

Pressure Transmitters

PXT-K Series

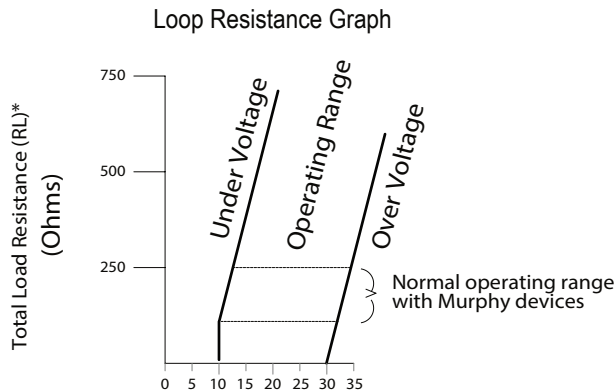
The PXT-K Series pressure transmitters are state-of-the-art instruments providing 4-20 mA output. Each piezoresistive pressure transmitter contains a transducer comprised of a piezoresistive silicon chip mounted on a glass-metal feed-through header welded into a stainless steel or Inconel housing and filled with oil. The very thin laser-welded stainless steel isolation-diaphragm completes the front side. Media pressure is transferred from the stainless steel isolation-diaphragm via the oil inside the cell to the silicon measuring chip. This construction, combined with the advanced internal signal conditioning circuitry, results in a rugged instrument with extremely small temperature error and class-leading EMI/RFI resistance.

The enclosure and all wetted parts are made of 316L stainless steel / alloy 625 (Inconel).

PXT-K Series Pressure Transmitters can be used in applications such as compressors, engines, process control, liquid level and pumps.

Operating Range

Supply voltage for the PXT-K must be within range of 10-30 VDC. The graph below shows the minimum supply voltage (VDC) required for a given load resistance (R).



*Note: Cable resistance effect included in RL.

Minimum Voltage for Common Input Modules		
Model	Input Impedance	Vmin
Centurion C4-1	231 Ω	13.62
MX5	221 Ω	13.42
Centurion C5	200 Ω	13.00
MX5-R2		
Third-Party PLC (typical)	249 Ω	13.98



Specifications

Operating Pressure Range: See table, Pressure Range under How to Order section.

Operating Temperature Range: -22 to 212° F (-30 to 100° C)

Certified Temperature Range: -22 to 176° F (-30 to 80° C)

Compensated Temp Range: -20 to 160° F (-29 to 71° C)

Process Connection:

1/4"-18 NPT female with 7/8" hex nut (2000 psig and below) or 15/16" hex nut (3000 psig and above)

Electrical Connection:

PXT-K: 1/2" NPT male conduit connection, 60" long cable, vented
PXT-KM: M12 connector

Enclosure Rating: IP65

Body: 316L stainless steel / alloy 625 (Inconel)

Wetted Parts: 316L stainless steel

Environmental Effect (Humidity):

No effect for 0-95%, non-condensing

Mounting: All axis positions, has negligible effect on performance as long as it is perpendicular to the flow being monitored

Shock Resistance:

800g per IEC 60068-2-27 (Mechanical shock)

Vibration Resistance:

20G per IEC 60068-2-6 (Vibration under resonance)

Wiring Protection: Protected against reverse polarity and short circuit, 48 VDC Maximum

Supply Voltage: 10 - 30 VDC (Typically 24 VDC)

Transmitter Output:

4-20 mA, two wire configurations with load characteristics

Insulation: Greater than 10 MΩ @ 300 VDC

Electromagnetic Compatibility (EMC): Standards; EN 61000-6-2:2005, EN 61000-6-3:2007, EN 61326-2-3:2006

Voltage Surge/Spike Protection:

Protection against a 600 volt spike per IEC 60-2

Applicable Standards

CSA (c/us): Class I / II / III, Div 1, Groups A-F T4
Class I / II / III, Div 2, Groups A-D,F,G T4

ATEX: IBExU 10 ATEX 1124 X

II 1G Ex ia IIC T6-T4

II 3G Ex nA IIC T6

Canadian Registration Number: OF15236.2 (all providences and territories)

Specifications (continued)

Accuracy:

