

Strands, Wires and Cables with PTFE-Insulation according to MIL-Specifications



Telemeter Electronic

Thermal Management

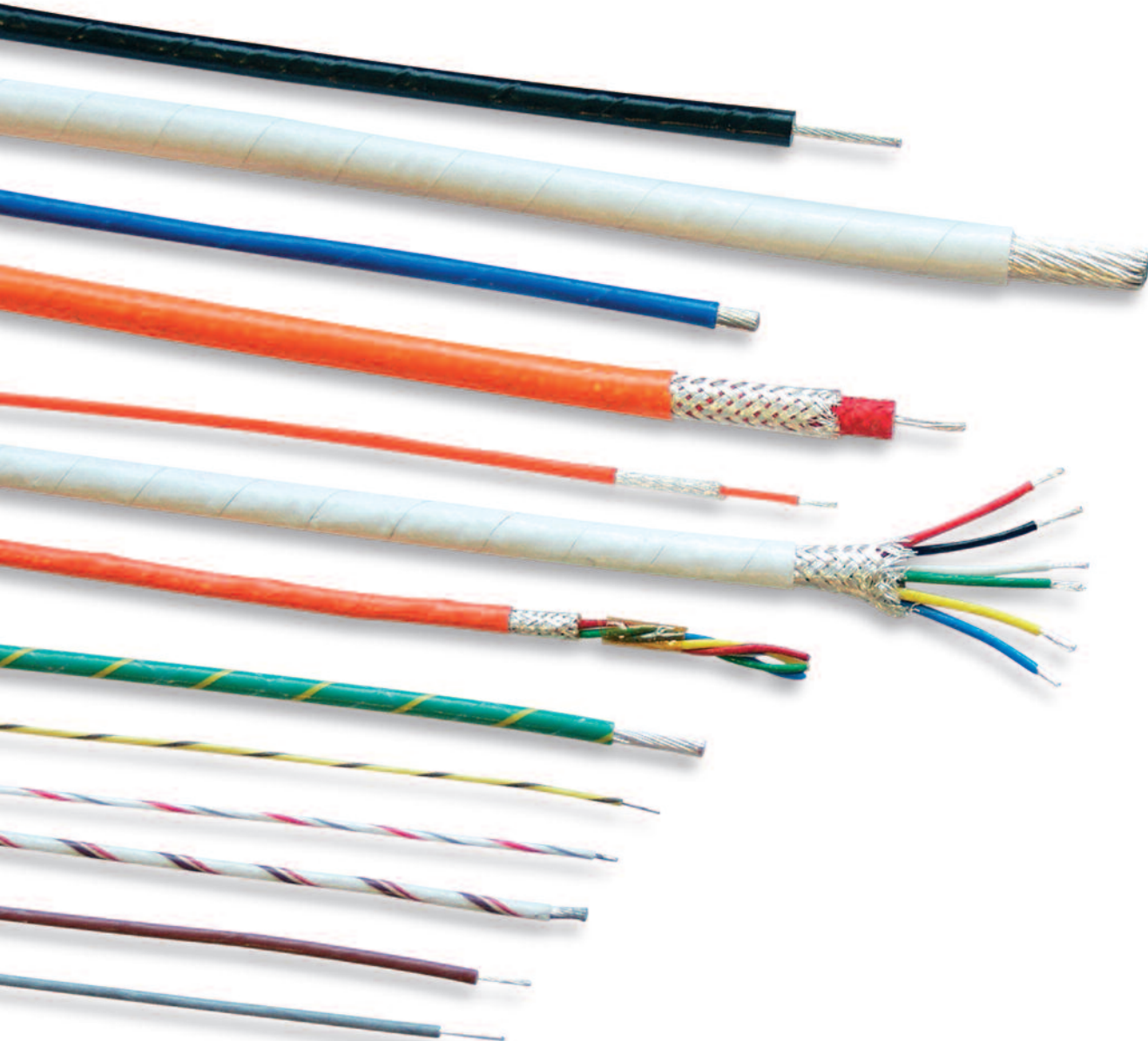
Industrial Components

Test & Measurement

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Product Overview

Since the middle of the 90s, we offer strands, wires and cables with high-quality silver or nickel plated copper conductors. These are all made based on banded and sintered PTFE insulation, able to withstand extreme environmental conditions.

This product line includes following parts:



Strands and Wires

- According to MIL-W-16878
- AWG 34 up to AWG 6
- With many insulation colors



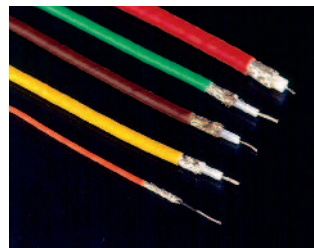
HV-Cables

- Especially Corona resistant
- Single- or multi-core
- Unshielded or shielded
- For voltages up to 22 kV AC or 50 kV DC
- Customized cables possible
- Whole cable length will be tested



Multicore Cables

- According to MIL-C-27500
- Unshielded
- Partially and common shielded cores
- Twisted pairs
- Customized cables possible



Coaxial Cable

- Various RG-types according to MIL-C-17
- Miniature-coaxial cable
- Low-Microphonic-Noise cable, max. 1,44 mm OD



Customized Round Cable

- Sensor cable for aircraft-trial
- Round cable with control strand, coaxial cable and various shields



Isolation Sleeve

- Isolation sleeves



Ribbon Cable

- For various grid dimensions
- Also with shielded cores
- Unsuitable for normal IDC-clamping connectors

Availability

Some types of our "strands and wires" and "High-voltage cables" are available from stock in limited quantities as bulk goods. They are marked in red.

