

Maximum flow ranges from 3-12 GPM (11-45 LPM)  
 Max pressure 300 PSI (20 Bar)  
 Temperature range 32-210°F (2-99°C)

CP 1/4-1/2 Inch

# UNIVERSAL<sup>®</sup> Flow Monitors

## CoolPoint™

### Vortex Shedding Flowmeter



### Description

This flowmeter is made for water, water/glycol coolant of low viscosity fluids. There are no moving parts to clog or wear. They are certified CSA and CE. They have a 4-20 mA output. There are two versions. The three wire version (power supplied separate from the 4-20) has a solid state relay that can be configured as an alarm or as a pulse out. It has a bright LED digital display of flow rate.

The two wire version (option E14) has no display, pulse out or alarm point. It can be operated in an intrinsically safe mode only when used in conjunction with an approved intrinsic safety barrier meeting required entity parameters.

### Electrical Specifications

- Input Power: 10 - 30 VDC @ 80 mA standard, 25 mA for the 2 wire option
- Output: 4-20 mA for flow rate
- 100 pulses per gallon from the solid state relay for 3 wire (standard) option
- Electrical Connection
  - Pin Connector (standard)
  - Pigtails (optional)
  - Junction Box with terminal strip (optional)

### Material Specifications

Flow bodies of brass or 316 Stainless Steel with PVDF sensors and Viton<sup>®</sup> seals standard. PEEK sensors used for high temp for fluids above 150° F.

### User-Configurable Options

Features that are selectable on the 3 wire standard 4-20 mA units include:

- Selectable alarm state (N.O. or N.C.)
- Set point or pulse output
- Engineering units (GPM, LPM)

### Instrument Specifications

- Flow
  - Visual readout: 3 digit LED, 0.3" digit height (3 wire units only)
  - Response time: 450 ms.
  - Deadband for Alarm: 5% of full scale (maximum flow) (3 wire units only)
  - Accuracy: ±2% of full scale
  - Repeatability: ±.25% of indicated flow
  - Turndown (ratio of max to minimum flow rates): 10:1 at all temperatures and 20:1 available optionally for standard temperatures.
- Pressure
  - 300 PSIG (20 Bar) operating pressure
- General
  - Fluid temperature limits: 35-150° F (2-66° C) standard, 150-210° F (66-99° C) optional for standard 3 wire transmitter only.
  - Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13
- Pipe Connections:
  - Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG required

Viton<sup>®</sup> is a registered trademark for DuPont Performance Elastomers.

# How To Order Select the appropriate symbols to build a model code:

## MODEL CODES

Flow maximum GPM (LPM)	Pipe size in inches	Model code	Material	Thread options available	Connector or conduit box options available	Special options
3 (11)	1/4	<b>CP2**</b>	<b>-M1*</b> =Brass <b>-M2</b> =316 Stainless Steel	<b>T1*</b> =NPT <b>T2</b> =BSPT <b>T3</b> =BSPP	<b>C1*</b> =Pin connector <b>C2</b> =Pig tails <b>C3</b> =Conduit box, terminal strip	<b>W1</b> =20:1 extended turndown*** <b>E20</b> =High temp (150-210° F)****  <b>E14</b> = 2wire 4-20 mA loop-powered transmitter. No alarms, display or high temp available with this option. <b>NOTE:</b> E14 option can be operated in an intrinsically safe mode only when used in conjunction with an approved intrinsic safety barrier meeting required entity parameters. <b>8140R-ASSY</b> = Optional approved barrier
6 (22.7)	3/8	<b>CP3</b>				
12 (45)	1/2	<b>CP4</b>				

\* Indicates default selection. If no selection is made, this option is assumed.

