



2/4/3 Cores Mineral Insulated Cable MI Cable For Type K/N/E/J/T Thermocouple SS304/SS316/Inconel600

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: K,N,E,J,T,B,R,S Types
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: in coils, carton and wooden case.
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 50 - 999 meters \$2.88

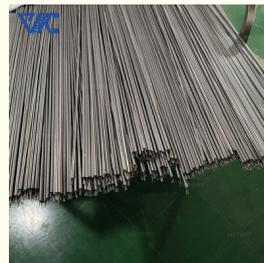


Product Specification

- Product Name: MI Thermocouple Cable
- Warranty: 1 Year
- Conductor Material: NiCr-NiSi, NiCrSi-NiSi, NiCr-Konstantan, Fe-Konstantan, Cu-Kon
- Sheath Material: SS304, SS321, SS316, SS310, INCL600, 601, Microbell, SS446
- Dia(mm): 0.25mm To 12.7mm
- Insulator: 99.6% High Purity MgO
- Temperature Range: 0~1100(°C)
- Application: Metal Processing And Heat Treatment Fields
- Highlight: **T Thermocouple Mineral Insulated Cable, 3 Cores Mineral Insulated Cable, Inconel600 Mineral Insulated Cable**



More Images



Product Description

Introduction:

Armored thermocouples are a commonly used tool when it comes to temperature measurement and control during metal processing and heat treatment. They are composed of two different metal wires that are wrapped in a protective sleeve to form a sturdy sensor.

Armored thermocouples work based on the thermoelectric effect, which means that when two wires of a thermocouple are connected in metals of different temperatures, a voltage is produced. There is a definite relationship between this voltage and temperature, so the temperature value can be inferred by measuring the voltage.

This type of thermocouple is very useful in the metal processing and heat treatment fields because of their ability to withstand high temperature environments. Whether it is high temperature annealing, melting, quenching or other heat treatment processes, armored thermocouples provide accurate temperature measurements. In addition, they have high response speed and good measurement accuracy, which is very important for applications that require fast response and precise temperature control.

When selecting an armored thermocouple, there are some key factors to consider based on your specific requirements. For example, temperature range is an important consideration because different types of thermocouples are suitable for different temperature ranges. In addition, the material of the protective sleeve is also important, as it needs to be able to withstand high temperatures and chemical attack. Other factors include thermocouple length, diameter, and connector type, which will be selected based on the specific application and installation needs.

All in all, armored thermocouples are reliable, high-temperature-resistant temperature measurement and control tools that are widely used in metal processing and heat treatment processes. By measuring the thermoelectric effect, they provide accurate temperature data to help ensure the quality and stability of metal processing processes.

Product Features:

High temperature measurement range: Armored thermocouples are suitable for high temperature environments and can measure and control high temperatures in metal processing and heat treatment processes, usually ranging from hundreds to thousands of degrees Celsius.

Fast response: Armored thermocouples have fast response capabilities to temperature changes, and can quickly sense temperature changes and output corresponding electrical signals.

Corrosion resistance: Armored thermocouples are made of high temperature and corrosion resistant materials and can be used for a long time in harsh environments during metal processing and heat treatment.

Advantage:

High temperature measurement accuracy: Armored thermocouples have high measurement accuracy and stability and can provide accurate temperature measurement results.

Strong durability: The shell of the armored thermocouple is made of materials such as metal or ceramic, which has good mechanical strength and durability and can maintain stable performance in long-term use.

Real-time: Armored thermocouples can provide temperature data in real time to meet the needs for real-time monitoring and control during metal processing and heat treatment.

Specific applications:

Smelting and casting: During the metal smelting and casting process, armored thermocouples can be used to measure and control the temperature inside the furnace to ensure that the smelting and casting process is carried out within a suitable temperature range to improve production quality and product performance.

Annealing and quenching: During metal processing, armored thermocouples can be used to measure and control the temperature during annealing and quenching to ensure that the metal material obtains the required structure and properties.

