



## PT410/412 Alternate Fill Pressure Sensors

*IDEAL FOR FOOD OR MEDICAL APPLICATIONS*



### 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.

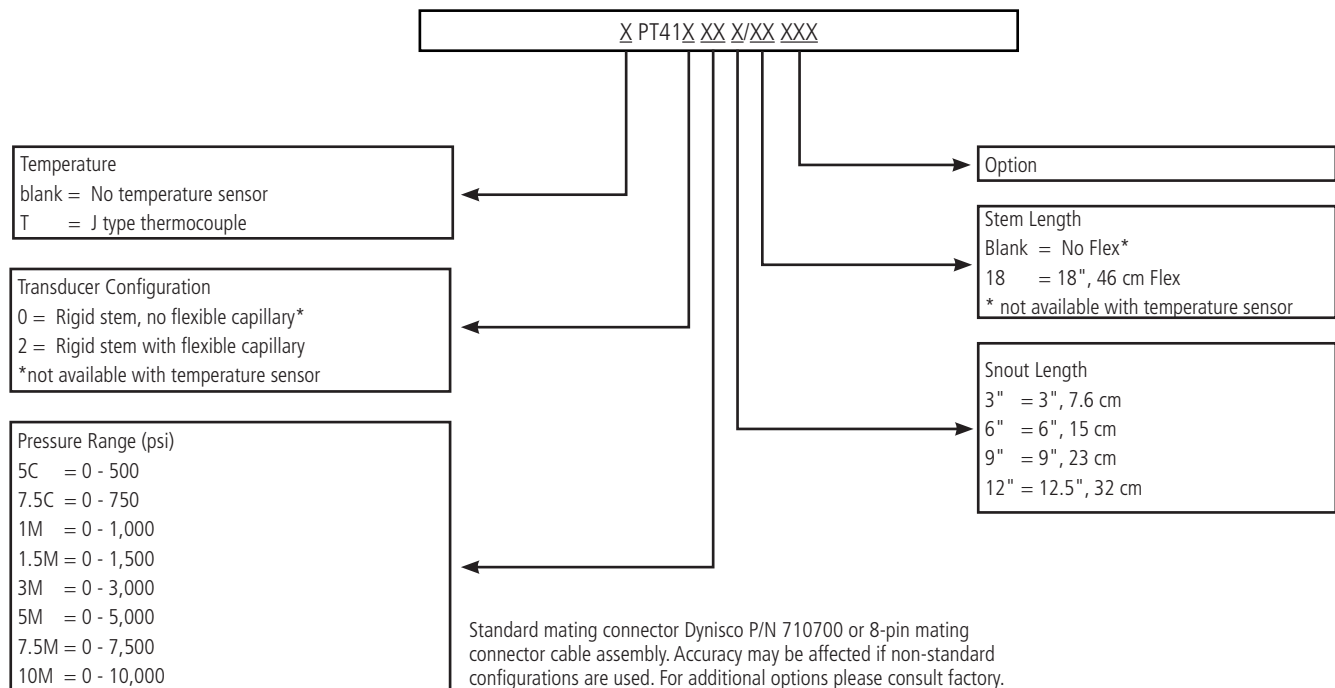
### Features

- 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

Performance Characteristics	
Output:	3.33 mV/V ± 2.0%
Input Voltage:	10 Vdc recommended, 12 Vdc maximum
Combined Error:	± 0.25% FSO, (Including Linearity, Repeatability & Hysteresis) ± 0.5% FSO for 500, 750, 1,000 psi ranges
Repeatability:	± 0.1%FSO, ± 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 ± 10%
Over Pressure:	2 X FSO or 35,000 psi whichever is less
Zero Balance:	± 5% FSO
Internal Shunt Calibration (R-Cal):	80% FSO ± 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):	± 0.01% FS/oF max (± 0.02% FS/oC max)
Sensitivity Shift (Due to Temperature Change):	± 0.005% FS/°F max (± 0.01% FS/°C max) ± 0.01% FS/°F max (± 0.02% FS/°C max) for 500, 750, 1,000 psi ranges
Mounting Torque:	500 inch/lbs. maximum
Standard Wetted Parts:	Inconel 718

### Ordering Guide for PT410/412



# Dimensions

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)

