

# JP JN 0.12-8mm Custom J Type Thermocouple Bare Wire

# **Basic Information**

<ul> <li>Place of Origin:</li> </ul>	China
<ul> <li>Brand Name:</li> </ul>	Victory
Certification:	CE,ROHS,ISO 9001
<ul> <li>Model Number:</li> </ul>	type J
Minimum Order Quantity:	5 Kg
Price:	Negotiable
<ul> <li>Packaging Details:</li> </ul>	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
<ul> <li>Delivery Time:</li> </ul>	5-21 days
<ul> <li>Payment Terms:</li> </ul>	L/C, T/T, Western Union, MoneyGram
<ul> <li>Supply Ability:</li> </ul>	300 tons per month



BLX

成之信利技有限公司

## **Product Specification**

<ul> <li>Highlight:</li> </ul>	J Type Thermocouple Bare Wire, 8mm Thermocouple Bare Wire, Custom Type J Thermocouple Wire
<ul> <li>Application:</li> </ul>	Cable & Wire
Color:	Bright
<ul> <li>Special Limits Of Error:</li> </ul>	+/- 1.1C Or 0.4%
<ul> <li>Negative:</li> </ul>	Cu-Ni
<ul> <li>Positive:</li> </ul>	Iron
• Grade:	IEC854-1/3
• Diameter:	0.12-8mm
• EMF Tolerance:	+/- 2.2C Or +/75%
<ul> <li>Temperature Range:</li> </ul>	-210~1200°C
Product Name:	Thermocouple Wire Type J



# More Images



### Product Description

#### Introduction:

Type J thermocouple bare wire is a commonly used thermocouple type used for temperature measurement and control. Ironcopper-nickel thermocouple (J-type thermocouple) is also called iron-constantan thermocouple. The nominal chemical composition of its positive electrode (JP) is pure iron.

The negative electrode (JN) is a copper-nickel alloy, often vaguely called constantan. Its nominal chemical composition is 55% copper and 45% nickel, as well as a small but very important amount of cobalt, iron, manganese and other elements. Although it is called Constantan, but is different from nickel-chromium-constantan and copper-constantan, so it cannot be replaced by EN or TN.

Iron-Constantan thermocouples cover the measurement temperature range from -210 to 1200°C, but are typically used in the temperature range 0-750°C.

J-type thermocouple bare wire is widely used in industrial control fields, including heating equipment, furnace temperature monitoring and heat treatment processes. It is also widely used in environmental monitoring, such as weather stations, greenhouses and warehousing environments. In scientific research and laboratories, J-type thermocouple bare wires are often used to measure sample temperature and conduct thermodynamic experiments.

One of the advantages of Type J thermocouple bare wire is its corrosion resistance, enabling temperature measurement in some humid and corrosive environments. In addition, J-type thermocouple bare wire has fast temperature response capability and can quickly respond to temperature changes.

#### **Characteristic:**

Thermocouple material: J-type thermocouple bare wire is composed of ferritic stainless steel (Fe-Cr-Al alloy) and copper-nickel alloy (Constantan). Fe-Cr-Al alloy is the positive electrode of J-type thermocouple, and Constantan is the negative electrode. Temperature range: Type J thermocouple bare wire is suitable for medium temperature ranges, typically measuring temperatures from -40°C to 750°C (-40°F to 1382°F).

Linear characteristics: J-type thermocouple bare wire has good linear characteristics within its operating temperature range and can provide relatively accurate temperature measurements.

Low drift: J-type thermocouple bare wire has low drift characteristics and can maintain relatively stable temperature measurements.

#### Advantage:

Widely used: J-type thermocouple bare wire is one of the commonly used thermocouple types and is widely used in industrial control and laboratory environments.

Corrosion resistance: J-type thermocouple bare wire has good corrosion resistance and is suitable for temperature measurement in some humid and corrosive environments.

Fast response: J-type thermocouple bare wire has fast temperature response capability and can quickly reflect temperature changes.

#### **Relevant specific parameters:**

Temperature range: -40°C to 750°C (-40°F to 1382°F) Thermoemf output: Varies based on temperature changes, usually in the microvolt ( $\mu$ V) level. Linear characteristics: has good linear characteristics. Sensitivity: Varies based on specific model and manufacturer.

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 (EN)	
J	Iron (JP)	Cu-Ni (JN)	
Т	Copper (TP)	Cu-Ni (TN)	
В	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	(American	(European Standard	(Doutscho	(British	(Norme	(Japanoso	(Unification of
Society for	National	by the International		Standards)	Française) EN	Industrial	the Russian
Testing and	Standard	Electrotechnical	Normon) EN	4937.1041,	60584 -1/2 -	Standarde) C	Specifications)
Materials) E	Institute) MC	Commission 584)-	60594 1/2	EN 60584 -	NFC 42323 -	1602 C 1610	2011
230	96.1	1/2/3	00304 - 1/2	1/2	NFC 42324	1002 - 0 1010	5044

Using Occastion of Different Thermocouple				
Thermocouple Type		Working Atmosphere	Working Temperature	
Туре К	KP	Oxidizing	-200 to +1200°C	
	KN	Inert		
Type N	NP	Oxidizing	-200 to +1200°C	
	NN	Oxidizing		

Туре Е	EP	Oxidizing	-200 to +900°C	
	EN	Oxidizing		
Type J JP		Oxidizing(use in high temp)	-40 to +750°C	
	JN	Reducing, Inert, Vacuum		
Туре Т	TP	Oxidizing,Vacuum -200 to +350°		
	TN	Reducing, Vacuum		

### Working temperature:

Diameter/mm	Long time Working	Short period Working
	temperature/°C	temperature/°C
0.3,0.5	300	400
0.8,1.0,1.2	400	500
1.6,2.0	500	600
2.5,3.2	600	750
		1

# contact us

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## **Specific application areas:**

Industrial control: J-type thermocouple bare wire is widely used in industrial control fields, including heating equipment, furnace temperature monitoring, heat treatment processes, etc.

Laboratory research: J-type thermocouple bare wire is widely used in scientific research and laboratories for measuring sample temperature, thermodynamic experiments, etc.

HVAC system: J-type thermocouple bare wire can be used for temperature monitoring in HVAC systems, such as temperature control, environmental monitoring, etc.



### **Q&A:**

What is the temperature range of J-type thermocouple bare wire? Answer: The temperature range of J-type thermocouple bare wire is usually between -40°C and 750°C.

What are the advantages of J-type thermocouple bare wire? Answer: J-type thermocouple bare wire has the advantages of wide application, corrosion resistance and fast response.

What applications are J-type thermocouple bare wire suitable for? Answer: J-type thermocouple bare wire is suitable for applications such as industrial control, laboratory research, and HVAC systems.

