

# Model P214 Piston Flow Meter (Frequency)

## 5 cc/min to 10,000 cc/min

### SPECIFICATIONS

Flow Range	5 cc/min to 10,000 cc/min
Accuracy (at 3 cP)	± 0.2% of reading over a 200:1 range
Maximum Operating Pressure	210 bar (3000 psi)
Displacement	10.5 cc/rev
Weight	3.8 kg
Recommended Filtration	10 micron
Port Size(s)	3/8" NPT, #6 SAE or manifold mount
Fluids	Most non-aqueous, organic liquids

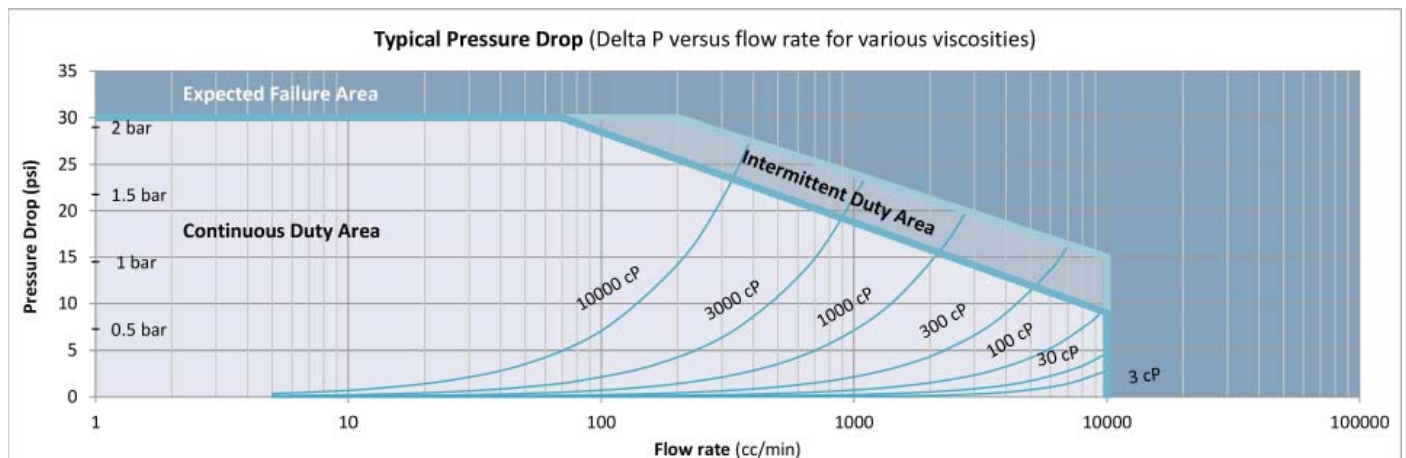


### MATERIALS OF CONSTRUCTION

Body	Stainless steel, type 303
Pistons	Nitride hardened stainless steel, type 303
Crankshaft	Stainless steel
Bearings	All ball bearings, 440C stainless steel
O Rings	Viton®- standard • Teflon®, Perfluoroelastomer - optional

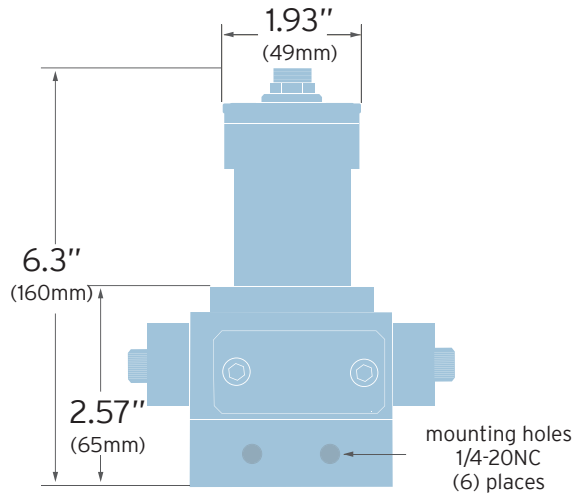
### FREQUENCY TRANSMITTER

Output Signal	5 Vdc square wave – Current Sinking, 20mA max.- optional
Output Resolution	Selectable: 1 - 1000 pulses/rev
Optional	Quadrature square wave, 1 - 500 pulses/revolution/channel
Power Supply Requirements	5-26 Vdc @ 30ma
Ambient Operational Range	-40°C to 80°C, Single piece – Two piece to 110°C
Metered Liquid Temp Range (based on 20° ambient)	-40°C to 90°C, Standard model -40°C to 225°C, Two piece high temperature model
Compliance	CE Certified, Ex-proof version available with ATEX/IECEx II 2 G Ex db IIB Tx Gb as well as UL, cUL certification for Class 1, Division 1, Groups C and D, Tx

