

PT410 Series

Stocked, Distributed, and Supported by

SENSORS
INCORPORATED

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Features

- Accuracy better than $\pm 0.25\%$
- Measures up to 1000°F (538°C)
- NaK fill meets FDA and USDA requirements
- Inconel diaphragm
- 0 - 500 to 0 -10,000 psi
- 3.33 mV/V FSO

Benefits

- Reliable, repeatable pressure measurements
- Designed for extremely high process temperatures
- Ideal for medical and food applications
- Excellent abrasion and corrosion resistance
- Wide variety of pressure ranges
- Easy to calibrate with local indicator

Description

The PT410 Series transducer is a $\pm 0.25\%$ sensor ideal for food or medical applications requiring high accuracy, simple installation, repeatability and reliability. The NaK fill material meets the requirements set forth by both the FDA and USDA for contact with food and medical products. The PT410 Series transducers provide the industry standard 3.33 mV/V signal designed to work with most pressure indicators. The PT410 comes equipped with an eight pin bendix connector. Optional thermocouple or RTD configurations are available to provide melt temperature. The PT410 features a 1/2-20 UNF thread for installation in standard transducer mounting holes and can be supplied with a variety of other electrical connections, if desired.

Specifications

PERFORMANCE CHARACTERISTICS

Output: 3.33 mV/V $\pm 2.0\%$

Input Voltage: 10 Vdc recommended, 12 Vdc maximum

Combined Error: $\pm 0.25\%$ FSO,
(Including Linearity, Repeatability & Hysteresis)

$\pm 0.5\%$ FSO for 500, 750, 1,000 psi ranges

Repeatability: $\pm 0.1\%$ FSO,

$\pm 0.2\%$ FSO for 500, 750, 1,000 psi ranges

Configuration: Four-arm bonded foil Wheatstone bridge strain gage

Bridge Resistance: Input: 345 Ohms minimum

Output: 350 Ohms $\pm 10\%$

Over Pressure: 2 X FSO or 35,000 psi whichever is less

Zero Balance: $\pm 5\%$ FSO

Internal Shunt Calibration (R-Cal): 80% FSO $\pm 0.5\%$

Insulation Resistance: 1000 megohms @ 50 Vdc

TEMPERATURE & MECHANICAL CHARACTERISTICS

Max Diaphragm Temperature: 1000°F (538°C)

Zero Shift (due to temperature change):

30 psi/ 100°F Typical (54 psi/ 100°C)

Electronics Operating Temperature: 250°F (121°C)

Zero Shift Due to Temperature Change:

$\pm 0.01\%$ FS/ $^{\circ}\text{F}$ max ($\pm 0.02\%$ FS/ $^{\circ}\text{C}$ max)

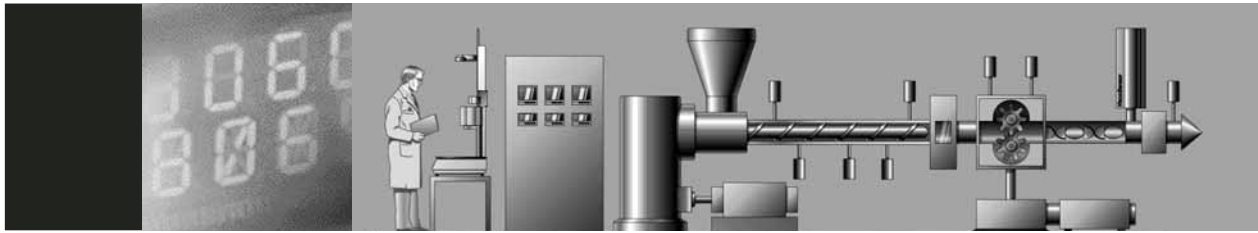
Sensitivity Shift Due to Temperature Change:

$\pm 0.005\%$ FS/ $^{\circ}\text{F}$ max ($\pm 0.01\%$ FS/ $^{\circ}\text{C}$ max)

