

Model P213 Piston Flow Meter (Analog)

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, or ± 2mV (or 4µA), whichever is greater
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

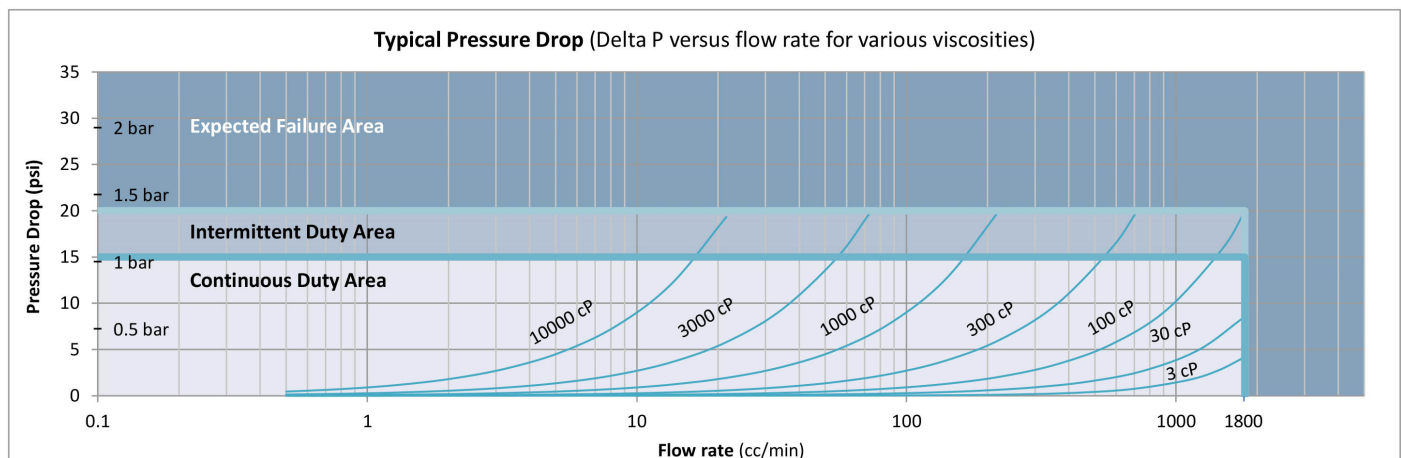
MATERIALS OF CONSTRUCTION

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



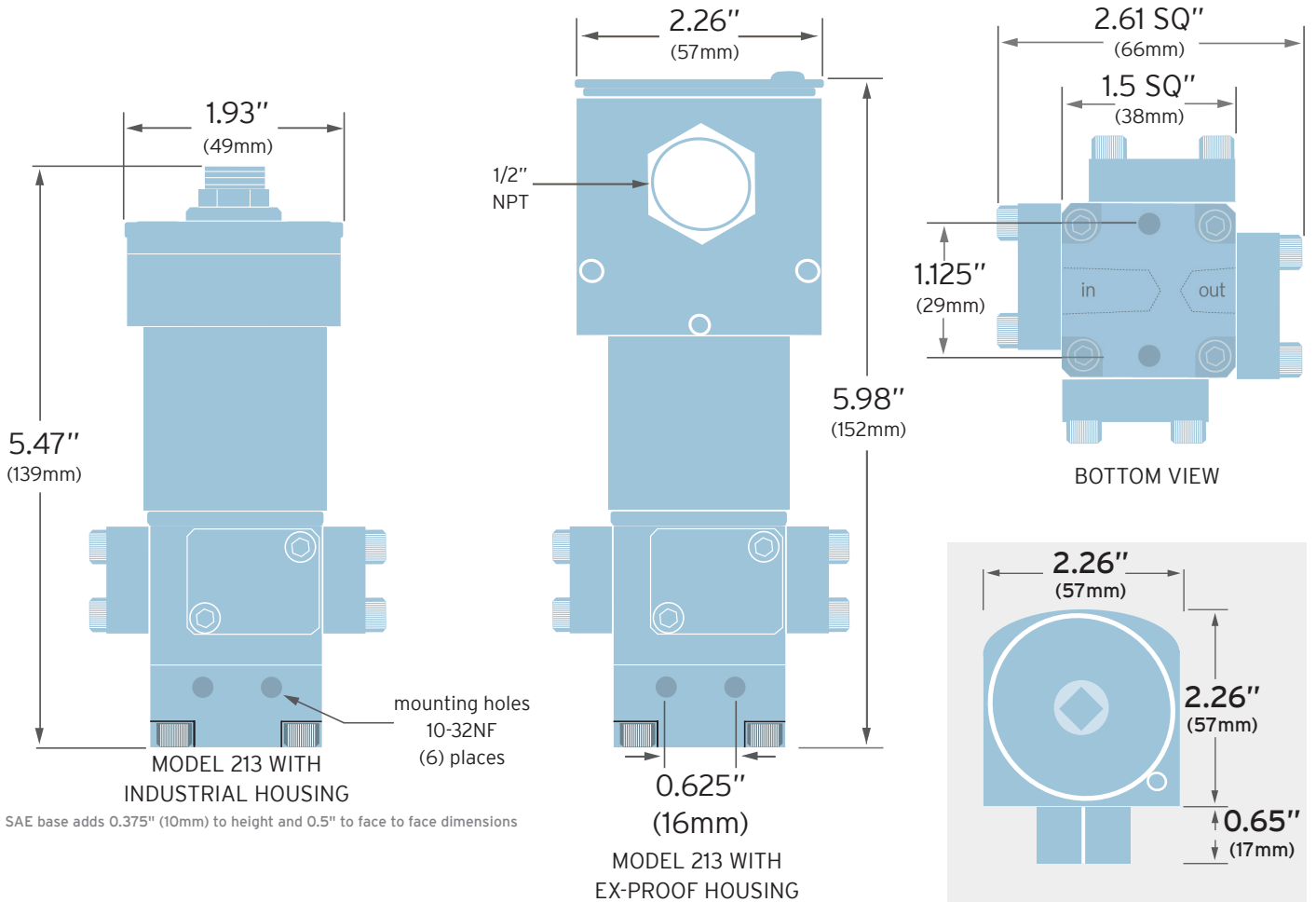
ANALOG TRANSMITTER

Output Signal	Any range of ± 10V or ± 20mA Linearized and damped with anti-dither protection
Power Supply Requirements	Two Models: 12Vdc @ 90 mA, 24Vdc @ 45 mA
