UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter for Continuous or Batch Water Add on Concrete Trucks

Description
This flowmeter is made for water and low viscosity fluids compatible with materials of construction.
Features:
- Maximum flow rate of 50 GPM
- Designed for monitoring water add on concrete trucks
- Plastic end connections with Brass insert
- Pulse out or 4-20 mA output
- Batch (total) mode or rate for continuous mix
- Solid state relay can be configured as alarm
- No moving parts to clog or wear
- 1 1/2% accurate
- 3-digit LED display option
- Gallons or Liters

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

Material Specifications
Flow body of Brass and Polysulfone with Viton® seals.
Bluffs made of brass PEEK sensor.

CoolPoint™ CX

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
  Maximum flow 50GPM
  Visual readout: 3 digit LED, 0.3” digit height
  Turndown: 10:1
  Accuracy: +/- 1-1/2% full scale
  Repeatability: +/- .25% of indicated flow
- Pressure
  200 PSI (13.6 bar)
- General
  Fluid temperature limits: 35-210oF (2-99°C)
  Enclosure Rating: IP65; Type 4X
  Pipe Connection: 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 & 5 down for max accuracy
  Pulse or 4-20mA rate output

MAX FLOW 50 GPM (190 LPM)
MAX PRESSURE 200 PSI (13.6 Bar)
CX 1 inch

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>SERIES</th>
<th>SYMBOL=FEATURE</th>
<th>CABLING</th>
<th>OUTPUT AND DISPLAY</th>
<th>ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX8</td>
<td>M6 = Brass with Polysulfone endcaps</td>
<td>C1* = 5 pin connector only C7 = 4 feet of 3-wire cable added to the pin connector terminating in a PG7 “weather pack” connector</td>
<td>D3* = Pulse out with 3 digit display of total D1 = 4-20 mA out with 3 digit of rate display D4E10 = pulse out no display D4E1 = 4-20 mA out with no display</td>
<td>N2* = Flow up N3 = Flow left N1 = Flow right N4 = Flow down</td>
</tr>
</tbody>
</table>

FACE AND PIN CONNECTOR ORIENTATION WITH FLOW

[Images of face and pin connector orientations]

PRESSURE DROP CHARTS

[Graphs showing pressure drop vs flow for GPM and LPM]

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</td>
<td>6241-1M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>6241-3M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>6241-10M</td>
</tr>
</tbody>
</table>
Note that on this option, the flow relay contacts are open collector switches. To get a pulse out, install an external 2-10 K Ohm resistor where indicated.

**PIN CONNECTOR PINOUTS**

**TOTALIZER WITH PULSE OUTPUT**

- **WHITE**: NOT USED
- **BROWN**: +24 Vdc POWER SUPPLY
- **GRAY**: FLOW SIGNAL PULSE OUTPUT
- **BLACK**: SUPPLY GROUND (REDUNDANT)
- **BLUE**: SUPPLY GROUND

**FLOW RATE WITH 4-20MA OUTPUT**

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

**PIN CONFIGURATION:**
- 1: +24 VDC power supply
- 2: not used
- 3: supply ground
- 4: supply ground
- 5: flow signal pulse output

Note: There is an internal 10K Ω pull-up resistor on the pulse output line (pin 5).

**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

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.