

Model P213 Piston Flow Meter (Frequency)

0.5 cc/min to 1800 cc/min

SPECIFICATIONS

Flow Range	0.5 cc/min to 1800 cc/min
Accuracy (at 3 cP)	± 0.2% of reading over a 200:1 range
Maximum Operating Pressure	210 bar (3000 psi)
Displacement	0.89 cc/rev
Weight	1.1 kg
Recommended Filtration	10 micron
Port Size(s)	1/8" NPT, #4 SAE or manifold mount
Fluids	Most non-aqueous, hydrocarbon based fluids

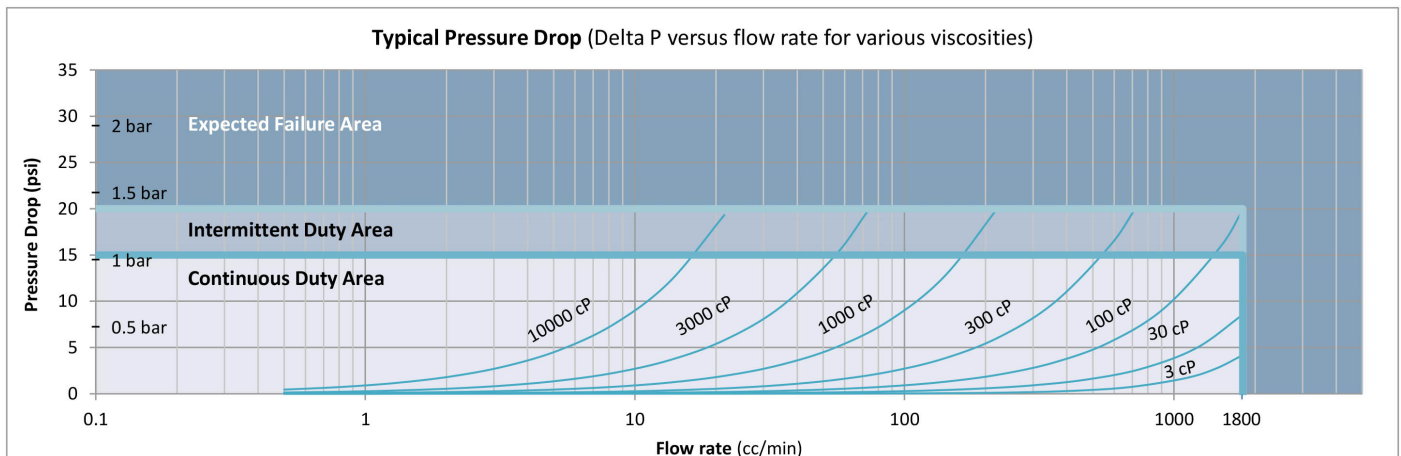
MATERIALS OF CONSTRUCTION

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



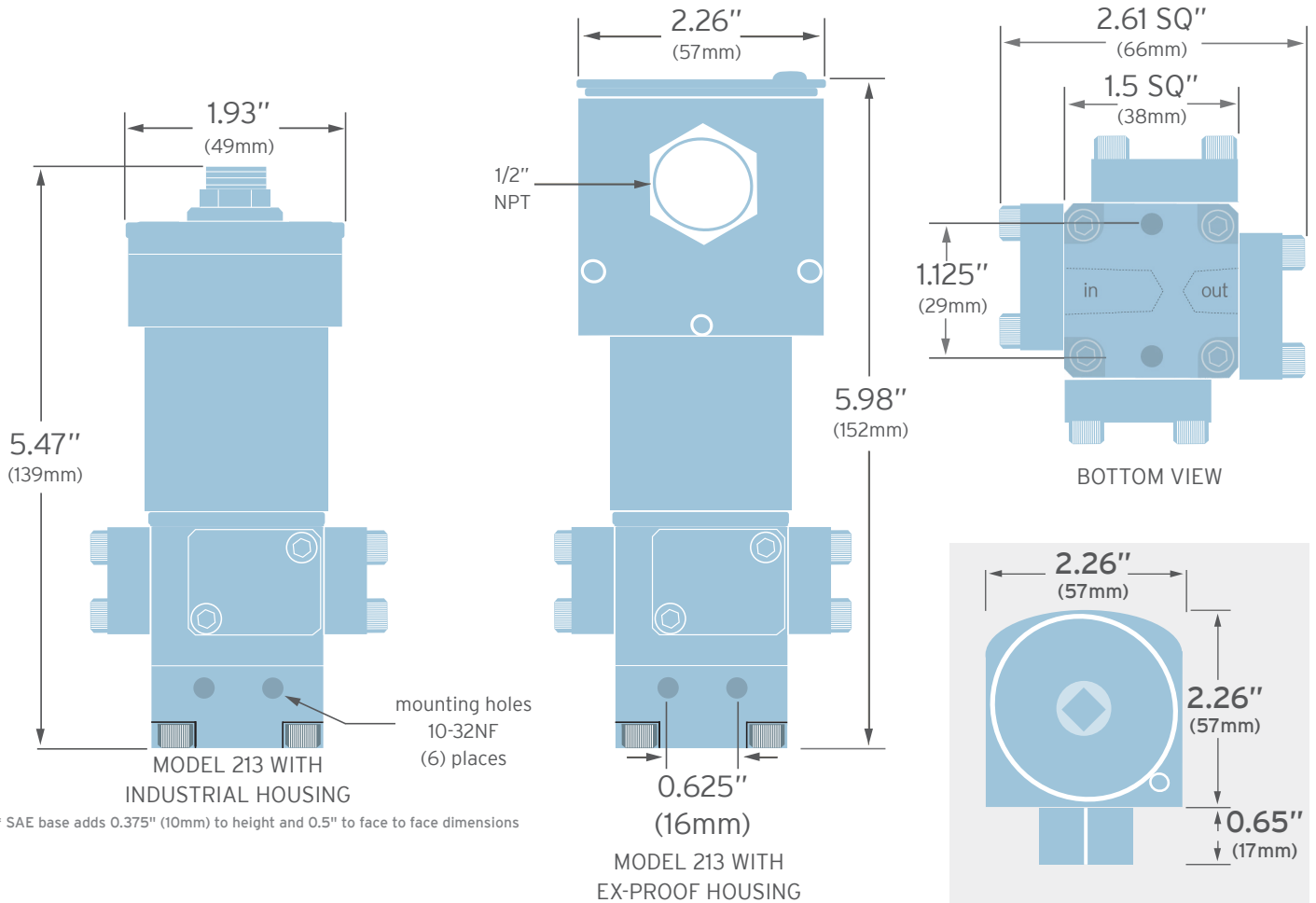
FREQUENCY TRANSMITTER

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 d IIB Tx Gb as well as UL, cUL certification for Class 1, Division 1, Groups C and D, Tx



