



S Type Platinum Rhodium PtRh10-Pt S Type Thermocouple Bare Wire 0.5mm

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: type S
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Thermocouple wire are rolled on ABS white spool and packed with plastic film,in cartoon boxes.
Special packaging requirements can also be accommodated.
OEM is also acceptable
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

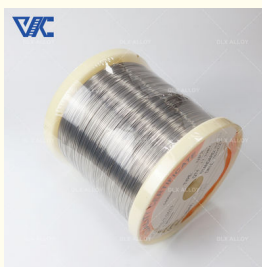


Product Specification

- Product Name: Thermocouple Wire Type S
- Temperature Range: 0°C-1,600°C 32°F-2,912°F
- EMF Tolerance: +/- 1.5C Or +/- .25%
- Diameter: 0.1-8mm
- Grade: IEC854-1/3
- Positive: Platinum Rhodium
- Negative: Platinum
- Special Limits Of Error: +/- 0.6C Or 0.1%
- Color: Bright
- Application: Cable & Wire
- Highlight: TP Bare Thermocouple,
Type T Bare Thermocouple,
TN type t thermocouple wire



More Images



Product Description

Introduction:

The composition materials of S-type thermocouple bare wire are usually platinum-rhodium alloy wire (platinum 90%, rhodium 10%) and platinum-rhodium alloy wire (platinum 94%, rhodium 6%). This combination has good high temperature stability and high accuracy, making the S-type thermocouple bare wire suitable for a wide temperature measurement range. S-type thermocouple bare wire is a commonly used thermocouple temperature measurement device, widely used in industrial control and scientific research fields. It consists of two alloy wires of different metals and measures temperature changes through the thermoelectric effect.

The structure of the S-type thermocouple bare wire is relatively simple and consists of two alloy wires. One end of the two wires is connected together to form a measurement point, and the other end is connected to a temperature measurement device, such as a temperature transmitter or a data acquisition system. The measuring point is exposed to the environment to be measured, and temperature changes will cause a slight potential difference between the alloy wires. By measuring this potential difference, the temperature of the environment can be accurately calculated.

Type S thermocouple bare wire has many advantages, such as a wide temperature measurement range (usually from 0 degrees Celsius to 1768 degrees Celsius), higher accuracy and reliability, and faster response time. It also has good corrosion resistance and low thermocouple resistance drift, making it suitable for applications requiring high accuracy and long-term stability.

Characteristic:

Thermocouple material: S-type thermocouple bare wire is composed of platinum (Platinum) and rhodium (Rhodium) alloy. Platinum is the positive electrode of the S-type thermocouple bare wire, and rhodium is the negative electrode.

Temperature range: Type S thermocouple bare wire is suitable for a wide temperature range, typically measuring temperatures from 0°C to 1,600°C (32°F to 2,912°F).

Linear characteristics: S-type thermocouple bare wire has excellent linear characteristics and can provide high-precision and stable temperature measurement.

Advantage:

High temperature performance: S-type thermocouple bare wire is suitable for temperature measurement in high temperature environments and has good stability and corrosion resistance.

High precision: S-type thermocouple bare wire has high precision and stability, providing accurate temperature measurement results.

Wide temperature range: S-type thermocouple bare wire is suitable for a wide range of temperature measurements, including high temperature and extremely low temperature environments.

Relevant specific parameters:

Temperature range: 0°C to 1,600°C (32°F to 2,912°F)

Thermoemf output: Varies based on temperature changes, usually in the microvolt (μV) level.

Linear characteristics: Excellent linear characteristics.

Sensitivity: Varies based on specific model and manufacturer.

| Code | Wire Component of the thermocouple | |
|------|------------------------------------|----------------------|
| | +Positive leg | - Negative Leg |
| N | Ni-Cr-Si(NP) | Ni-Si-magnesium (NN) |
| K | Ni-Cr(KP) | Ni-Al(Si) (KN) |
| E | Ni-Cr(EP) | Cu-Ni (EN) |
| J | Iron (JP) | Cu-Ni (JN) |
| T | Copper (TP) | Cu-Ni (TN) |
| B | Platinum Rhodium-30% | Platinum Rhodium -6% |
| R | Platinum Rhodium-13% | Platinum |
| S | Platinum Rhodium -10% | Platinum |

Standards:

| ASTM | ANSI | IEC | DIN | BS | NF | JIS | GOST |
|--|--|---|--|---|--|---|--|
| (American Society for Testing and Materials) E 230 | (American National Standard Institute) MC 96.1 | (European Standard by the International Electrotechnical Commission 584)- 1/2/3 | (Deutsche Industrie Normen) EN 60584 - 1/2 | (British Standards) 4937.1041, EN 60584 - 1/2 | (Norme Française) EN 60584 - 1/2 - NFC 42323 - NFC 42324 | (Japanese Industrial Standards) C 1602 - C 1610 | (Unification of the Russian Specifications) 3044 |

Working temperature:

| Diameter/mm | Type | Long time Working temperature/°C | Short period Working temperature/°C |
|-------------|------|----------------------------------|-------------------------------------|
| | | | |
| 0.5 | S | 1300 | 1600 |
| 0.5 | R | 1300 | 1600 |
| 0.5 | B | 1600 | 1700 |

Chemical Composition:

| Conductor Name | Polarity | Code | Pt% | Rh% |
|----------------|----------|-------|-----|-----|
| Pt90Rh | Positive | SP | 90 | 10 |
| Pt | Negative | SN,RN | 100 | -- |
| Pt87Rh | Positive | RP | 87 | 13 |
| Pt70Rh | Positive | BP | 70 | 30 |
| Pt94Rh | Negative | BN | 94 | 6 |

contact us

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Specific application areas:

Oil and natural gas industry: S-type thermocouple bare wire is widely used in high-temperature ambient temperature measurement and control in the oil and natural gas industry, such as oil refining, natural gas extraction, etc.

Furnace and heat treatment industry: S-type thermocouple bare wire is widely used in temperature measurement and control in high-temperature processes such as furnaces and heat treatment equipment.

Iron and steel metallurgy: S-type thermocouple bare wire is used for temperature measurement and control of high-temperature molten metal in the field of iron and steel metallurgy.



Q&A:

What is the temperature range of S-type thermocouple bare wire?

A: Type S thermocouple bare wire typically has a temperature range between 0°C and 1,600°C.

What are the advantages of S-type thermocouple bare wire?

Answer: S-type thermocouple bare wire has the advantages of high temperature performance, high precision and wide temperature range.

What applications are S-type thermocouple bare wire suitable for?

Answer: S-type thermocouple bare wire is suitable for oil and gas industry, furnace and heat treatment industry, iron and steel metallurgy and other application fields.



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