Maximum flow ranges from	**4-200 GPM (22-750 LPM)**	**CP-V8**
Max pressure	**300 PSI (20 Bar)**	**Battery operated**
Temperature range	**35-130°F (2-54°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter

CoolPoint™

Description

This flowmeter is made for water and low viscosity fluids.
It has the following features:

- Battery operated (AA batteries).
- Rate or Total
- No moving parts to clog or wear
- 6 1/2 digit LCD display

Material Specifications

Flow bodies of brass or 316 Stainless Steel with PVDF sensors and Viton® seals standard.

User-Configurable Options

Features that are selectable include:

- Selectable units: Gallons, Liters or Cubic Meters.

Instrument Specifications

- Flow
  Accuracy: ±2% of full scale
  Repeatability: ±.25% of indicated flow
  Turndown (ratio of max to minimum flow rates): 10:1
- Pressure
  300 PSIG (20 Bar) operating pressure
- General
  Fluid temperature limits: 35-130° F (2-54° C).
  Enclosure rating: Designed to meet the requirements of IP67
- Pipe Connections:
  Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG required.

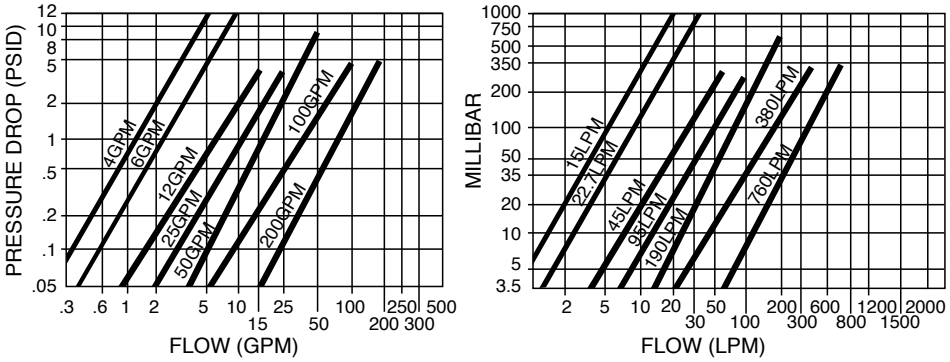
Viton® is a registered trademark for DuPont Performance Elastomers.

MODEL CODES

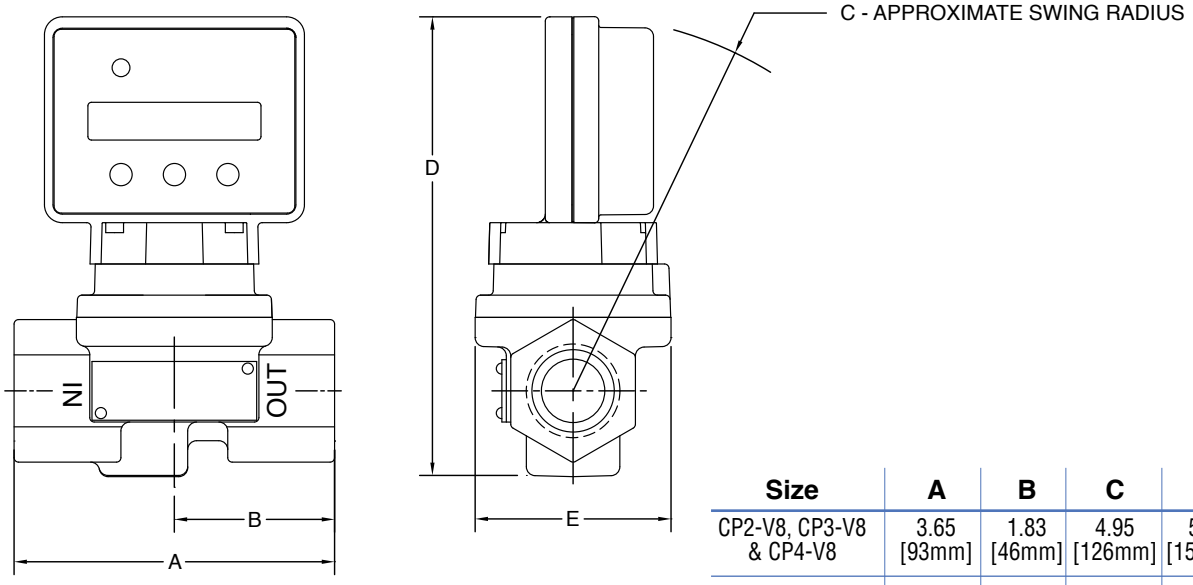
Flow maximum GPM (LPM)	Pipe size in inches	Model code	Material	Thread options available
4 (15)	1/4	**CP2-V8****	**-M1***=Brass	**T1***=NPT
6 (22.7)	3/8	**CP3-V8**	**-M2**=316 Stainless Steel	**T2**=BSPT
12 (45)	1/2	**CP4-V8**		**T3**=BSPP
25 (95)	3/4	**CP6-V8**		
50 (190)	1	**CP8-V8**		
100 (380)	1 1/2	**CP12-V8**		
200 (750)	2	**CP16-V8**		

* Indicates default selection. If no selection is made, this option is assumed (**Example: CP2-V8** is the same as CP2-V8M1T1).
** Use only schedule 40 pipe

PRESSURE DROP



INSTALLATION DRAWINGS



Size	A	B	C	D	E
CP2-V8, CP3-V8 & CP4-V8	3.65 [93mm]	1.83 [46mm]	4.95 [126mm]	5.91 [150mm]	2.37 [60mm]
CP6-V8 & CP8-V8	4.50 [114mm]	2.25 [57mm]	5.26 [134mm]	6.44 [163mm]	2.75 [70mm]
CP12-V8 & CP16-V8	6.75 [171mm]	3.38 [86mm]	5.99 [152mm]	7.69 [195mm]	2.88 [73mm]

UNIVERSAL UEM
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274

MAX FLOW	**50 GPM (190 LPM)**	
MAX PRESSURE	**200 PSI (13.6 Bar) Polysulfone**	**CPM 1 inch**

CoolPoint™ CPM

UNIVERSAL® Flow Monitors

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

CSA Certified

CE Marked

Description

This flowmeter is made for water, chemicals and low viscosity fluids compatible with materials of construction.

Features:

- Maximum flow rate of 50 GPM
- Designed for monitoring water add on concrete trucks
- Pulse out or 4-20 mA output
- Batch (total) mode or rate for continuous mix
- 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
- Electrical Connection
  Pin Connector (standard)
  Weather pack

Material Specifications

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

User-Configurable Options

Features that are selectable

- Engineering units (GPM, LPM)

Instrument Specifications

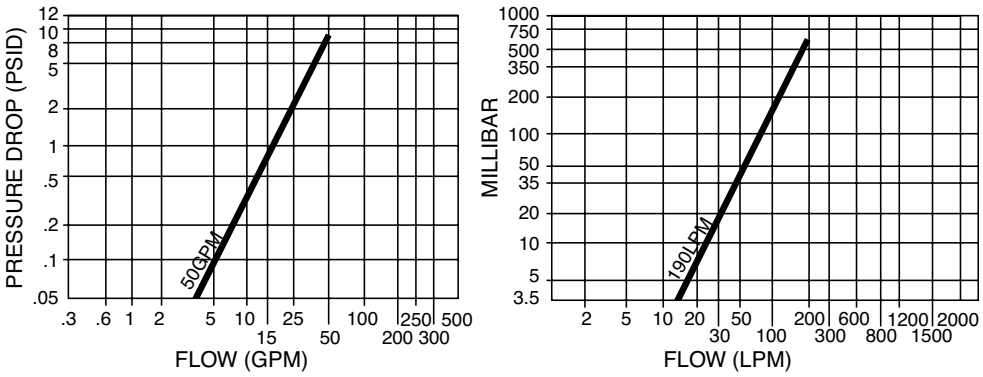
- Flow
  Maximum flow 50GPM
  Visual readout: 3 digit LED, 0.3” digit height
  Turndown: 10:1
  Accuracy: +/- 1-1/2% full scale
  Repeatability: +/- .25% of indicated flow
- Pressure
  200 PSI (13.6 bar)
- General
  Fluid temperature limits: 35-210°F (2-99°C)
  Enclosure Rating: IP65; Type 4X
  Pipe 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
  Mounting lugs integral to body

MODEL CODES

SERIES	SYMBOL=FEATURE			
	BODY MATERIAL	**CABLING**	**OUTPUT AND DISPLAY**	**ORIENTATION**
CPM8	**-M5** = Polysulfone	**C1*** = 5 pin connector only **C7** = 4 feet of 3-wire cable added to the pin connector terminating in a PG7 "weather pack" connector	**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	**N2*** = Flow up **N3** = Flow left **N1** = Flow right **N4** = Flow down

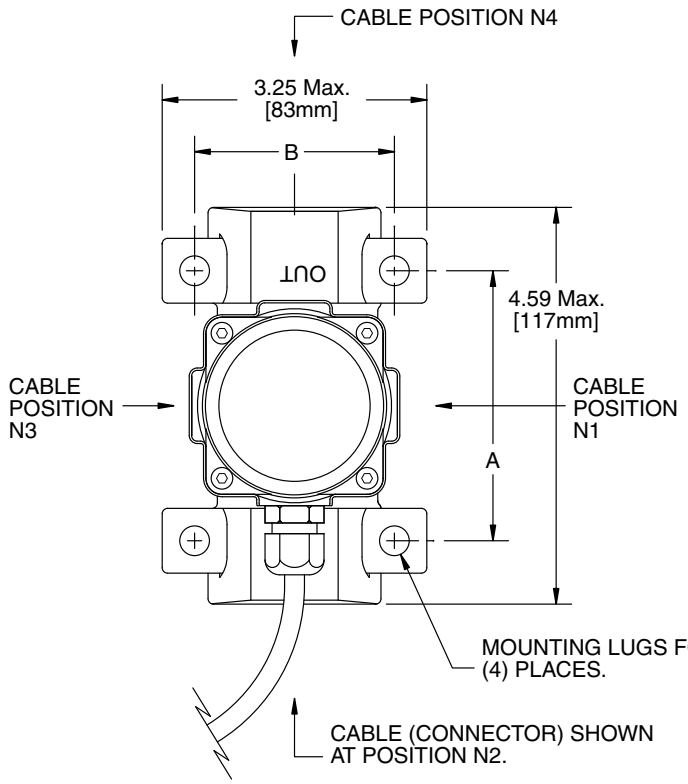
FACE AND PIN CONNECTOR ORIENTATION WITH FLOW

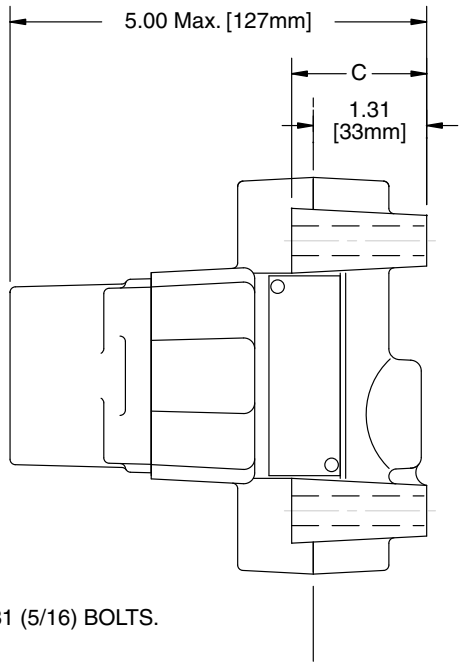
PRESSURE DROP CHARTS



ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

Series	Description	Length in Meters	Part Number
CPM	5 pin female	1 3 10	6241-1M 6241-3M 6241-10M



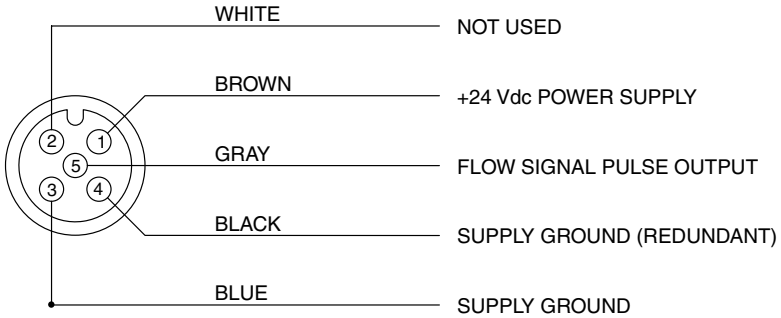


Dimensions in Inches (mm)

Body Material	A	B	C
M5	2.88 (73)	2.50 (64)	2.00 (51)

PIN CONNECTOR PINOUTS

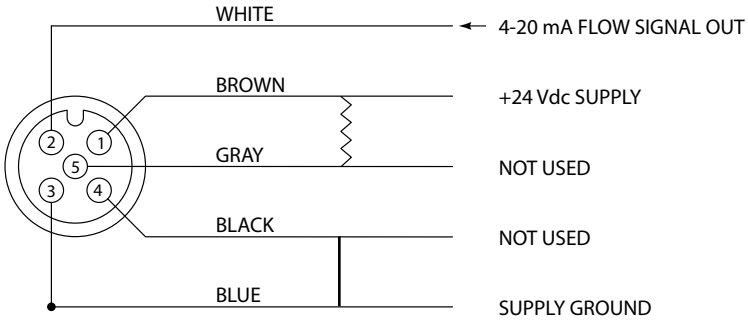
TOTALIZER WITH PULSE OUTPUT



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: not used
- 5: not used

Maximum flow ranges from	**4-200 GPM (22-750 LPM)**	**CP-V9**
Max pressure	**300 PSI (20 Bar)**	**Profinet**
Temperature range	**32-210°F (2-99°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter

CoolPoint™

Description

These vortex shedding flowmeters are designed for water and low viscosity fluids like coolant with the following features.

