Pressure Transmitters PXT Series

Features

- 4-20 mA Output Signal
- Precision Etched Silicon Sensor
- Corrosion Resistant Construction
- High Stability

The PXT Series pressure transmitter is a state-of-the-art instruments providing 4 to 20 mA outputs. It features a precision micro-machined silicon diaphragm with fully welded stainless steel pressure port for greater accuracy, stability and a wide range of compatibility.

Silicon technology is used to provide a miniature micro-machined diaphragm which is electrostatically bonded to a glass substrate and is then stitch-bonded within a glass to metal seal assembly to provide exceptional thermal and stress isolation. This technology assures you of high accuracy and stability over a wide range of operating conditions.

The enclosure is made of 316 stainless steel and all wetted parts are 316L stainless steel or HASTELLOY C276.

Applications

The PXT can be used in applications such as Compressors, Engines, Process Control, Liquid Level and Pumps.

Specifications

Accuracy (Full Scale, Best Straight Line):
±0.25% including non-linearity, hysteresis and repeatability. Long term stability better than 0.2% FS over twelve (12) months.

Zero Setting: ±0.5% of full scale (0.25% typical).

Span Setting: ±0.5% of full scale BSL (RSS).

Overpressure/Proof Pressure: 400% for up to 500 psi (3.45 MPa) [34 Bar]. 200% for higher ranges.

Burst Pressure: Ranges 0-1000 psi = 600% of full scale or 4000 psi whichever is lower. Ranges 2000 psi 13.79 MPa) [137 Bar]= 20,000 psi (27.5 MPa) [275 Bar].

Response Time: Frequency response better than 2 kHz.

Storage Temperature: -65 to 200°F (-54 to 93°C).

Operating Temperature: -40 to 180°F (-40 to 82°C).

Compensated Temperature: -20 to 160°F (-29 to 71°C).

Total Thermal Effects Over Compensated Range: ±2% FS TEB.

Physical:
Enclosure: Weather Resistant.
Body: 316 stainless steel. Meets NACE MR01-75.
Wetted Parts: 316L stainless steel or HASTELLOY C276.
Process Connection: 1/4 NPT female.
Electrical Cable: Integral; 60 in. (914 mm); vented. 1/2 in. NPT male conduit connection

Environmental Effect:
Humidity: No effect.
Mounting: Position/orientation has negligible effect.
Reverse polarity protected

Shock: 1000g 1ms Half sine Pulse in each of 3 mutually perpendicular axis will not affect performance.

Vibration: Effect on output response is less than 0.05% FS/g at 30g Peak 10Hz to 2kHz, limited by 0.05 in double amplitude. (MIL STD 810C Proc. 514.2-2 curve L). PXT Power Requirements: Typically 24 VDC is required, using the Loop Resistance Graph, 9-30 VDC.

PXT Series Transmitter Output: 4–20 mA, 2-wire.

Insulation: Greater than 10 Mohms @ 500 VDC.

RFI Protection: To the European standards of BS EN 50082-2:1991 in accordance with IEC 801 parts 1 to 6 for suspectibility to EMC and to BS EN 50081-1992 for emissions.

Voltage Surge/Spike: Protected against a 600 V spike to IEC 60-2. Reverse polarity protected.

Sealed: Sealed at one atmosphere at sea level for ranges > 1000 psi (6.89 MPa) [68 Bar].

Vented: Vented for ranges < = 1000 psi (6.89 MPa) [68 Bar].

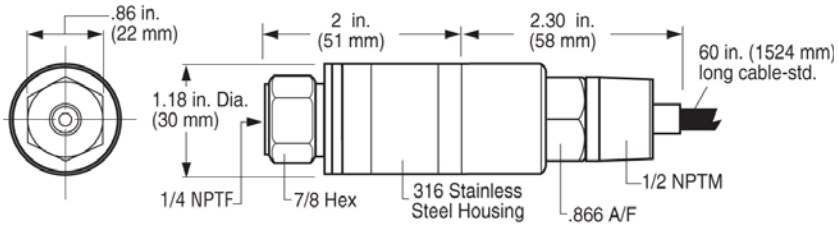
UL Certification: Class I, Division 2, Groups A, B, C and D; Class II, Groups E, F and G. Pressure transmitter, Model PXT. Intrinsically safe when installed per system, Diagram No. 05-08-0754. UL File #E169675

Shipping Weight: 0.90 lb. (408 g).

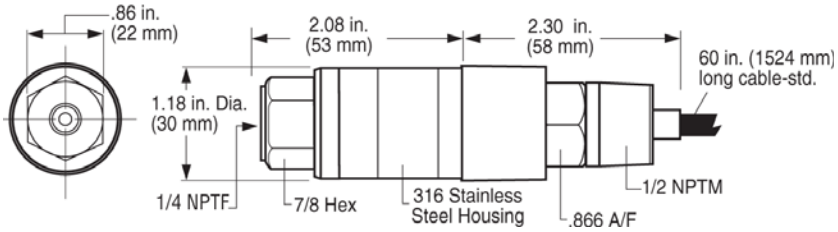
Shipping Dimensions: 5 x 5 x 5 inches (127 x 127 x 127 mm).

