



THERMIBEL

RTD AND
INSTRUMENTATION CABLES



RTD AND INSTRUMENTATION CABLE

PRODUCT OVERVIEW

PVC-PVC-R

PVC insulated cables – round

PVC-CuSn-PVC-R

PVC insulated cables with copper braid

PVC-SCH-PVC-R

Shielded PVC insulated cables

PVC-SCH-PVC-TA-PVC

Shielded PVC insulated cables with galvanised steel braid

SIL-SIL-R

Silicone rubber insulated cables – round

SIL-CuSn-SIL-R

Silicone rubber insulated cables with copper braid

TEX-TEX-CuSn-R

Glass fibres insulated cables with copper overbraid

TEX-TEX-TI

Glass fibres insulated cables with s.s. overbraid



INTRODUCTION

The cables presented in this section are meant for making the connection between the RTD and the measuring device (resistance loop) or between the transmitter and the measuring device (mA) loop.

In both cases, the idea is to keep the resistance of the cable as small as possible to reduce the measurement error or to allow the transmitter to draw its maximum current in the case of 4-20 mA loops. Therefore, the cross section of the cable should be increased when the cable length increases.

RTD CONNECTIONS

Pt100 or Pt1000 sensors can be wired as 2-, 3-, or 4-wire devices. A 2-wire connection has the major drawback that the cable resistance is added to the sensor's resistance causing a substantial error. Hence, the 2-wire connection is only used for non critical applications with short cable length. All other connections are made 3- or 4-wire allowing to measure both the voltage and the current across the sensor.

STANDARDS

The cables are usually manufactured according to IEC 751 (EN60751) standards, but can also be made according to ANSI, UL or other standards upon request.

Colour code according to IEC 751:

- Single temperature sensor: white/red
- Dual temperature sensor: white/red (sensor 1) yellow/black (sensor 2)

INSULATION

Depending on the application and to suit particular environmental factors like temperature, humidity, physical integrity, the user can usually choose among several insulating materials.

- PVC (code PVC – short code P)
Polyvinyl Chloride is a thermoplastic resin with good resistance to water and aqueous saline solutions, acids and alkalis, moderate resistance to organic solvents and oils. PVC is a self extinguishing material. Generally usable between -30 and +105 °C.
- Silicone rubber (code SIL – short code S)
Silicon rubber insulated cables show resistance to hot air up to 180-200°C. This material is not recommended for exposure to steam above 130°C. Do not use with alkalis, acids, liquid fuels, chlorinated hydrocarbons, esters, ketons and ethers, aromatic oils. Generally usable between -40 and +200 °C.
- Glass braid
Impregnated glass fibres type «E» (code TEX – short code E) usable to 400 °C.



- Fluorinated resins

These resins exhibit outstanding chemical inertia, dielectric properties and heat resistance. Most common types are PTFE (short code F), PFA (short code A) and MFA (short code M). While PTFE has the highest melting point, other perfluorinated resins like PFA and MFA exhibit similar chemical resistance with slightly lower melting points but have the advantage to be easily extruded.

- PFA melts at 306 °C and can be used for continuous operation between -200 and +260 °C
- MFA melts at 280 °C and can be used for continuous operation between -200 and +250 °C

Fire resistant cables: available upon request

SHIELDS, BRAIDS AND ARMOURS

Most common protections are:

- Braids: tinned copper (short code CS), steel (short code TA) and stainless steel (short code TI)
- Shields: aluminised polyester tape with drain wire (short code AL)
- Steel armour (short code AC)
- Cables with double braid or double shield (short code DX) can also be ordered upon request.

SIZES

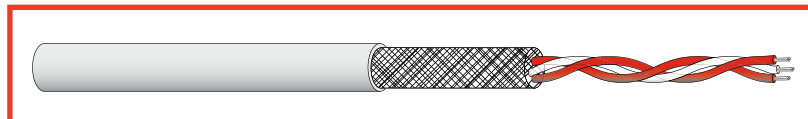
RTD and measuring cables are also identified with their cross-sectional area in mm² (3-digit short codes) which also indicates that the conductors are made of strands of thin wires to keep the cable flexible.

In case that solid conductors are required, the diameter will be mentioned (short codes starting with D and diameter in tenths of mm ex: D13 for Ø1,3 mm)

Remark: more detailed data sheets can be obtained upon request.



PVC-CUSN-PVC-R



Twisted insulated conductors, tinned copper braid, external PVC sheath.

**Available with
Temperature
Insulation**

2, 3, 4 or 6 conductors
-30 to +105 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050PPRCS | 3 x 0,5 mm ² | 03CU050PPRCS |
| 2 x 0,75 mm ² | 02CU075PPRCS | 3 x 0,75 mm ² | 03CU075PPRCS |
| 2 x 1,0 mm ² | 02CU100PPRCS | 3 x 1,0 mm ² | 03CU100PPRCS |

| 4 conductors | | 6 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050PPRCS | 6 x 0,5 mm ² | 06CU050PPRCS |
| 4 x 0,75 mm ² | 04CU075PPRCS | 6 x 0,75 mm ² | 06CU075PPRCS |
| 4 x 1,0 mm ² | 04CU100PPRCS | 6 x 1,0 mm ² | 06CU100PPRCS |

REMARKS

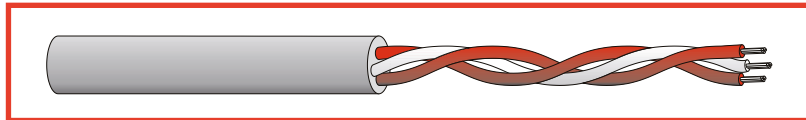
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-PVC-R



Twisted stranded PVC insulated conductors, external non-incendive PVC sheath.

Available with
Nature of conductors
Temperature
Insulation

2, 3, 4 or 6 conductors
copper
-30 to +105 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751.

| 2 conductors | | 3 conductors | |
|--------------------------|------------|--------------------------|------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050PPR | 3 x 0,5 mm ² | 03CU050PPR |
| 2 x 0,75 mm ² | 02CU075PPR | 3 x 0,75 mm ² | 03CU075PPR |
| 2 x 1,0 mm ² | 02CU100PPR | 3 x 1,0 mm ² | 03CU100PPR |

| 4 conductors | | 6 conductors | |
|--------------------------|------------|--------------------------|------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050PPR | 6 x 0,5 mm ² | 06CU050PPR |
| 4 x 0,75 mm ² | 04CU075PPR | 6 x 0,75 mm ² | 06CU075PPR |
| 4 x 1,0 mm ² | 04CU100PPR | 6 x 1,0 mm ² | 06CU100PPR |

REMARKS

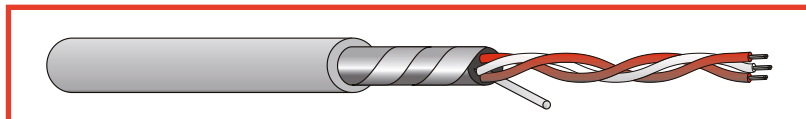
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-SCH-PVC-R



Twisted insulated conductors, global shield with aluminised polyester tape and drain wire, external, PVC sheath.

Available with
Temperature
Insulation

2, 3, 4 or 6 conductors
-30 to +105 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050PPRAL | 3 x 0,5 mm ² | 02CU050PPRAL |
| 2 x 0,75 mm ² | 02CU075PPRAL | 3 x 0,75 mm ² | 02CU075PPRAL |
| 2 x 1,0 mm ² | 02CU100PPRAL | 3 x 1,0 mm ² | 02CU100PPRAL |

| 4 conductors | | 6 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050PPRAL | 6 x 0,5 mm ² | 06CU050PPRAL |
| 4 x 0,75 mm ² | 04CU075PPRAL | 6 x 0,75 mm ² | 06CU075PPRAL |
| 4 x 1,0 mm ² | 04CU100PPRAL | 6 x 1,0 mm ² | 06CU100PPRAL |

REMARKS

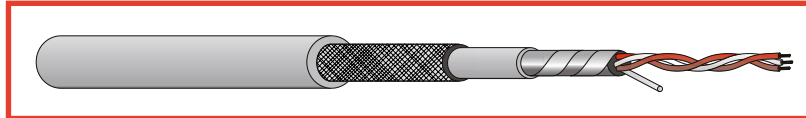
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-SCH-PVC-TA-PVC



Shielded cables with galvanised steel braid.

Flexible, stranded conductors with non-incendive PVC insulation.

Conductors are first shielded with an aluminised polyester foil, covered with a first PVC sheath, then protected by a galvanised steel braid and a non-incendive outer PVC sheath.

Available with
Temperature
Insulation

2, 3, 4 or 6 conductors
-30 to +105 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|-------------|--------------------------|-------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050PPRD | 3 x 0,5 mm ² | 03CU050PPRD |
| 2 x 0,75 mm ² | 02CU075PPRD | 3 x 0,75 mm ² | 03CU075PPRD |
| 2 x 1,0 mm ² | 02CU100PPRD | 3 x 1,0 mm ² | 03CU100PPRD |

| 4 conductors | | 6 conductors | |
|--------------------------|-------------|--------------------------|-------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050PPRD | 6 x 0,5 mm ² | 06CU050PPRD |
| 4 x 0,75 mm ² | 04CU075PPRD | 6 x 0,75 mm ² | 06CU075PPRD |
| 4 x 1,0 mm ² | 04CU100PPRD | 6 x 1,0 mm ² | 06CU100PPRD |

REMARKS

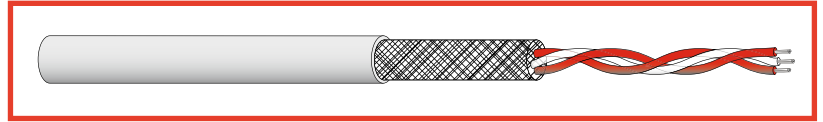
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-CUSN-SIL-R



Twisted silicone rubber insulated conductors, tinned copper braid, external silicone rubber sheath.