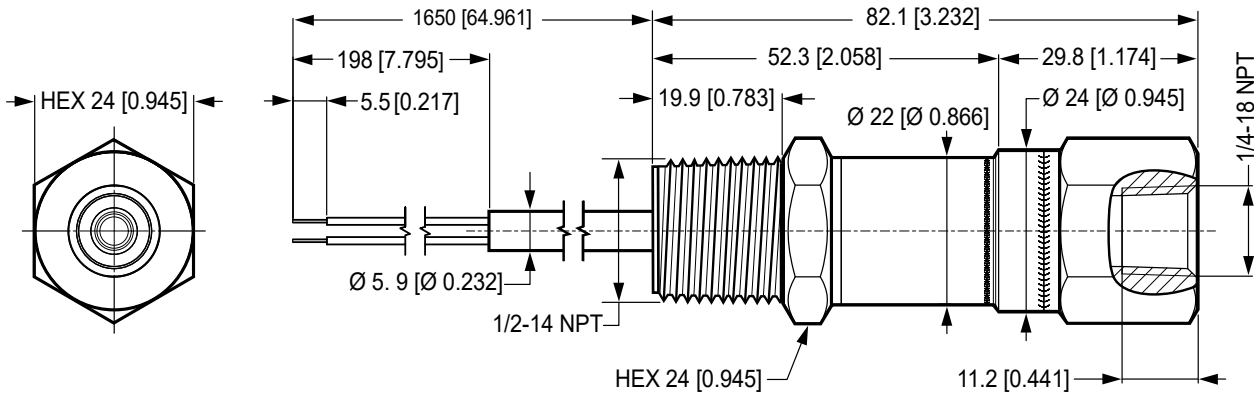
% of Span (BFSL)	+/- 0.25% of span*
Zero/Span Setting Tolerance	+/- 2.5% of full scale* max. (30V30WC only) +/- 0.25% of span* typical, +/- 0.5% of span* max (all other ranges)
Operating Temperature	+/- 2.5% of span T.E.B.
Compensated Temperature	+/- 1.7% of span T.E.B.
Response Time	<5mS
* Accuracy tolerance to be applied at 25° C.	

Connections:

PXT-K Connections		PXT-KM Pin Assignment	
Wire Color	2 Wire, 4-20 mA	Pin (Color)	2 Wire, 4-20 mA
Black (BK)	V-/SIG	Pin 1	N.C.
Red (RD)	+ Vdc	Pin 2 (Black)	V-/SIG
		Pin 3 (Red)	+ Vdc
		Pin 4	N.C.

Dimensions

The hex are for tightening process threads only. Do not twist the body. Hold hex when attaching to pressure source and when attaching conduit threads. The PXT-K 3000 psig model is shown.



How to Order

NOTE: Installation Manual 00-02-0840 and Installation Diagram 05-08-0763 are available at fwmurphy.com.

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.

Example: PXT-K-600 = FW Murphy two wire Pressure Transmitter with Flying Lead Connection, 0-600 psig range.



Connector	
K	= PXT (Flying Lead)
KM	= PXM (M12 x 1 Connector)

Pressure Range	
30V30WC = (-30" H2O to +30" H2O)	400 = 0-400 (psig)
30V30 = (-30" HG to +30 psig)	600 = 0-600 (psig)
30V100 = (-30" HG to +100 psig)	1000 = 0-1000 (psig)
15 = 0-15 (psig)	2000 = 0-2000 (psig)
60 = 0-60 (psig)	3000 = 0-3000 (psig)
100 = 0-100 (psig)	5000 = 0-5000 (psig)
200 = 0-200 (psig)	6000 = 0-6000 (psig)
300 = 0-300 (psig)	10000 = 0-10000 (psig)

Approximate Shipping Weight and Dimensions		
Model	Weight	Dimension
PXT-K	6.5 ounces	4-3/4 x 4-3/4 x 2-3/4 in. (121 x 121 x 70 mm)
PXT-KM	6.5 ounces	4-3/4 x 4-3/4 x 2-3/4 in. (121 x 121 x 70 mm)

Part Number	Model and Description	Notes
86031205	Adapter 1/4" x 1/4 NPT 316	
40051047	Cable, PXT-KM, M12 X 3 ft.	
40051048	Cable, PXT-KM, M12 X 6 ft.	
40051082	Cable, PXT-KM, M12 X 30 ft.	
40051049	Cable, PXT-KM, M12 X 50 ft.	
40051050	Cable, PXT-KM, M12 X 100 ft.	