Product Dimensions

Low Pressure Units

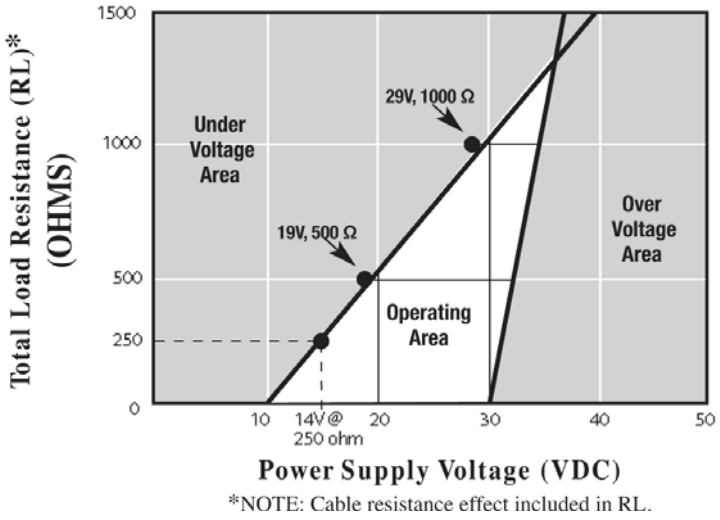


High Pressure Units



Loop Resistance Graph

Supply voltage for the PXT must be within range of 9-30 VDC. The Graph below shows the minimum supply voltage (VDC) required for a given load resistance (RL).

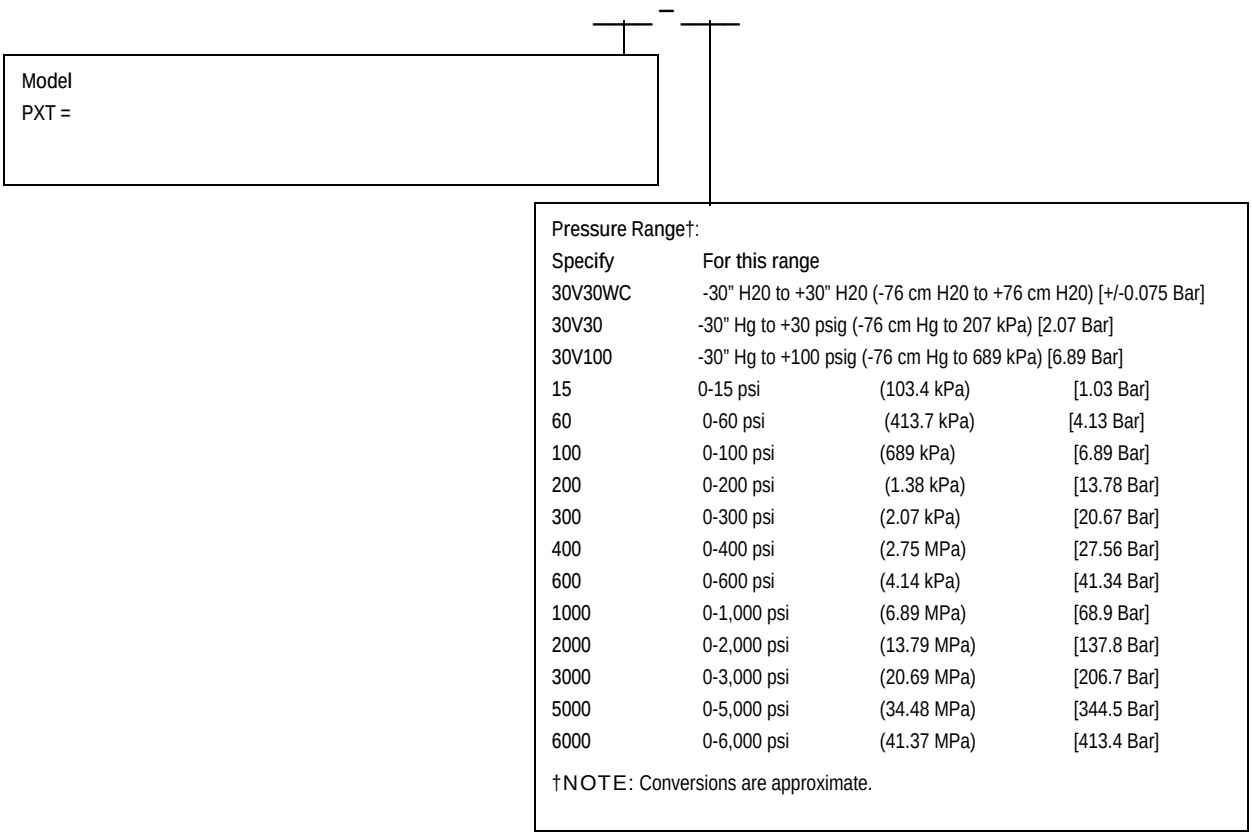


*NOTE: Cable resistance effect included in RL.

Warranty - A limited warranty on materials and workmanship is given with this FW Murphy product.
A copy of the warranty may be viewed or printed by going to http://www.fwmurphy.com/warranty

How to Order

To order, please use the part number designation below. Part number example: **PXT-100**



This page intentionally left blank.