

Industrial Temperature Sensor Surface Type K Thermocouple Rtd Pt100

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| Place of Origin: | China |
|--|--|
| Brand Name: | Victory |
| Certification: | ISO |
| Model Number: | N/K/T/B/J/R/S |
| Minimum Order Quantity: | 50 pieces |
| Price: | Negotiable |
| Packaging Details: | Spool package with Carton box, Coil package with polybag |
| Delivery Time: | 5-21 days |
| Payment Terms: | L/C, T/T, Western Union, MoneyGram |
| | |

300 tons per month



Product Specification

Supply Ability:

| Theory: | Temperature Sensor |
|--------------------|---|
| Model Number: | Pt100 Sensor |
| Accuracy: | ±0.5 |
| Temperature Range: | -200-500°C |
| Keywords: | Pt100 Temperature Sensor |
| Standard: | IEC 60584 |
| Conductor: | NICr,NiSi,Copper,Iron,Konstantant |
| • Usage: | Industral |
| Input: | K,E(Can Customize) |
| Wire Sleeve: | Fiberglass /steel Barded |
| Highlight: | Type K Thermocouple Sensor, Thermocouple Rtd Pt100, Type K Thermocouple Rtd Pt100 |



More Images



Product Description

Product Description:

The Pt100 temperature sensor is a common thermal resistance sensor that uses platinum (Pt) as the material of the sensor element. Pt100 represents a specific type of platinum thermal resistor, where 100 means that the resistance value of the platinum thermal resistor is 100 ohms at 0°C.

The principle of Pt100 temperature sensor is to utilize the linear relationship between platinum thermal resistance and temperature. As the temperature changes, the resistance value of the platinum thermal resistor will also change accordingly. According to international standards, the resistance of Pt100 temperature sensors has specific values at different temperatures. A common standard is IEC 60751,

which specifies the resistance-temperature relationship for Pt100 temperature sensors.

Pt100 temperature sensors usually consist of platinum thermistor wire wound around a ceramic or glass chip and encapsulated in a protective case. They can directly contact the object being measured and calculate the temperature by measuring the resistance value of the platinum thermal resistor. Pt100 temperature sensor has the characteristics of high precision, stability and good linearity, and is widely used in industrial control, laboratory testing, temperature monitoring and other fields.

The output of a Pt100 temperature sensor is usually a resistance value, which requires a temperature measurement device or converter to convert the resistance value into a temperature value. Common conversion methods are to use lookup tables or interpolation calculations based on the resistance-temperature relationship of Pt100. Modern temperature measurement equipment



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usually has built-in Pt100 temperature sensor input and temperature conversion functions, making temperature measurement more convenient and accurate.

Features:

High Accuracy: Pt100 temperature sensors are capable of providing high temperature measurement accuracy, especially under the accuracy standards of Category A and Category ½B. This makes them very useful in applications requiring accurate temperature measurement.

Stability: Pt100 temperature sensor has good long-term stability, and its resistance value changes little during long-term use. This allows them to provide reliable and stable temperature measurements.

Wide Temperature Range: Pt100 temperature sensors can measure a wide temperature range, typically from -200°C to +650°C. This makes them suitable for a variety of different temperature measurement needs.

Technical Parameters:

| Thermocouple Sensor | Thermocouple Temperature sensor |
|-----------------------|-----------------------------------|
| Model Number | thermocouple sensor |
| Grade | Туре К |
| Accuracy | ±0.5°C |
| Model Number | thermocouple sensor |
| Probe Length | 320mm,1000mm (customization) |
| Wire sleeve | Fiberglass /steel barded |
| Operating Temperature | -200-500°C |
| Positive | NICr,NiSi,Copper,Iron,Konstantant |

| Code | Wire component of the thermocouple | | |
|------|------------------------------------|-------------------------------------|--|
| | +Positive leg | -Negative leg | |
| Ν | Ni-cr-si(NP) | Ni-si-magnesium(NN) | |
| к | Ni-Cr(KP) | Ni-Al(Si)(KN) | |
| E | Ni-Cr(EP) | Cu-Ni <constantan>(EN)</constantan> | |
| J | Iron(JP) | Cu-Ni <constantan>(JN)</constantan> | |
| Т | Copper (TP) | Cu-Ni <constantan>(TN)</constantan> | |
| В | Platinum Rhodium -30% | Platinum Rhodium-6% | |
| R | Platinum Rhodium -13% | Platinum | |
| S | Platinum Rhodium -10% | Platinum | |

Accuracy:

The accuracy of Pt100 temperature sensors can vary depending on build quality and application requirements. Generally speaking, the standard accuracy of Pt100 temperature sensors is Category A, B and Category $\frac{1}{3}$ B.

and Category $\frac{1}{3}$ B. Category A: Within the temperature range -200°C to +650°C, the Pt100 temperature sensor of category A has an accuracy of ±(0.15+0.002|t])°C, where |t| represents the absolute value of the temperature value, in units is degrees Celsius. Over this temperature range, the accuracy is ±0.15°C plus 0.2% of the temperature value.

Category B: Category B Pt100 temperature sensors have an accuracy of $\pm(0.3+0.005|t|)^{\circ}$ C over the temperature range -200°C to +650°C. Category B accuracy is slightly lower than Category A, at $\pm 0.3^{\circ}$ C plus 0.5% of the temperature value

plus 0.5% of the temperature value. Category $\frac{1}{3}$ B: Category $\frac{1}{3}$ B Pt100 temperature sensors have an accuracy of \pm (0.1+0.003|t|)°C over the temperature range -200°C to +450°C. Category $\frac{1}{3}$ B has a relatively high accuracy of \pm 0.1°C plus 0.3% of the temperature value.

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Customization:

Customized Services for Thermocouple Sensors

At Thermocouple Sensors, we understand that every customer has unique needs and preferences. That's why we offer a range of customization options for our S Type Thermocouple Temperature meter sensors. **Probe Length Options**

Our standard probe lengths are 100mm, 150mm, 200mm, and 300mm. However, we also offer customized probe lengths to meet your specific requirements. **Sheath Material**

All of our Thermocouple Sensors come with a durable SS304 sheath material, providing reliable and longlasting performance.

Accuracy and Certifications

Our Thermocouple Sensors have a high accuracy of $\pm 0.5^{\circ}$ C, ensuring precise temperature readings. They are also certified by CE, RoHS, and ATEX, meeting the highest industry standards.

Fast Response Time

Our Thermocouple Sensors have a response time of less than 1 second, allowing for quick and efficient temperature measurement.

Choose Thermocouple Sensors for your customized S Type Thermocouple Temperature meter sensor needs. Contact us today to discuss your requirements and get a quote.



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