

## PT420A Series



### Features

- Accuracy better than  $\pm 0.25\%$
- Dymax<sup>®</sup> coated stainless steel wetted parts
- Proven sensor design
- Excellent thermal stability and repeatability
- 0 - 500 to 0 -30,000 psi
- Internal 80% shunt calibration

### Benefits

- Reliable, repeatable pressure measurements
- Superior abrasion resistance
- Good stability and repeatability
- Ideal for high temperature applications
- Wide variety of pressure ranges
- Easy to calibrate with local indicator

### Description

The PT420A Series transducer is a  $\pm 0.25\%$  sensor ideal for melt pressure applications requiring high accuracy, simple installation, repeatability and reliability. The PT420A transducers provide the industry standard 3.33 mV/V signal designed to work with most pressure indicators. The PT420A comes equipped with an eight pin Bendix connector. Optional thermocouple or RTD configurations are available to provide melt temperature. The PT420A 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:** 750°F (400°C)

**Zero Shift (due to temperature change):**

15 psi/100°F Typical (27 psi/100°C)

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

**Zero Shift Due to Temperature Change:**

$\pm 0.01\%$  FS/°F max ( $\pm 0.02\%$  FS/°C max)

**Sensitivity Shift Due to Temperature Change:**

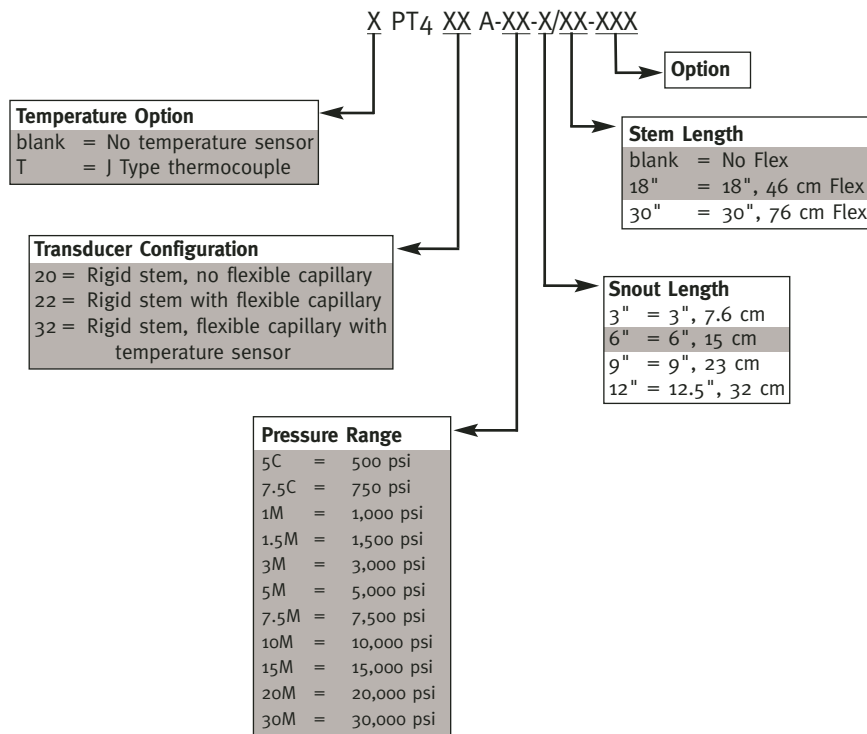
$\pm 0.005\%$  FS/°F max ( $\pm 0.01\%$  FS/°C max)

