UNIVERSAL® Flow Monitors

Flowmeter for Continuous or Batch Water Add on Concrete Trucks

Description
This flowmeter is for monitoring water add on concrete trucks. It operates in batch (total) mode or rate for continuous mix.
- No moving parts to hang up
- 1 1/2% accuracy
- Not destroyed by compressed air
- 3 digit display optional

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

Material Specifications
Flow bodies of brass or Polysulfone with PVDF sensors and Viton® seals standard.

User-Configurable Options
- Engineering units (GPM, LPM)

Instrument Specifications
- Max flow 50 GPM
- Flow Accuracy: ±1 1/2% of indicated total
  1 1/2% Full Scale for rate
- Turndown: 10:1
- Operating Pressure
  200 PSI (13.6 bar) Polysulphone,
  300 PSIG (20 Bar) Brass
- General
  Response time: 450 ms
  Fluid temperature limits: 35-150°F (2-66°C)
  continuous use.
  Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13
- Pipe Connections:
  1 inch NPT female
- Pulse or 4-20 mA rate output
- Mounting lugs integral to body
- Back pressure of 10 PSIG required

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>BODY MATERIAL</th>
<th>CABLELING</th>
<th>OUTPUT AND DISPLAY</th>
<th>ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPM8</td>
<td>-M1 * = Brass</td>
<td></td>
<td>C1 * = 5 pin connector only</td>
<td>D3 * = Pulse out with 3 digit display of total pressure drop</td>
<td>N2 * = Flow up</td>
</tr>
<tr>
<td></td>
<td>-M5 = Polysulfone</td>
<td></td>
<td>C7 = 4 feet of 3-wire cable added to the pin connector terminating in a PG7 &quot;weather pack&quot; connector</td>
<td>D1 = 4-20 mA out with 3 digit of rate display</td>
<td>N3 = Flow left</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D4E10 = Pulse out no display</td>
<td>N1 = Flow right</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D4E1 = 4-20 mA out with no display</td>
<td>N4 = Flow down</td>
</tr>
</tbody>
</table>

* Indicates this is a standard option for the product. If you leave this position blank, the assumption will be that this is the selection by default.

Example: CPM8-M5 is the same as CPM8-M5C1D3N2

**FACE AND PIN CONNECTOR ORIENTATION WITH FLOW**

![Flow Direction](Diagram)

- **N1**
- **N2**
- **N3**
- **N4**

**PRESSURE DROP**

- Graphs showing pressure drop vs. flow (GPM) and pressure drop vs. flow (LPM).
CABLE POSITION N3

Dimensions in Inches (mm)

<table>
<thead>
<tr>
<th>Body Material</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>3.13 (79)</td>
<td>2.31 (59)</td>
<td>1.56 (40)</td>
</tr>
<tr>
<td>M5</td>
<td>2.88 (73)</td>
<td>2.50 (64)</td>
<td>2.00 (51)</td>
</tr>
</tbody>
</table>

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>CP</td>
<td>5 pin female</td>
<td>1 3 10</td>
<td>6241-1M 6241-3M 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.

**TOTALIZER WITH PULSE OUTPUT**

**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).

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

**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.