Minimum Order Quantity

| | |
|--|---------------|
| Strands and wires | 100 m |
| Multi-core round cables | 50 m |
| Customized multi-core round cables | 50 m |
| High-voltage cables | 50 m |
| Ribbon cables | 50 m |
| Coaxial cables (banded/extruded) | 100 m / 500 m |
| Isolation sleeves (in sections) | 50 m |

Conductor Material

For the following strands, wires and cables various high-quality conductor materials will be offered. The standard version of the wire is silver plated copper conductor (SPC) for operating temperatures up to +200°C.

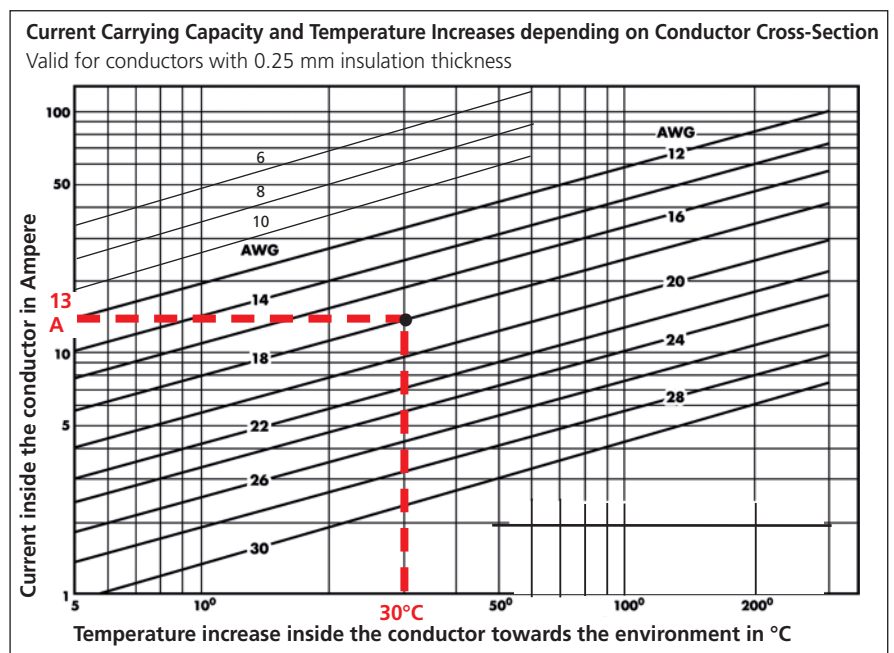
| Conductor Material | Specification | Applicable for | Properties | Temperature range* |
|---|---------------|--|---|--------------------------------------|
| SPC – silver plated copper conductor | ASTM-B-298 | all cable types | Very good conductivity, ideal for soldering | -65° C to +200° C |
| NPC – nickel plated copper conductor | ASTM-B-355 | On customer request for strands, wires and shielding braid | Higher temperature ranges, more difficult for soldering (no soft soldering possible), ideal for Crimp- or screw connections | -65° C to +260° C briefly at +300° C |
| SPHSCA – silver plated copper alloy conductor | ASTM-B-624 | With thin strands only for military applications. No RoHS-conformity | Good conductivity, solder able, high tensile strength, excellent flex characteristics | -65° C to +200° C |
| SPCCS – steel ladder, copper-plated and silver plated | ASTM-B-501 | For high frequency-, miniature- and coaxial cable | Extreme high tensile strength, good solder able | -65° C to +200° C |

*MIL-W-16878 specifies the temperature range from -65° C to +200° C. PTFE insulation allows extended use at -200° C to +260° C

Current Load of Cores

A special advantage of strands, wires and cables with PTFE-insulation is the high current-carrying capacity of the silver plated or nickel plated copper conductor. This load capacity is achieved by, that the PTFE-insulation – because of the high temperature resistance (briefly at +300°C) – allows much more self-heating of the conductor, than many other insulation materials with lower heat resistance. If it's depending on getting a thin and light strand or a multi-conductor cable, the bended and sintered PTFE insulation is an optimal solution. The strands, wires and cables with PTFE insulations allow thinner conductor cross-sections, if a higher voltage drop is acceptable. This applies especially for short-term high current load. This makes thinner and lighter wiring possible.

The graph shows reference values for the current carrying capacity of the offered strands and wires with a 0,25 mm PTFE-insulation and can nearly be deployed in insulation class ET+ or E (with approx. 0,2 mm and 0,3 mm insulation thickness). The values apply to individually horizontally cores which are surrounded with air, whereby a good heat output is given. For insulation class EE (with approx. 0,4 mm insulation thickness) it is expected that it has a bigger self-heating of the conductor.