**Available with
Temperature
Insulation**

2, 3, 4 or 6 conductors
-40 to +200 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050SSRCS | 3 x 0,5 mm ² | 03CU050SSRCS |
| 2 x 0,75 mm ² | 02CU075SSRCS | 3 x 0,75 mm ² | 03CU075SSRCS |
| 2 x 1,0 mm ² | 02CU100SSRCS | 3 x 1,0 mm ² | 03CU100SSRCS |

| 4 conductors | | 6 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050SSRCS | 6 x 0,5 mm ² | 06CU050SSRCS |
| 4 x 0,75 mm ² | 04CU075SSRCS | 6 x 0,75 mm ² | 06CU075SSRCS |
| 4 x 1,0 mm ² | 04CU100SSRCS | 6 x 1,0 mm ² | 06CU100SSRCS |

REMARKS

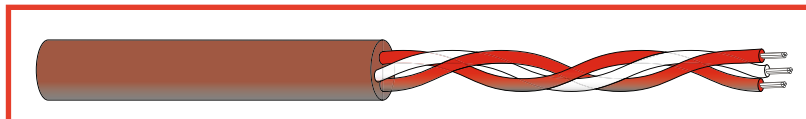
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-SIL-R



Twisted insulated conductors, tinned copper braid, external PVC sheath.

Available with
Temperature
Insulation

2, 3, 4 or 6 conductors
-40 to +200 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|------------|--------------------------|------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050SSR | 3 x 0,5 mm ² | 03CU050SSR |
| 2 x 0,75 mm ² | 02CU075SSR | 3 x 0,75 mm ² | 03CU075SSR |
| 2 x 1,0 mm ² | 02CU100SSR | 3 x 1,0 mm ² | 03CU100SSR |

| 4 conductors | | 6 conductors | |
|--------------------------|------------|--------------------------|------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050SSR | 6 x 0,5 mm ² | 06CU050SSR |
| 4 x 0,75 mm ² | 04CU075SSR | 6 x 0,75 mm ² | 06CU075SSR |
| 4 x 1,0 mm ² | 04CU100SSR | 6 x 1,0 mm ² | 06CU100SSR |

REMARKS

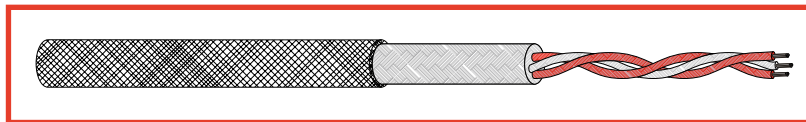
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TEX-TEX-CUSN-R



Flexible twisted conductors with silicone rubber impregnated fibreglass insulation, global fibreglass insulation and tinned copper overbraid.

Available with
Temperature
Insulation

2, 3, 4 or 6 conductors
-40 to +400 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751

| 2 conductors | | 3 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050EERCS | 3 x 0,5 mm ² | 03CU050EERCS |
| 2 x 0,75 mm ² | 02CU075EERCS | 3 x 0,75 mm ² | 03CU075EERCS |
| 2 x 1,0 mm ² | 02CU100EERCS | 3 x 1,0 mm ² | 03CU100EERCS |

| 4 conductors | | 6 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050EERCS | 6 x 0,5 mm ² | 06CU050EERCS |
| 4 x 0,75 mm ² | 04CU075EERCS | 6 x 0,75 mm ² | 06CU075EERCS |
| 4 x 1,0 mm ² | 04CU100EERCS | 6 x 1,0 mm ² | 06CU100EERCS |

REMARKS

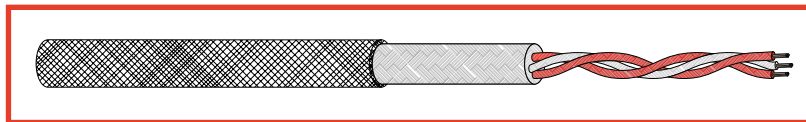
8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TEX-TEX-TI-R



Flexible twisted conductors with silicone rubber impregnated fibreglass insulation, global fibreglass insulation and AISI 304 stainless steel overbraid.

Available with
Temperature
Insulation

2, 3, 4 or 6 conductors
-40 to +400 °C
>20 MOhm/km (Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 751.

| 2 conductors | | 3 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 2 x 0,5 mm ² | 02CU050EERTI | 3 x 0,5 mm ² | 03CU050EERTI |
| 2 x 0,75 mm ² | 02CU075EERTI | 3 x 0,75 mm ² | 03CU075EERTI |
| 2 x 1,0 mm ² | 02CU100EERTI | 3 x 1,0 mm ² | 03CU100EERTI |

| 4 conductors | | 6 conductors | |
|--------------------------|--------------|--------------------------|--------------|
| Cross section | Code | Cross section | Code |
| 4 x 0,5 mm ² | 04CU050EERTI | 6 x 0,5 mm ² | 06CU050EERTI |
| 4 x 0,75 mm ² | 04CU075EERTI | 6 x 0,75 mm ² | 06CU075EERTI |
| 4 x 1,0 mm ² | 04CU100EERTI | 6 x 1,0 mm ² | 06CU100EERTI |

REMARKS

8-conductor cables available upon request.
Other cross sections available upon request.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



THERMOCOUPLE CABLES

PRODUCT OVERVIEW

TEX-TEX-O

Glass fibre insulated cables - Flat twin - oval

TRX-TRX-O

Glass fibre insulated cables - Flat twin - oval – high temperature

TCX-TCX-O

Ceramic fibre insulated cables - Flat twin - oval –
high temperature up to 1200 °C

PFA-PFA-O

PFA insulated cables – Flat twin - oval

MFA-MFA-O

MFA insulated cables – Flat twin – oval

TKK-TKK-O

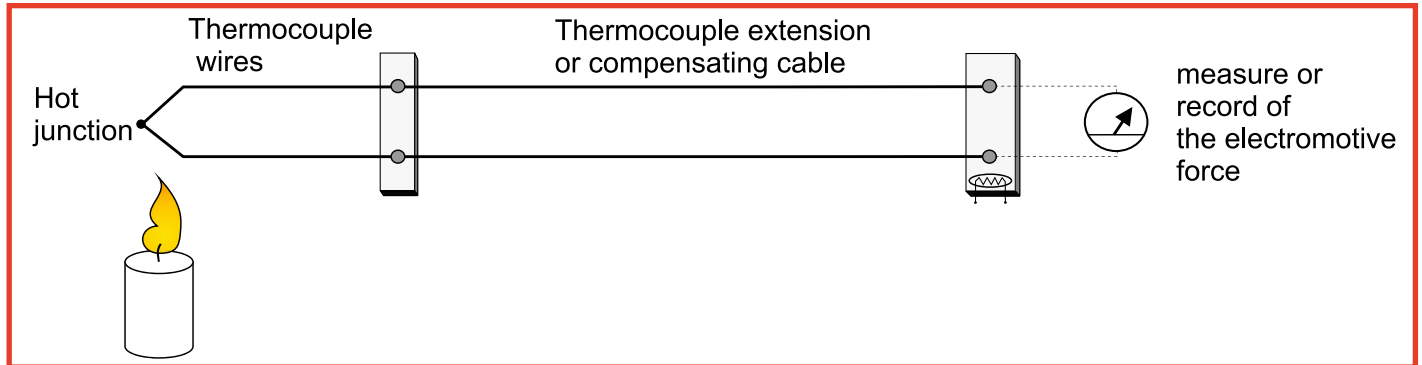
Kapton insulated cables – Flat twin – oval



INTRODUCTION

TYPICAL MEASURING DEVICE

Suppose that we have to measure an oven temperature (800 °C) with a thermocouple and that the measuring equipment is located at a distance of dozens of meters from the measuring point. Usually a few meters are sufficient to bring the temperature down to 200 °C or less. From that point, in order to reduce the costs, it is possible to use either extension or compensating cable to connect the thermocouple to the measuring device.



Thermocouples can be made from bare wires but need an electrical insulation. While one can use ceramic beads or mineral filled sheaths for high temperature, there exists a variety of application which only require a thin insulation medium to perform the measurement (furnace tests, laboratory tests, combustion tests, autoclave validation, freezers tests, etc.).

Therefore thermocouple cables exist in a variety of types and insulations.

The most common are fluorinated resins, Kapton®, glass fibres and ceramic fibres.

STANDARDS

Thermocouple cables are usually manufactured according to IEC 584-2 (EN60584-2) standards, but can also be made according to ANSI, UL or other standards upon request.

| THERMOCOUPLES | SYMBOL | T | J | E | K | | | N | R | S | B |
|------------------------|-------------------------------|--------------------------------|-------------------|--------------------|---------------------|-------------------|-------------------|-------------------------|----------------------|----------------------|----------------------|
| | TYPE OF METAL | Copper | Iron | Nickel Chromium | Nickel Chromium | | | Nickel Silicon Chromium | Platinum 13% Rhodium | Platinum 10% Rhodium | Platinum 30% Rhodium |
| | | Copper Nickel T | Copper Nickel J | Copper Nickel E | Alloyed Nickel | | | Nickel-Silicium | Platinum | Platinum | Platinum 6% Rhodium |
| | Normal working temperature °C | -200 °C to +350 °C | -40 °C to +750 °C | -150 °C to +800 °C | -150 °C to +1100 °C | | | -150 °C to +1100 °C | 0 °C to +1600 °C | 0 °C to +1550 °C | +600 °C to +1700 °C |
| EXTENSION-COMPENSATION | TYPE OF METAL | Copper | Iron | Nickel Chromium | Nickel Chromium | Iron | Copper | Nickel-Chromium | Copper | Copper | Alloyed-Copper |
| | | Copper-Nickel T | Copper-Nickel J | Copper-Nickel E | Nickel-Aluminium | Copper-Nickel KCA | Copper-Nickel KCB | Nickel-Silicium | Copper Nickel R | Copper Nickel S | Copper |
| | | INTERNATIONAL IEC 584-3 (2007) | | | | | | | | | |
| | COLOUR CODE | USA ANSI/MC 96-1 (1964) | | | | | | | | | |
| | DIN 43714 (1979) | | | | | | | | | | |

Colour identification of the most common thermocouple cables.



