AEROTEMP ENGINEERING SDN BHD

# THERMOCOUPLE / RTD CABLE

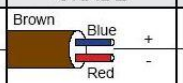
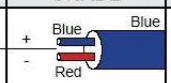
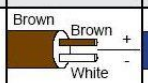
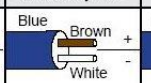
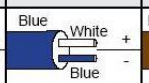
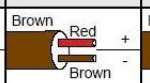
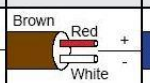
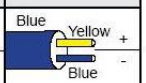
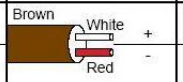
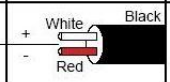
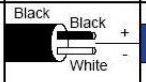
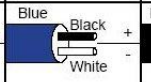
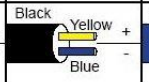
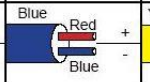
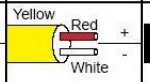
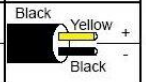
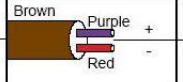
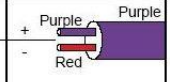
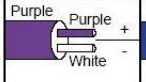
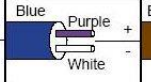
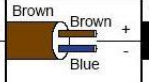
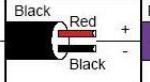
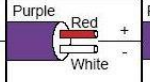
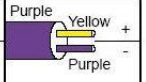
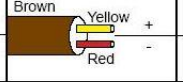
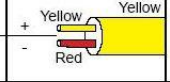
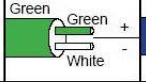
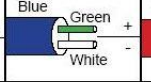
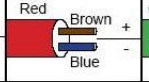
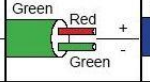
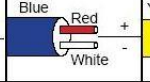
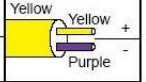
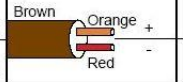
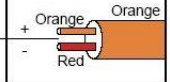
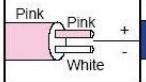
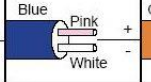
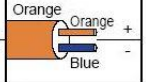
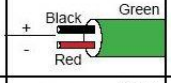
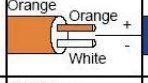
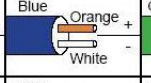
CABLE

**Thermocouple / RTD Wire** is to connects the point of sensing to the point of cold junction compensation (CJC end) where the signal is measured. Thermocouple is a temperature sensor made up of two dissimilar metals that are joined together at the sensing end. Different metal mixtures in the wire are design for different thermocouple types (J, K, T, E, and so on). The insulation of the thermocouple wire can be identified according to the color coded.

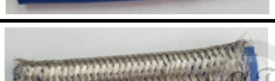
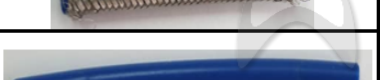
## Product Information:

- Type: T, J, E, K, S, R, N
- Material: Glass Fiber, PVC, Teflon, Ceramic Fiber

# National and International Specification:

| THERMO-COUPLE TYPE | U.S. & CANADIAN (ANSI/MC96.1, ANSI/ASTM E230) | | | | International | International | Czech British | Netherlands German | Japanese | French |
|---|---|---|---|---|---|---|---|---|---|---|
| | ALLOY COMBINATION | THERMOCOUPLE GRADE | EXTENSION GRADE | PLUG & JACK | IEC 584-3 | IEC 584-3 *Intrinsically Safe* | BS 1843 | DIN 43710 | JIS C 1610 | NFC 42-324 |
| **T** | Copper<br>Constantan (Copper-Nickel) |  |  | Blue ● |  |  |  |  |  |  |
| **J** | Iron *(magnetic)*<br>Constantan (Copper-Nickel) |  |  | Black ● |  |  |  |  |  |  |
| **E** | Nickel - Chromium<br>Constantan (Copper- Nickel) |  |  | Purple ● |  |  |  |  |  |  |
| **K** | Nickel - Chromium<br>Nickel - Aluminium *(magnetic)* |  |  | Yellow ● |  |  |  |  |  |  |
| **N** | Nicrosil (Nickel-Chromium- Silicon)<br>Nisil (Nickel-Silicon-Magnesium) |  |  | Orange ● |  |  |  | No Standard (Use American Color Codes) | No Standard (Use American Color Codes) | No Standard (Use American Color Codes) |
| **S** | Platinum Rhodium -10%<br>Platinum | None Established |  | Green ● |  |  |  |  |  |  |
| **R** | Platinum Rhodium -13%<br>Platinum | None Established |  | Green ● |  |  |  |  |  |  |
| **B** | Platinum Rhodium - 30%<br>Platinum Rhodium - 6% | None Established |  | White (Uncom-pensated) ○ |  | | No Standard (Use Copper Wire) |  |  | No Standard (Use Copper Wire) |
| **C** | Tungsten Rhenium - 5%<br>Tungsten Rhenium - 26% | None Established |  | Red ● | | | | No Standard (Use American Color Codes) | No Standard (Use American Color Codes) | No Standard (Use American Color Codes) |