According to the graphic, a strand with AWG 18 and insulation class ET+ or E with approx. 13 A can be charged by a temperature increases from 30°C.

Notice:

For the thicker insulation layer from HV-cables and cable bundles as well as from multi-core round cables with outer jacket is expected – because of the considerably smaller heat dissipation – that the conductor has much more self-heating. Therefore the power load has to be set lower or the conductor cross-section has to be bigger. For high current load, tests can be necessary.

Insulations Material

The insulations of our strands, wires and cables and the insulation sleeves consists of PTFE = Poly Tetra Flour Ethylene, which is also known as Teflon®. The special production form from the insulation – in banded sintered form – make thin and thick insulation layers with constant and radial thickness possible.

This insulation gives strands and wires ideal characteristics for the use at extremely environment conditions.

Special Characteristics of this Insulations:

① Chemical:

- High temperature range from -200°C to +260°C (briefly at 300°C)
- Resistant against many solvents, hydraulic- and transformer-oils
- Resistant against organic and inorganic chemicals
- Non-flammable (refractory to MIL-DTL-16878G)
- Water proof
- Dirt-repellent – easy cleaning
- Resistant against fungal- and mould infestation (tropicalized)
- Extreme weather-proof against embrittlement and discoloration
- Resistant against strong UV radiation (no material corrosion)
- Non-ageing
- Low outgassing
- Environmentally neutral, because chemically inert, because no additives

ves like stabilizations, antioxidants or poisonous plasticizers which is contained in PVC

- RoHS-compliant

② Electrical:

- High insulation resistance with comparatively thin insulation of the wire
- High specific resistance
- Low dielectric constant
- Very low dielectric loss factors
- Relatively high power load

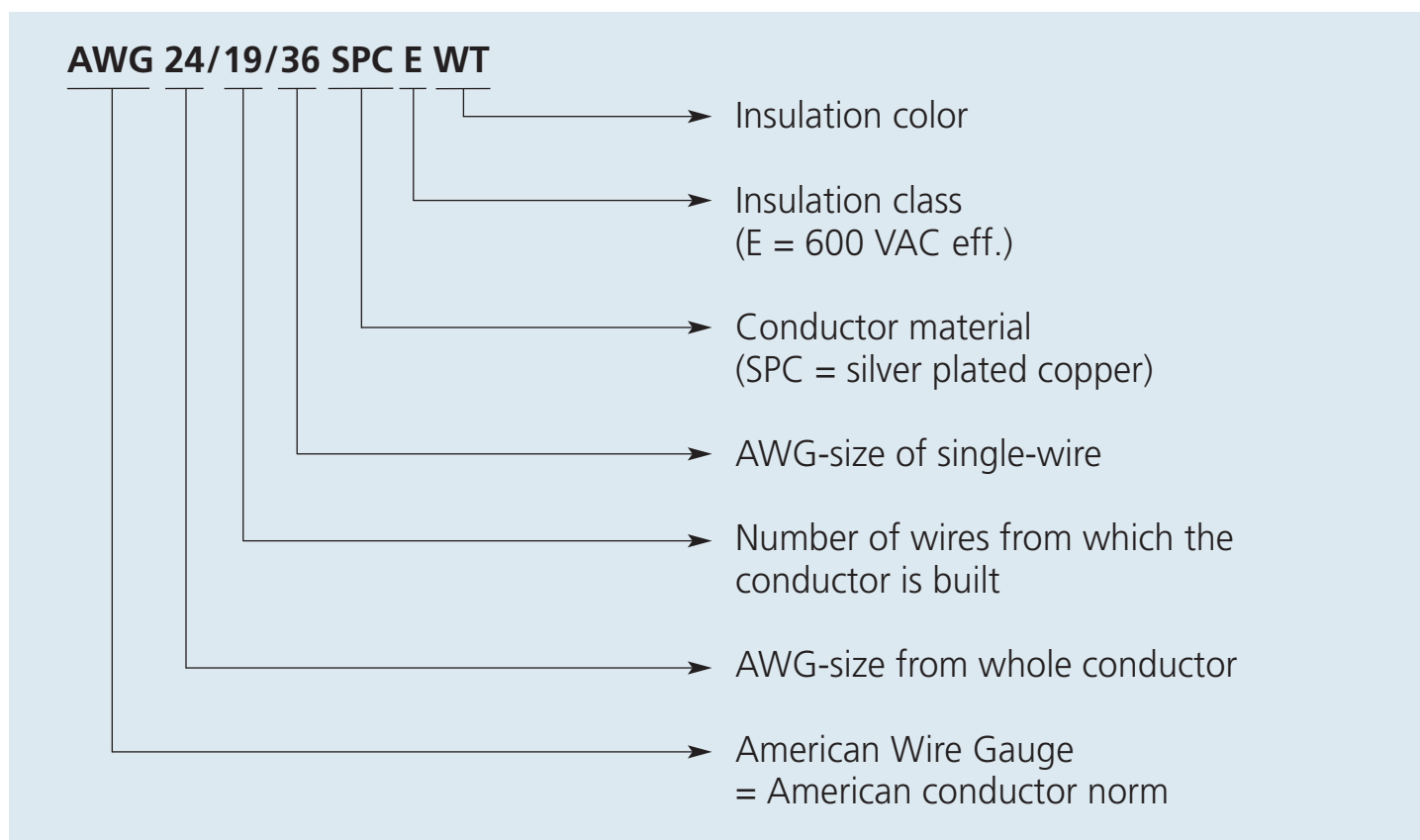
③ Mechanical:

- Very high abrasion resistance and tensile strength
- Very low static- and sliding friction
- Low weight because of thin isolation
- High packing density because of thin insulation

④ At Processing:

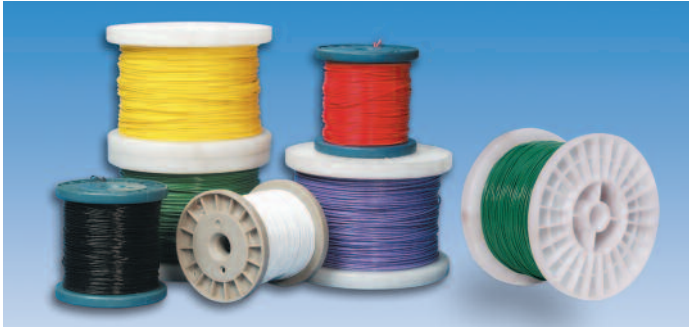
- No shrink (retract) of the insulation during soldering
- At circumference same thickness of the insulations (conductor centric)

Model Code for Strands and Wires



Strands and Wires with PTFE-Insulation

According to MIL-W-16878 for operating voltages of 250, 600 and 1000 VAC_{eff}



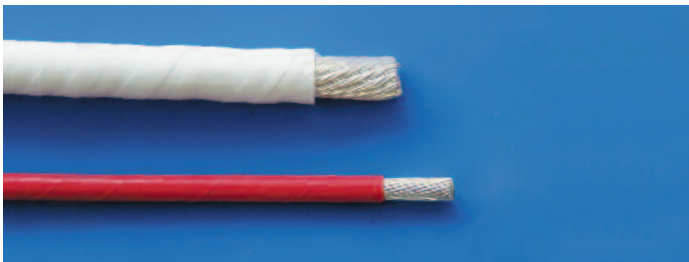
The strands and wires will be delivered on spools.

The offered strands and wires have a thin wrapped and banded and sintered PTFE-insulation according to MIL-W-16878. The thin insulation with high insulation resistance has a higher packing density and lower weight as extruded insulations of PTFE. The silver-plated copper conductor (SPC) is able to provide an operating temperature from -200°C to +200°C. Therefore these strands and wires preferably will be used in equipment for aviation, military applications and extremely environmental conditions.

Main Criteria for selecting PTFE-insulated Strands and Wires

A) Conductor Materials

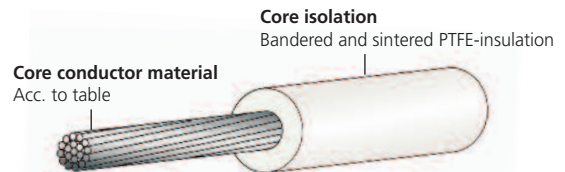
Copper is used, which is employed in strands or wires. The copper includes high-quality silver plating (SPC), whereby an excellent solder ability and a good conductivity can be achieved. If the conductor later won't be soldered, but crimped, we alternatively offer a nicked copper (NPC).



Applications with high currents, require a bigger wire cross section. High current strands also require the right insulation material. Therefore PTFE is ideal. The wall thickness of the insulation is relatively thin. In case of an electrical short, the material is not flammable.

Further details can be found in "power load of cores (page 3)".

Cores Building (Example of a 19-Core Strand)



B) Insulation Strength







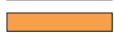




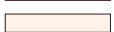
The strands and wires are available in 3 different insulation classes. Class ET for voltages to max. 250 V AC_{eff}, class E for voltages to max. 600 V AC_{eff} and the class EE for voltages to max. 1000 V AC_{eff}

Furthermore the class ET+ has established in the last years.

The class ET+ does not conform to MIL-W-16878, but has a higher mechanical stability in comparison to class ET.

| Insulation class according to MIL-W-16878 | Operating voltage | | Dielectric test for 1 minute in VAC _{eff} | Spark test for 1 Second in VAC _{eff} | Breakdown-test in KV AC |
|---|--------------------|------|--|---|-------------------------|
| | VAC _{eff} | VDC | | | |
| ET | 250 | 350 | 1500 | 2500 | 7 – 9 |
| ET+ | 250 | 350 | 1500 | 2500 | 9 – 10 |
| E | 600 | 900 | 2000 | 3400 | 12 – 15 |
| EE | 1000 | 1500 | 3000 | 5000 | 17 – 19 |

C) Available Insulation Colors According to MIL-STD-104:

| | | | |
|--|-------------|---|--------------|
|  | black (BK) |  | blue (BL) |
|  | brown (BR) |  | violet (VT) |
|  | red (RD) |  | grey (GR) |
|  | orange (OR) |  | white (WT) |
|  | yellow (YL) |  | pink (PN) |
|  | green (GN) |  | natural (TR) |

As insulation colors, we offer 12 basic colors according to MIL-STD-104 (see Table) for strands, wires and outer jacket of cables. If these 12 basic colors aren't enough, you can mix these colors together and you will receive a new one. So at multi-conductor cables the single conductor cables can be differed.