**Mounting Torque:** 500 inch/lbs. maximum

**Standard Wetted Parts:** Dymax<sup>®</sup> coated 15-5 PH SST



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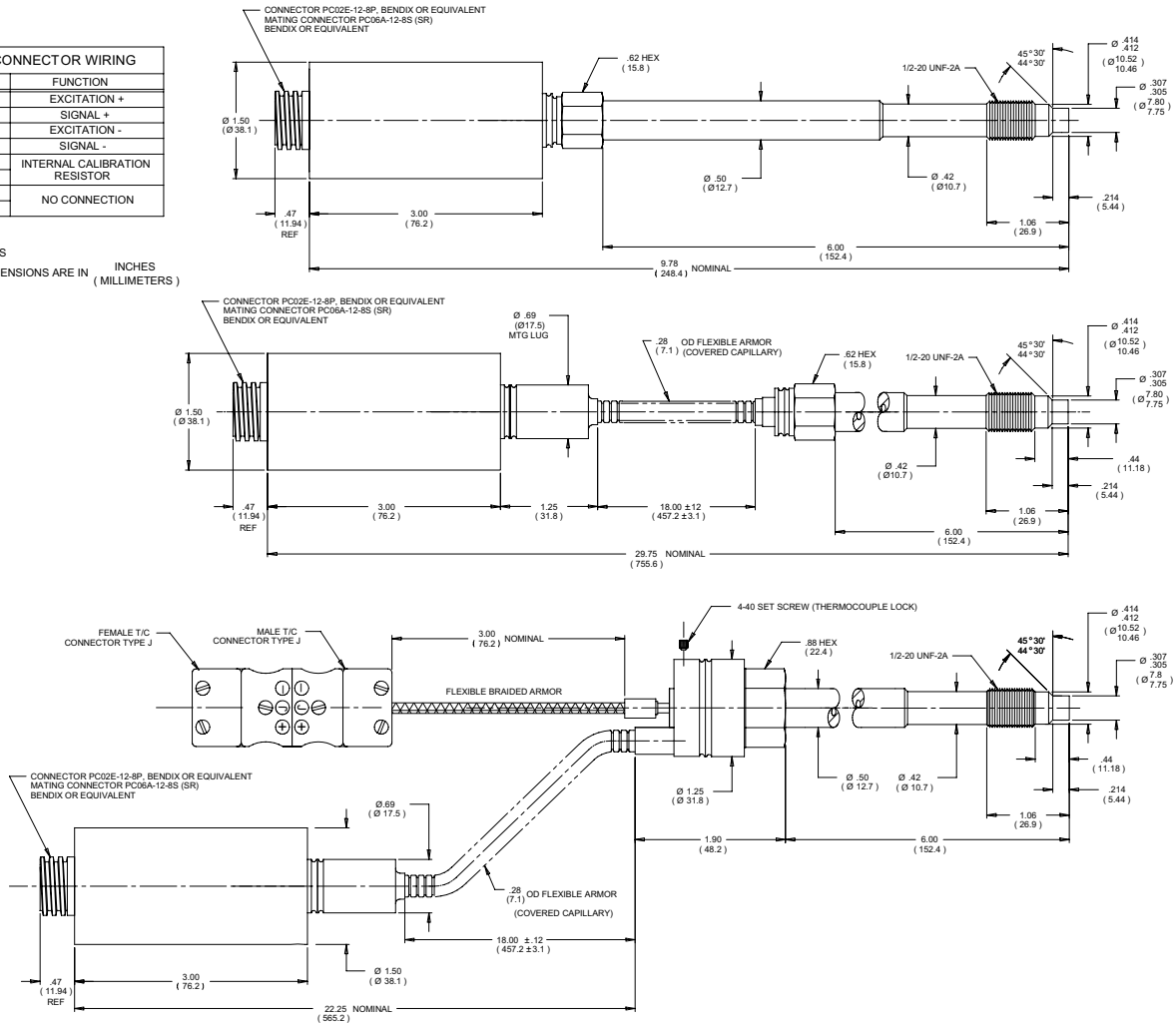
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CONNECTOR WIRING	
PIN	FUNCTION
A	EXCITATION +
B	SIGNAL +
C	EXCITATION -
D	SIGNAL -
E	INTERNAL CALIBRATION RESISTOR
F	
G	
H	NO CONNECTION

NOTES  
1. DIMENSIONS ARE IN INCHES (MILLIMETERS)



All dimensions are inches (mm).