wire version (option E14) has no display & can be operated in an intrinsically safe mode only in conjunction with an approved IS barrier meeting required entity parameter's
- LED digital display
- No moving parts to clog or wear
- Certified CSA and CE

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
  Fluid temperature limits:
  34-210°F (2-99°C)
- Enclosure rating: IP65; type 4X
- Pipe Connections:
  Female or male 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

Electrical Specifications
- Input Power: 10 - 30 VDC @ 80 mA 3 wire standard, (2 wire IS available with approved barrier, no visual readout).
- Electrical Connection
  Pin Connector (standard)
  Pigtails (optional)

Material Specifications
Flow bodies of polysulfone and Viton Seals
Bluffs and Sensor made of PEEK

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

MODEL CODES

<table>
<thead>
<tr>
<th>CX SERIES</th>
<th>Flow Maximum GPM (LPM)</th>
<th>Pipe Size in Inches</th>
<th>Series Code</th>
<th>Material</th>
<th>Thread Options</th>
<th>Connector</th>
<th>Special Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX2</td>
<td>3 (11)</td>
<td>1/4&quot;</td>
<td>CX2</td>
<td>M5 = Polysulfone</td>
<td>T1 = NPT Female</td>
<td>C1 = Pin connector</td>
<td>W1 = 20:1 extended turndown*</td>
</tr>
<tr>
<td></td>
<td>6 (23)</td>
<td>3/8&quot;</td>
<td>CX3</td>
<td></td>
<td>T6 = NPT Male</td>
<td>C2 = Pig tails</td>
<td>E14 = 2wire 4-20mA loop-powered</td>
</tr>
<tr>
<td></td>
<td>12 (45)</td>
<td>1/2&quot;</td>
<td>CX4</td>
<td></td>
<td></td>
<td></td>
<td>NOTE: E14 option can be operated</td>
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<tr>
<td></td>
<td>25 (95)</td>
<td>3/4&quot;</td>
<td>CX6</td>
<td></td>
<td></td>
<td></td>
<td>in an intrinsically safe mode only</td>
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<tr>
<td></td>
<td>50 (190)</td>
<td>1&quot;</td>
<td>CX8</td>
<td></td>
<td></td>
<td></td>
<td>when used in conjunction with</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>an approved intrinsic safe barrier</td>
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</table>

NOTE: E14 option can be operated in an intrinsically safe mode only when used in conjunction with an approved intrinsic safe barrier meeting required entity parameters.

* Not available on CX2

PRESSURE DROP CHARTS

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
<th>Length in Meters</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>CX</td>
<td>5 pin female</td>
<td>1, 3, 10</td>
<td>6241-1M, 6241-3M, 6241-10M</td>
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<tr>
<td>CX</td>
<td>3 pin female</td>
<td>1, 5, 10</td>
<td>9026, 9029, 9031 (Used with E14 option 2-wire)</td>
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</tbody>
</table>

Intrinsically Safe Barrier  8140R-ASSY (Used with E14 option)
### INSTALLATION DRAWING FEMALE NPT

![CX Female Fitting Dimensions](image)

<table>
<thead>
<tr>
<th></th>
<th>DIM “A”</th>
<th>DIM “B”</th>
<th>DIM “C”</th>
<th>DIM “D”</th>
<th>DIM “E”</th>
<th>DIM “F”</th>
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</thead>
<tbody>
<tr>
<td>CX2, CX3 &amp; CX4</td>
<td>1.98</td>
<td>3.97</td>
<td>2.40</td>
<td>4.81</td>
<td>4.28</td>
<td>R3.61</td>
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<tr>
<td></td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>R3.61</td>
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<tr>
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<td>5.03</td>
<td>10.08</td>
<td>6.10</td>
<td>12.22</td>
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<td>CX6 &amp; CX8</td>
<td>2.38</td>
<td>4.75</td>
<td>2.40</td>
<td>2.81</td>
<td>4.85</td>
<td>R3.80</td>
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<tr>
<td></td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>R3.80</td>
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<tr>
<td></td>
<td>6.05</td>
<td>12.07</td>
<td>6.10</td>
<td>7.14</td>
<td>12.32</td>
<td>R9.65</td>
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</table>

### INSTALLATION DRAWING MALE NPT

![CX Male Fitting Dimensions](image)

<table>
<thead>
<tr>
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<th>DIM “A”</th>
<th>DIM “B”</th>
<th>DIM “C”</th>
<th>DIM “D”</th>
<th>DIM “E”</th>
<th>DIM “F”</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX2, CX3 &amp; CX4</td>
<td>2.36</td>
<td>4.72</td>
<td>2.36</td>
<td>2.81</td>
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<tr>
<td></td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>R3.61</td>
</tr>
<tr>
<td>CX6 &amp; CX8</td>
<td>3.30</td>
<td>6.61</td>
<td>2.40</td>
<td>2.81</td>
<td>4.85</td>
<td>R3.80</td>
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<tr>
<td></td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>(in)</td>
<td>R3.80</td>
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<tr>
<td></td>
<td>8.38</td>
<td>16.79</td>
<td>6.10</td>
<td>7.14</td>
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<td>R9.65</td>
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PIN CONNECTOR STANDARD WIRING

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

**W1 OPTION (GROUNDDED)**

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

**CX 2 WIRE TRANSMITTER**

**CONNECTIONS:**
- BROWN = +24 VDC LOOP POWER
- BLUE = DC LOOP 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.