INSULATION

Depending on the application and to suit particular environmental factors like temperature, humidity, physical integrity, the user can make his choice from several insulating materials.

- **Glass fibre braids**

Impregnated glass fibres type «E» (code TEX – short code E) usable to 400 °C or

Impregnated glass fibres type «R» high temperature (code TRX – short code R), usable to 650 °C

- **Ceramic fibre braids**

Continuous filament ceramic fibres used for conductor and cable jacketing can withstand very high temperature while maintaining significant strength and flexibility up to 1200 °C for long periods.

- **Fluorinated resins**

These resins exhibit outstanding chemical inertia, dielectric properties and heat resistance.

Most common types are, PFA (short code A) and MFA (short code M).

While PTFE has the highest melting point, other perfluorinated resins like PFA and MFA exhibit similar chemical resistance with slightly lower melting points but have the advantage to be easily extruded.

- **Fluorinated resins**

These resins exhibit outstanding chemical inertia, dielectric properties and heat resistance.

Most common types are PTFE (short code F), PFA (short code A) and MFA (short code M).

While PTFE has the highest melting point, other perfluorinated resins like PFA and MFA exhibit similar chemical resistance with slightly lower melting points but have the advantage to be easily extruded.

PFA melts at 306 °C and can be used for continuous operation between -200 and +260 °C.

MFA melts at 280 °C and can be used for continuous operation between -200 and +250 °C.

- **Kapton®**

Kapton is a polymer developed by DuPont and exhibits superior performance to any other polymeric organic resin: -200 to +400 °C. These films do not melt and are fire resistant.

PVC and silicone rubber insulated cables are usually not used due to their limited temperature range but they are available on special request.

INSULATION

Most thermocouple cables have an insulation around each conductor plus a second layer around the pair. If the application requires it, these cables can be obtained with a metallic overbraid as an option.

SIZES

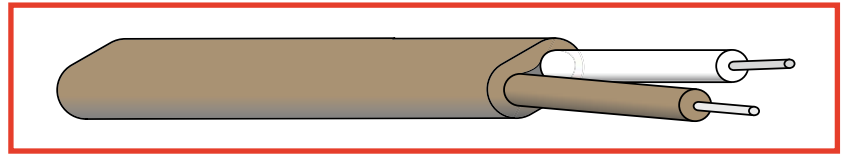
Thermocouple cables are usually made of solid conductors and are identified with their diameter in mm (short codes starting with D and diameter in tenths of mm ex: D13 for Ø1,3 mm). On special request they can be obtained with stranded conductors instead.

In the case that stranded conductors are required, the cross section will be mentioned

Remark: more detailed data sheets can be obtained upon request.



MFA-MFA-O



MFA insulated thermocouple wires

Insulation

MFA insulated conductors with MFA external sheath

Conductors

Solid

(stranded conductors available on special order)

Core lay-up

flat twin - End form flat/oval

Tolerance class 1

Class 2 available on special request

Temperature range

-200/250°C

Insulation

>20 MOhm/km

(measured at 1000 V DC and 20 °C)

Chemical resistance

excellent

Colour code used by default is IEC 584-2

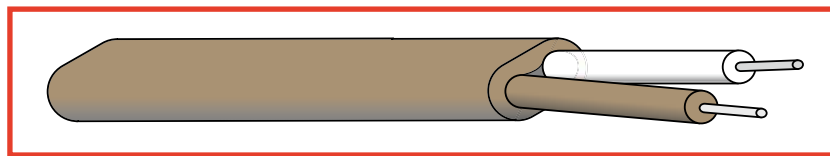
| Conductor diameter (mm) | K | T |
|-------------------------|------------|------------|
| | Code | Code |
| 2 x 0,20 | 01K1D02MMO | 01T1D02MMO |
| 2 x 0,32 | 01K1D03MMO | 01T1D03MMO |
| 2 x 0,5 | 01K1D05MMO | 01T1D05MMO |

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



PFA-PFA-O



PFA insulated thermocouple wires

Insulation

Conductors

Core lay-up

Tolerance class

Temperature range

Insulation

Chemical resistance

PFA insulated conductors with PFA external sheath

Solid

(stranded conductors available on special order)

flat twin - End form flat/oval

1 (Class 2 available on special request)

-200/250°C

>20 MOhm/km

(measured at 1000 V DC and 20 °C)

excellent

Colour code used by default is IEC 584-2

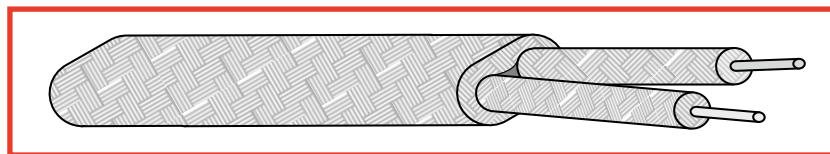
| Conductor diameter (mm) | K | T |
|-------------------------|------------|------------|
| | Code | Code |
| 2 x 0,20 | 01K1D02AAO | 01T1D02AA0 |
| 2 x 0,32 | 01K1D03AAO | 01T1D03AAO |
| 2 x 0,5 | 01K1D05AAO | 01T1D05AAO |

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



TCX-TCX-O



Ceramic fibre insulated thermocouple wires

Insulation : continuous filament ceramic fibres used in conductor insulation and cable jackets withstand very high temperature while maintaining significant strength and flexibility up to 1200 °C for long periods.

Conductors

Core lay-up

Fireproof

Tolerance class

Temperature range

Solid

flat twin - End form flat/oval

1 (Class 2 available on special request)

Good resistance at very high temperature 1200 °C
(1370 °C for short periods of time)

Wire composition according to IEC 584-2

No colour code available

| Conductor diameter (mm) | K Code | N Code |
|-------------------------|------------|------------|
| 2 x 0,25 | 01K1D02CCO | 01N1D02CCO |
| 2 x 0,50 | 01K1D05CCO | 01N1D05CCO |
| 2 x 0,80 | 01K1D08CCO | 01N1D08CCO |

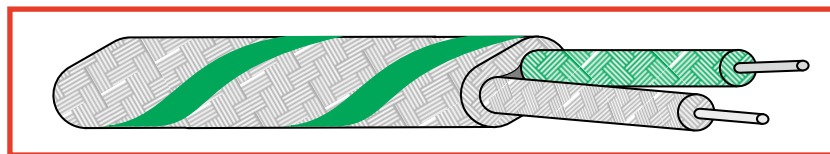
Other types and diameter available on request.

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



TEX-TEX-O



Glass fibre insulated thermocouple wires

Insulation

Conductors

Core lay-up

Tolerance class 1

Max. temperature

Insulation

Braided glass fibres with liquid silicone rubber impregnation

Solid

(stranded conductors available on special order)

flat twin - End form flat/oval

Class 2 available on special request

Type E fibres : 400°C

>20 MOhm/km

(measured at 1000 V DC and 20 °C)

Good resistance at high temperature – not combustible

Despite the impregnation glass fibre insulated cables are not suitable for applications which involve steam or oil use.

Colour code used by default is IEC 584-2.

| Conductor diameter (mm) | J | K | N | T |
|-------------------------|------------|------------|------------|------------|
| | Code | Code | Code | Code |
| 2 x 0,25 | 01J1D02EEO | 01K1D02EEO | 01N1D02EEO | 01T1D02EEO |
| 2 x 0,50 | 01J1D05EEO | 01K1D05EEO | 01N1D02EEO | 01T1D02EEO |
| 2 x 0,80 | 01J1D08EEO | 01K1D08EEO | 01N1D08EEO | 01T1D08EEO |

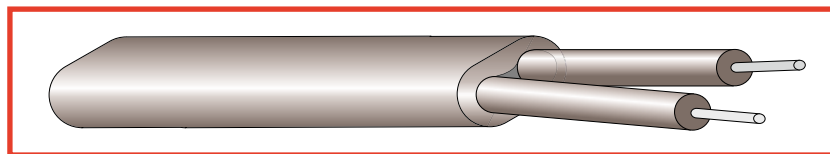
Other types and diameter available on request.

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



TKK-TKK-O



Kapton® insulated thermocouple wires.

Insulation

Conductors

Core lay-up

Tolerance class

Temperature range

Insulation

Kapton insulated conductors with Kapton external sheath

Solid

Flat twin - End form flat/oval

1 (Class 2 available on special request)

-200/400°C

>20 MOhm/km

(measured at 1000 V DC and 20°C)

Kapton films are strong, transparent, amber coloured plastic films showing excellent physical, chemical and electrical properties on a wide temperature range.

These films do not melt and have the highest UL-94 flammability rating.

Wire composition according to IEC 584-2.

| Conductor diameter (mm) | J | K | N | T |
|-------------------------|------------|------------|------------|------------|
| | Code | Code | Code | Code |
| 2 x 0,20 | 01J1D02KKO | 01K1D02KKO | 01N1D02KKO | 01T1D02KKO |
| 2 x 0,32 | 01J1D03KKO | 01K1D03KKO | 01N1D03KKO | 01T1D03KKO |
| 2 x 0,5 | 01J1D05KKO | 01K1D05KKO | 01N1D05KKO | 01T1D05KKO |

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



TRX-TRX-O



High temperature glass fibre insulated thermocouple wires.

