

Building on the prestige of our company's ISO 9001:2015 certification, Temp-Pro is poised to deliver the absolute best quality and craftmanship for every one of our industrial products.

# Temp-Pro Inc is a leader in the industry, supplying temperature sensor requirements for the most demanding industrial applications.

Temp-Pro's temperature sensors such as Resistance Temperature Detectors (RTDs) are designed specifically to accurately sense and respond to temperatures of the windings in motors and generators.

## **Stator Winding RTD**



#### **Features**

Temp-Pro has the engineering capabilities to laminate elements between top and bottom ruler for finished stator slot Resistance Temperature Detectors (RTD's) as well as air/gas RTD's used for Conventional and Liquid Cooled windings.

Stator Winding RTDs make it a popular solution for OEMs of electric motors, usually inserted between the coils in the stator of a motor. The flat laminated sensors are also use in generators to measure winding temperature, allowing for a continuous measurement that supports potential early warning alerts.

These temperature sensing devices offer motor manufacturers an added element of protection since the RTDs can sense increases in temperature, measured over a period of time. Such temperature data can be used to assess the reaction to potential—or impending—damage to its insulation or other components.

### **Application**

Stator Winding RTDs include rotating machinery components such as generators, compressors, pumps, or gearboxes.



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### Installation



Stator Winding RTDs fit on the coil end of large motors and generators. Six sensors are recommended for each motors, two per phase. Locate sensors near the hottest point of the windings for best performance.

### **Ordering**

Stator Winding RTDs can be customized to meet specific dimensions and applications in your electric rotating equipment.

### Sample: FSE120A PT100B 723

FSE..... Model

**Insulation Class** None: Class F = 155°C (311°F)

H: Class H =  $180^{\circ}$ C ( $359^{\circ}$ F)

**120 ...... Body Length** 120: 12.0in

A ...... Body Thickness A: 0.030in

B: 0.051in C: 0.078in

#### PT100B... Element

PT 100A: Platinum (0.00385 TCR) 100 $\Omega$  ±0.5% at 0°C PT 100A1: Platinum (0.00392 TCR) 100 $\Omega$  ±0.5% at 0°C

PT 100B: Platinum (0.00385 TCR)  $100\Omega \pm 0.12\%$  at 0°C

(Meets EN60751, Class B)

PT 100B2: Platinum (0.00385 TCR) 100 $\Omega$  ±0.2% at 0°C

CU 10B: Copper (0.00427 TCR)  $10\Omega \pm 0.2\%$  at 25°C

NI 120: Nickel (0.00672 TCR)  $120\Omega \pm 0.5\%$  at 0°C

0.030" thick: AWG 30 Body width (inches) 0.051" thick: AWG 26 Single .285 ±0.005 0.078" thick: AWG 22 Dual .472 ±0.005

72 .....Lead Length: 72 Inches

3 .....Leads Single: 2, 3, 4 strands Dual: 2 or 3 (per element)

\*\*\*Dual Element - Specify Dual\*\*\*

# Standard

IEC 60751 DIN 43760 Building on the prestige of our company's ISO 9001:2015 certification, Temp-Pro is poised to deliver the absolute best quality and craftmanship for every one of our industrial products.

## **Stator Winding RTDs**







#### **MOLDED STRIP TYPE**

It's critical to protect your windings. Stators are a core component in power generation, facilitating the generation of energy from the spinning motion of the rotor.

Measuring thermal shifts and other variable physical conditions is a job best served by industrial-level devices like molded strip type RTDs. The resistance wire in this detector is molded into a glass-cloth strip impregnated with polyester resin. The detectors are built into large motors, generators, or transformers. The mechanical protection of the strip depends upon its installation in the power apparatus. All molded-strip detectors are non-inductively wound to reduce the voltage that is induced in the detectors.

#### **AVAILABLE RTDs**

Temp-Pro RTDs are available in multiple configurations, such as Single Element stator winding RTDs, Dual Element stator winding RTDs and Dual Independent Element stator winding RTDs. We also offer three element materials, namely copper, platinum and mixed—depending on your specific needs. Other options for our RTDs include rear exit, side exit, custom holes and sizes, electrically conductive coatings, and dual sensors with different elements.