# National and International Specification:

| Wire Code | Spec. | Description | Temp. Range | Sample |
|---|---|---|---|---|
| KX-H | 0.6 x 2 | Glass Fiber | 0 ~ 200°C |  |
| KX-H | 0.15 x 2 | Glass Fiber | 0 ~ 400°C |  |
| KX-H | 0.5 x 2 | Glass Fiber | 0 ~ 400°C |  |
| KX-H | 0.8 x 2 | Glass Fiber | 0 ~ 400°C |  |
| KCC-H | 4/0.3 x 2 | Glass Fiber | 0 ~ 200°C |  |
| KCC-H | 7/0.3 x 2 | Glass Fiber | 0 ~ 200°C |  |
| KCC-H | 4/0.6 x 2 | Glass Fiber | 0 ~ 200°C |  |
| F0.6KXH-GAB | 0.6 x 2 | Glass Fiber SUS 304<br>Outside Insulation | 0 ~ 200°C |  |
| F0.6KXH<br>-GSB-BLUE | 0.6 x 2 | Glass Fiber Copper Wire<br>Outside Insulation | 0 ~ 200°C |  |
| F4/0.3KXH-GAB | 4/0.3 x 2 | Glass Fiber SUS 304<br>Outside Insulation | 0 ~ 200°C |  |
| F4/0.3x2KXH<br>-GSB-BLUE | 4/0.3 x 2 | Glass Fiber SUS 304<br>Outside Insulation | 0 ~ 200°C |  |
| KCC-G | 0.6 x 2 | PVC | 0 ~ 105°C |  |
| KCC-G | 4/0.6 x 2 | PVC | 0 ~ 105°C |  |
| KCC-G-IS | 4/0.6 x 2 | PVC SUS 304<br>Inside Insulation | 0 ~ 105°C |  |
| KCC-G | 7/0.6 x 2 | PVC | 0 ~ 105°C |  |
| KCC-G-IS | 7/0.6 x 2 | PVC SUS 304<br>Inside Insulation | 0 ~ 105°C |  |
| KCC-G-SOS | 7/0.6 x 2 | PVC SUS 304<br>Outside Insulation | 0 ~ 105°C |  |
| KCC-G | 4/0.3 x 3 | PVC | 0 ~ 105°C |  |
| KCC-G | 7/0.3 x 2 | PVC | 0 ~ 105°C |  |

# National and International Specification:

| Wire Code | Spec. | Description | Temp. Range | Sample |
|---|---|---|---|---|
| KX-F-JIS | 0.3 x 2 | Teflon | 0 ~ 200°C |  |
| KX-F-JIS | 0.6 x 2 | Teflon | 0 ~ 200°C |  |
| KX-F-IEC | 0.3 x 2 | Teflon | 0 ~ 200°C |  |
| KX-F-IEC | 0.6 x 2 | Teflon | 0 ~ 200°C |  |
| KX-F-ANSI | 2*0.125 | Teflon | 0 ~ 200°C |  |
| TX-F-ANSI | 2*0.3 | Teflon | 0 ~ 200°C |  |
| KX-CF | 4/0.3 x 2 | Ceramics Fiber | 0 ~ 1000°C |  |
| KX-KPT | 7/0.2 x 2 | KAPTON | 0 ~ 400°C |  |
| JX-H | 0.6 x 2 | Glass Fiber | 0 ~ 200°C |  |
| F0.6JXH-GSB | 0.6 x 2 | Glass Fiber Copper Wire<br>Outside Insulation | 0 ~ 200°C |  |
| F0.6JXH-GAB | 0.6 x 2 | Glass Fiber SUS 304<br>Outside Insulation | 0 ~ 200°C |  |
| F4/0.3x2JXH-GAB | 4/0.3 x 2 | Glass Fiber SUS 304<br>Outside Insulation | 0 ~ 200°C |  |
| JX-G | 7/0.3 x 2 | PVC | 0 ~ 105°C |  |
| JX-G | 4/0.6 x 2 | PVC | 0 ~ 105°C |  |
| JX-G-IS | 4/0.6 x 2 | PVC SUS 304<br>Inside Insulation | 0 ~ 105°C |  |
| JX-G | 7/0.6 x 2 | PVC | 0 ~ 105°C |  |
| JX-G-IS | 7/0.6 x 2 | PVC SUS 304<br>Inside Insulation | 0 ~ 105°C |  |
| JX-F-JIS | 0.3 x 2 | Teflon | 0 ~ 200°C |  |