\*\*\* Not available on CP2

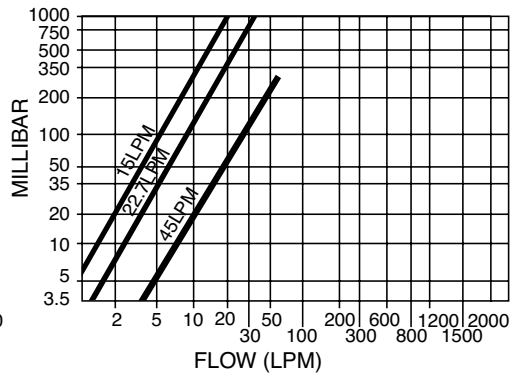
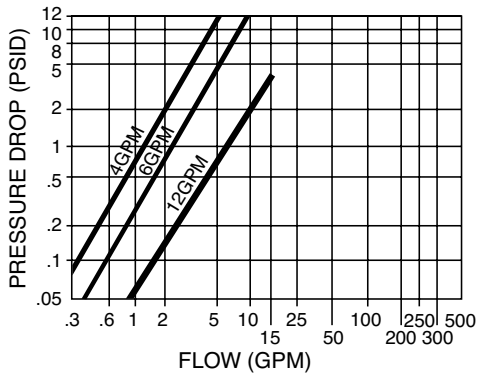
\*\*\*\* Needs grounding, standard temp units only.

**Example: CP2** is the same as CP2-M1T1C1

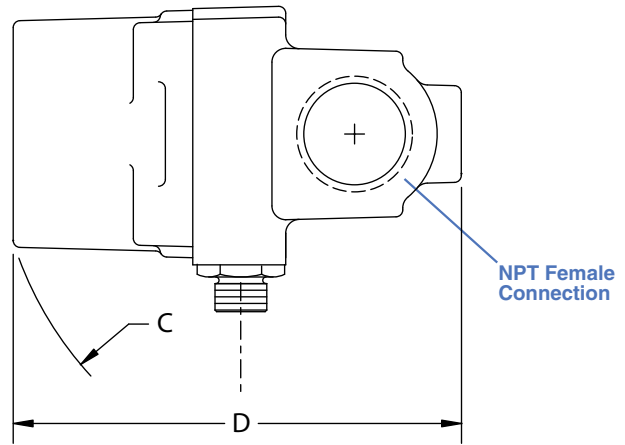
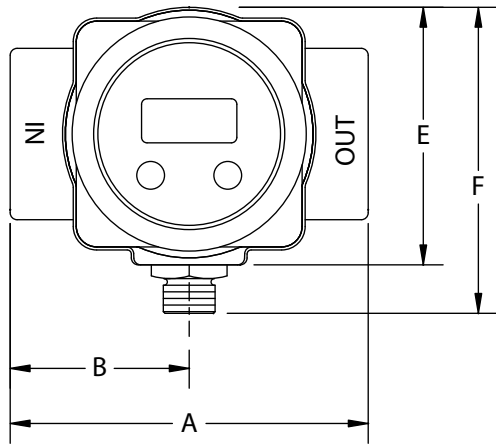
\*\* Use schedule 40 pipe only