Insulation

High temperature braided glass fibres with liquid silicone rubber impregnation

Conductors

Solid
(stranded conductors available on special order)

Core lay-up

flat twin - End form flat/oval

Tolerance class

1 (Class 2 available on special request)

Max. temperature

Type R fibres : 650°C

Insulation

>20 MOhm/km
(measured at 1000 V DC and 20°C)

Good resistance at high temperature – not combustible

Despite the impregnation glass fibre insulated cables are not suitable for applications which involve steam or oil use.

Colour code used by default is IEC 584-2.

| Conductor diameter (mm) | J | K | N |
|-------------------------|------------|------------|------------|
| | Code | Code | Code |
| 2 x 0,25 | 01J1D02RRO | 01K1D02RRO | 01N1D02RRO |
| 2 x 0,50 | 01J1D05RRO | 01K1D05RRO | 01N1D05RRO |
| 2 x 0,80 | 01J1D08RRO | 01K1D08RRO | 01N1D08RRO |

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



THERMOCOUPLE EXTENSION & COMPENSATING CABLES

PRODUCT OVERVIEW

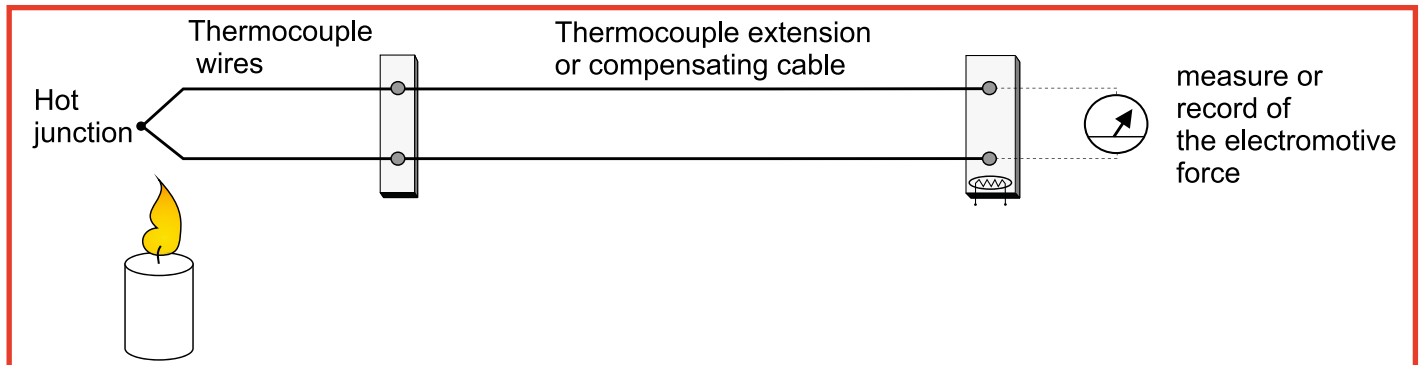
| | |
|-------------------------------|---|
| PVC-PVC-R | PVC insulated cables – round |
| PVC-PVC-O | PVC Insulated cables - oval |
| PVC-CuSn-PVC-R | PVC Insulated cables with copper braid |
| PVC-SCH-PVC-R | Shielded PVC insulated cables |
| PVC-SCH-PVC-CuSn PVC R | Shielded PVC insulated cables with copper braid |
| SIL-SIL-O | Silicone rubber insulated cables - oval |
| SIL-SIL-R | Silicone rubber insulated cables – round |
| SIL-CuSn-SIL-R | Silicone rubber insulated cables with copper braid |
| SIL-SCH-SIL-R | Shielded silicone rubber insulated cables |
| SIL-TEX-O | Silicone/glass fibres insulated cables |
| SIL-TEX-CuSn-O | Silicone/glass fibres insulated cables with copper braid |
| SIL-TEX-TA-O | Silicone/glass fibres insulated cables with steel braid |
| TEX-TEX-CuSn-R | Glass fibres insulated cables with copper overbraid |
| TRX-TRX-CuSn-R | Glass fibres insulated cables with copper overbraid- high temperature |
| TEX-TEX-CuSn-O | Glass fibres insulated cables with copper overbraid - Flat twin -oval |
| TRX-TRX-CuSn-O | Glass fibres insulated cables with copper overbraid- Flat twin -oval - high temperature |
| TEX-TEX-TI-R | Glass fibres insulated cables with s.s. overbraid |



INTRODUCTION

TYPICAL MEASURING DEVICE

Suppose that we have to measure an oven temperature (800 °C) with a thermocouple and that the measuring equipment is located at a distance of dozens of meters from the measuring point. Usually a few meters are sufficient to bring the temperature down to 200 °C or less. From that point, in order to reduce the costs, it is possible to use either extension or compensating cable to connect the thermocouple to the measuring device.



Extension and compensating cables are used between open ends of the thermocouple and the reference junction in those installations where the conductors of the thermocouple are not directly connected to the reference junction.

The thermoelectric properties of extension and compensating cables shall be close to the properties of the corresponding thermocouple.

Extension cables are manufactured from conductors having the same nominal composition as those of the corresponding thermocouples. They are designated with the letter «X» following the designation of the thermocouple, i.e. JX for thermocouple type J.

Compensating cables are manufactured from conductors having a composition different from that of the corresponding thermocouple. They are designated with the letter «C» following the designation of the thermocouple, i.e. KC for thermocouple K. In some cases different tolerances apply for the same thermocouple type over different temperature ranges. They will then be identified with an additional letter such as A or B. For example, compensating cables for thermocouple K will be identified as KCA and KCB.



STANDARDS

Extension and compensating cables are usually manufactured according to IEC 584-3 (EN60584-3) standards, but can also be made according to ANSI, UL or other standards upon request.

| THERMOCOUPLES | SYMBOL | | T | J | E | K | | N | R | S | B | |
|------------------------|---------------|---|--------------------|-------------------|--------------------|---------------------|-------------------|-------------------------|----------------------|----------------------|----------------------|----------------|
| | TYPE OF METAL | + | Copper | Iron | Nickel Chromium | Nickel Chromium | | Nickel Silicon Chromium | Platinum 13% Rhodium | Platinum 10% Rhodium | Platinum 30% Rhodium | |
| | | - | Copper Nickel T | Copper Nickel J | Copper Nickel E | Alloyed Nickel | | Nickel-Silicium | Platinum | Platinum | Platinum 6% Rhodium | |
| | | | -200 °C to +350 °C | -40 °C to +750 °C | -150 °C to +800 °C | -150 °C to +1100 °C | | -150 °C to +1100 °C | 0 °C to +1600 °C | 0 °C to +1550 °C | +600 °C to +1700 °C | |
| EXTENSION-COMPENSATION | TYPE OF METAL | + | Copper | Iron | Nickel Chromium | Nickel Chromium | Iron | Copper | Nickel-Chromium | Copper | Copper | Alloyed-Copper |
| | | - | Copper-Nickel T | Copper-Nickel J | Copper-Nickel E | Nickel-Aluminium | Copper-Nickel KCA | Copper-Nickel KCB | Nickel-Silicium | Copper Nickel R | Copper Nickel S | Copper |
| | | | | | | | | | | | | |
| | COLOUR CODE | | | | | | | | | | | |
| | | | | | | | | | | | | |

Colour identification of the most common thermocouple cables

INSULATION

Depending on the application and to suit particular environmental factors like temperature, humidity, physical integrity, the user can usually choose among several insulating materials.

- **PVC (code PVC – short code P)**

Polyvinyl Chloride is a thermoplastic resin with good resistance to water and aqueous saline solutions, acids and alkalis, moderate resistance to organic solvents and oils. PVC is a self extinguishing material. Generally usable between -30 and +105 °C.

- **Silicone rubber (code SIL – short code S)**

Silicon rubber insulated cables show resistance to hot air up to 180-200°C. This material is not recommended for exposure to steam above 130°C. Do not use with alkalis, acids, liquid fuels, chlorinated hydrocarbons, esters, ketons and ethers, aromatic oils. Generally usable between -40 and +200 °C

- **Glass braid**

Impregnated glass fibres type «E» (code TEX – short code E) usable to 400 °C or Impregnated glass fibres type «R» high temperature (code TRX – short code R), usable to 650 °C

- **Fluorinated resins**

These resins exhibit outstanding chemical inertia, dielectric properties and heat resistance. Most common types are PTFE (short code F), PFA (short code A) and MFA (short code M).

While PTFE has the highest melting point, other perfluorinated resins like PFA and MFA exhibit similar chemical resistance with slightly lower melting points but have the advantage to be easily extruded.

PFA melts at 306 °C and can be used for continuous operation between -200 and +260 °C

MFA melts at 280 °C and can be used for continuous operation between -200 and +250 °C

Fire resistant cables: available upon request.



SHIELDS, BRAIDS AND ARMOURS

Most common protections are :

- Braids: tinned copper (short code CS), steel (short code TA) and stainless steel (short code TI)
- Shields: aluminised polyester tape with drain wire (short code AL)
- Steel armour (short code AC)
- Cables with double braid or double shield (short code DX) can also be ordered upon request.

SIZES

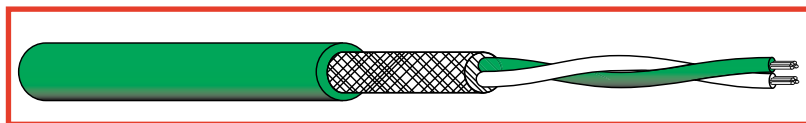
Thermocouple compensation and extension cables are also identified with their cross-sectional area in mm² (3-digit short codes) which also indicates that the conductors are made of strands of thin wires to keep the cable flexible.

In case that solid conductors are required, the diameter will be mentioned (short codes starting with D and diameter in tenths of mm ex: D13 for Ø1,3 mm)

Remark: more detailed data sheets can be obtained upon request.