Insulation Colors (According to MIL-STD-104)



Strands and Wires, Insulation Class ET for Voltages up to max. 250 VAC_{eff}

Insulation color white (WT). Other colors on request.

Type Selection with Silver Plated Copper Conductor (SPC)

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|------------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| 11223 | AWG 20/19/32 SPC ET WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,61 | 30,2 | 1,22 | 1,32 | 7 | • |
| 11132 | AWG 20/7/28 SPC ET WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 32,8 | 1,22 | 1,32 | 6,4 | • |
| 42075 | AWG 20/1/20 SPC ET WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 34,5 | 1,07 | 1,17 | 5,8 | • |
| 11273 | AWG 22/19/34 SPC ET WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 49,6 | 1,02 | 1,12 | 4,5 | • |
| 11133 | AWG 22/7/30 SPC ET WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 52,2 | 1,02 | 1,12 | 4,2 | • |
| 42076 | AWG 22/1/22 SPC ET WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 55,8 | 0,89 | 1,02 | 3,8 | • |
| 11262 | AWG 24/19/36 SPC ET WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 79,8 | 0,86 | 0,97 | 3 | • |
| 42077 | AWG 24/7/32 SPC ET WT, PTFE | 7 x AWG 32 | 0,61 | 0,61 | 0,23 | 82,7 | 0,86 | 0,97 | 2,8 | • |
| 42078 | AWG 24/1/24 SPC ET WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 87,9 | 0,76 | 0,87 | 2,5 | • |
| 10907 | AWG 26/19/38 SPC ET WT, PTFE | 19 x AWG 38 | 0,51 | 0,51 | 0,16 | 126 | 0,74 | 0,84 | 2,1 | • |
| 11123 | AWG 26/7/34 SPC ET WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 132,9 | 0,74 | 0,84 | 1,9 | • |
| 42079 | AWG 26/1/26 SPC ET WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 140,1 | 0,66 | 0,76 | 1,7 | • |
| 11224 | AWG 28/19/40 SPC ET WT, PTFE | 19 x AWG 40 | 0,39 | 0,08 | 0,09 | 201 | 0,63 | 0,74 | 1,4 | - |
| 32353 | AWG 28/7/36 SPC ET WT, PTFE | 7 x AWG 36 | 0,38 | 0,14 | 0,09 | 209,3 | 0,63 | 0,74 | 1,3 | • |
| 10911 | AWG 28/1/28 SPC ET WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 223,1 | 0,58 | 0,69 | 1,2 | • |
| 42080 | AWG 30/19/42 SPC ET WT, PTFE | 19 x AWG 42 | 0,31 | 0,06 | 0,06 | 315 | 0,56 | 0,66 | 1,07 | - |
| 32356 | AWG 30/7/38 SPC ET WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 330,3 | 0,56 | 0,66 | 1,02 | • |
| 42081 | AWG 30/1/30 SPC ET WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 354,3 | 0,51 | 0,61 | 0,89 | • |
| 42082 | AWG 32/7/40 SPC ET WT, PTFE | 7 x AWG 40 | 0,25 | 0,08 | 0,03 | 567,5 | 0,51 | 0,61 | 0,73 | • |
| 42083 | AWG 32/1/32 SPC ET WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 554,5 | 0,46 | 0,66 | 0,64 | • |
| 42084 | AWG 34/7/42 SPC ET WT, PTFE | 7 x AWG 42 | 0,2 | 0,06 | 0,02 | 813 | 0,46 | 0,66 | 0,54 | - |
| 40190 | AWG 34/1/34 SPC ET WT, PTFE | 1 x AWG 34 | 0,16 | 0,16 | 0,02 | 880 | 0,41 | 0,51 | 0,49 | - |

Type Selection with Nickel Plated Copper Conductor (NPC)