- PROFINET protocol for flow rate, set point and status
- Digital LCD display of flow, set point and status.
- LED status lights
- No moving parts to clog or wear

Material Specifications

Flow bodies of brass or 316 Stainless Steel with PVDF sensors and Viton® seals standard.

Electrical Specifications

- Input Power: 10 - 30 VDC @ 75mA
- Electrical Connection
  Pin Connector (standard)

Instrument Specifications

- Flow
  Visual readout: 4 digit LED
  Deadband for Alarm: 5% of full scale (maximum flow)
  Accuracy: ±2% of full scale (maximum flow).
  Repeatability: ±.25% of indicated flow.
  Turndown (ratio of max to minimum flow rates): 10:1 at all temperatures.
- Pressure
  300 PSIG (20 Bar) operating pressure
- Response time
  60 ms flow status, 450 ms for change in flow
- General
  Fluid temperature limits: 35-150° F (2-66° C) standard.
- Pipe Connections:
  Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG required

Profinet

- 100 Mbit/s
- Dual RJ45 Ethernet Ports: integrated 2-port switch allows Profinet installations in bus or line topology
- Fast Start Up (FSU) compatible

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
4 (15)	1/4	**CP2-V9****	**-M1***=Brass	**T1***=NPT
6 (22.7)	3/8	**CP3-V9**	**-M2**=316 Stainless Steel	**T2**=BSPT
12 (45)	1/2	**CP4-V9**		**T3**=BSPP
25 (95)	3/4	**CP6-V9**		
50 (190)	1	**CP8-V9**		
100 (380)	1 1/2	**CP12-V9**		
200 (750)	2	**CP16-V9**		

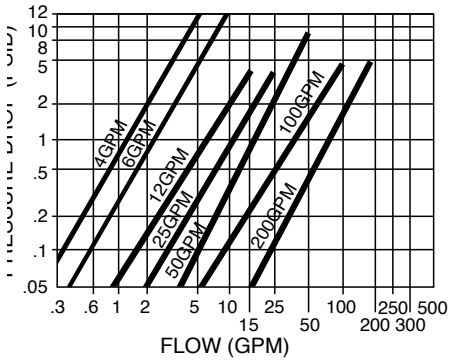
* Indicates default selection. If no selection is made, this option is assumed (**Example: CP2-V9** is the same as CP2-V9M1T1).

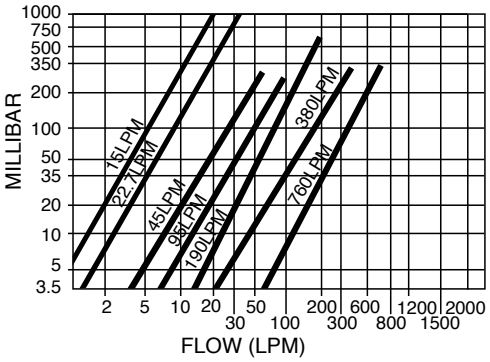
** Use schedule 40 pipe only

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

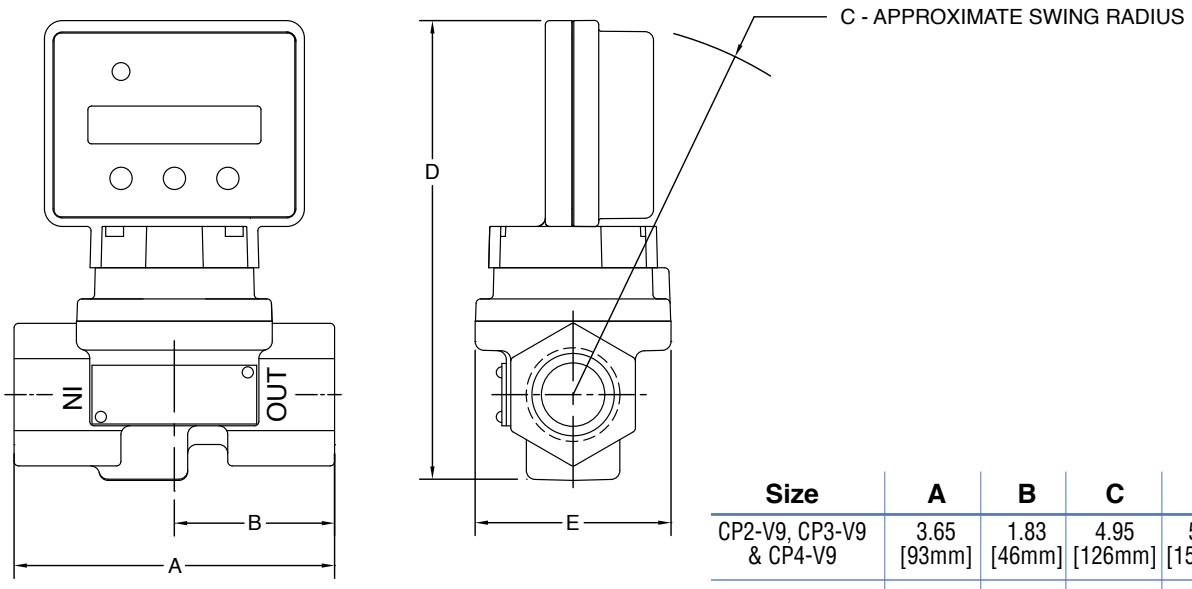
Series	Description	Length in Meters	Part Number
CP-V9	4 pin micro female	5	2519-5M

PRESSURE DROP





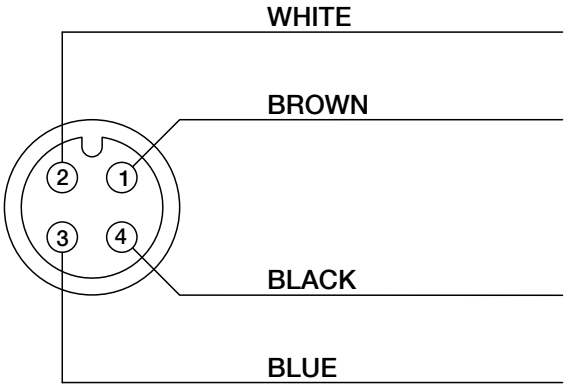
INSTALLATION DRAWINGS



Size	A	B	C	D	E
CP2-V9, CP3-V9 & CP4-V9	3.65 [93mm]	1.83 [46mm]	4.95 [126mm]	5.91 [150mm]	2.37 [60mm]
CP6-V9 & CP8-V9	4.50 [114mm]	2.25 [57mm]	5.26 [134mm]	6.44 [163mm]	2.75 [70mm]
CP12-V9 & CP16-V9	6.75 [171mm]	3.38 [86mm]	5.99 [152mm]	7.69 [195mm]	2.88 [73mm]

PIN CONNECTOR PINOUT

FACE VIEW, 4-PIN DC MICRO RECEPTACLE



NOT USED

+24 Vdc SUPPLY

NOT USED

DC GROUND

CONFIGURATION:

- 1: + 24 VDC power supply
- 2: Not used
- 3: DC ground
- 4: Not used

UNIVERSAL UEM
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274

Maximum flow ranges from	**3-12 GPM (11-45 LPM)**	
Max pressure	**300 PSI (20 Bar)**	**CP 1/4-1/2 Inch**
Temperature range	**32-210°F (2-99°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter

CoolPoint™

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® 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

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

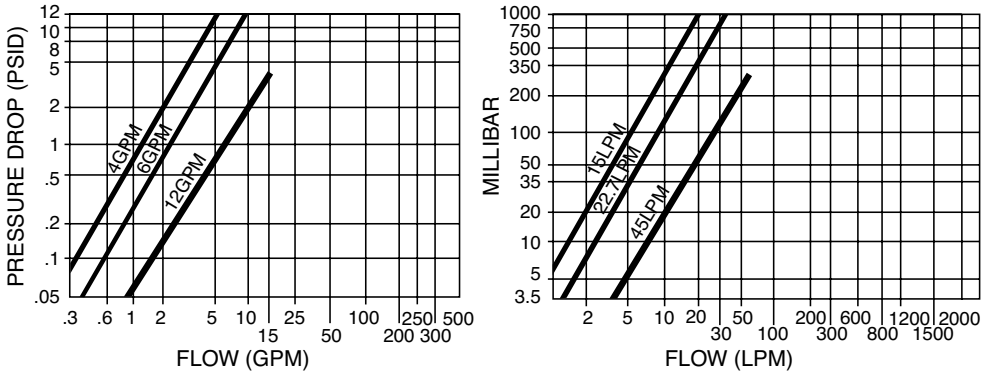
* Indicates default selection. If no selection is made, this option is assumed.

Example: CP2 is the same as CP2-M1T1C1

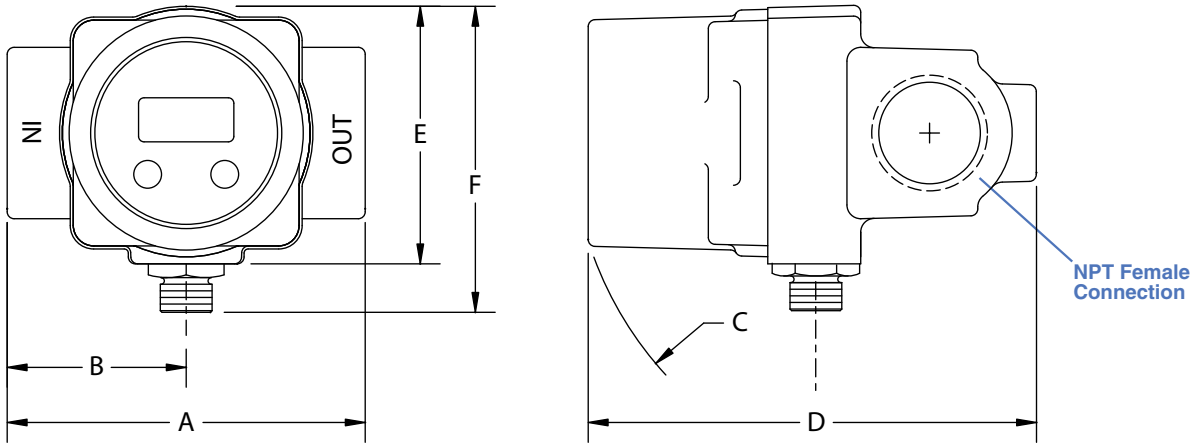
*** Not available on CP2
*** Needs grounding, standard temp units only.

** Use schedule 40 pipe only
****Available standard 3 wire units only

PRESSURE DROP

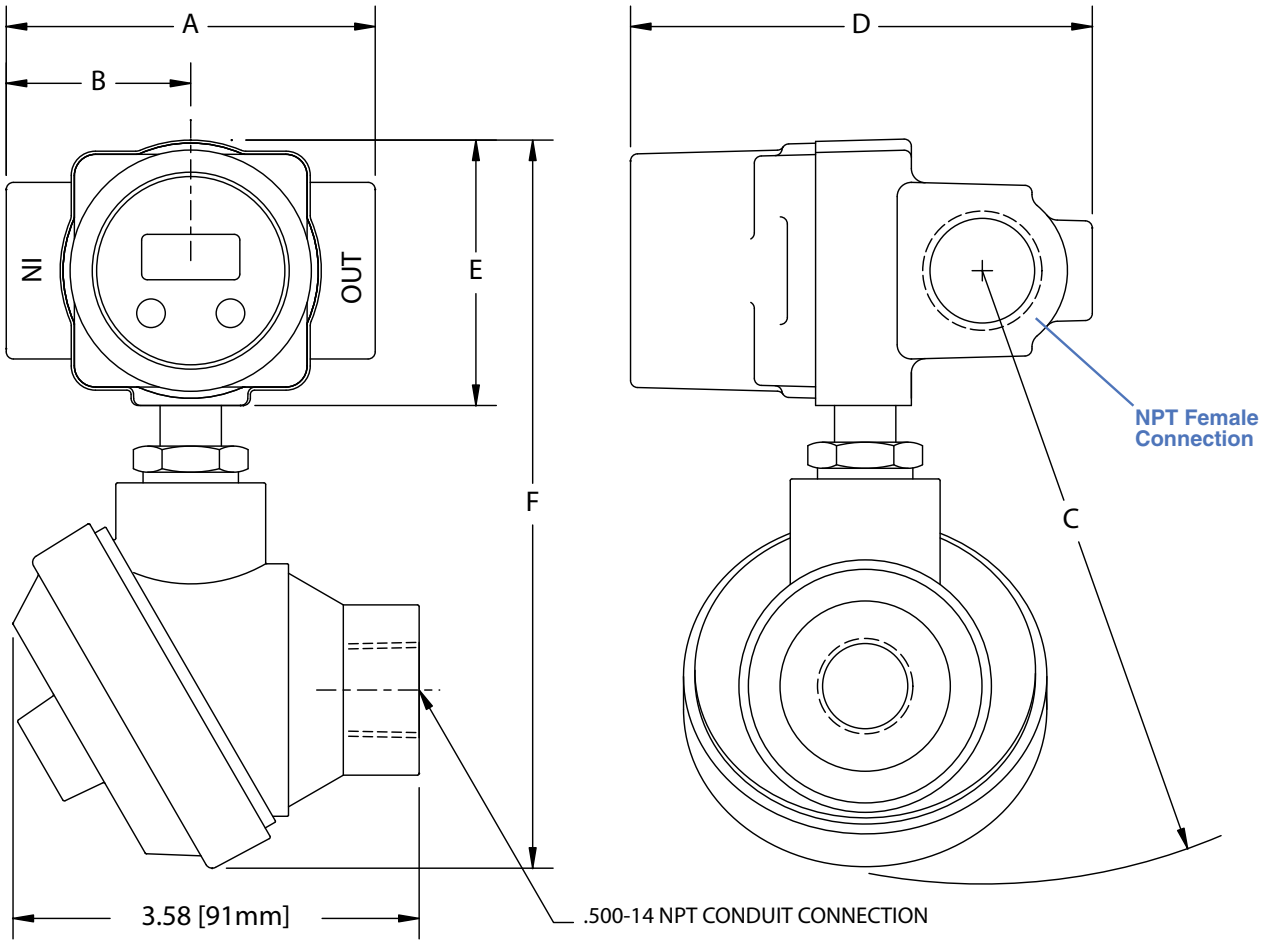


INSTALLATION DRAWING – BASIC METERS



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]