PVC-CUSN-PVC-R



Twisted PVC insulated conductors with tinned copper braid and external PVC sheath.

Temperature Insulation

-30 to +105 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,6 | 33,8 | 01JX024PPRCS | 01KX024PPRCS | 01TX024PPRCS | 01NX024PPRCS |
| 2x0,35 mm ² | 5,2 | 42,9 | 01JX035PPRCS | 01KX035PPRCS | 01TX035PPRCS | 01NX035PPRCS |
| 2x0,50 mm ² | 5,8 | 53,7 | 01JX050PPRCS | 01KX050PPRCS | 01TX050PPRCS | 01NX050PPRCS |
| 2x0,80 mm ² | 6,4 | 67,9 | 01JX080PPRCS | 01KX080PPRCS | 01TX080PPRCS | 01NX080PPRCS |
| 2x1,00 mm ² | 6,8 | 77,6 | 01JX100PPRCS | 01KX100PPRCS | 01TX100PPRCS | 01NX100PPRCS |
| 2x1,30 mm ² | 7,6 | 95,6 | 01JX130PPRCS | 01KX130PPRCS | 01TX130PPRCS | 01NX130PPRCS |
| 2x1,50 mm ² | 7,8 | 102,1 | 01JX150PPRCS | 01KX150PPRCS | 01TX150PPRCS | 01NX150PPRCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 5,8 | 53,7 | 01KA050PPRCS | 01KB050PPRCS | 01SA050PPRCS |
| 2x0,80 mm ² | 6,4 | 67,9 | 01KA080PPRCS | 01KB080PPRCS | 01SA080PPRCS |
| 2x1,00 mm ² | 6,8 | 77,6 | 01KA100PPRCS | 01KB100PPRCS | 01SA100PPRCS |
| 2x1,30 mm ² | 7,6 | 95,6 | 01KA130PPRCS | 01KB130PPRCS | 01SA130PPRCS |
| 2x1,50 mm ² | 7,8 | 102,1 | 01KA150PPRCS | 01KB150PPRCS | 01SA150PPRCS |

REMARKS

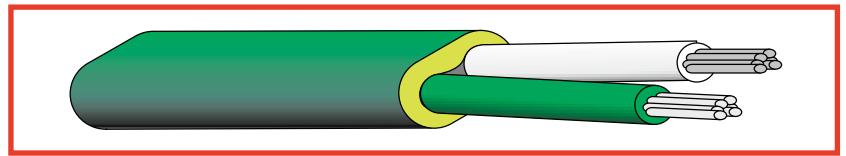
Other cross sections available upon request. Multi-pair cables available as well

HOW TO ORDER?

Specify the cable code + standard used IEC (ANSI, UL, other).



PVC-PVC-O



Flat twin, PVC insulated conductors, under oval PVC sheath.

Temperature

-30 to +105 °C

Insulation

>20 MOhm/km

(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|------------------------|------------|------------|------------|------------|
| | | Code | Code | Code | Code |
| 2x0,50 mm ² | 36,6 | 01JX050PPO | 01KX050PPO | 01TX050PPO | 01NX050PPO |
| 2x0,80 mm ² | 43,6 | 01JX080PPO | 01KX080PPO | 01TX080PPO | 01NX080PPO |
| 2x1,00 mm ² | 54,2 | 01JX100PPO | 01KX100PPO | 01TX100PPO | 01NX100PPO |
| 2x1,30 mm ² | 63,6 | 01JX130PPO | 01KX130PPO | 01TX130PPO | 01NX130PPO |
| 2x1,50 mm ² | 71,7 | 01JX150PPO | 01KX150PPO | 01TX150PPO | 01NX150PPO |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|------------|------------|------------|
| | | Code | Code | Code |
| 2x0,50 mm ² | 36,6 | 01KA050PPO | 01KB050PPO | 01SA050PPO |
| 2x0,80 mm ² | 43,6 | 01KA080PPO | 01KB080PPO | 01SA080PPO |
| 2x1,00 mm ² | 54,2 | 01KA100PPO | 01KB100PPO | 01SA100PPO |
| 2x1,30 mm ² | 63,6 | 01KA130PPO | 01KB130PPO | 01SA130PPO |
| 2x1,50 mm ² | 71,7 | 01KA150PPO | 01KB150PPO | 01SA150PPO |

REMARKS

Other cross sections available upon request.

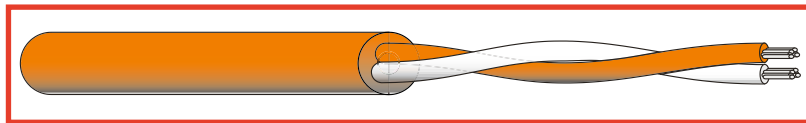
Multipair cables: not available as flat cable.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-PVC-R



Twisted insulated conductors, external PVC sheath.

Temperature

-30 to +105 °C

Insulation

>20 MOhm/km

(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|------------|------------|------------|------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,2 | 23,4 | 01JX024PPR | 01KX024PPR | 01TX024PPR | 01NX024PPR |
| 2x0,35 mm ² | 4,8 | 31,4 | 01JX035PPR | 01KX035PPR | 01TX035PPR | 01NX035PPR |
| 2x0,50 mm ² | 5,4 | 33,5 | 01JX050PPR | 01KX050PPR | 01TX050PPR | 01NX050PPR |
| 2x0,80 mm ² | 6,0 | 52,8 | 01JX080PPR | 01KX080PPR | 01TX080PPR | 01NX080PPR |
| 2x1,00 mm ² | 6,4 | 60,7 | 01JX100PPR | 01KX100PPR | 01TX100PPR | 01NX100PPR |
| 2x1,30 mm ² | 7,2 | 77,8 | 01JX130PPR | 01KX130PPR | 01TX130PPR | 01NX130PPR |
| 2x1,50 mm ² | 7,4 | 83,4 | 01JX150PPR | 01KX150PPR | 01TX150PPR | 01NX150PPR |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|------------|------------|------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 5,4 | 33,5 | 01KA050PPR | 01KB050PPR | 01SA050PPR |
| 2x0,80 mm ² | 6,0 | 52,8 | 01KA080PPR | 01KB080PPR | 01SA080PPR |
| 2x1,00 mm ² | 6,4 | 60,7 | 01KA100PPR | 01KB100PPR | 01SA100PPR |
| 2x1,30 mm ² | 7,2 | 77,8 | 01KA130PPR | 01KB130PPR | 01SA130PPR |
| 2x1,50 mm ² | 7,4 | 83,4 | 01KA150PPR | 01KB150PPR | 01SA150PPR |

REMARKS

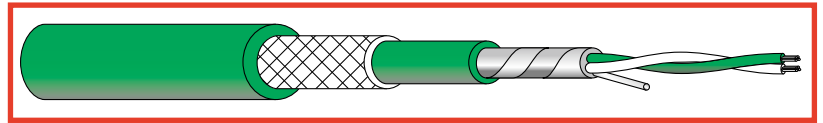
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-SCH-PVC-CUSN-PVC-R



Shielded and armoured cable

PVC insulated, non-incendive, conductors according to CEI 20-22. Twisted conductors shielded with aluminised polyester tape and drain wire, PVC layer, tinned copper braid and external, non-incendive, PVC sheath.

Temperature

-30 to +105 °C

Insulation

>20 MOhm/km

(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight | JX | KX | TX | NX |
|-------------------------|----------------|--------------|--------------|--------------|--------------|
| | | Code | Code | Code | Code |
| 2x1,30 mm ² | 209,6 | 01JX130PP0DX | 01KX130PP0DX | 01TX130PP0DX | 01NX130PP0DX |
| 2x1,50 mm ² | 221,0 | 01JX150PP0DX | 01KX150PP0DX | 01TX150PP0DX | 01NX150PP0DX |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|--------------|--------------|--------------|
| | | Code | Code | Code |
| 2x1,30 mm ² | 209,6 | 01KA130PP0DX | 01KB130PP0DX | 01SA130PP0DX |
| 2x1,50 mm ² | 221,0 | 01KA150PP0DX | 01KB150PP0DX | 01SA150PP0DX |

REMARKS

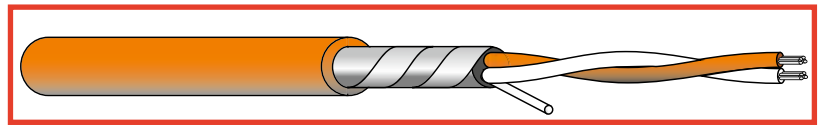
Other cross sections available upon request.
Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



PVC-SCH-PVC-R



Twisted PVC insulated conductors with aluminised polyester tape and drain wire, external PVC sheath.