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|------------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| - | AWG 20/19/32 NPC ET WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,61 | 32,1 | 1,22 | 1,32 | 7 | • |
| 11546 | AWG 20/7/28 NPC ET WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 34,2 | 1,22 | 1,32 | 6,4 | • |
| - | AWG 20/1/20 NPC ET WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 35,1 | 1,07 | 1,17 | 5,8 | • |
| - | AWG 22/19/34 NPC ET WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 52,5 | 1,02 | 1,12 | 4,5 | • |
| 11547 | AWG 22/7/30 NPC ET WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 54,5 | 1,02 | 1,12 | 4,2 | • |
| - | AWG 22/1/22 NPC ET WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 59,4 | 0,89 | 1,02 | 3,8 | • |
| - | AWG 24/19/36 NPC ET WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 85 | 0,86 | 0,97 | 3 | • |
| - | AWG 24/7/32 NPC ET WT, PTFE | 7 x AWG 32 | 0,61 | 0,61 | 0,23 | 87 | 0,86 | 0,97 | 2,8 | • |
| - | AWG 24/1/24 NPC ET WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 89,9 | 0,76 | 0,87 | 2,5 | • |
| - | AWG 26/19/38 NPC ET WT, PTFE | 19 x AWG 38 | 0,51 | 0,51 | 0,16 | 138,5 | 0,74 | 0,84 | 2,1 | • |
| - | AWG 26/7/34 NPC ET WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 141,4 | 0,74 | 0,84 | 1,9 | • |
| - | AWG 26/1/26 NPC ET WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 143,7 | 0,66 | 0,76 | 1,7 | • |
| 11556 | AWG 28/7/36 NPC ET WT, PTFE | 7 x AWG 36 | 0,38 | 0,14 | 0,09 | 222,8 | 0,63 | 0,74 | 1,3 | • |
| - | AWG 28/1/28 NPC ET WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 229,7 | 0,58 | 0,69 | 1,2 | • |
| - | AWG 30/7/38 NPC ET WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 363,1 | 0,56 | 0,66 | 0,97 | • |
| - | AWG 30/1/30 NPC ET WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 367,4 | 0,51 | 0,61 | 0,85 | • |
| 11212 | AWG 32/1/32 NPC ET WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 574 | 0,46 | 0,66 | 0,64 | • |
| 38255 | AWG 34/1/34 NPC ET WT, PTFE | 1 x AWG 34 | 0,16 | 0,16 | 0,02 | 925 | 0,41 | 0,51 | 0,49 | - |

Strands and Wires, Insulation Class ET+ for Voltages up to max. 250 VAC_{eff}

Insulation color white (WT). Other colors on request.

Type Selection with Silver Plated Copper Conductor (SPC)

RED = available from stock

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|-------------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| 11645 | AWG 20/19/32 SPC ET+ WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,61 | 30,2 | 1,3 | 1,44 | 7 | - |
| 11646 | AWG 20/7/28 SPC ET+ WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 32,8 | 1,26 | 1,4 | 6,4 | - |
| 11647 | AWG 20/1/20 SPC ET+ WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 34,5 | 1,11 | 1,25 | 5,8 | - |
| 11648 | AWG 22/19/34 SPC ET+ WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 49,6 | 1,1 | 1,24 | 4,5 | - |
| 11649 | AWG 22/7/30 SPC ET+ WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 52,2 | 1,08 | 1,22 | 4,2 | - |
| 11650 | AWG 22/1/22 SPC ET+ WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 55,8 | 0,94 | 1,08 | 3,8 | - |
| 11651 | AWG 24/19/36 SPC ET+ WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 79,8 | 0,94 | 1,08 | 3 | - |
| 11652 | AWG 24/7/32 SPC ET+ WT, PTFE | 7 x AWG 32 | 0,61 | 0,61 | 0,23 | 82,7 | 0,91 | 1,05 | 2,8 | - |
| 11653 | AWG 24/1/24 SPC ET+ WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 87,9 | 0,81 | 0,95 | 2,5 | - |
| 11654 | AWG 26/19/38 SPC ET+ WT, PTFE | 19 x AWG 38 | 0,51 | 0,51 | 0,16 | 126 | 0,81 | 0,95 | 2,1 | - |
| 11655 | AWG 26/7/34 SPC ET+ WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 132,9 | 0,78 | 0,92 | 1,9 | - |
| 11656 | AWG 26/1/26 SPC ET+ WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 140,01 | 0,7 | 0,84 | 1,7 | - |
| 11657 | AWG 28/19/40 SPC ET+ WT, PTFE | 19 x AWG 40 | 0,39 | 0,08 | 0,09 | 202 | 0,69 | 0,83 | 1,4 | - |
| 10853 | AWG 28/7/36 SPC ET+ WT, PTFE | 7 x AWG 36 | 0,38 | 0,14 | 0,09 | 209,3 | 0,68 | 0,82 | 1,3 | - |
| 43400 | AWG 28/1/28 SPC ET+ WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 223,1 | 0,62 | 0,76 | 1,2 | - |
| 32576 | AWG 30/19/42 SPC ET+ WT, PTFE | 19 x AWG 42 | 0,31 | 0,06 | 0,06 | 315 | 0,61 | 0,75 | 1,19 | - |
| 10913 | AWG 30/7/38 SPC ET+ WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 330,3 | 0,61 | 0,75 | 1,13 | - |
| 10914 | AWG 30/1/30 SPC ET+ WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 354,3 | 0,55 | 0,69 | 0,85 | - |
| 36506 | AWG 32/7/40 SPC ET+ WT, PTFE | 7 x AWG 40 | 0,25 | 0,08 | 0,03 | 567,5 | 0,55 | 0,69 | 0,69 | - |
| 35663 | AWG 32/1/32 SPC ET+ WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 554,5 | 0,5 | 0,64 | 0,64 | - |
| 37590 | AWG 34/7/42 SPC ET+ WT, PTFE | 7 x AWG 42 | 0,2 | 0,06 | 0,02 | 813 | 0,5 | 0,64 | 0,54 | - |
| 37898 | AWG 34/1/34 SPC ET+ WT, PTFE | 1 x AWG 34 | 0,16 | 0,16 | 0,02 | 880 | 0,46 | 0,6 | 0,49 | - |