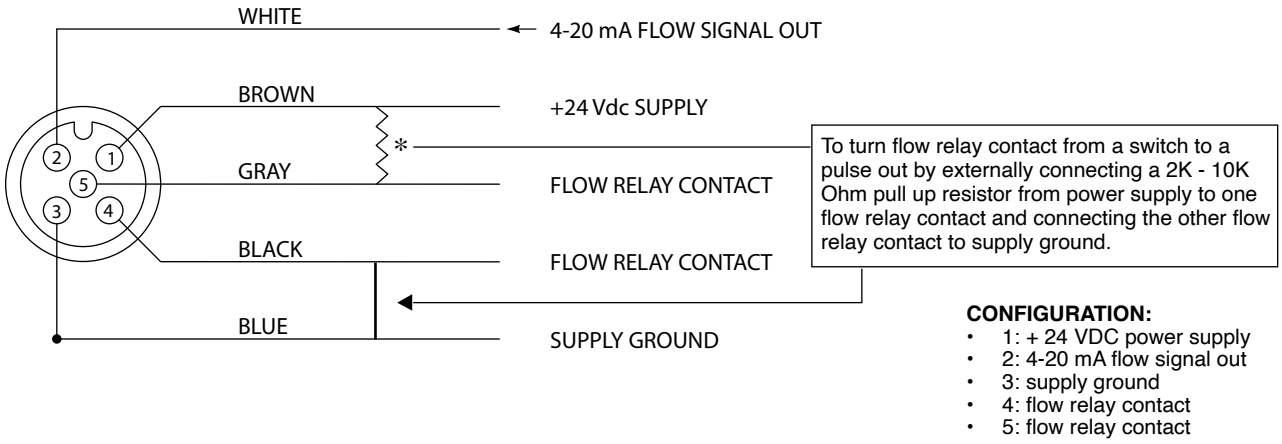
ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

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

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

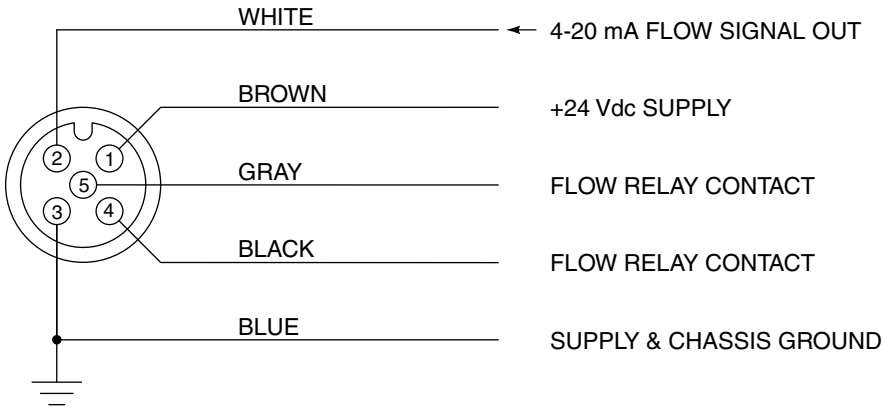
PIN CONNECTOR PINOUTS

CP 3 WIRE STANDARD



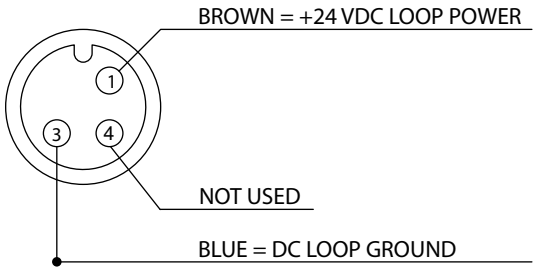
CONFIGURATION:
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: supply ground
- 4: flow relay contact
- 5: flow relay contact

CP STANDARD 3 WIRE WITH W1 OPTION (GROUNDED)



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

CP 2 WIRE TRANSMITTER



Maximum flow ranges from	**25-200 GPM (95-750 LPM)**	**CP 3/4-2 inch**
Max pressure	**300 PSI (20 Bar)**	
Temperature range	**32-210°F (2-99°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter

CoolPoint™

CoolPoint™ with Rotatable Enclosure option

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: 4-20mA for flow
- 100 pulses per gallon from the solid state relay for 3 wire (standard) option – all units except the 2 inch CP16 which is 25 pulses per gallon
- 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® 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.
  Deadband for Alarm: 5% of full scale (maximum flow) 3 wire units only.
  Accuracy: ±2% of full scale (maximum flow).
  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
- Response time
  450 ms.
- General
  Fluid temperature limits: 35-150° F (2-66° C) standard, 150-210° F (66-99° C) optional 3 wire units only.
  Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13
- Pipe Connections:
  Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG required

MODEL CODES

Flow maximum GPM (LPM)	Pipe size in inches	Model code **Standard**	Material	Thread options available	Connector or conduit box options available	Special options
25 (95)	3/4	CN6	-**M1***=Brass			
50 (190)	1	CN8	-**M2**=316 Stainless Steel			
100 (380)	1 1/2	CN12		**T1***=NPT	**C1***=Pin connector	
200 (750)	2	CN16		**T2**=BSPT	**C2**=Pig tails	
				T3=BSPP	**C3**=Conduit box, terminal strip	**W1**=20:1 extended turndown***
		Rotatable Heads**				**E20**=High temp (150-210° F)****
25 (95)	3/4	CP6				**Available with CN units only:**
50 (190)	1	CP8				**E14** = 2wire 4-20 mA loop-powered transmitter. No alarms, display or high temp available with this option.
100 (380)	1 1/2	CP12				**NOTE:** E14 option can be operated in an intrinsically safe mode only when used in conjunction with an approved instrinsic safety barrier meeting required entity parameters.
200 (750)	2	CP16				**8140R-ASSY** = Optional approved barrier

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

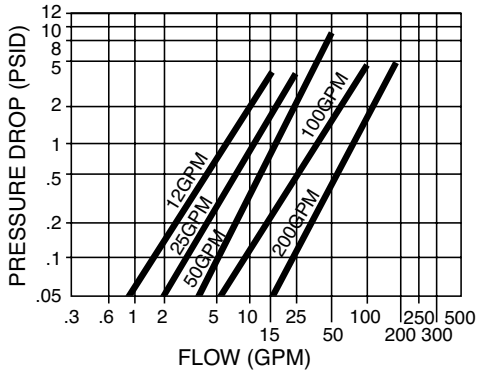
** Rotatable head option allows control box to be rotated 270° in field for readability.

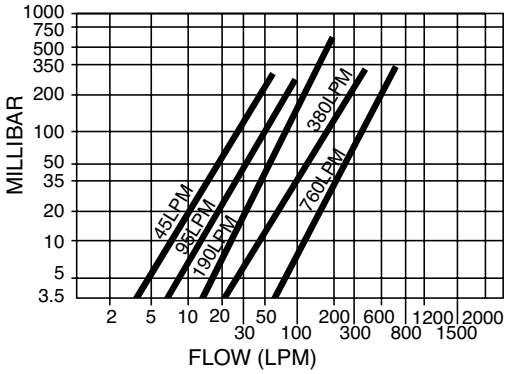
*** Requires grounded wiring, standard temp units only.

****Available standard 3 wire units only

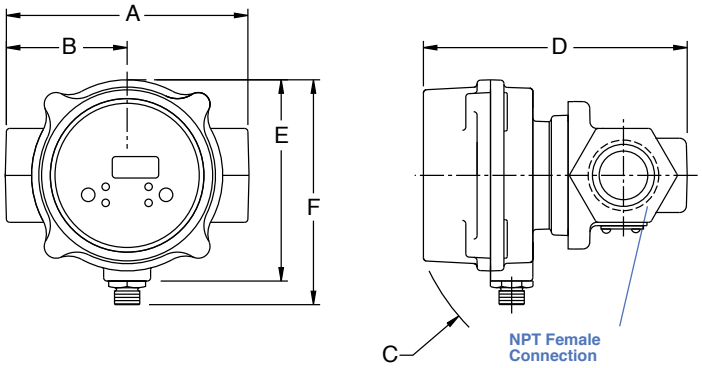
Example: CPN12 is the same as CPN12-M1T1C1

PRESSURE DROP

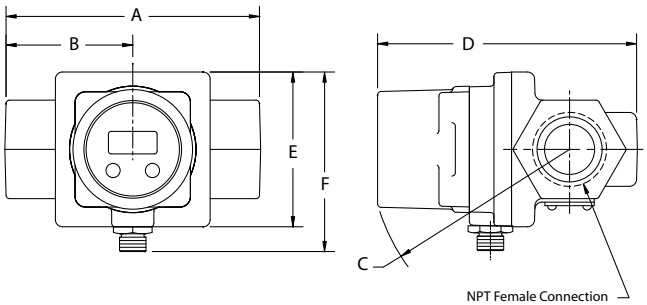




INSTALLATION DRAWING – BASIC METERS

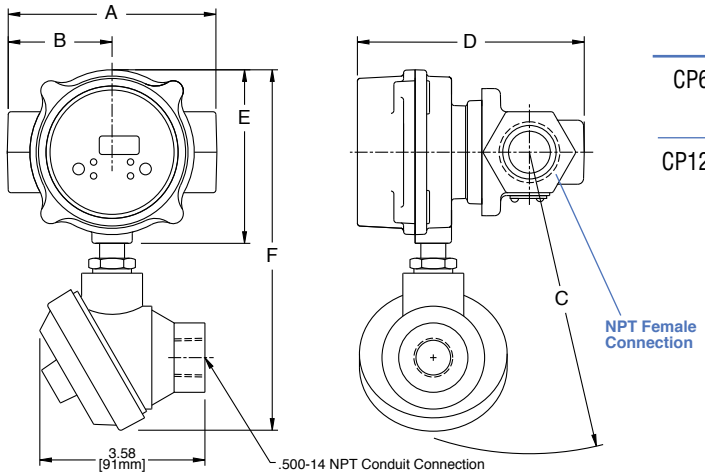


Size	A	B	C	D	E	F
CP6 and CP8	4.50 [113mm]	2.25 [57mm]	4.04 [103mm]	4.92 [125mm]	3.75 [95mm]	4.19 [113mm]
CP12 and CP16	6.75 [171mm]	3.37 [86mm]	4.71 [120mm]	6.14 [156mm]	3.75 [95mm]	4.19 [106mm]

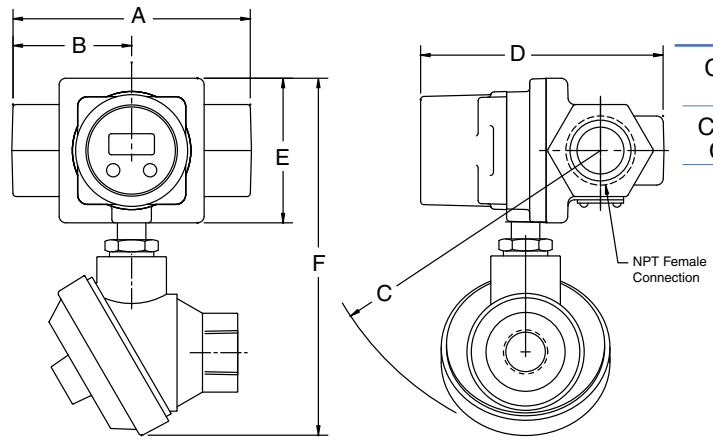


Size	A	B	C	D	E	F
CN6 & CN8	4.50" [114mm]	2.25" [57mm]	3.55" [90mm]	4.60" [117mm]	2.75" [70mm]	3.19" [81mm]
CN12 & CN16	6.75" [171mm]	3.37" [86mm]	4.24" [108mm]	5.85" [149mm]	2.88" [73mm]	3.25" [183mm]