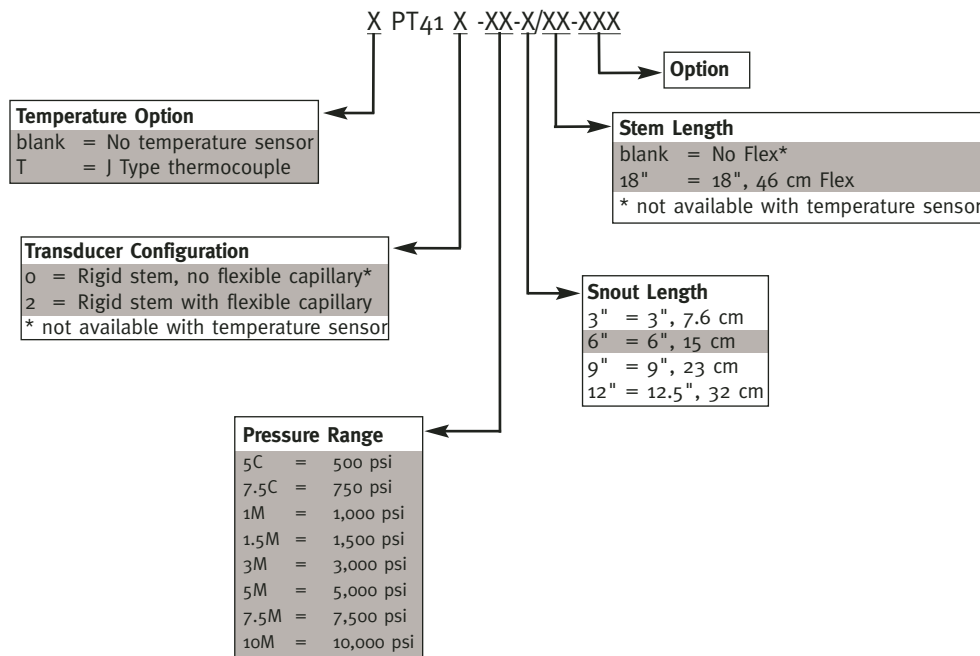
$\pm 0.01\%$ FS/ $^{\circ}\text{F}$ max ($\pm 0.02\%$ FS/ $^{\circ}\text{C}$ max) for 500, 750, 1,000 psi ranges

Mounting Torque: 500 inch/lbs. maximum

Standard Wetted Parts: Inconel 718



Ordering Guide



Standard mating connector Dynisco P/N 710700 or 8-pin mating connector cable assembly.

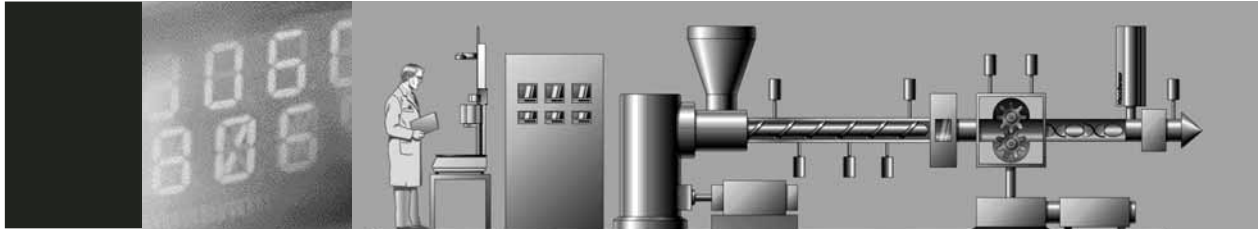
Shaded sections refer to standard configurations. Accuracy may be affected if non-standard configurations are used. For additional options please consult factory.