Type Selection with Nickel Plated Copper Conductor (NPC)

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|-------------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| - | AWG 20/19/32 NPC ET+ WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,61 | 32,1 | 1,3 | 1,44 | 7 | - |
| - | AWG 20/7/28 NPC ET+ WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 34,2 | 1,26 | 1,4 | 6,4 | - |
| - | AWG 20/1/20 NPC ET+ WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 35,1 | 1,11 | 1,25 | 5,8 | - |
| - | AWG 22/19/34 NPC ET+ WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 52,5 | 1,1 | 1,24 | 4,5 | - |
| - | AWG 22/7/30 NPC ET+ WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 54,5 | 1,08 | 1,22 | 4,2 | - |
| - | AWG 22/1/22 NPC ET+ WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 59,4 | 0,94 | 1,08 | 3,8 | - |
| - | AWG 24/19/36 NPC ET+ WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 85 | 0,94 | 1,08 | 3 | - |
| - | AWG 24/7/32 NPC ET+ WT, PTFE | 7 x AWG 32 | 0,61 | 0,61 | 0,23 | 87 | 0,91 | 1,05 | 2,8 | - |
| - | AWG 24/1/24 NPC ET+ WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 89,9 | 0,81 | 0,95 | 2,5 | - |
| - | AWG 26/19/38 NPC ET+ WT, PTFE | 19 x AWG 38 | 0,51 | 0,51 | 0,16 | 138,5 | 0,81 | 0,95 | 2,1 | - |
| - | AWG 26/7/34 NPC ET+ WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 141,4 | 0,78 | 0,92 | 1,9 | - |
| - | AWG 26/1/26 NPC ET+ WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 143,7 | 0,7 | 0,84 | 1,7 | - |
| - | AWG 28/7/36 NPC ET+ WT, PTFE | 7 x AWG 36 | 0,38 | 0,14 | 0,09 | 222,8 | 0,68 | 0,82 | 1,3 | - |
| - | AWG 28/1/28 NPC ET+ WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 229,7 | 0,62 | 0,76 | 1,2 | - |
| - | AWG 30/7/38 NPC ET+ WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 363,1 | 0,61 | 0,75 | 0,97 | - |
| - | AWG 30/1/30 NPC ET+ WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 367,4 | 0,55 | 0,69 | 0,85 | - |
| - | AWG 32/1/32 NPC ET+ WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 574 | 0,5 | 0,64 | 0,64 | - |
| - | AWG 34/1/34 NPC ET+ WT, PTFE | 1 x AWG 34 | 0,16 | 0,16 | 0,02 | 925 | 0,46 | 0,6 | 0,49 | - |

Strands and Wires, Insulation Class E for Voltages up to max. 600 VAC_{eff}

Insulation color white (WT). Other colors on request.

Type Selection with Silver Plated Copper Conductor (SPC)