INSTALLATION DRAWING – METERS WITH OPTIONAL JUNCTION BOX



Size	A	B	C	D	E	F
CP6 and CP8	4.50 [114mm]	2.25 [57mm]	6.52 [166mm]	4.92 [125mm]	3.75 [95mm]	7.79 [198mm]
CP12 and CP16	6.75 [171mm]	3.37 [86mm]	6.87 [175mm]	6.14 [156mm]	3.75 [95mm]	7.79 [198mm]



Size	A	B	C	D	E	F
CN6 & CN8	4.50" [114mm]	2.25" [57mm]	5.69" [145mm]	4.60" [117mm]	2.75" [90mm]	6.79" [172mm]
CN12 & CN16	6.75" [171mm]	3.37" [86mm]	6.00" [152mm]	5.85" [149mm]	2.88" [73mm]	6.85" [174mm]

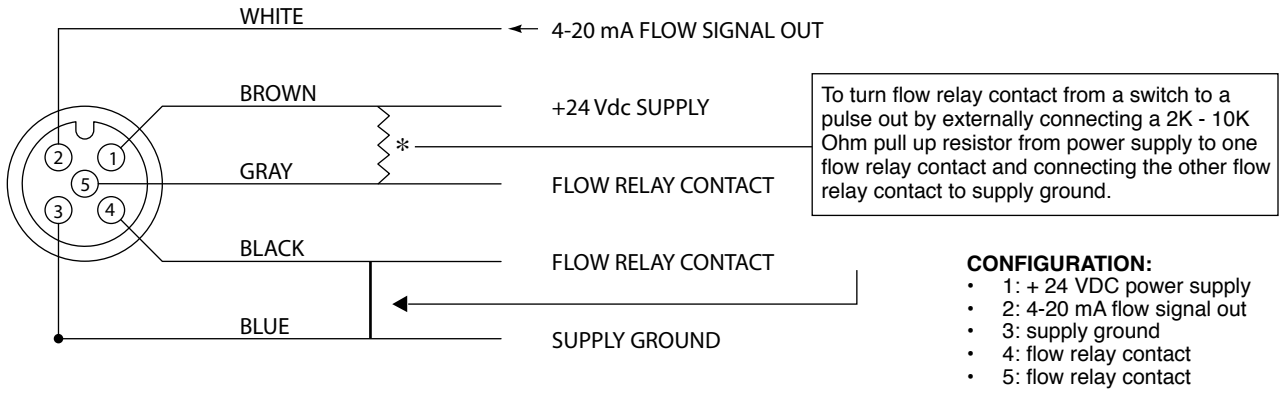
ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

Series	Description	Length in Meters	Part Number
CP/CN	5 pin female	1 3 10	6241-1M 6241-3M 6241-10M

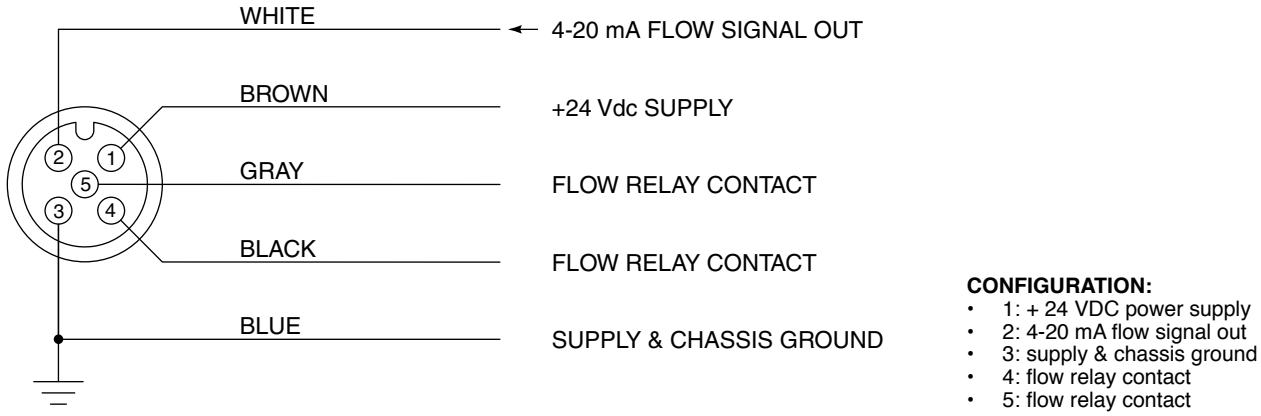
Barrier used for 2 wire option where Intrinsic Safety is required. Part number: 8140-ASSY

PIN CONNECTOR PINOUTS

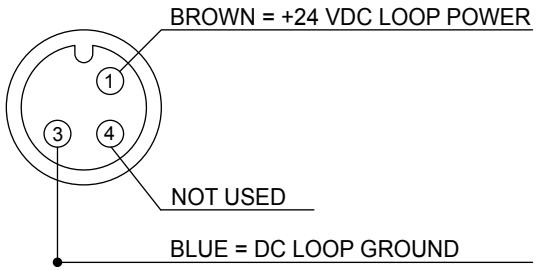
CP 3 WIRE STANDARD UNITS



CP 3 WIRE STANDARD UNITS WITH W OPTION (GROUNDED)



CP 2 WIRE TRANSMITTER



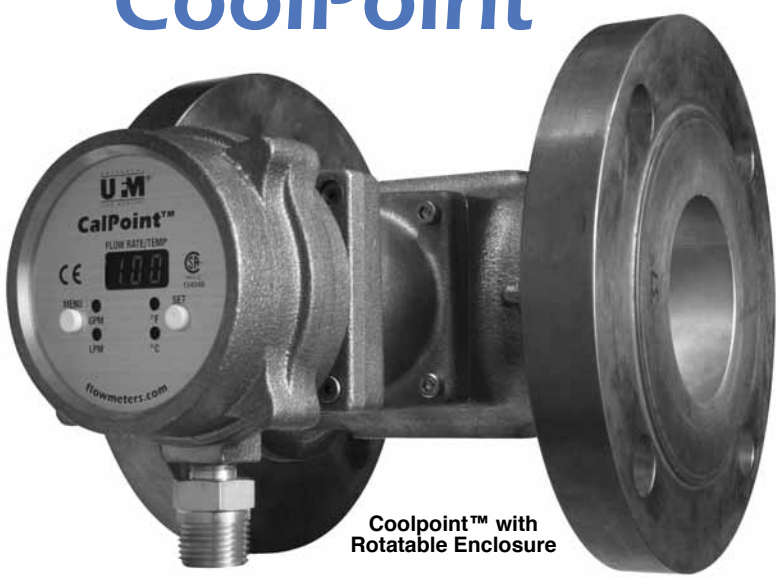
Maximum flow ranges from	**300-600 GPM (1100-2300 LPM)**	**CP 3-4 Inch**
Max pressure	**200 PSI (13 Bar)**	
Temperature range	**32-210°F (2-99°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter

CoolPoint™



Coolpoint™ with Rotatable Enclosure

Description

This flowmeter is made for water, water/glycol coolant or low viscosity fluids. It has the following features:

- Flow transmitter 4-20 mA
- Solid state relay configureable as alarm set points or pulse output
- LED digital display
- No moving parts to clog or wear
- Certified CSA and CE
- Optional temperature transmitter

Electrical Specifications

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

Material Specifications

Flow bodies of brass with PVDF sensors and Viton® seals standard. PEEK sensors used for high temp for fluids above 150° F.

User-Configurable Options

Features that are selectable on 4-20 mA/pulse out units include:

- Selectable alarm state (N.O. or N.C.)
- Set point or pulse output
- Rotatable control box standard for all units
- Engineering units (GPM, LPM)

Instrument Specifications

- Flow
  Visual readout: 3 digit LED, 0.3" digit height
  Response time: 7.5 seconds
  Deadband for Alarm: 5% of full scale (maximum flow)
  Accuracy: ±2% of full scale (maximum flow)
  Repeatability: ±.25% of indicated flow
  Turndown (ratio of maximum to minimum): 10:1
- Temperature (CT units only)
  Response time: 1.8 seconds
  Deadband for Alarm: ±2%
  Accuracy: ±1% F.S.
  Repeatability: ± .25% of indicated flow
  Output: 4 mA @32°F, 20mA @210°F linear
- Pressure
  200 PSIG (13 Bar) operating pressure
- General
  Fluid temperature limits: 35-150° F (2-66° C) standard, 150-210° F (66-99° C) optional.
- Back pressure of 10 PSIG required.
  (See manual for elevated temperature.)

Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13

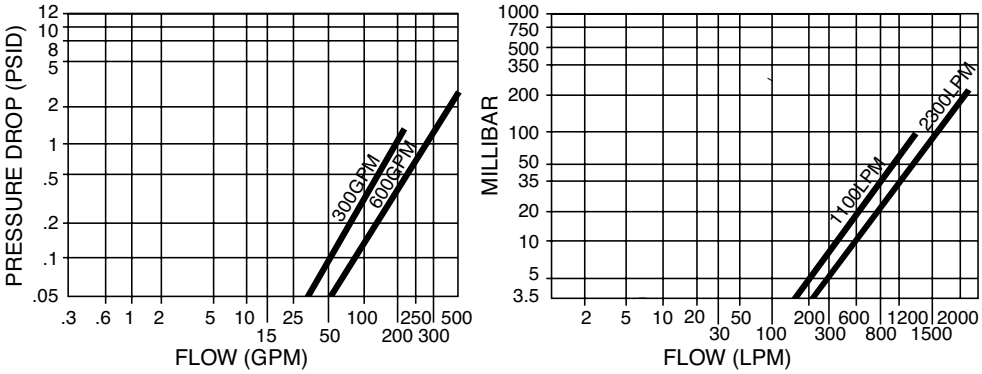
- Pipe Connections:
  ANSI Class 150 R.F. Flanges

MODEL CODES

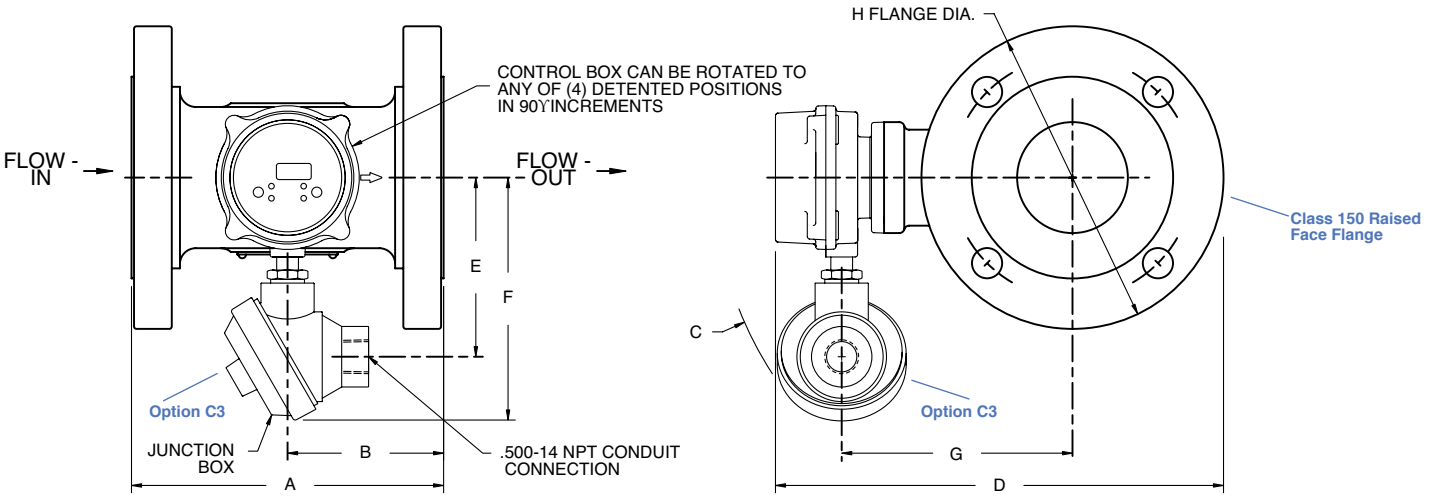
	Flow maximum GPM (LPM)	Pipe size in inches	Model code	Connector or conduit box options available	Special options
FLOW	300 (1136)	3	**CP24**	**-C1***=Pin connector	
	600 (2271)	4	**CP32**	**-C2**=Pig tails	**E20**=High temp (150-210° F)
FLOW AND TEMPERATURE	300 (1136)	3	**CT24**	**-C3**=Conduit box, terminal strip	
	600 (2271)	4	**CT32**		

* Indicates default selection. If no selection is made, this option is assumed.
Example: CP24 is the same as CP24-C1