Temperature Insulation

-30 to +105 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,8 | 34,7 | 01JX024PPRAL | 01KX024PPRAL | 01TX024PPRAL | 01NX024PPRAL |
| 2x0,35 mm ² | 5,4 | 43,7 | 01JX035PPRAL | 01KX035PPRAL | 01TX035PPRAL | 01NX035PPRAL |
| 2x0,50 mm ² | 6,0 | 53,6 | 01JX050PPRAL | 01KX050PPRAL | 01TX050PPRAL | 01NX050PPRAL |
| 2x0,80 mm ² | 6,6 | 66,5 | 01JX080PPRAL | 01KX080PPRAL | 01TX080PPRAL | 01NX080PPRAL |
| 2x1,00 mm ² | 7,0 | 75,0 | 01JX100PPRAL | 01KX100PPRAL | 01TX100PPRAL | 01NX100PPRAL |
| 2x1,30 mm ² | 7,8 | 93,2 | 01JX130PPRAL | 01KX130PPRAL | 01TX130PPRAL | 01NX130PPRAL |
| 2x1,50 mm ² | 8,0 | 99,0 | 01JX150PPRAL | 01KX150PPRAL | 01TX150PPRAL | 01NX150PPRAL |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 6,0 | 53,3 | 01KA050PPRAL | 01KB050PPRAL | 01SA050PPRAL |
| 2x0,80 mm ² | 6,6 | 66,5 | 01KA080PPRAL | 01KB080PPRAL | 01SA080PPRAL |
| 2x1,00 mm ² | 7,0 | 75,0 | 01KA100PPRAL | 01KB100PPRAL | 01SA100PPRAL |
| 2x1,30 mm ² | 7,8 | 93,2 | 01KA130PPRAL | 01KB130PPRAL | 01SA130PPRAL |
| 2x1,50 mm ² | 8,0 | 99,0 | 01KA150PPRAL | 01KB150PPRAL | 01SA150PPRAL |

REMARKS

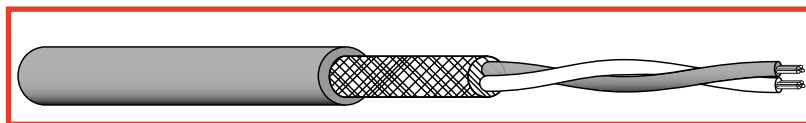
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-CUSN-SIL-R



Flexible shielded cables with silicone insulation

Twisted silicone insulated conductors with tinned copper braid and external silicone sheath

Temperature

-40 to +200 °C

Insulation

>20 MOhm/km

(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,6 | 29,5 | 01JX024SSRCS | 01KX024SSRCS | 01TX024SSRCS | 01NX024SSRCS |
| 2x0,35 mm ² | 5,2 | 37,4 | 01JX035SSRCS | 01KX035SSRCS | 01TX035SSRCS | 01NX035SSRCS |
| 2x0,50 mm ² | 5,8 | 46,9 | 01JX050SSRCS | 01KX050SSRCS | 01TX050SSRCS | 01NX050SSRCS |
| 2x0,80 mm ² | 6,4 | 59,0 | 01JX080SSRCS | 01KX080SSRCS | 01TX080SSRCS | 01NX080SSRCS |
| 2x1,00 mm ² | 6,8 | 68,4 | 01JX100SSRCS | 01KX100SSRCS | 01TX100SSRCS | 01NX100SSRCS |
| 2x1,30 mm ² | 7,6 | 84,2 | 01JX130SSRCS | 01KX130SSRCS | 01TX130SSRCS | 01NX130SSRCS |
| 2x1,50 mm ² | 7,8 | 90,2 | 01JX150SSRCS | 01KX150SSRCS | 01TX150SSRCS | 01NX150SSRCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 5,8 | 46,9 | 01KA050SSRCS | 01KB050SSRCS | 01SA050SSRCS |
| 2x0,80 mm ² | 6,4 | 59,8 | 01KA080SSRCS | 01KB080SSRCS | 01SA080SSRCS |
| 2x1,00 mm ² | 6,8 | 68,4 | 01KA100SSRCS | 01KB100SSRCS | 01SA100SSRCS |
| 2x1,30 mm ² | 7,6 | 84,2 | 01KA130SSRCS | 01KB130SSRCS | 01SA130SSRCS |
| 2x1,50 mm ² | 7,8 | 90,2 | 01KA150SSRCS | 01KB150SSRCS | 01SA150SSRCS |

REMARKS

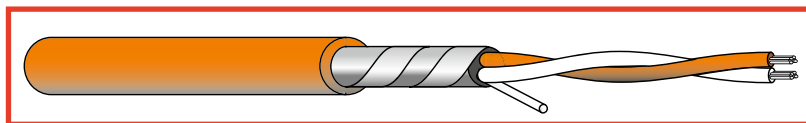
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-SCH-SIL-R



Twisted silicone insulated conductors with aluminised polyester tape and drain wire, external silicone sheath.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,8 | 30,0 | 01JX024SSRAL | 01KX024SSRAL | 01TX024SSRAL | 01NX024SSRAL |
| 2x0,35 mm ² | 5,4 | 37,6 | 01JX035SSRAL | 01KX035SSRAL | 01TX035SSRAL | 01NX035SSRAL |
| 2x0,50 mm ² | 6,0 | 46,3 | 01JX050SSRAL | 01KX050SSRAL | 01TX050SSRAL | 01NX050SSRAL |
| 2x0,80 mm ² | 6,6 | 57,8 | 01JX080SSRAL | 01KX080SSRAL | 01TX080SSRAL | 01NX080SSRAL |
| 2x1,00 mm ² | 7,0 | 65,3 | 01JX100SSRAL | 01KX100SSRAL | 01TX100SSRAL | 01NX100SSRAL |
| 2x1,30 mm ² | 7,8 | 81,1 | 01JX130SSRAL | 01KX130SSRAL | 01TX130SSRAL | 01NX130SSRAL |
| 2x1,50 mm ² | 8,0 | 86,4 | 01JX150SSRAL | 01KX150SSRAL | 01TX150SSRAL | 01NX150SSRAL |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 6,0 | 46,3 | 01KA050SSRAL | 01KB050SSRAL | 01SA050SSRAL |
| 2x0,80 mm ² | 6,6 | 57,8 | 01KA080SSRAL | 01KB080SSRAL | 01SA080SSRAL |
| 2x1,00 mm ² | 7,0 | 65,3 | 01KA100SSRAL | 01KB100SSRAL | 01SA100SSRAL |
| 2x1,30 mm ² | 7,8 | 81,1 | 01KA130SSRAL | 01KB130SSRAL | 01SA130SSRAL |
| 2x1,50 mm ² | 8,0 | 86,4 | 01KA150SSRAL | 01KB150SSRAL | 01SA150SSRAL |

REMARKS

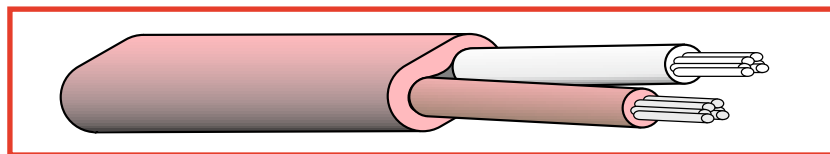
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-SIL-O



Flat twin, silicone insulated conductors, under oval silicone sheath.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|------------------------|------------|------------|------------|------------|
| | | Code | Code | Code | Code |
| 2x0,50 mm ² | 29,2 | 01JX050SSO | 01KX050SSO | 01TX050SSO | 01NX050SSO |
| 2x0,80 mm ² | 36,6 | 01JX080SSO | 01KX080SSO | 01TX080SSO | 01NX080SSO |
| 2x1,00 mm ² | 46,1 | 01JX100SSO | 01KX100SSO | 01TX100SSO | 01NX100SSO |
| 2x1,30 mm ² | 56,3 | 01JX130SSO | 01KX130SSO | 01TX130SSO | 01NX130SSO |
| 2x1,50 mm ² | 62,5 | 01JX150SSO | 01KX150SSO | 01TX150SSO | 01NX150SSO |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|------------|------------|------------|
| | | Code | Code | Code |
| 2x0,50 mm ² | 29,2 | 01KA050SSO | 01KB050SSO | 01SA050SSO |
| 2x0,80 mm ² | 36,6 | 01KA080SSO | 01KB080SSO | 01SA080SSO |
| 2x1,00 mm ² | 46,1 | 01KA100SSO | 01KB100SSO | 01SA100SSO |
| 2x1,30 mm ² | 56,3 | 01KA130SSO | 01KB130SSO | 01SA130SSO |
| 2x1,50 mm ² | 62,5 | 01KA150SSO | 01KB150SSO | 01SA150SSO |

REMARKS

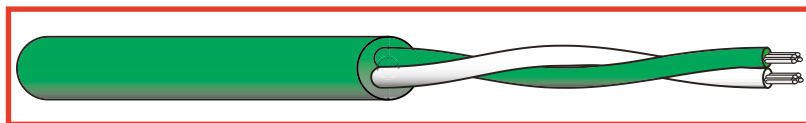
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-SIL-R



Twisted silicone insulated conductors, external silicone sheath.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|------------|------------|------------|------------|
| | | | Code | Code | Code | Code |
| 2x0,24 mm ² | 4,2 | 19,9 | 01JX024SSR | 01KX024SSR | 01TX024SSR | 01NX024SSR |
| 2x0,35 mm ² | 4,8 | 26,8 | 01JX025SSR | 01KX025SSR | 01TX025SSR | 01NX025SSR |
| 2x0,50 mm ² | 5,4 | 28,9 | 01JX050SSR | 01KX050SSR | 01TX050SSR | 01NX050SSR |
| 2x0,80 mm ² | 6,0 | 45,6 | 01JX080SSR | 01KX080SSR | 01TX080SSR | 01NX080SSR |
| 2x1,00 mm ² | 6,4 | 52,6 | 01JX100SSR | 01KX100SSR | 01TX100SSR | 01NX100SSR |
| 2x1,30 mm ² | 7,2 | 67,6 | 01JX130SSR | 01KX130SSR | 01TX130SSR | 01NX130SSR |
| 2x1,50 mm ² | 7,4 | 72,7 | 01JX150SSR | 01KX150SSR | 01TX150SSR | 01NX150SSR |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|------------|------------|------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 5,4 | 28,9 | 01KA050SSR | 01KB050SSR | 01SA050SSR |
| 2x0,80 mm ² | 6,0 | 45,6 | 01KA080SSR | 01KB080SSR | 01SA080SSR |
| 2x1,00 mm ² | 6,4 | 52,6 | 01KA100SSR | 01KB100SSR | 01SA100SSR |
| 2x1,30 mm ² | 7,2 | 67,6 | 01KA130SSR | 01KB130SSR | 01SA130SSR |
| 2x1,50 mm ² | 7,4 | 72,7 | 01KA150SSR | 01KB150SSR | 01SA150SSR |

REMARKS

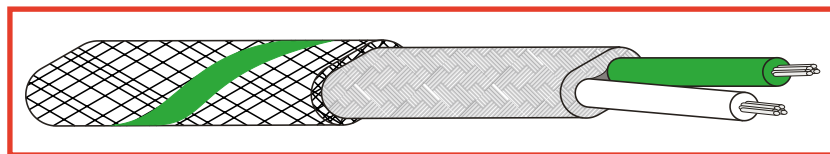
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-TEX-CUSN-O



Silicone/glass fibres insulated, flat cables with tinned copper overbraid.

