

**NiCr/NiAl. Heat Resistant PVC/OSCR/PVC/SWA/PVC 2x1.5 INSTRUMENT THERMOCOUPLE EXTENSION CABLES** is used to extend the cold end of the hot electrode, that is, the mobile thermocouple, and is connected with the display instrument to form a temperature measurement system. Equivalently adopts the national standard of IEC 584-3 "Thermocouple Part III-Compensation Wire". The products are mainly used in various temperature measuring devices and have been widely used in nuclear power, petroleum, chemical, metallurgy, electric power and other sectors.

### INSTRUMENT THERMOCOUPLE EXTENSION CABLES structure

- Conductor Construction:  solid,  7 wires,  flexible, (multi wires)  superflexible
- Insulation:  PVC 85 °C,  PVC 105 °C,  PE,  XLPE,  PP,  other,
- Conductor Size: **1.5mm<sup>2</sup>** (for single or triple cable) / **0.75mm<sup>2</sup>** (for multi cable)
- Core Identification:  colored, **Green** (NiCr) & **White** (NiAl)  
 Numbered (for multi pair: each core printed with pair number)
- Max. Length of Lay: Up to 1.5 mm<sup>2</sup> ≤100 mm  
2.5 mm<sup>2</sup> ≤ 150 mm
- Insulation Tape: Polyester
- Individual / Overall Screening: (Aluminum/polyester tape, metallic side down, in contact with minimum 0.5mm<sup>2</sup>/7x0.3 tinned copper drain wire)
- Bedding Material:  **PVC**
- Cabling:  in layers  in bundles
- Lead Sheath:  no  yes
- Galvanized Armour:  no  yes  
 Single wire armour
- Outer Sheath Material: **PVC** color **Green**
- Maximum Overall Diameter: VTA mm
- Cable Marking: The external surface of outer sheath shall be embossed in 1m intervals with the manufacturer name and cable description as project specification.

**INSTRUMENT THERMOCOUPLE EXTENSION CABLES material**

| 产品型号<br>Type | 补偿导线及电缆线芯<br>Compensational wire & cable core |                  | 补偿导线绝缘层着色<br>Insulation color of compensational wire |                  | 配用热电偶分度号<br>Thermocouple graduation                       |
|--------------|---|------------------|--|------------------|---|
|              | 正极 Positive pole                              | 负极 Negative pole | 正极 Positive pole                                     | 负极 Negative pole |   |
| SC or RC     | 铜 Cu  | 铜镍0.6 Cu-Ni      | 红 Red  | 绿 Green          | S (铂铑10-铂) 或 R (铂铑13-铂)<br>S (PtRh10-PT) or R (PtRh13-PT) |
| KCA          | 铁 Fe  | 铜镍22 Cu-Ni       | 红 Red  | 蓝 Blue           | K (镍铬-镍硅) K (NiCr-NiSi)                                   |
| KCB          | 铜 Cu  | 铜镍40 Cu-Ni       | 红 Red  | 蓝 Blue           |   |
| KX           | 镍铬10 Ni-Cr 10                                 | 镍硅3 Ni-Si        | 红 Red  | 黑 Black          |   |
| EX           | 镍铬10 Ni-Cr 10                                 | 铜镍45 Cu-Ni       | 红 Red  | 棕 Brown          | E (镍铬-铜镍) E (NiCr-NiSi)                                   |
| JX           | 铁 Fe  | 铜镍45 Cu-Ni       | 红 Red  | 紫 Violet         | J (铁-铜镍) J (Fe-CuNi)                                      |
| TX           | 铜 Cu  | 铜镍45 Cu-Ni       | 红 Red  | 白 White          | T (铜-铜镍) T (Cu-CuNi)                                      |
| NC           | 铁 Fe  | 铜镍18 Cu-Ni       | 红 Red  | 灰 Grey           | N (镍铬硅-镍硅) N (NiCrSi-NiSi)                                |
| NX           | 镍铬14硅 Ni-Cr 14 Si                             | 镍硅4 Ni-Si        | 红 Red  | 灰 Grey           |   |

**INSTRUMENT THERMOCOUPLE EXTENSION CABLES size**

## 1、补偿导线；

## Compensational Wire

| 芯数×标称截面mm <sup>2</sup><br>Core No.*nominal<br>cross section area | 导体种类<br>Conductor | 最大外径 mm Max OD |          |         |         | 计算重量 kg/km Calculated weight |     |    |      |
|--|-------------------|----------------|----------|---------|---------|------------------------------|-----|----|------|
|  |                   | VV             | VPV      | FF      | FP1F    | VV                           | VPV | FF | FP1F |
| 2×0.5  | A                 | 3.7×6.4        | 4.7×7.4  | 2.6×4.6 | 3.2×5.2 | 30                           | 50  | 27 | 45   |
|  | R                 | 3.9×6.6        | 4.9×7.6  | 2.8×4.8 | 3.4×5.4 | 35                           | 55  | 30 | 50   |
| 2×1.0  | A                 | 5.0×7.7        | 6.0×8.7  | 3.0×5.3 | 3.6×5.9 | 56                           | 82  | 39 | 64   |
|  | R                 | 5.1×8.0        | 6.1×9.0  | 3.1×5.6 | 3.7×6.2 | 60                           | 87  | 45 | 69   |
| 2×1.5  | A                 | 5.2×8.3        | 6.2×9.3  | 3.2×5.8 | 3.8×6.4 | 68                           | 93  | 54 | 77   |
|  | R                 | 5.5×8.7        | 6.5×9.7  | 3.4×6.2 | 4.0×6.8 | 75                           | 102 | 60 | 87   |
| 2×2.5  | A                 | 5.7×9.3        | 6.7×10.3 | 3.6×6.7 | 4.2×7.3 | 94                           | 121 | 77 | 103  |
|  | R                 | 5.9×9.8        | 6.9×10.8 | 4.0×7.3 | 4.6×7.9 | 101                          | 133 | 84 | 114  |

When selecting the **NiCr/NiAl. Heat Resistant PVC/OSCR/PVC/SWA/PVC 2x1.5 INSTRUMENT THERMOCOUPLE EXTENSION CABLES**, you must know the ambient temperature of the thermocouple compensation wire and the on-site industrial and mining conditions, and choose the appropriate compensation wire sheath according to the on-site ambient temperature. Generally, choose polyfluoroethylene sheath when the ambient temperature is -25 ~ 105°C. Cover, when the ambient temperature is -60 ~ 205°C, choose polyperfluoroethylene as the sheath of the compensation wire, and when the ambient temperature is -60 ~ 260°C, choose polytetrafluoroethylene as the sheath of the thermocouple compensation wire. Therefore, you must pay attention to the on-site industrial and mining situation when choosing, .