PRESSURE DROP



INSTALLATION DRAWING – 3" AND 4" PORT SIZE

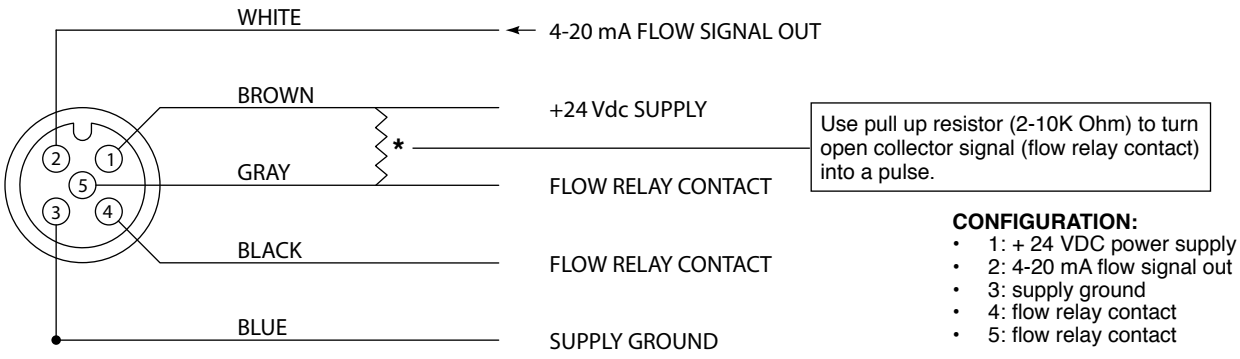


Size	A	B	C	D	E	F	G	H
CP24 CT24	7.75 [197mm]	3.88 [99 mm]	8.90 [226 mm]	11.13 [283 mm]	4.44 [113 mm]	6.03 [153 mm]	5.73 [146 mm]	7.50 [191 mm]
CP32 CT32	10.75 [273 mm]	5.38 [137 mm]	9.46 [240 mm]	12.57 [319 mm]	4.44 [113 mm]	6.03 [153 mm]	6.43 [163 mm]	9 [229 mm]

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

Series	Description	Length in Meters	Part Number
CP	5 pin female	1 3 10	6241-1M 6241-3M 6241-10M
CT	8 pin female	2 5 10	6242-2M 6242-5M 6242-10M

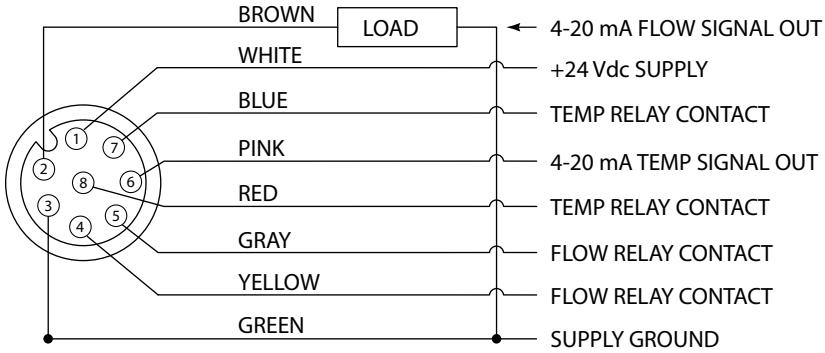
CP (FLOW ONLY)



CONFIGURATION:

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

CT (FLOW AND TEMPERATURE)



PIN 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
- 6: 4-20 mA temp signal out
- 7: temp relay contact
- 8: temp relay contact

UNIVERSAL UFM
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274
www.flowmeters.com

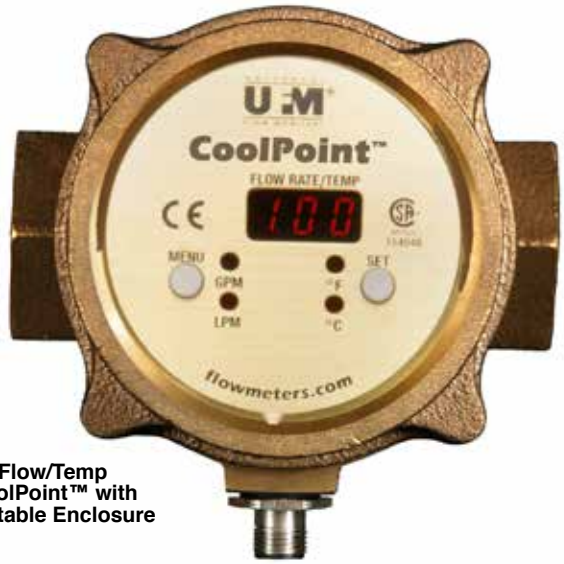
Maximum flow ranges from	**3-200 GPM (11-750 LPM)**	**CT 1/4-2 inch Flow and Temperature Transmitter**
Max pressure	**300 PSI (20 Bar)**	
Temperature range	**32-210°F (2-99°C)**	

FLOW MONITORS

UNIVERSAL® Flow Monitors

Vortex Shedding Flowmeter and Temperature Transmitter

CoolPoint™



Flow/Temp CoolPoint™ with Rotatable Enclosure

Description

This flowmeter/temperature transmitter is made for water, water/glycol coolant or low viscosity fluids. It has the following features:

- Flow rate transmitter 4-20 mA
- Temperature transmitter 4-20 mA
- Solid state relay can be configured as alarm or pulse out
- LED digital display
- No moving parts to clog or wear
- Certified CSA and CE

Electrical Specifications

- Input Power: 10 - 30 VDC @ 80 mA
- Output: 4-20mA for flow with solid state relay configurable for set point or pulse out
- Output: 4-20mA for temperature
- 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® seals standard. PEEK sensors used for high temp for fluids above 150° F.

User-Configurable Options

Features that are selectable on 4-20 mA units include:

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

Instrument Specifications

- Flow
  Visual readout: 3 digit LED, 0.3" digit height
  Response time: 450 ms.
  Deadband for alarm: 5% of full scale (maximum flow)
  Accuracy: ±2% full scale
  Repeatability: ±.25% of indicated
  Turndown (ratio of max to minimum flow rates):10:1 at all temperatures and 20:1 available optionally for standard temperatures.
- Temperature
  Response time: 1 1/2 seconds to 66% of change
  Deadband for alarm: ±2% full scale
  Accuracy: ±3% of indicated temperature
  Repeatability: ± .25% of indicated
  Output: 4 mA @32°F, 20mA @210°F linear
- 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.
  Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13
- Pipe Connections:
  Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG usually required.
  (See manual for elevated temperature.)

Viton® is a registered trademark for DuPont Performance Elastomers.

MODEL CODES

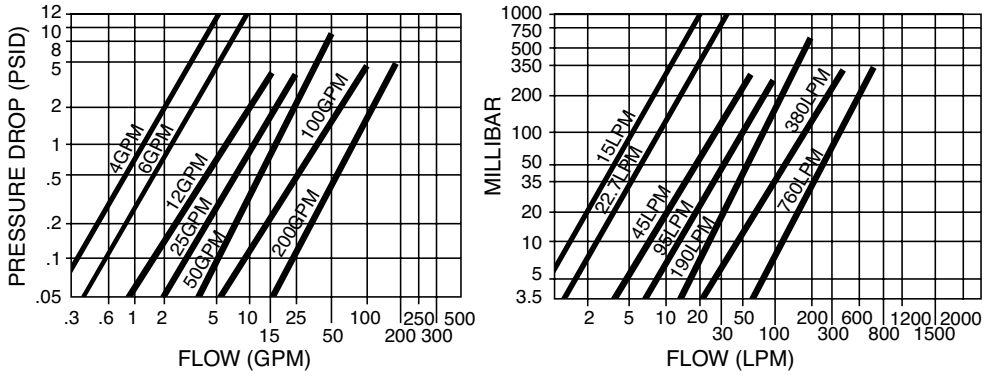
Flow maximum GPM (LPM)	Pipe size in inches	Model code	Material	Thread options available	Connector or conduit box options available	Special options
3 (11)	1/4	**CT2**	**-M1***=Brass	**T1***=NPT	**C1***=Pin connector	
6 (22.7)	3/8	**CT3**	**-M2**=316 Stainless Steel	**T2**=BSPT	**C2**=Pig tails	**W1**=20:1extended turndown**
12 (45)	1/2	**CT4**		**T3**=BSPP	**C3**=Conduit box, terminal strip	**E20**=High temp (150-210° F)
25 (95)	3/4	**CT6**				
50 (190)	1	**CT8**				
100 (380)	1 1/2	**CT12**				
200 (750)	2	**CT16**				

** Not available on CT2
** Needs grounding
** Turndown is 20:1 standard temp.

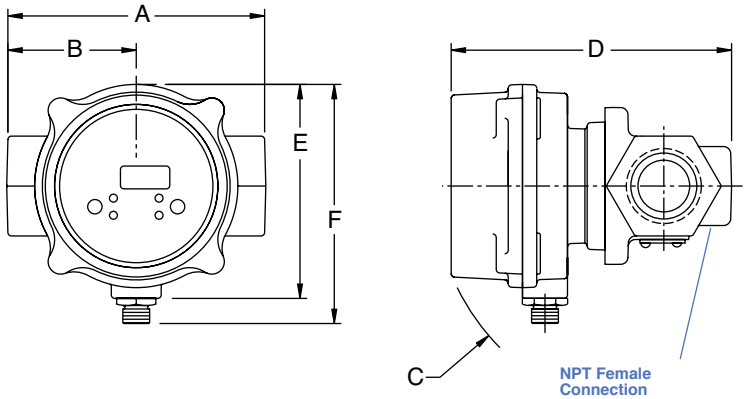
* Indicates default selection. If no selection is made, this option is assumed.

Example: CT6 is the same as CT6-M1T1C1.

PRESSURE DROP

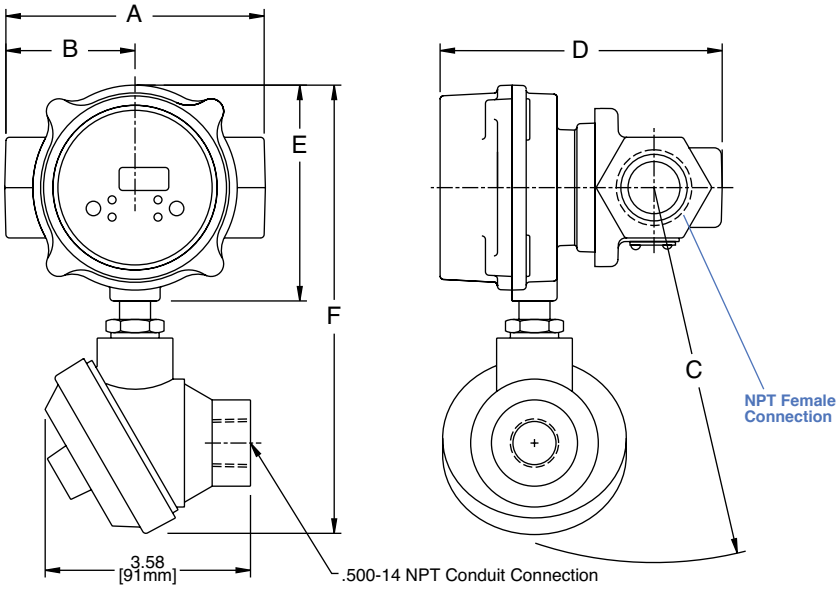


INSTALLATION DRAWING – BASIC METERS



Size	A	B	C	D	E	F
CT2 through CT8	4.50 [113mm]	2.25 [57mm]	4.04 [103mm]	4.92 [125mm]	3.75 [95mm]	4.19 [113mm]
CT12 and CT16	6.75 [171mm]	3.37 [86mm]	4.71 [120mm]	6.14 [156mm]	3.75 [95mm]	4.19 [106mm]

INSTALLATION DRAWING – METERS WITH OPTIONAL JUNCTION BOX

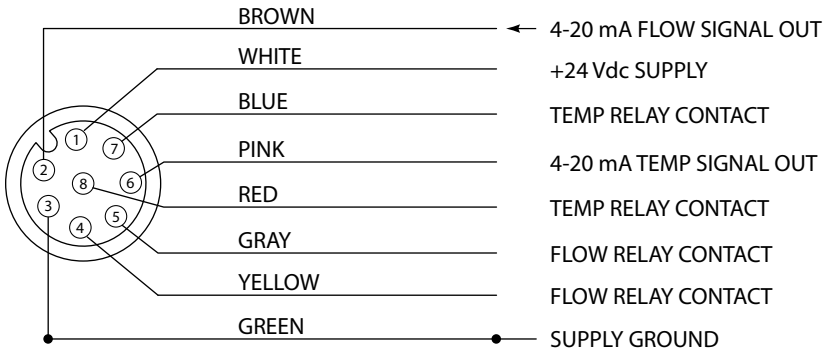


Size	A	B	C	D	E	F
CT2 through CT8	4.50 [114mm]	2.25 [57mm]	6.52 [166mm]	4.92 [125mm]	3.75 [95mm]	7.79 [198mm]
CT12 and CT16	6.75 [171mm]	3.37 [86mm]	6.87 [175mm]	6.14 [156mm]	3.75 [95mm]	7.79 [198mm]