Welding and heat treatment: During metal welding and heat treatment, armored thermocouples can be used to monitor and control the temperature of the welding area and heat treatment area to ensure the quality and stability of the welding and heat treatment process.

Other relevant knowledge:

Armored thermocouples usually consist of two different metal wires, which generate a thermoelectric potential difference based on the thermoelectric effect, and determine the temperature by measuring the thermoelectric potential difference.

The selection of armored thermocouples should be based on specific working conditions and temperature ranges. Different armoring materials are suitable for different working environments and temperature requirements.

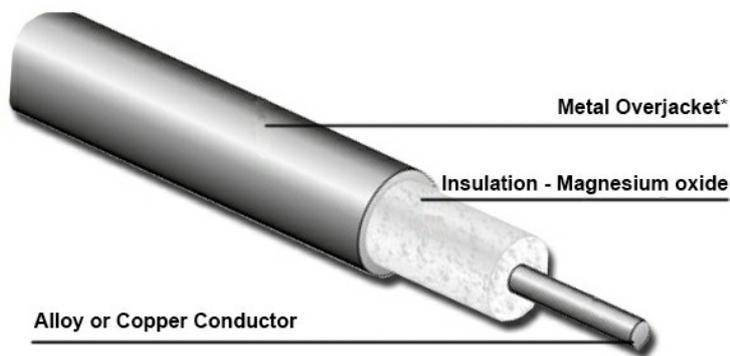
Parameter:

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

Material	Type	Grade	Working temperature (deg)		Tolerance	Standard
			Long Term	Short Term		
NiCr-NiSi	K	1	-40~1100	-40~1300	±1.5 deg	GB/T 2614-1998
		2			±2.5 deg	
NiCr-CuNi	E	1	-40~800	-40~900	±1.5 deg	GB/T 4993-1998
		2			±2.5 deg	
Fe-Constantan	J	1	-40~600	-40~800	±1.5 deg	GB/T 4994-1998
		2			±2.5 deg	
Cu-CuNi	T	1	-200~300	-200~400	±0.5 deg	GB/T 2903-1998

Outer Sheath(mm)	core wire Dia.(mm)	Outer Sheath(mm)ø core wire Dia.(mm)
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Out Dia	Wall Thickness	K,N,E,J,T Types	S,R,B Types	K,N Types	E,J,T Types	S,R Types	B Types	Length(m)
0.5	0.05-0.10	0.08-0.12	...	SS304, SS321, SS316, SS310, INCL600	SS30, SS32, SS316	INCL60, INCL800	INCL60, INCL800	500
1.0	0.10-0.20	0.15-0.20	...					300
1.5	0.15-0.25	0.23-0.30	...					200
1.6	0.16-0.26	0.26-0.36	...					200
2.0	0.25-0.35	0.40-0.50	0.25-.030					180
3.0	0.38-0.48	0.50-0.60	0.30-0.40					80
3.2	0.48-0.58	0.58-0.68	0.30-0.40					75
4.0	0.52-0.62	0.60-0.70	0.35-0.40					70
4.8	0.73-0.83	0.75-0.85	0.40-0.45					40
5.0	0.78-0.88	0.80-0.90	0.40-0.45					40
6.0	0.98-1.08	0.90-1.10	0.45-0.50					30
6.4	1.05-1.15	1.02-1.12	0.45-0.50					30
8.0	1.30-1.44	1.30-1.40	0.45-0.50					20
12.7	1.75-1.90	1.95-2.05	...	10				



Calibration	Tolerance		Temperature Range (°C)
	Special Limits (Grade I)	Standard Limits (Grade II)	
K (Chromel vs Alumel)	±1.5°C or ±0.4%	±2.5°C or ±0.75%	-40~1000
J (Iron vs Constantan)			-40~750
E (Chromel vs Constantan)			-40~800
T (Copper vs Constantan)			-40~350



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