



KNOW BEFORE IT GOES

Wireless Type K Thermocouple Transmitter **PST-TCK**

DESCRIPTION

The *PST Thermocouple Transmitter* can read and transmit up to 3 thermocouple inputs. The miniature size flat 2 pin connector allows you to interface with a wide variety of type K thermocouple sensors. PST's Wireless Temperature Sensor can accurately detect a wide range (-200°F to 600°F) of temperatures in industrial environments.

TRANSMITTER

The transmitter uses two AA alkaline batteries with an approximate two-year battery life. These 900 MHz transmitter radios use the license-free 902-928 MHz ISM band. Before each transmission, the radio checks for a clear channel before it sends the sensor data. If the channel is busy, it waits until it finds an opening; then transmits the data. This clear channel assessment approach allows the system to function efficiently in noisy areas or heavy RF traffic areas without disrupting other communications.

Data is typically transmitted once every 20 seconds to optimize battery life and minimize RF traffic. This data rate is more than sufficient for condition monitoring applications, but custom update rates are available from the factory if the standard data rate does not meet the needs of your application. Battery voltage and signal strength are reported with every transmission.

The transmitter range will vary depending on the location. Typical industrial environments are not ideal for RF reception; it is best to evaluate the site with a transmitter and software to find the ideal locations for transmitters and receivers. A range of 600 feet can be expected in most environments and reliable communications have been maintained at more than 1200 feet.

SENSOR

Measurement Range	-40°F to 600°F
Resolution	.1°F
Accuracy	+/- 1%
Environmental Classification	NEMA4X
FCC ID:	X85-PST-TX01
Connector:	Miniature flat 2 pin

PARTS LIST

Quantity	Part
1	PST-TCK Temperature Transmitter
4	Magnetic mounting feet

APPLICATIONS

Temperature is the most versatile and easy-to-interpret indicator of equipment health. A change in temperature without a change in operating conditions raises a flag. The Wireless Temperature Sensor's *iStatus Reporting* software tracks temperature and operating conditions and notifies you about the change in status by email or text. Temperature is especially valuable in monitoring motors, pumps, bearings, and gearboxes.

This is also a great sensor to monitor and save the conditions in your process!

SCALING IN ISTATUS SOFTWARE

Inputs from the PST-TCK are easily scaled in software using the Sensor Setup tab.

The Math:

$$\text{ScaledOutput} = (\text{RawInputFromSensor}(\text{°F}) + \text{ZeroValueinSensorSetup}) * \text{SpanValueinSensorSetup}$$

Example:

Change the units from °F to °C on Sensor1.

Set Zero1 = -32

Set Span1 = .55556

Set Units1 = °C

Select the Save Changes button

hint: ° = (alt + 248) Hold the alt key down while typing 248 then release the alt key.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

The Multi-Point Transmitter (MPT) is a low powered low bandwidth device that is designed for the monitoring of equipment and process parameters that change slowly over time. The factory default data update rate is 5 times per minute. This slow update rate allows this transmitter to enjoy a long battery life while maintaining a continuous watch on your equipment's health. The data rate is not suitable for control purposes and Predictive Sensor Technology does not recommend that it be used to control equipment.



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