The flexible conductors are silicone insulated and are further laid side by side in a glass braid, impregnated with a silicone varnish and overbraided with tinned copper. Form is flat.

Temperature

-40 to +200 °C

Insulation

>20 MOhm/km

(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|------------------------|-------------|-------------|-------------|-------------|
| | | Code | Code | Code | Code |
| 2x0,50 mm ² | 21,3 | 01JX050SECS | 01KX050SECS | 01TX050SECS | 01NX050SECS |
| 2x0,80 mm ² | 27,8 | 01JX080SECS | 01KX080SECS | 01TX080SECS | 01NX080SECS |
| 2x1,00 mm ² | 31,7 | 01JX100SECS | 01KX100SECS | 01TX100SECS | 01NX100SECS |
| 2x1,30 mm ² | 39,4 | 01JX130SECS | 01KX130SECS | 01TX130SECS | 01NX130SECS |
| 2x1,50 mm ² | 43,4 | 01JX150SECS | 01KX150SECS | 01TX150SECS | 01NX150SECS |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|-------------|-------------|-------------|
| | | Code | Code | Code |
| 2x0,50 mm ² | 21,3 | 01KA050SECS | 01KB050SECS | 01SA050SECS |
| 2x0,80 mm ² | 27,8 | 01KA080SECS | 01KB080SECS | 01SA080SECS |
| 2x1,00 mm ² | 31,7 | 01KA100SECS | 01KB100SECS | 01SA100SECS |
| 2x1,30 mm ² | 39,4 | 01KA130SECS | 01KB130SECS | 01SA130SECS |
| 2x1,50 mm ² | 43,4 | 01KA150SECS | 01KB150SECS | 01SA150SECS |

REMARKS

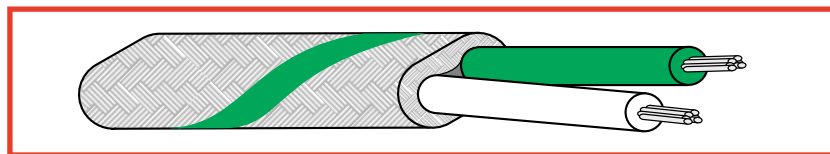
Other cross sections available upon request. Multi-pair cables not available.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-TEX-O



Silicone/glass fibres insulated, flat cables

The flexible conductors are silicone insulated and are further placed side by side in a glass braid, impregnated with a silicone varnish. Form is oval.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|------------------------|------------|------------|------------|------------|
| | | Code | Code | Code | Code |
| 2x0,50 mm ² | 19,5 | 01JX050SEO | 01KX050SEO | 01TX050SEO | 01NX050SEO |
| 2x0,80 mm ² | 25,7 | 01JX080SEO | 01KX080SEO | 01TX080SEO | 01NX080SEO |
| 2x1,00 mm ² | 31,7 | 01JX100SEO | 01KX100SEO | 01TX100SEO | 01NX100SEO |
| 2x1,30 mm ² | 39,5 | 01JX130SEO | 01KX130SEO | 01TX130SEO | 01NX130SEO |
| 2x1,50 mm ² | 43,0 | 01JX150SEO | 01KX150SEO | 01TX150SEO | 01NX150SEO |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|------------|------------|------------|
| | | Code | Code | Code |
| 2x0,50 mm ² | 19,5 | 01KA050SEO | 01KB050SEO | 01SA050SEO |
| 2x0,80 mm ² | 25,7 | 01KA080SEO | 01KB080SEO | 01SA080SEO |
| 2x1,00 mm ² | 31,7 | 01KA100SEO | 01KB100SEO | 01SA100SEO |
| 2x1,30 mm ² | 39,5 | 01KA130SEO | 01KB130SEO | 01SA130SEO |
| 2x1,50 mm ² | 43,0 | 01KA150SEO | 01KB150SEO | 01SA150SEO |

REMARKS

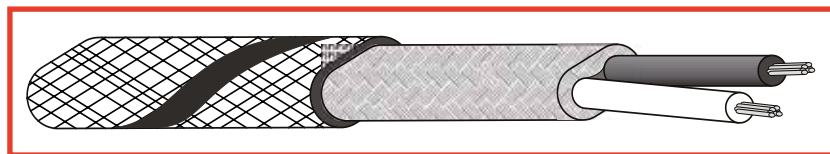
Other cross sections available upon request. Multi-pair cables not available.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



SIL-TEX-TA-O



Silicone/glass fibres insulated, flat cables with galvanised steel overbraid.

The flexible conductors are silicone insulated and are further laid side by side in a glass braid, impregnated with a silicone varnish and overbraided with galvanised steel. Form is flat.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|------------------------|--------------|--------------|--------------|--------------|
| | | Code | Code | Code | Code |
| 2x0,50 mm ² | 39,6 | 01JX050SEOTA | 01KX050SEOTA | 01TX050SEOTA | 01KX050SEOTA |
| 2x0,80 mm ² | 46,5 | 01JX080SEOTA | 01KX080SEOTA | 01TX080SEOTA | 01KX080SEOTA |
| 2x1,00 mm ² | 52,0 | 01JX100SEOTA | 01KX100SEOTA | 01TX100SEOTA | 01KX100SEOTA |
| 2x1,30 mm ² | 62,3 | 01JX130SEOTA | 01KX130SEOTA | 01TX130SEOTA | 01KX130SEOTA |
| 2x1,50 mm ² | 66,9 | 01JX150SEOTA | 01KX150SEOTA | 01TX150SEOTA | 01KX150SEOTA |

COMPENSATING CABLES

| Conductor cross section | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|------------------------|--------------|--------------|--------------|
| | | Code | Code | Code |
| 2x0,50 mm ² | 39,6 | 01KA050SEOTA | 01KB050SEOTA | 01SA050SEOTA |
| 2x0,80 mm ² | 46,5 | 01KA080SEOTA | 01KB080SEOTA | 01SA080SEOTA |
| 2x1,00 mm ² | 52,0 | 01KA100SEOTA | 01KB100SEOTA | 01SA100SEOTA |
| 2x1,30 mm ² | 62,3 | 01KA130SEOTA | 01KB130SEOTA | 01SA130SEOTA |
| 2x1,50 mm ² | 66,9 | 01KA150SEOTA | 01KB150SEOTA | 01SA150SEOTA |

REMARKS

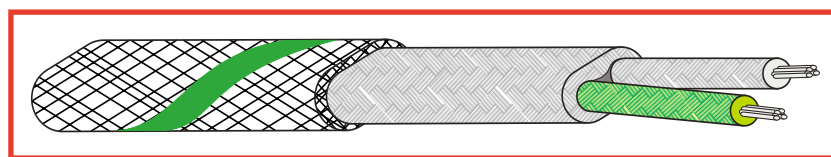
Other cross sections available upon request. Multi-pair cables are not available.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TEX-TEX-CUSN-O



Glass fibres insulated cables with tinned copper overbraid

The flexible conductors, insulated with silicone impregnated glass fibres, are laid flat side by side, overbraided with silicone impregnated glass fibres and finished with an external tinned copper braid. The form is oval.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,50 mm ² | 2,2x3,7 | 23,2 | 01JX050EEOCS | 01KX050EEOCS | 01TX050EEOCS | 01NX050EEOCS |
| 2x0,80 mm ² | 2,4x4,2 | 30,3 | 01JX080EEOCS | 01KX080EEOCS | 01TX080EEOCS | 01NX080EEOCS |
| 2x1,00 mm ² | 2,7x4,7 | 35,4 | 01JX100EEOCS | 01KX100EEOCS | 01TX100EEOCS | 01NX100EEOCS |
| 2x1,30 mm ² | 2,9x5,1 | 41,8 | 01JX130EEOCS | 01KX130EEOCS | 01TX130EEOCS | 01NX130EEOCS |
| 2x1,50 mm ² | 3,0x5,3 | 46,2 | 01JX150EEOCS | 01KX150EEOCS | 01TX150EEOCS | 01NX150EEOCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 2,2x3,7 | 23,2 | 01KA050EEOCS | 01KB050EEOCS | 01SA050EEOCS |
| 2x0,80 mm ² | 2,4x4,2 | 30,3 | 01KA080EEOCS | 01KB080EEOCS | 01SA080EEOCS |
| 2x1,00 mm ² | 2,7x4,7 | 35,4 | 01KA100EEOCS | 01KB100EEOCS | 01SA100EEOCS |
| 2x1,30 mm ² | 2,9x5,1 | 41,8 | 01KA130EEOCS | 01KB130EEOCS | 01SA130EEOCS |
| 2x1,50 mm ² | 3,0x5,3 | 46,2 | 01KA150EEOCS | 01KB150EEOCS | 01SA150EEOCS |

REMARKS

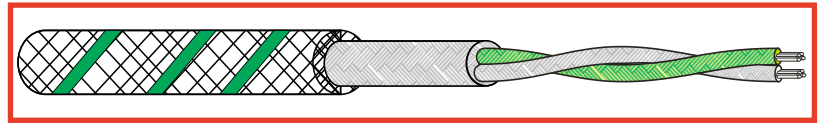
Other cross sections available upon request. Multi-pair cables are not available.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TEX-TEX-CUSN-R



Glass fibres insulated cables with tinned copper overbraid.

