

Model P001 Piston Flow Meter (Analog) 0.005 to 200 cc/min

SPECIFICATIONS

| | |
|----------------------------|--|
| Flow Range | 0.005 to 200 cc/min – dependent on viscosity |
| Accuracy (3 cP) | ± 0.2% of reading over a 200:1 range, or ± 2mV (or 4µA), whichever is greater |
| Maximum Operating Pressure | 500 bar (7250 psi) |
| Displacement | 0.3 cc/rev |
| Weight | 0.9 kg |
| Recommended Filtration | 5 micron |
| Port Size(s) | 1/4" or 6mm tube fitting |
| Fluids | Most non aqueous, organic liquids |
| Dimensions | Ø 57mm x 90mm tall (Ø 2.3" x 3.5" tall) |



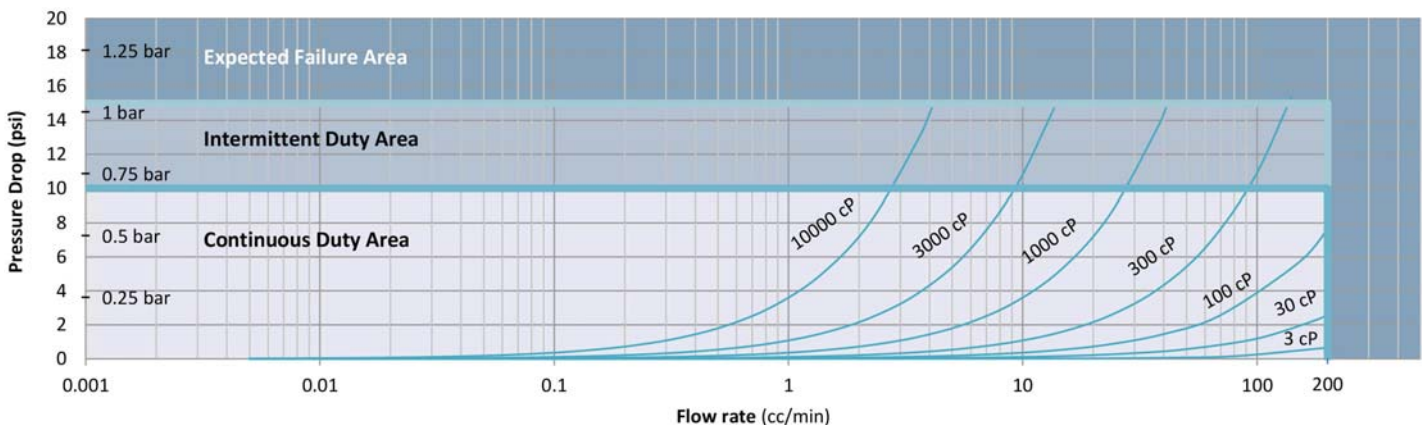
MATERIALS OF CONSTRUCTION

| | |
|------------|--|
| Body | Case hardened stainless steel, type 316 |
| Pistons | Case hardened stainless steel, type 316 |
| Crankshaft | Stainless steel, type 316 |
| Bearings | Hybrid - ceramic balls with enhanced corrosion resistant stainless steel |
| O Rings | Viton®- standard, Perfluoroelastomer - option |

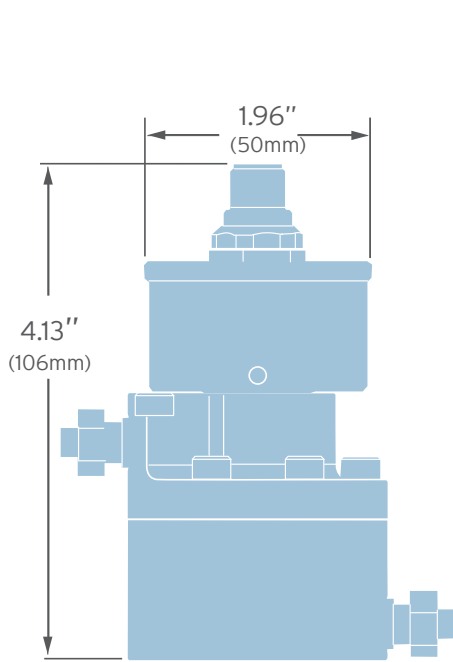
ANALOG TRANSMITTER

| | |
|--|--|
| 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 155°C, Two piece high temperature model -40°C to 225°C, Two piece, ultra 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 |

