



COUPLIX®

105°C / 200°C / 260°C

Thermocouple Extension wire

Construction

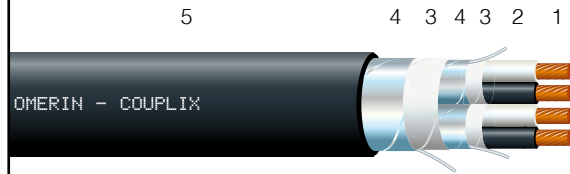
- 1 - Stranded or solid conductor extension: JX, KX, EX, TX
- 2 - Insulation (see table below)
- 3 - (optional) separating tape
- 4 - (optional) Individual or general electrical screen or braid + drain wire
- 5 - jacket (see table below)

Approvals - standards

- Conductors according to ANSI MC96.1
- RoHS Compliant

Options - please contact us

- Flat cable shape (parallel assembly)
- Overbraided in stainless steel
- Braided or taped shield



Use: Temperature sensors for industry and harness applications

Main products

| Reference | Insulation | Jacket | Nb of pairs | AWG Size | Nominal stranding (Nb x AWG) | Nominal OD (in) | Approx. linear weight (lbs/mft) |
|---------------------------------|------------|--------|-------------|----------|------------------------------|-----------------|---------------------------------|
| COUPLIX® MY2-Y2 105°C | PVC | PVC | 1P | 22 | 7 x 30 | .165 | 21 |
| | | | 2P | 22 | 7 x 30 | .227 | 31 |
| | | | 1P | 18 | 7 x 26 | .200 | 33 |
| | | | 2P | 18 | 7 x 26 | .285 | 51 |
| | | | 1P | 16 | 7 x 24 | .220 | 41 |
| | | | 2P | 16 | 7 x 24 | .320 | 62 |
| COUPLIX® M6-6 200°C | FEP | FEP | 1P | 22 | 7 x 30 | .130 | 15 |
| | | | 2P | 22 | 7 x 30 | .195 | 21 |
| | | | 1P | 18 | 7 x 26 | .170 | 26 |
| | | | 2P | 18 | 7 x 26 | .255 | 39 |
| | | | 1P | 16 | 7 x 24 | .196 | 34 |
| | | | 2P | 16 | 7 x 24 | .290 | 54 |
| COUPLIX® MS-5 260°C | PFA | PFA | 1P | 22 | 7 x 30 | .130 | 16 |
| | | | 2P | 22 | 7 x 30 | .195 | 22 |
| | | | 1P | 18 | 7 x 26 | .170 | 27 |
| | | | 2P | 18 | 7 x 26 | .255 | 40 |
| | | | 1P | 16 | 7 x 24 | .196 | 35 |
| | | | 2P | 16 | 7 x 24 | .290 | 55 |

Other number of singles and AWG sizes on request



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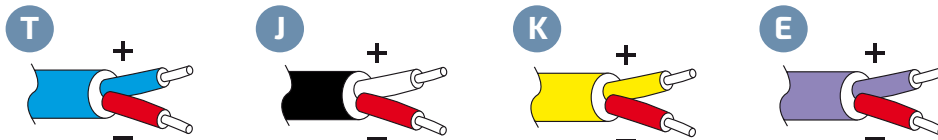
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Thermocouple Extension wire

Available couple & their main characteristics

| Type | Nature of metals + / - | Temperature range °C | Limits and recommendations | FEM at 0 °C µV | Seebeck coefficient at 0 °C µV/°C | Tolerance Extension Class 1 | Tolerance Extension Class 2 |
|-----------------|-----------------------------|-------------------------|--|----------------------|--|-----------------------------------|-----------------------------------|
| T TX1 TX2 | Copper + Cupro-Nickel - | -40°C to +350°C | Can be used in oxidizing, reducing or inert atmospheres and in a Vacuum. Rapid oxidation above 370 °C. Used preferentially on couple J under negative temperatures due to better resistance to corrosion in a humid environment. | 0.4 | 38.7 | ± 85 µV (± 1.5 °C) | ± 140 µV (± 2.5 °C) |
| J JX1 JX2 | Iron + Cupro-Nickel - | -40°C to +750°C | Can be used in oxidizing, reducing or inert atmospheres and in a Vacuum. Not recommended below 0 °C (risk of increased fragility). Rapid oxidation above 540 °C and in humid environment. | 0.5 | 50.4 | ± 30 µV (± 0.5 °C) | ± 60 µV (± 1.0 °C) |
| E EX1 EX2 | Chromel + Cupro-Nickel - | -40°C to +900°C | Can be used in oxidizing or inert environment. Rapid oxidation above 540 °C and in sulphur-rich environment. Operation in Vacuum not recommended. | 0.6 | 58.7 | ± 120 µV (± 1.5 °C) | ± 200 µV (± 2.5 °C) |
| K KX1 KX2 | Chromel + Nickel alloy - | -40°C to +1200°C | Can be used in oxidizing or inert environment. Unsuitable for use in sulphur-rich environment and unstable at high temperatures. Operation in Vacuum not recommended. | 0.4 | 39.5 | ± 60 µV (± 1.5 °C) | ± 100 µV (± 2.5 °C) |

For other thermocouple type, please contact us



Product codification

| Trademark of OMERIN | Thermocouple type | OMERIN product reference | | | | | Composition | Stranding (conductor) | |
|--|----------------------|--|---|---|---------------------------------------|----|--|--------------------------|---|
| COUPLIX® | KX1 | BI | M | 6 | BE | -6 | 1P | 22 | 7 / 30 |
| Overbraid (mechanical protection) Nothing = No Overbraid BI = Overbraid in stainless steel BG = Overbraid in galvanized steel | | jacket material Y2 = PVC 105°C 5 = PFA 6 = FEP V = Fiberglass VK = Polyimide / Fiberglass | | Shielding Nothing = No braid BE = Tinned copper BA = Silver copper BAL = Alu/PET tape | | | 2x / Number of pairs 2x = standard with 2 conductors n p = thermocouple with n pairs | | Number of strands and diameter of each strand (in AWG) 7 / 30 7 / 26 7 / 24 ... |
| | | Insulation material Y2 = PVC 105°C 5 = PFA 6 = FEP V = Fiberglass VK = Polyimide / Fiberglass | | | Conductor cross sections in AWG | | | | |



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