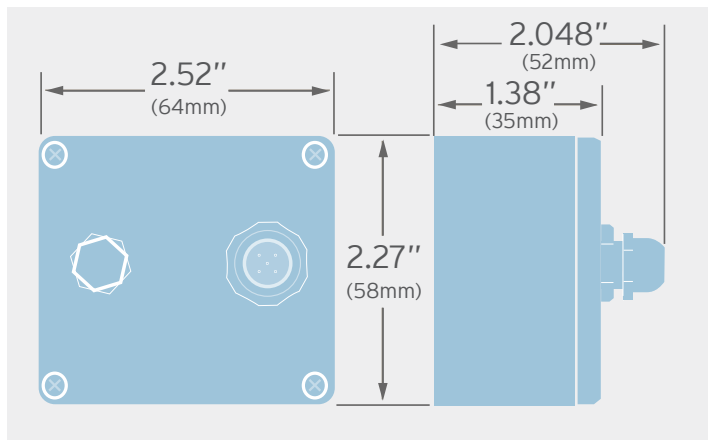
Model P213 Flow Meter (Frequency)

CONNECTIVITY/DIMENSIONS (Not to scale)



ELECTRICAL CONNECTION – FREQUENCY TRANSMITTERS

Pin #	Turck® Connector		NPT model
	Mating Cable Wire Color		
Case Ground	3	Blue	Case
Common	4	Black	Com
Power (+5-26 Vdc)	1	Brown	V+
Single Phase:			
Pulse Output	2	White	Ph A
N/A	5	Grey	NC
Quadrature:			
Output Phase A	2	White	Ph A
Output Phase B	5	Grey	Ph B



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

Options

None NA

Transmitter Selections

/ 0 - Non-standard options

Bi-directional cal BID

0 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.)