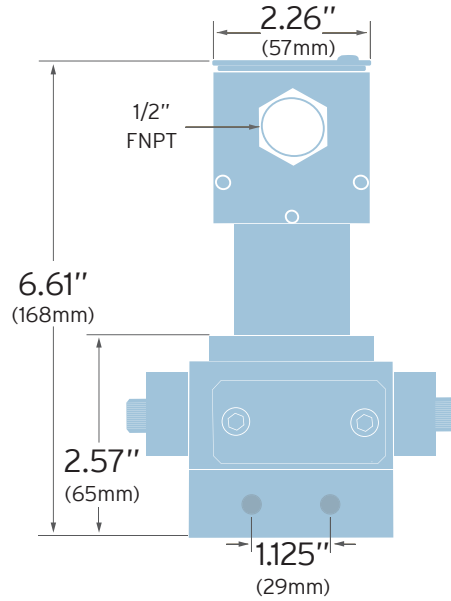


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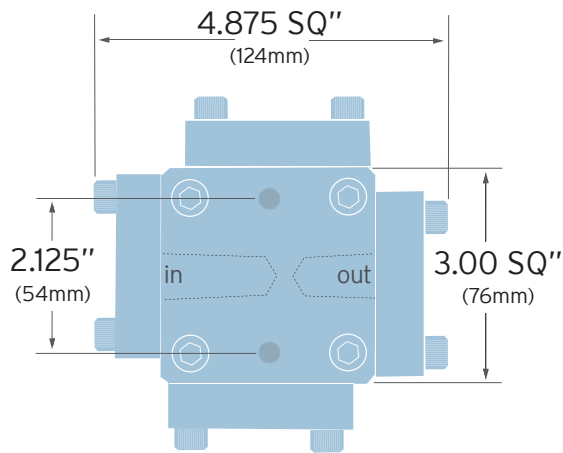
## CONNECTIVITY/DIMENSIONS (Not to scale)



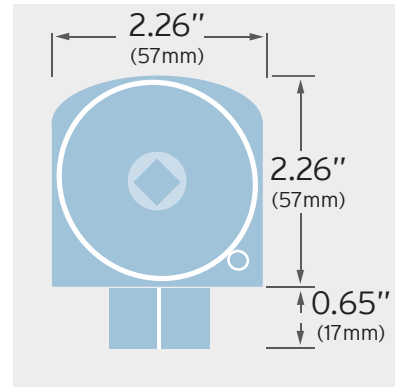
MODEL 214 WITH INDUSTRIAL HOUSING TRANSMITTER



MODEL 214 WITH EX-PROOF HOUSING TRANSMITTER

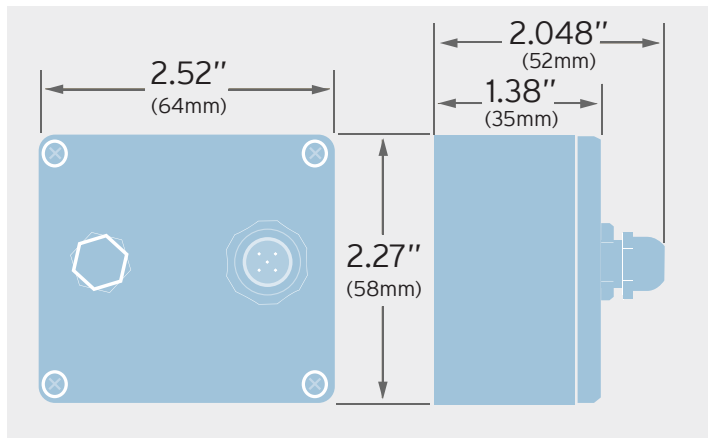


ELECTRICAL CONNECTION - FREQUENCY TRANSMITTERS



EX-PROOF HOUSING TOP VIEW

	Turck® Connector		
	PCA Label	Pin #	Mating Cable Wire Color
Power (+5 to 26 Vdc)	V+	1	Brown
Common	Com	4	Black
Pulse Output	Ph A	2	White
Output Phase B (Quad only)	Ph B	5	Grey
Case Ground	Case	3	Blue



REMOTE PCA ENCLOSURE FOR HIGH TEMPERATURE TRANSMITTERS (2 meter interconnect cable, not shown)



# Positive Displacement Flow Meters

## Piston Type, 3000 psi (210 bar) rated

### Flow Meter Selections

Model #  MS    /

#### Max flow range

1.8 Liters/min P213  
 10 Liters/min P214  
 35 Liters/min P215

#### Pressure

3000 psi (210 bar) MS

#### Fluid Connection

NPT 1  
 SAE 2  
 Manifold 4  
 (not available on Model P215)

#### Seal Selection

Viton® - FKM 1  
 Teflon® - PTFE 3  
 Perfluoroelastomer - FFKM 5  
 Neoprene 7

#### Options

None NA

### Transmitter Selections

/       0 -  Non-standard options

Bi-directional cal BID

#### Transmitter Type

#### Output Type

A	A	4-20mA output - powered by 24Vdc
A	B	4-20mA output - powered by 12Vdc
A	C	0-10Volt output - powered by 24Vdc
A	D	0-10Volt output - powered by 12Vdc
P	N	5V Pulse/Quad - powered by 5-26Vdc
Q	N	5V Quadrature - powered by 5-26Vdc
P	S	Current Sinking, single phase

#### Temperature rating

1	Standard 90°C
2	2-part, Haz-Loc Transmitters 130°C**
1	3 2-part Industrial Transmitters 225°C †

#### Electrical Connection

1	Turck® connector
2	Hazardous location *

#### Signal Type

P	Pulse
A	Analog
Q	Quadrature

#### Calibration

Price includes unidirectional calibration

\* See temp chart

\*\* Receiver portion of 2 part transmitters are not rated Ex-Proof, consult factory

† Not available for hazardous location use. (Exceeds 130°C temp. limit.)