\*\*\*\* Available standard 3 wire units only

## PRESSURE DROP

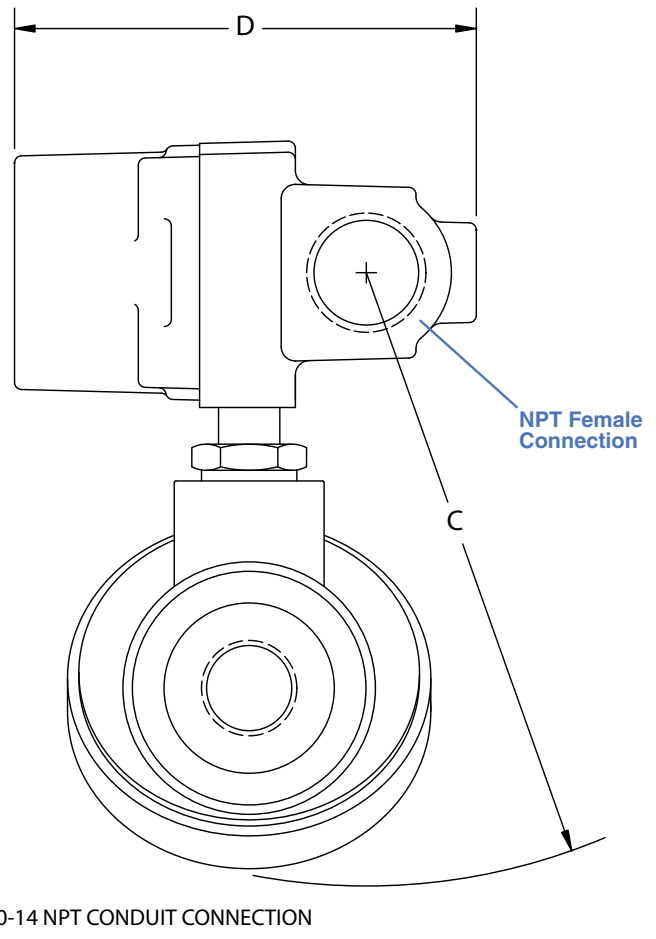
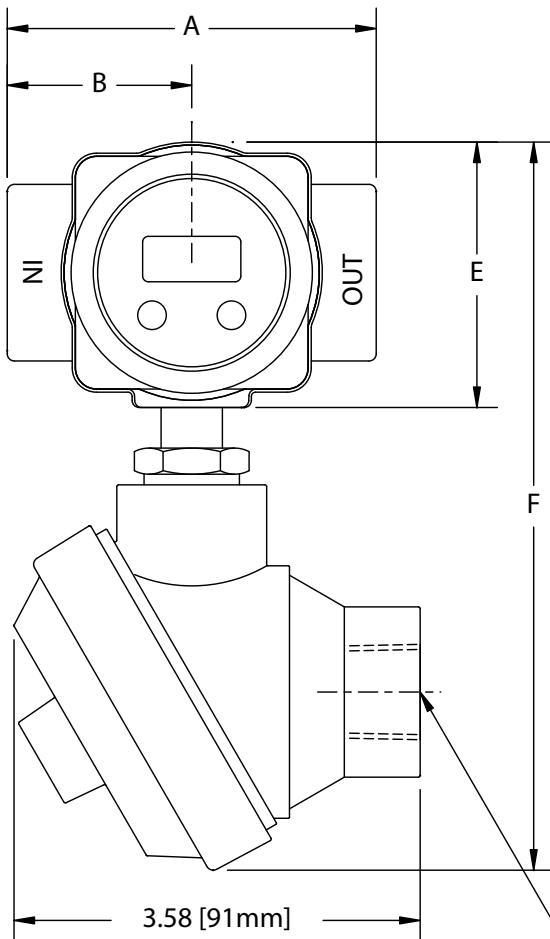


## INSTALLATION DRAWING – BASIC METERS



Size	A	B	C	D	E	F
CP2 CP3 and CP4	3.25 [83mm]	1.62 [41mm]	3.25 [83mm]	4.07 [103mm]	2.34 [60mm]	2.77 [70mm]

## INSTALLATION DRAWING – METERS WITH OPTIONAL JUNCTION BOX



Size	A	B	C	D	E	F
CP2 CP3 and CP4	3.25 [83mm]	1.62 [41mm]	5.4 [137mm]	4.07 [103mm]	2.34 [60mm]	6.41 [163mm]