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

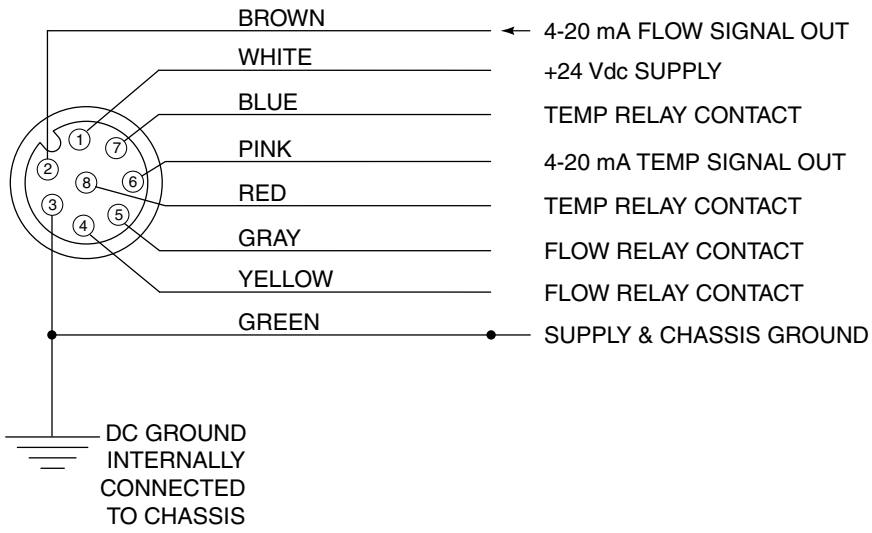
Series	Description	Length in Meters	Part Number
CT	8 pin female	2 5 10	6242-2M 6242-5M 6242-10M

CT



PIN CONFIGURATION:
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: supply ground
- 4: flow relay contact
- 5: flow relay contact
- 6: 4-20 mA temp signal out
- 7: temp relay contact
- 8: temp relay contact

CT WITH W1 OPTION (GROUNDED)



PIN CONFIGURATION:
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: supply & chassis ground
- 4: flow relay contact
- 5: flow relay contact
- 6: 4-20 mA temp signal out
- 7: temp relay contact
- 8: temp relay contact

Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274
www.flowmeters.com

UNIVERSAL FLOW MONITORS

MAX PRESSURE	200 PSI (13.6 Bar)	CX 1 inch CONCRETE

CoolPoint™ CX

UNIVERSAL® Flow Monitors

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

CSA Certified

CE Marked

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
- Hose barbs or plastic end connections with Brass insert
- Pulse out or 4-20 mA output
- Batch (total) mode or rate for continuous mix
- No moving parts to clog or wear
- 1 1/2% accurate
- 3-digit LED display option
- Galons 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 nylon with Viton® seals.
Bluffs made of brass PEEK sensor.

User-Configurable Options

Features that are selectable

- Engineering units (GPM, LPM)

Instrument Specifications

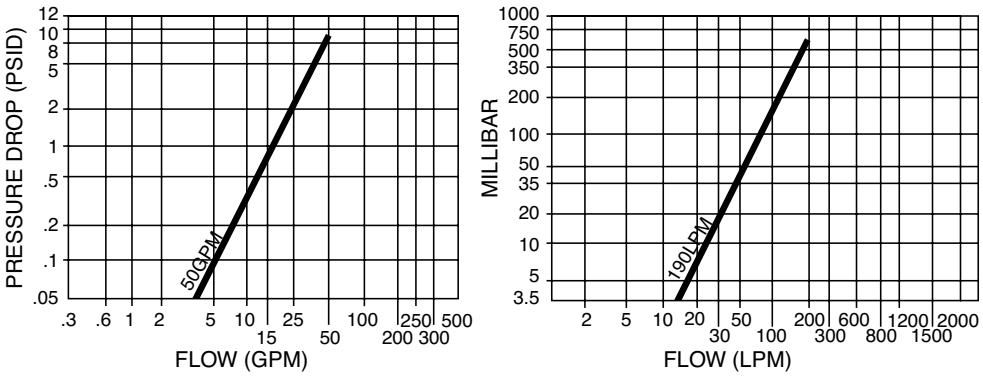
- Flow
  Maximum flow 50GPM
  Visual readout: 3 digit LED, 0.3” digit height
  Turndown: 10:1
  Accuracy: +/- 1-1/2% full scale
  Repeatability: +/- .25% of indicated flow
- Pressure
  200 PSI (13.6 bar)
- General
  Fluid temperature limits: 35-210oF (2-99oC)
  Enclosure Rating: IP65; Type 4X
  Pipe 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

MODEL CODES

SERIES	SYMBOL=FEATURE			
	BODY MATERIAL	**CABLING**	**OUTPUT AND DISPLAY**	**ORIENTATION**
CX8	**M8** = Brass with nylon endcaps **M7** = Brass with nylon hosebarbs	**C1*** = 5 pin connector only **C7** = 4 feet of 3-wire cable added to the pin connector terminating in a PG7 "weather pack" connector	**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	**N2*** = Flow up **N3** = Flow left **N1** = Flow right **N4** = Flow down

FACE AND PIN CONNECTOR ORIENTATION WITH FLOW

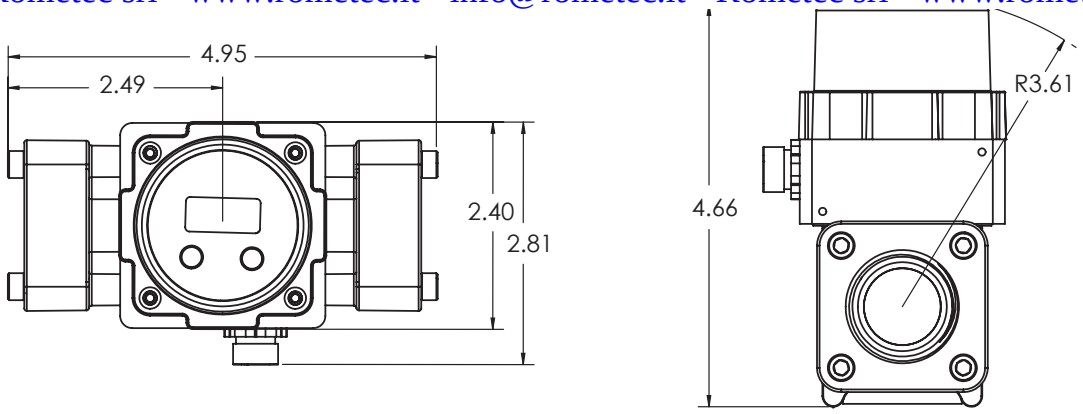
PRESSURE DROP CHARTS



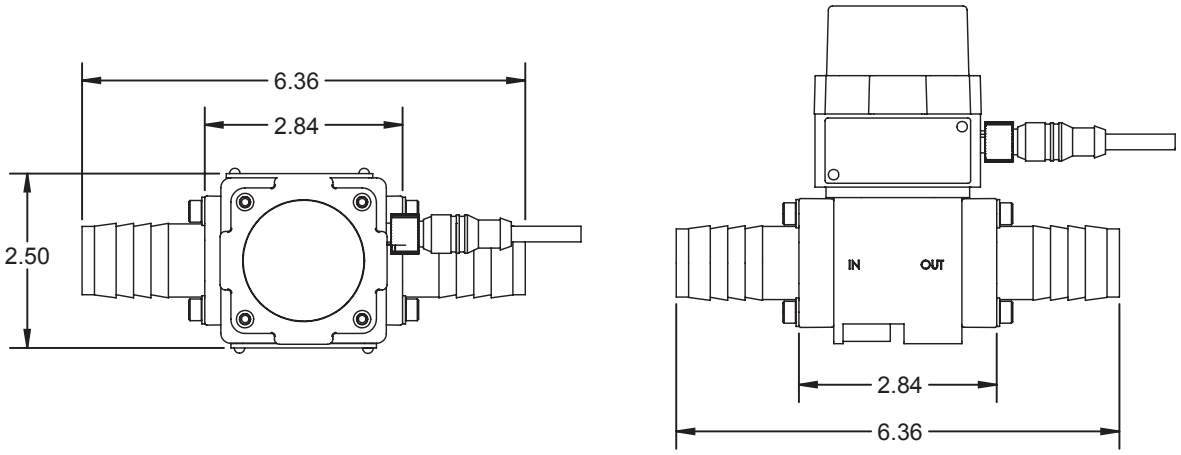
ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

Series	Description	Length in Meters	Part Number
CX	5 pin female	1 3 10	6241-1M 6241-3M 6241-10M

INSTALLATION DRAWING FEMALE NPT

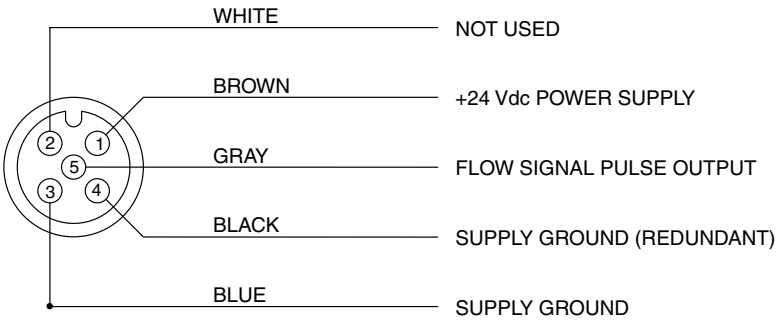


INSTALLATION DRAWING HOSE BARB



PIN CONNECTOR PINOUTS

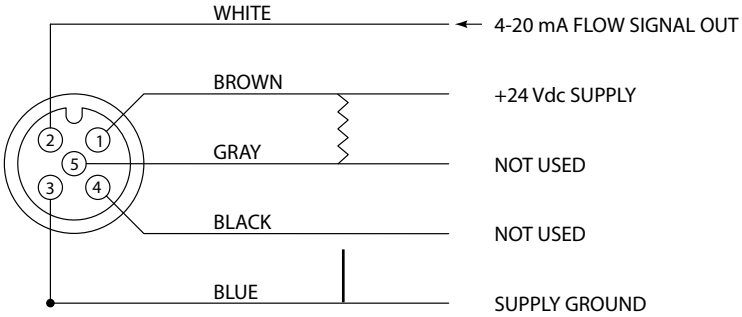
TOTALIZER WITH PULSE OUTPUT



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: not used
- 5: not used

UNIVERSAL FLOW MONITORS
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030

UNIVERSAL® FLOW MONITORS

MAX PRESSURE	200 PSI (13.6 Bar)	CX 1/4 to 1 inch

CoolPoint™ CX (Polysulfone)

UNIVERSAL® Flow Monitors

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

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

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

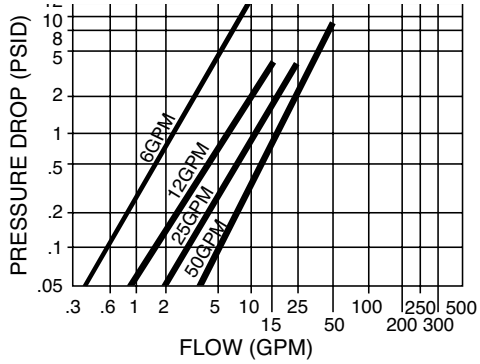
MODEL CODES

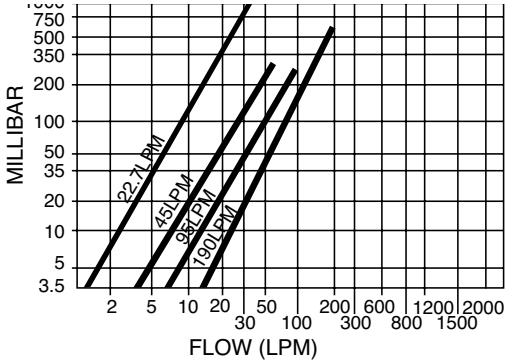
CX SERIES

Flow Maximum GPM (LPM)	Pipe Size in Inches	Series Code	Material	Thread Options	Connector	Special Options
3 (11)	1/4"	**CX2**	**M5** = Polysulfone	**T1** = NPT Female **T6** = NPT Male	**C1** = Pin connector **C2** = Pig tails	**W1** = 20:1 extended turndown* **E14** = 2wire 4-20mA loop-powered transmitter. No alarms display or high temp available with this option. **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.
6 (23)	3/8"	**CX3**				
12 (45)	1/2"	**CX4**				
25 (95)	3/4"	**CX6**				
50 (190)	1"	**CX8**				