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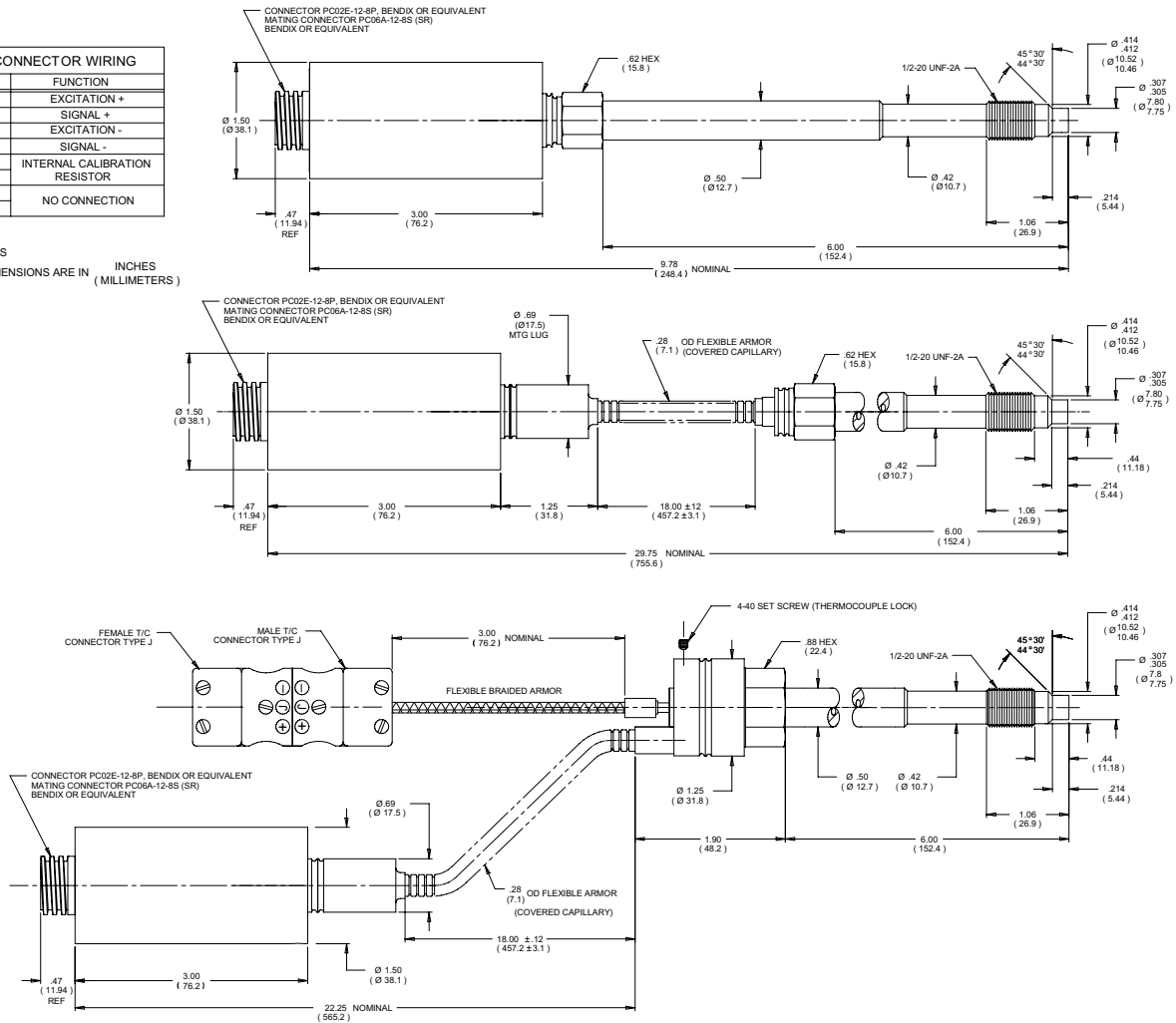
Hotline 1-800-Dynisco

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CONNECTOR WIRING	
PIN	FUNCTION
A	EXCITATION +
B	SIGNAL +
C	EXCITATION -
D	SIGNAL -
E	INTERNAL CALIBRATION RESISTOR
F	INTERNAL CALIBRATION RESISTOR
G	NO CONNECTION
H	NO CONNECTION

NOTES
1. DIMENSIONS ARE IN INCHES (MILLIMETERS)



All dimensions are inches (mm).