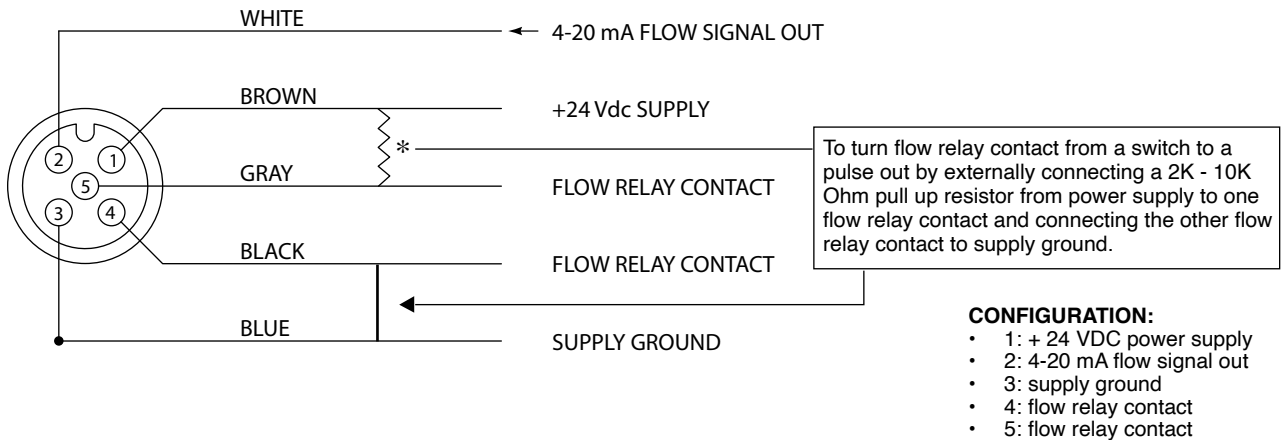
## ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

Series	Description	Length in Meters	Part Number
CP	5 pin female	1	6241-1M
		3	6241-3M
		10	6241-10M
CP 2wire	3 pin female	1	MDCM-3FP-1M
		3	MDCM-3FP-3M
		10	MDCM-3FP-10M

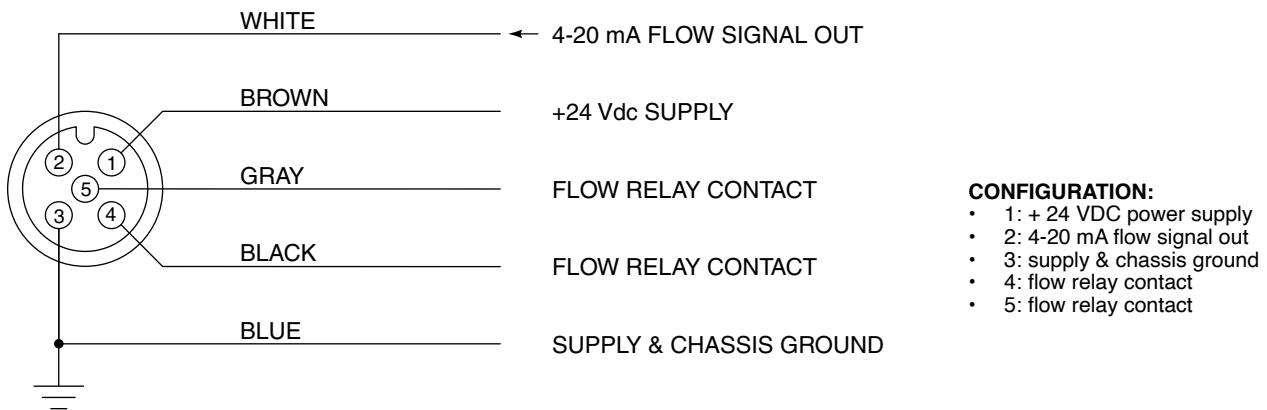
Barrier used for 2 wire option where Intrinsic Safety is required. Part number: 8140-ASSY.

## PIN CONNECTOR PINOUTS

### CP 3 WIRE STANDARD



### CP STANDARD 3 WIRE WITH W1 OPTION (GROUNDED)



### CP 2 WIRE TRANSMITTER