The flexible conductors, insulated with silicone impregnated glass fibres, are twisted, overbraided with silicone impregnated glass fibres and finished with an external tinned copper braid. The form is round.

Temperature Insulation

-40 to +200 °C
>20 MOhm/km
(Voltage 1000 V DC at 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,50 mm ² | 4,2 | 34,7 | 01JX050EERCS | 01KX050EERCS | 01TX050EERCS | 01NX050EERCS |
| 2x0,80 mm ² | 4,3 | 40,1 | 01JX080EERCS | 01KX080EERCS | 01TX080EERCS | 01NX080EERCS |
| 2x1,00 mm ² | 4,8 | 48,4 | 01JX100EERCS | 01KX100EERCS | 01TX100EERCS | 01NX100EERCS |
| 2x1,30 mm ² | 5,2 | 59,2 | 01JX130EERCS | 01KX130EERCS | 01TX130EERCS | 01NX130EERCS |
| 2x1,50 mm ² | 5,4 | 64,8 | 01JX150EERCS | 01KX150EERCS | 01TX150EERCS | 01NX150EERCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 4,2 | 34,7 | 01KA050EERCS | 01KB050EERCS | 01SA050EERCS |
| 2x0,80 mm ² | 4,3 | 40,1 | 01KA080EERCS | 01KB080EERCS | 01SA080EERCS |
| 2x1,00 mm ² | 4,8 | 48,4 | 01KA100EERCS | 01KB100EERCS | 01SA100EERCS |
| 2x1,30 mm ² | 5,2 | 59,2 | 01KA130EERCS | 01KB130EERCS | 01SA130EERCS |
| 2x1,50 mm ² | 5,4 | 64,8 | 01KA150EERCS | 01KB150EERCS | 01SA150EERCS |

REMARKS

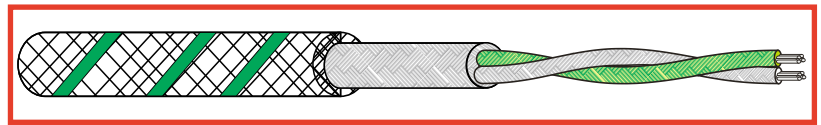
Other cross sections available upon request. Multi-pair cables are not available.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TEX-TEX-TI-R



Glass fibres insulated cables with stainless steel overbraid.

The flexible conductors, insulated with silicone impregnated glass fibres, are twisted, overbraided with silicone impregnated glass fibres and finished with an external AISI304 stainless steel braid. The form is round.

Temperature Insulation

-40 to +400 °C
>20 MOhm/km
(measured at 1000 V DC and 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,50 mm ² | 4,3 | 37,1 | 01JX050EERTI | 01KX050EERTI | 01TX050EERTI | 01NX050EERTI |
| 2x0,80 mm ² | 4,4 | 43,1 | 01JX080EERTI | 01KX080EERTI | 01TX080EERTI | 01NX080EERTI |
| 2x1,00 mm ² | 4,9 | 52,6 | 01JX100EERTI | 01KX100EERTI | 01TX100EERTI | 01NX100EERTI |
| 2x1,30 mm ² | 5,3 | 62,8 | 01JX120EERTI | 01KX120EERTI | 01TX120EERTI | 01NX120EERTI |
| 2x1,50 mm ² | 5,5 | 68,6 | 01JX150EERTI | 01KX150EERTI | 01TX150EERTI | 01NX150EERTI |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 4,7 | 39,2 | 01KA050EERTI | 01KB050EERTI | 01SA050EERTI |
| 2x0,80 mm ² | 4,4 | 43,1 | 01KA080EERTI | 01KB080EERTI | 01SA080EERTI |
| 2x1,00 mm ² | 4,9 | 52,6 | 01KA100EERTI | 01KB100EERTI | 01SA100EERTI |
| 2x1,30 mm ² | 5,3 | 62,8 | 01KA120EERTI | 01KB120EERTI | 01SA120EERTI |
| 2x1,50 mm ² | 5,5 | 68,6 | 01KA150EERTI | 01KB150EERTI | 01SA150EERTI |

REMARKS

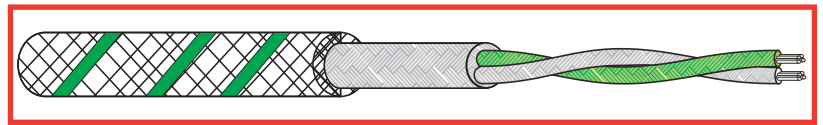
Other cross sections available upon request
Multi-pair cables available as well

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TRX-TRX-CUSN-R



High temperature glass fibres insulated cables with tinned copper overbraid.

The flexible conductors, insulated with silicone impregnated glass fibres, are twisted, overbraided with silicone impregnated glass fibres and finished with an external tinned copper braid. The form is round.

Temperature Insulation

-60 to +650 °C
>20 MOhm/km
(measured at 1000 V DC and 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,50 mm ² | 4,2 | 34,7 | 01JX050RRRCS | 01KX050RRRCS | 01TX050RRRCS | 01NX050RRRCS |
| 2x0,80 mm ² | 4,3 | 40,1 | 01JX080RRRCS | 01KX080RRRCS | 01TX080RRRCS | 01NX080RRRCS |
| 2x1,00 mm ² | 4,8 | 48,4 | 01JX100RRRCS | 01KX100RRRCS | 01TX100RRRCS | 01NX100RRRCS |
| 2x1,30 mm ² | 5,2 | 59,2 | 01JX130RRRCS | 01KX130RRRCS | 01TX130RRRCS | 01NX130RRRCS |
| 2x1,50 mm ² | 5,4 | 64,8 | 01JX150RRRCS | 01KX150RRRCS | 01TX150RRRCS | 01NX150RRRCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 4,2 | 34,7 | 01KA050RRRCS | 01KB050RRRCS | 01SA050RRRCS |
| 2x0,80 mm ² | 4,3 | 40,1 | 01KA080RRRCS | 01KB080RRRCS | 01SA080RRRCS |
| 2x1,00 mm ² | 4,8 | 48,4 | 01KA100RRRCS | 01KB100RRRCS | 01SA100RRRCS |
| 2x1,30 mm ² | 5,2 | 59,2 | 01KA130RRRCS | 01KB130RRRCS | 01SA130RRRCS |
| 2x1,50 mm ² | 5,4 | 64,8 | 01KA150RRRCS | 01KB150RRRCS | 01SA150RRRCS |

REMARKS

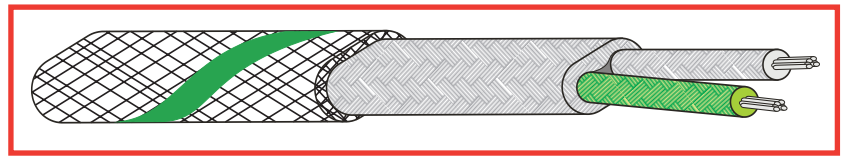
Other cross sections available upon request. Multi-pair cables available as well.

HOW TO ORDER?

Specify the cable code + standard used if different from IEC (ANSI, UL, other).



TRX-TRX-CUSN-O



High temperature glass fibres insulated cables with tinned copper overbraid.

The flexible conductors, insulated with silicone impregnated glass fibres, are laid flat side by side, overbraided with silicone impregnated glass fibres and finished with an external tinned copper braid. The form is oval.

Temperature Insulation

-60 to +650 °C
>20 MOhm/km
(measured at 1000 V DC and 20 °C)

Colour code used by default is IEC 584-3.

EXTENSION CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | JX | KX | TX | NX |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|--------------|
| | | | Code | Code | Code | Code |
| 2x0,50 mm ² | 2,2x3,7 | 23,2 | 01JX050RROCS | 01KX050RROCS | 01TX050RROCS | 01NX050RROCS |
| 2x0,80 mm ² | 2,4x4,2 | 30,3 | 01JX080RROCS | 01KX080RROCS | 01TX080RROCS | 01NX080RROCS |
| 2x1,00 mm ² | 2,7x4,7 | 35,4 | 01JX100RROCS | 01KX100RROCS | 01TX100RROCS | 01NX100RROCS |
| 2x1,30 mm ² | 2,9x5,1 | 41,8 | 01JX130RROCS | 01KX130RROCS | 01TX130RROCS | 01NX130RROCS |
| 2x1,50 mm ² | 3,0x5,3 | 46,2 | 01JX150RROCS | 01KX150RROCS | 01TX150RROCS | 01NX150RROCS |

COMPENSATING CABLES

| Conductor cross section | Ext. diameter (mm) | Nominal weight (kg/km) | KCA | KCB | SCA |
|-------------------------|--------------------|------------------------|--------------|--------------|--------------|
| | | | Code | Code | Code |
| 2x0,50 mm ² | 2,2x3,7 | 23,2 | 01KA050RROCS | 01KB050RROCS | 01SA050RROCS |
| 2x0,80 mm ² | 2,4x4,2 | 30,3 | 01KA080RROCS | 01KB080RROCS | 01SA080RROCS |
| 2x1,00 mm ² | 2,7x4,7 | 35,4 | 01KA100RROCS | 01KB100RROCS | 01SA100RROCS |
| 2x1,30 mm ² | 2,9x5,1 | 41,8 | 01KA130RROCS | 01KB130RROCS | 01SA130RROCS |
| 2x1,50 mm ² | 3,0x5,3 | 46,2 | 01KA150RROCS | 01KB150RROCS | 01SA150RROCS |

REMARKS

Other cross sections available upon request. Not available as multi-pair cable.

HOW TO ORDER?

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N.V. **THERMIBEL** S.A.

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