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



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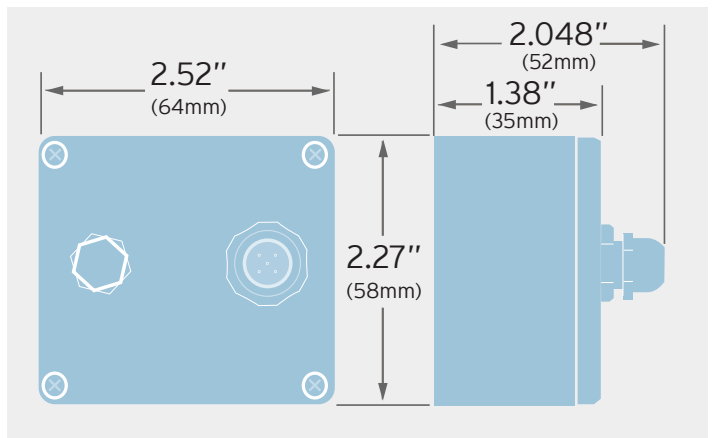
CONNECTIVITY/DIMENSIONS (Not to scale)



ELECTRICAL CONNECTION – ANALOG TRANSMITTERS

	Turck® Connector		
	Pin #	Mating Cable Wire Color	NPT model
Case Ground	3	Blue	Case
Common	4	Black	Com
Power *	1	Brown	V+
Signal Output (+)	5	Grey	Sig
Signal Output (-)	2	White	Ret

* Please specify 12Vdc or 24Vdc operation



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.)