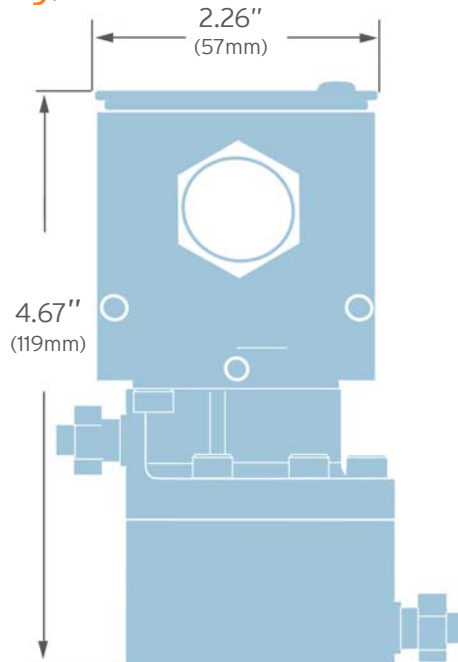
Typical Pressure Drop (Delta P versus flow rate for various viscosities)



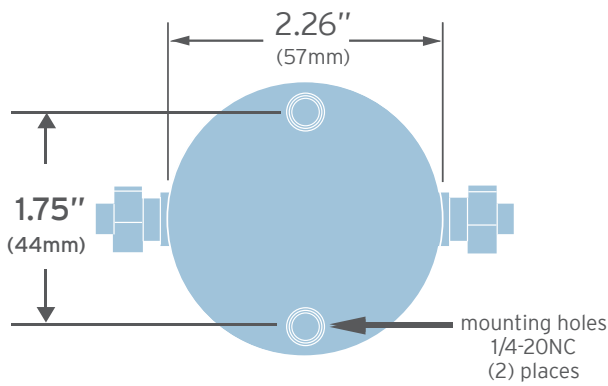
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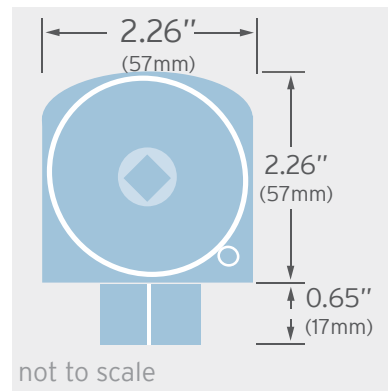
Model P001 meter with industrial transmitter



Model P001 meter with Explosion Proof transmitter



Bottom View

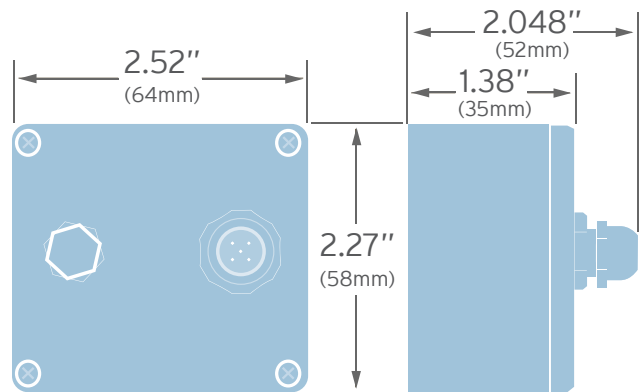


Top View of Explosion Proof Enclosure

ELECTRICAL CONNECTION – ANALOG TRANSMITTERS

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

* 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, 7250 psi (500 bar) rated

Flow Meter Selections

Model # HS /

Max flow range

0.2 Liters/min P001
2 Liters/min P002

3
2

Pressure

7250 psi (500 bar) HS

Fluid Connection

SAE 2
1/4" and 6mm Tube 3

Seal Selection

Viton® - FKM 1
Perfluoroelastomer - FFKM 5

Options

None NA

Transmitter Selections

1 - Non-standard options

Bi-directional cal BID

1 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 90°C
2 130°C Ex-Proof / 155°C Industrial **
3 225° C - 2 part Industrial †

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.)