*Not available on CX2

PRESSURE DROP CHARTS



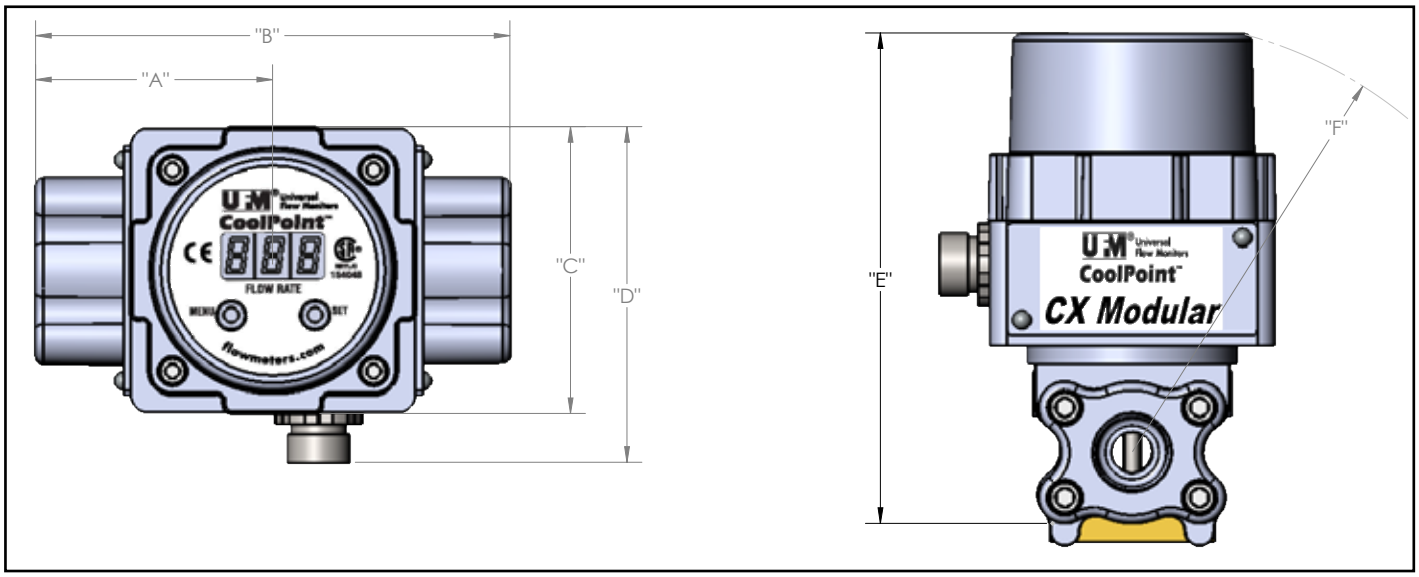


ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR

Series	Description	Length in Meters	Part Number	
CX	5 pin female	1 3 10	6241-1M 6241-3M 6241-10M	
CX	3 pin female	1 5 10	9026 9029 9031	(Used with E14 option 2-wire)

Intrinsically Safe Barrier 8140R-ASSY (Used with E14 option)

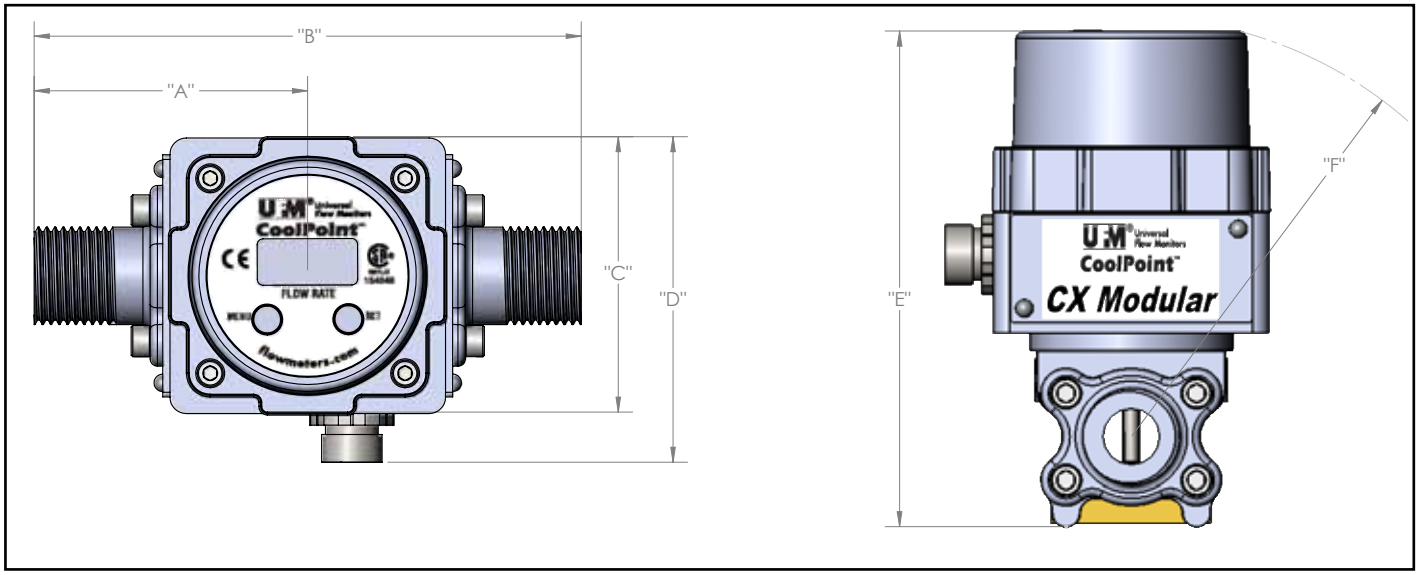
INSTALLATION DRAWING FEMALE NPT



CX Female Fitting Dimensions

		DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"
CX2, CX3 & CX4	in	1.98	3.97	2.40	4.81	4.28	R3.61
	mm	5.03	10.08	6.10	12.22	10.87	R9.20
CX6 & CX8	in	2.38	4.75	2.40	2.81	4.85	R 3.80
	mm	6.05	12.07	6.10	7.14	12.32	R9.65

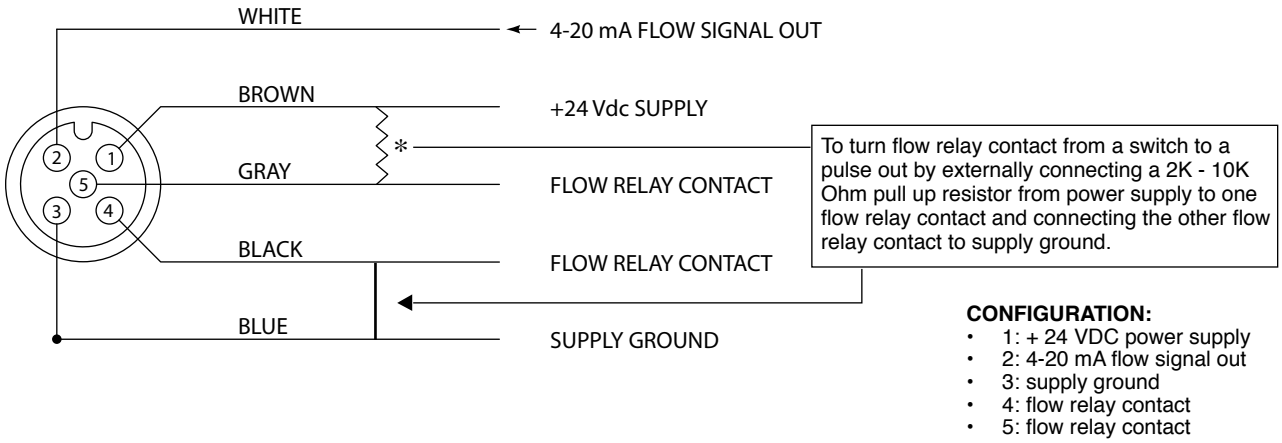
INSTALLATION DRAWING MALE NPT



CX Male Fitting Dimensions

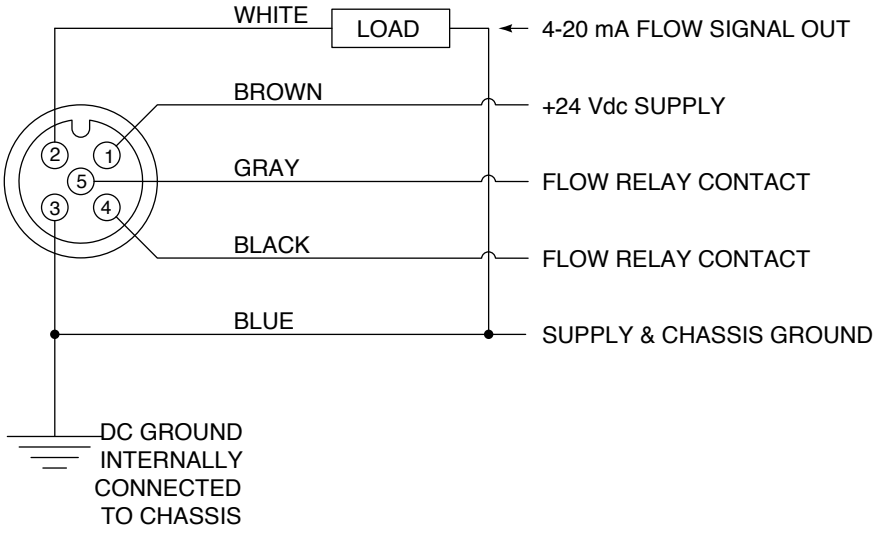
		DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"
CX2, CX3 & CX4	in	2.36	4.72	2.36	2.81	4.28	R3.61
	mm	5.99	11.99	5.99	7.14	10.87	R9.20
CX6 & CX8	in	3.30	6.61	2.40	2.81	4.85	R 3.80
	mm	8.38	16.79	6.10	7.14	12.32	R9.65

PIN CONNECTOR STANDARD WIRING



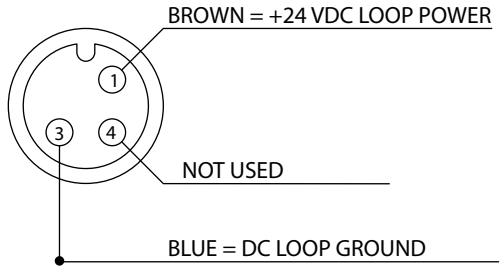
CONFIGURATION:
- 1: + 24 VDC power supply
- 2: 4-20 mA flow signal out
- 3: supply ground
- 4: flow relay contact
- 5: flow relay contact

W1 OPTION (GROUNDED)



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

CX 2 WIRE TRANSMITTER



UNIVERSAL UFM FLOW MONITORS
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274
www.flowmeters.com

Max flows range from	6-200 GPM (23-750 LPM)	CPD2 series
Max pressure	300 PSI (20 Bar)	3/4-2 inch Flow Totalizer
Temperature range	32-210°F (2-99°C)	

UNIVERSAL® Flow Monitors

Vortex Shedding Totalizing Flowmeter

CoolPoint™

CoolPoint™ shown with D2 totalizer

Description

This flowmeter is made for water, water/glycol coolant or low viscosity fluids. Display is a 6-digit LED. Shows flow rate or toggle between running and resettable totals. Push button selection for LPM or GPM. It has the following features:

- Pulse output
- LED digital display (total or rate)
- No moving parts to clog or wear
- Certified CSA and CE

Electrical Specifications

- Input Power: 10 - 30 VDC @ 80 mA
- 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® seals standard. PEEK sensors used for high temperature option.

User-Configurable Options

Features selectable:

- Engineering units (Gallons, Liters)
- Rate or total display only

Instrument Specifications

- Flow
  Visual readout: 6 digit LED, 0.3" digit height
  Accuracy: ±1.5% of indicated total
  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, 210° F (99° C) with E22 high temp option.
  Enclosure rating: IP 65, Type 1, 3, 4, 12 and 13
- Pipe Connections:
  Female NPT, BSPP & BSPT
- Back pressure of 10 PSIG required.
  (See manual for elevated temperature.)
- Response time 450 ms

MODEL CODES

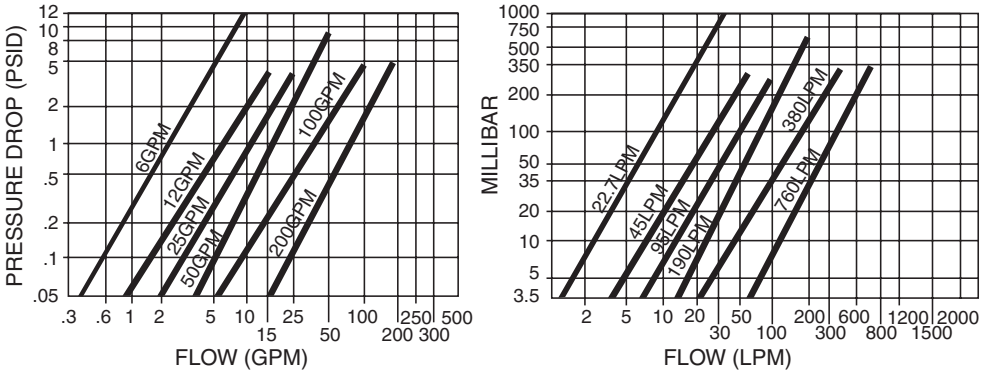
Flow maximum GPM (LPM)	Pipe size in inches	Model code	Material	Thread options available	Connector or conduit box options available	Special options
6 (23)	3/4	**CP6F9D2**	**-M1***=Brass	**T1***=NPT	**C1***=Pin connector	
12 (45)	3/4	**CP6F2D2**	**-M2**=316 Stainless Steel	**T2**=BSPT	**C2**=Pig tails	
25 (95)	3/4	**CP6D2**		**T3**=BSPP	**C3**=Conduit box, terminal strip)	
50 (190)	1	**CP8D2**				**W1=**20:1 extended turndown **
100 (380)	1 1/2	**CP12D2**				**E22 =** High temp
100 (380)	2	**CP16F5D2**				
200 (750)	2	**CP16D2**				

** Requires grounding
** For standard temp only.

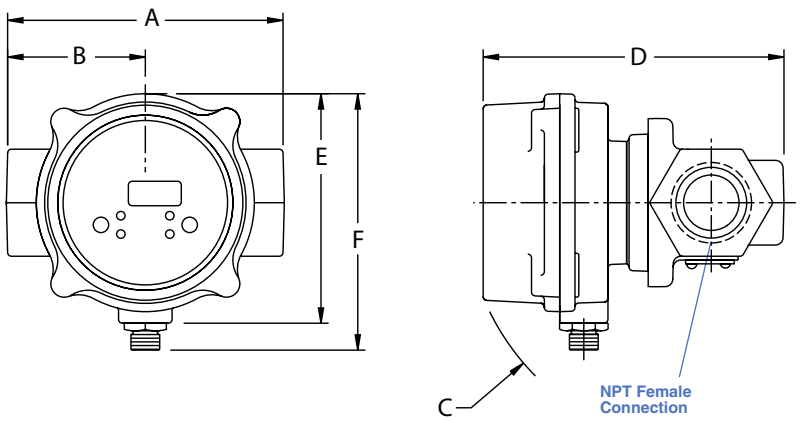
* Indicates default selection. If no selection is made, this option is assumed.

