

## TEMPERATURE PRODUCTS

# 8PT15 Series

## Bearing Thermocouple

### For Frame 6, 7 and 9 Gas Turbine Applications

AMETEK Power Instruments 8PT15 Series Bearing Thermocouples are designed specifically for monitoring the bearing temperature within the gas turbine. With a nickel-plated copper alloy "button" shaped design along with an environmental Stycast seal, you can be assured that they will operate efficiently in even the harshest environments. The small footprint makes it easy to install the thermocouples and get as close to the bearing surface as possible.

The 8PT15 Series Bearing Thermocouples are critical for detecting issues within your turbine. You can utilize them to indicate bearing degradation and breakdown in the oil film they are monitoring the temperature in. Our thermocouples have a fast time response due to their small, compact size and are specifically designed for direct immersion mounting to maintain constant contact with the surface that is being monitored. To provide reliable and accurate temperature measurement during turbine operation, the spring-loaded design maintains direct contact with the surface under measurement. When a rise in bearing temperature is detected, you can initiate a planned outage to improve your turbine operation.

Our bearing thermocouples use 20 AWG Teflon insulated wires with a 2-conductor type K thermocouple junction. The transition tube is environmentally sealed with a high temperature potting compound designed to form a moisture seal for the internal components and is rated to 260°C. Our thermocouples meet ASTM E230 requirements with an accuracy of 2.2°C or 0.75%.

### FEATURES AND BENEFITS

1	OEM Qualified
2	Fast time response measurement
3	Epoxy sealed to withstand high temperatures
4	Available in Spring or Non-Spring-Loaded configurations
5	Single or dual junction connection
6	NEC Class 1 DIV 1 & 2, Group B, C & D atmosphere and/or IECEx Zone 1 or Zone 2 area

For detailed descriptions and drawings of the 8PT15 Series Bearing Thermocouples, please contact us.

# SPECIFICATIONS

## VIBRATION

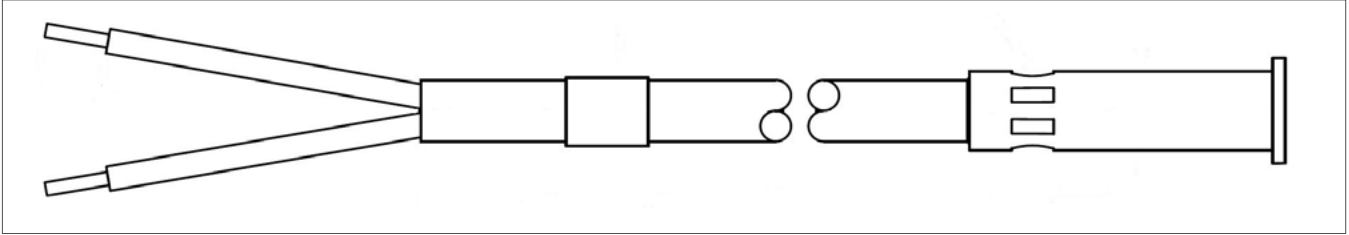
- 20 – 600 Hz Vibration Sweep to detect Resonance frequencies

## TEMPERATURE AT ENVIRONMENTAL SEAL

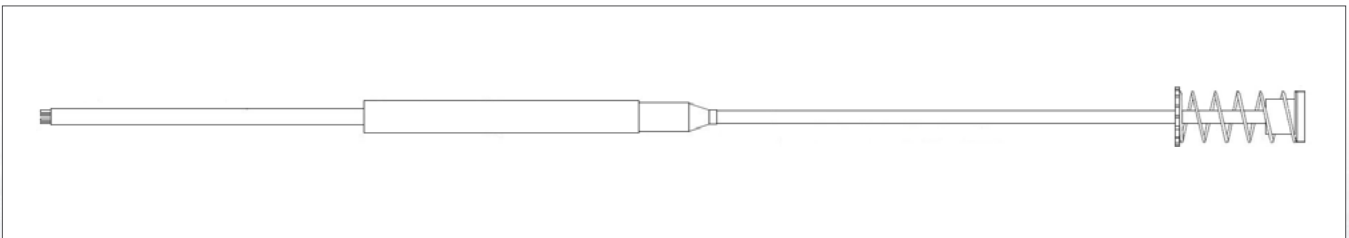
- -20°C to 260°C (-4°F to 500°F)

## CONFIGURATION

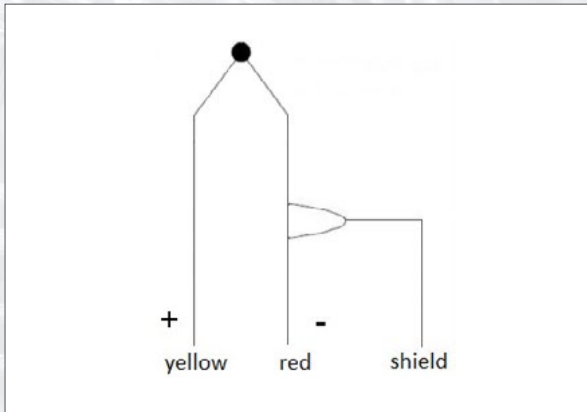
- Available in single or dual junction element
- Non-Spring-Loaded – used for general temperature sensing applications
- Spring-Loaded – compressed directly against the surface being measured



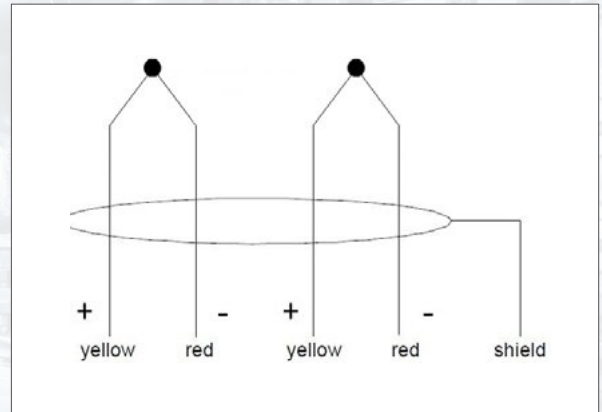
Standard Configuration



Spring-Loaded Configuration



Single Wiring Diagram



Dual Wiring Diagram

AMETEK Power Instruments also manufactures a full line of sensors for gas and steam turbine applications. These include flame sensors, RTDs, thermocouples, cables and radiation shields. We manufacture to OEM requirements and can design and test to meet your unique application requirements. For more information, please visit our website at [www.ametekpower.com](http://www.ametekpower.com) or contact us directly at [pi.marketing@ametek.com](mailto:pi.marketing@ametek.com).

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