Thermocouples Bare Wire R S B Type For Precision Temperature Measuring Instrument

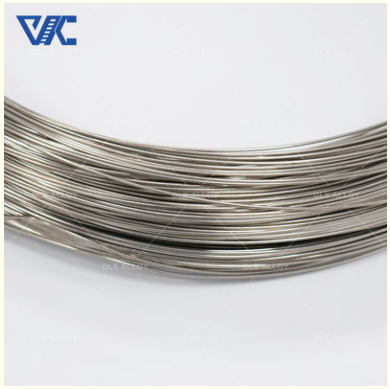
Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Type R S B
- 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 Bare Wire
- Diameter: 0.1-8mm
- Special Limits Of Error: +/- 0.6C Or 0.1%
- Negative: Platinum
- Grade: IEC854-1/3
- EMF Tolerance: +/- 1.5C Or +/- .25%
- Temperature Range: -58 To 2700F (-50 To 1480C)
- Certificate: ISO9001
- Color: Bright
- Application: Cable & Wire
- Highlight: **Platinum Rhodium Thermocouple Bare Wire**, **Thermocouple Bare Wire S Type**, **Bright type s thermocouple extension wire**



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Product Description

Introduction:

Platinum-rhodium alloy thermocouple bare wire is a commonly used thermocouple temperature measurement device, which is composed of alloy wires of platinum and rhodium. According to different alloy compositions and structures, they can be divided into B-type, R-type and S-type thermocouple bare wires.
The measurement principle of these platinum-rhodium alloy thermocouple bare wires is based on the thermoelectric effect, that is, temperature changes cause a small potential difference between the alloy wires. By measuring this potential difference, the temperature of the environment can be accurately calculated. They offer good corrosion resistance and low thermocouple resistance drift, making them suitable for applications requiring high accuracy and long-term stability.

Thermocouple wire type B:

Type B thermocouple bare wire uses platinum-rhodium alloy wire (platinum 70%, rhodium 30%) and platinum-rhodium alloy wire (platinum 94%, rhodium 6%) as thermocouple materials. It has a wide temperature measurement range (usually from 0 degrees Celsius to 1820 degrees Celsius), high accuracy and stability, and is suitable for various temperature monitoring and control application scenarios.
Temperature range: Suitable for high temperature measurements, typically measuring temperatures from 0°C to 1,820°C (32°F to 3,308°F).
Advantages: It has good linear characteristics and stability, and is suitable for temperature measurement in high temperature environments.
Specific parameters of interest: Thermoelectric potential output varies with temperature changes, typically at the microvolt (μV) level.
Specific application fields: Widely used in high temperature measurement and control fields such as glass industry and ceramic industry.

Thermocouple wire type R:

Type R thermocouple bare wire uses platinum-rhodium alloy wire (87% platinum, 13% rhodium) and pure platinum wire as thermocouple materials. It has a wide high temperature measurement range (usually from 0 degrees Celsius to 1768 degrees Celsius), high accuracy and reliability, and is suitable for industrial control and scientific research applications in high temperature environments.
Temperature range: Suitable for high temperature measurements, typically measuring temperatures from 0°C to 1,600°C (32°F to 2,912°F).
Advantages: It has excellent linear characteristics and stability and can provide high-precision temperature measurement results.
Specific parameters of interest: Thermoelectric potential output varies with temperature changes, typically at the microvolt (μV) level.
Specific application areas: Often used for temperature measurement and control in high-temperature processes such as steel smelting and aluminum plants.

Thermocouple wire type S:

S-type thermocouple bare wire also uses platinum-rhodium alloy wire (platinum 90%, rhodium 10%) and platinum-rhodium alloy wire (platinum 94%, rhodium 6%) as thermocouple materials. It has a wide temperature measurement range (usually from 0 degrees Celsius to 1768 degrees Celsius), high accuracy and reliability, and is suitable for industrial control and scientific research applications in various high temperature environments.
Temperature range: Suitable for a wide temperature range, typically measuring temperatures from 0°C to 1,600°C (32°F to 2,912°F).
Advantages: It has excellent linear characteristics and stability and is suitable for a wide range of temperature measurement needs.
Specific parameters of interest: Thermoelectric potential output varies with temperature changes, typically at the microvolt (μV) level.
Specific application fields: Widely used in temperature measurement and control in the oil and gas industry, furnace and heat treatment industry, and steel metallurgy.

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

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Oem service:
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Q&A:

Which temperature range is suitable for type B thermocouple bare wire?
A: Type B thermocouple bare wire is suitable for high temperature measurement ranges from 0°C to 1,820°C (32°F to 3,308°F).
What are the main advantages of type R thermocouple bare wire?
Answer: R-type thermocouple bare wire has excellent linear characteristics and stability and can provide high-precision temperature measurement results.
In what application areas are S-type thermocouple bare wires common?
Answer: S-type thermocouple bare wire is commonly used in temperature measurement and control in the oil and gas industry, furnace and heat treatment industry, and steel metallurgy.

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