Example: CP6F9D2 is the same as CP6F9D2-M1T1C1

PRESSURE DROP

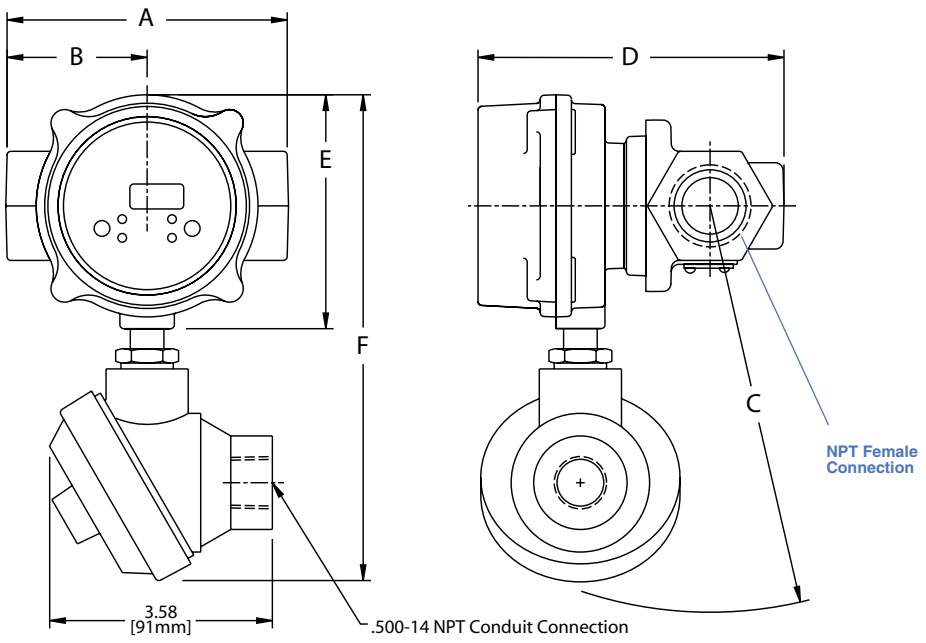


INSTALLATION DRAWING – BASIC METERS



Size	A	B	C	D	E	F
CP6-CP8	4.50	2.25	4.04	4.92	3.75	4.19
CP12-CP16	6.75 [171mm]	3.37 [86mm]	4.71 [120mm]	6.14 [156mm]	3.75 [95mm]	4.19 [106mm]

INSTALLATION DRAWING – METERS WITH OPTIONAL JUNCTION BOX



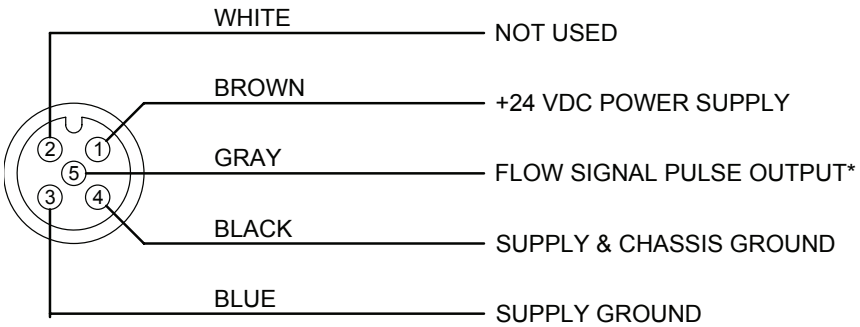
Size	A	B	C	D	E	F
CP6 and CP8	4.50 [114mm]	2.25 [57mm]	6.52 [166mm]	4.92 [125mm]	3.75 [95mm]	7.79 [198mm]
CP12 and CP16	6.75 [171mm]	3.37 [86mm]	6.87 [175mm]	6.14 [156mm]	3.75 [95mm]	7.79 [198mm]

ACCESSORY CABLES AVAILABLE FOR PIN CONNECTOR METERS

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

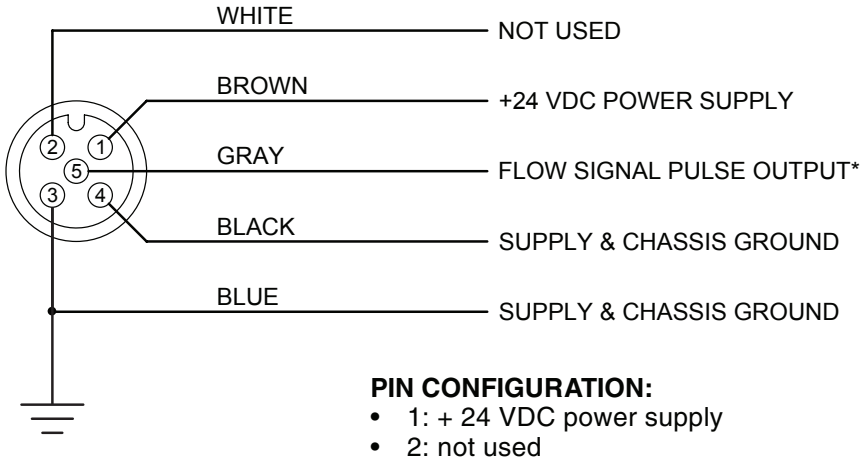
PIN CONNECTOR

D2



*This is a pulse, not an open collector contact.

D2 UNIT WITH W1 (20:1 TURNDOWN)



PIN CONFIGURATION:

- 1: + 24 VDC power supply
- 2: not used
- 3: supply & chassis ground
- 4: supply & chassis ground
- 5: flow signal pulse output

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

*This is a pulse, not an open collector contact.

UNIVERSAL UFM
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030
Tel: 248-542-9635 ▪ Fax: 248-398-4274
www.flowmeters.com

FLOW MONITORS

FLOW RANGE 6 - 200 GPM (2.27 to 750 LPM) **P420 SERIES**

P420

UNIVERSAL® Flow Monitors

Plastic Vortex Shedding Flow Rate Transmitters

P420

Description

The P420 flowmeters are simple plastic flow transmitters intended to be economical and robust.

- Port sizes available from 3/8 (three eighths) inches to 2 (two) inches in diameter.
- Full scale flow rates are from 6 - 200 GPM with 10:1 turndown
- Wetted parts are PVC and CPVC
- Connections are socket weld ports or NPT threads
- There are no moving parts
- Terminal strip with 1/2 inch NPT conduit port
- ID within .030 inches of standard Schedule 80 PVC pipe for flow continuity

Electrical Specifications

- Output is a 4-20 mA
- Two wire loop powered
- Input power 10-30 VDC@25mA

Material Specifications

- PVC or CPVC bodies, sensor and bluff
- No seals

Installation

- Straight run of 10 pipe diameters upstream and 5 pipe diameters downstream required
- 10 PSI backpressure required

Instrument Specifications

- Response time 0.9 seconds
- Accuracy ±2% of full scale (max flow)
- Repeatability ±0.25% of indicated flow
- Pressure maximums vary with pipe diameter and temperature per chart below
- Enclosure Type 4, IP 65
- Pipe connections solvent weld to socket or NPT threads

Applications

- Low viscosity fluids to 4.5 Cp or 50 SUS
- Brine
- Water
- Corrosive fluids

Industries

- Water treatment
- Chemical
- Desalination

Max Pressure at Indicated Temperature

PVC	PIPE DIAMETER IN INCHES				
TEMPERATURE IN DEGREES F	3/8&1/2	3/4	1	1 1/2	2
73	425	345	315	235	200
80	377	306	279	208	177
90	317	258	235	175	149
100	264	214	196	146	124
110	216	175	160	119	101
120	172	139	127	95	81

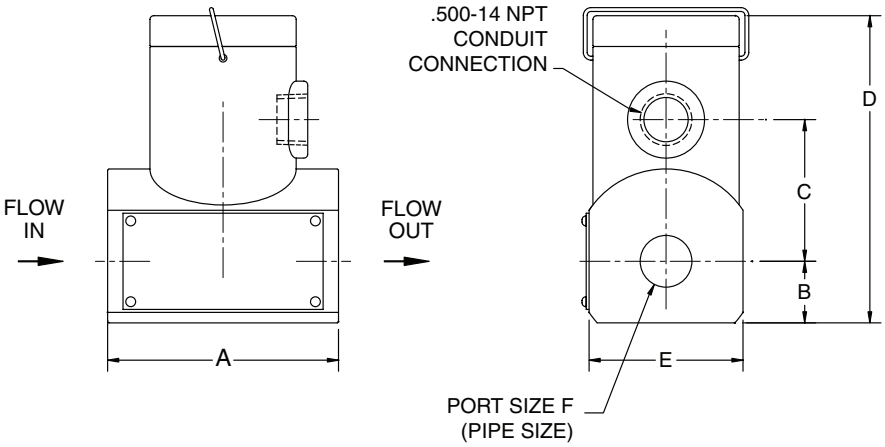
CPVC	PIPE DIAMETER IN INCHES				
TEMPERATURE IN DEGREES F	3/8&1/2	3/4	1	1 1/2	2
73	425	345	315	235	200
80	403	327	298	223	189
90	371	301	275	205	175
100	340	276	252	188	160
110	308	250	228	170	145
120	276	224	205	153	130
130	244	198	181	135	115
140	213	173	158	118	100

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

MODEL CODES

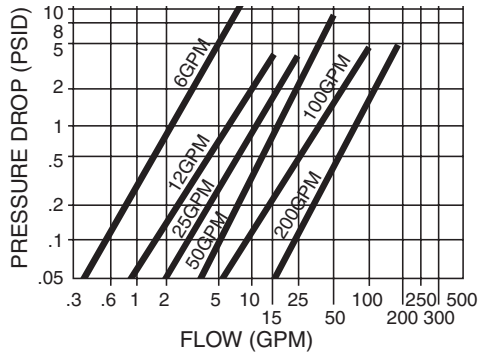
Flow Rate GPM (LPM)	Pipe diameter in inches	PVC bodies with socket weld ends	PVC bodies with NPT connection	CPVC bodies with socket weld ends	CPVC bodies with NPT connection
6 (22.7)	3/8	P3	P3-T1	P3-M4	P3-T1M4
12 (45)	1/2	P4	P4-T1	P4-M4	P4-T1M4
25 (95)	3/4	P6	P6-T1	P6-M4	P6-T1M4
50 (190)	1	P8	P8-T1	P8-M4	P8-T1M4
100 (380)	1 1/2	P12	P12-T1	P12-M4	P12-T1M4
200 (750)	2	P16	P16-T1	P16-M4	P16-T1M4

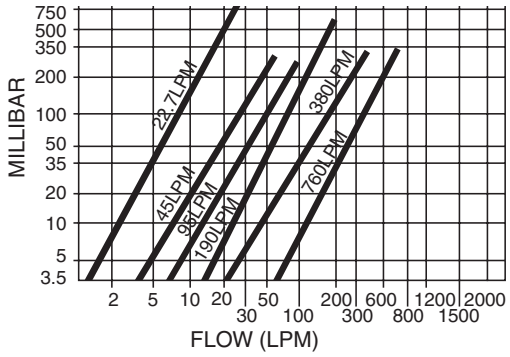
INSTALLATION DRAWING



Meter Size	A	B	C	D	E	F
P3&P4	3.75	1.00	2.30	4.99	2.50	½
P6	4.38	1.25	2.56	5.50	2.50	¾
P8	4.38	1.25	2.56	5.50	2.50	1
P12	6.50	1.75	3.13	6.56	2.88	1½
P16	6.75	1.75	3.13	6.56	2.88	2

PRESSURE DROP CHARTS





UNIVERSAL FLOW MONITORS
Universal Flow Monitors, Inc.
1755 E. Nine Mile Road ▪ P.O. Box 249 ▪ Hazel Park, MI 48030

www.flowmeters.com