RED = available from stock

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|-----------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| 10868 | AWG 10/60/28 SPC E WT, PTFE | 60 x AWG 28 | 3,04 | 0,32 | - | 4,0 | 3,35 | 3,40 | 52 | - |
| 10869 | AWG 10/37/26 SPC E WT, PTFE | 37 x AWG 26 | 2,8 | 0,4 | 4,7 | 3,9 | 3,22 | 3,58 | 50 | • |
| 11658 | AWG 11/60/29 SPC E WT, PTFE | 60 x AWG 29 | 2,6 | 0,29 | 3,9 | 4,8 | 3,02 | 3,38 | 42 | - |
| 11659 | AWG 11/37/27 SPC E WT, PTFE | 37 x AWG 27 | 2,5 | 0,36 | 3,8 | 4,9 | 2,92 | 3,28 | 41 | - |
| 10872 | AWG 12/60/30 SPC E WT, PTFE | 60 x AWG 30 | 2,3 | 0,25 | 3 | 6,2 | 2,72 | 3,08 | 33 | - |
| 10873 | AWG 12/37/28 SPC E WT, PTFE | 37 x AWG 28 | 2,2 | 0,32 | 3 | 6,23 | 2,67 | 3,02 | 32 | • |
| 10874 | AWG 12/19/25 SPC E WT, PTFE | 19 x AWG 25 | 2,3 | 0,45 | 3,1 | 5,94 | 2,72 | 3,07 | 33 | • |
| 11660 | AWG 13/50/30 SPC E WT, PTFE | 50 x AWG 30 | 2,1 | 0,25 | 2,5 | 7,1 | 2,52 | 2,87 | 28 | - |
| 10878 | AWG 13/19/26 SPC E WT, PTFE | 19 x AWG 26 | 2 | 0,4 | 2,4 | 7,3 | 2,42 | 2,77 | 27 | - |
| 10879 | AWG 14/37/30 SPC E WT, PTFE | 37 x AWG 30 | 1,8 | 0,25 | 1,9 | 9,9 | 2,22 | 2,52 | 21 | - |
| 10880 | AWG 14/19/27 SPC E WT, PTFE | 19 x AWG 27 | 1,8 | 0,36 | 2 | 9,5 | 2,23 | 2,59 | 22 | • |
| 10882 | AWG 15/19/28 SPC E WT, PTFE | 19 x AWG 28 | 1,6 | 0,32 | 1,5 | 11,6 | 2,03 | 2,39 | 18 | - |
| 10884 | AWG 16/37/32 SPC E WT, PTFE | 37 x AWG 32 | 1,4 | 0,2 | 1,2 | 15,4 | 1,83 | 2,19 | 14 | - |
| 10885 | AWG 16/19/29 SPC E WT, PTFE | 19 x AWG 29 | 1,4 | 0,29 | 1,2 | 14,9 | 1,85 | 2,21 | 14 | • |
| 10843 | AWG 18/19/30 SPC E WT, PTFE | 19 x AWG 30 | 1,3 | 0,25 | 0,96 | 19 | 1,62 | 1,88 | 11,6 | • |
| 10888 | AWG 18/7/26 SPC E WT, PTFE | 7 x AWG 26 | 1,2 | 0,4 | 0,9 | 20,6 | 1,62 | 1,88 | 10,9 | • |
| 10889 | AWG 18/1/18 SPC E WT, PTFE | 1 x AWG 18 | 1 | 1,02 | 0,82 | 21,7 | 1,42 | 1,69 | 9,7 | • |
| 10890 | AWG 19/19/31 SPC E WT, PTFE | 19 x AWG 31 | 1,1 | 0,23 | 0,76 | 24 | 1,52 | 1,79 | 9,7 | - |
| 10892 | AWG 19/7/27 SPC E WT, PTFE | 7 x AWG 27 | 1,1 | 0,36 | 0,72 | 26 | 1,52 | 1,79 | 9,1 | - |
| 10895 | AWG 20/19/32 SPC E WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,62 | 30,2 | 1,37 | 1,58 | 8 | • |
| 10896 | AWG 20/7/28 SPC E WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 32,8 | 1,37 | 1,58 | 7,4 | • |
| 10897 | AWG 20/1/20 SPC E WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 34,5 | 1,22 | 1,42 | 6,6 | • |
| 10900 | AWG 22/19/34 SPC E WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 49,6 | 1,17 | 1,37 | 5,2 | • |
| 10901 | AWG 22/7/30 SPC E WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 52,2 | 1,17 | 1,37 | 4,9 | • |
| 10902 | AWG 22/1/22 SPC E WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 55,8 | 1,04 | 1,27 | 4,4 | • |
| 10904 | AWG 24/19/36 SPC E WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 79,8 | 1,02 | 1,22 | 3,6 | • |
| 10905 | AWG 24/7/32 SPC E WT, PTFE | 7 x AWG 32 | 0,61 | 0,2 | 0,23 | 82,7 | 1,02 | 1,22 | 3,5 | • |
| 10906 | AWG 24/1/24 SPC E WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 87,9 | 0,91 | 1,12 | 3,1 | • |
| 11661 | AWG 26/19/38 SPC E WT, PTFE | 19 x AWG 38 | 0,51 | 0,1 | 0,16 | 126 | 0,89 | 1,09 | 2,7 | • |
| 10908 | AWG 26/7/34 SPC E WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 132,9 | 0,89 | 1,09 | 2,5 | • |
| 10909 | AWG 26/1/26 SPC E WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 140,01 | 0,81 | 1,02 | 2,2 | • |
| 10854 | AWG 28/19/40 SPC E WT, PTFE | 19 x AWG 40 | 0,39 | 0,08 | 0,09 | 202 | 0,8 | 1,01 | 1,9 | - |
| 11420 | AWG 28/7/36 SPC E WT, PTFE | 7 x AWG 36 | 0,38 | 0,13 | 0,09 | 209,3 | 0,79 | 0,99 | 1,8 | • |
| 11421 | AWG 28/1/28 SPC E WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 223,1 | 0,74 | 0,94 | 1,7 | • |
| 11422 | AWG 30/19/42 SPC E WT, PTFE | 19 x AWG 42 | 0,32 | 0,06 | 0,06 | 315 | 0,74 | 0,94 | 1,5 | - |
| 41648 | AWG 30/7/38 SPC E WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 330,3 | 0,71 | 0,92 | 1,4 | • |
| 38116 | AWG 30/1/30 SPC E WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 354,3 | 0,66 | 0,92 | 1,2 | • |
| 10998 | AWG 32/7/40 SPC E WT, PTFE | 7 x AWG 40 | 0,24 | 0,08 | 0,03 | 567,5 | 0,66 | 0,86 | 1,1 | • |
| 11424 | AWG 32/1/32 SPC E WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 554,5 | 0,63 | 0,84 | 1 | • |
| 37589 | AWG 34/7/42SPC E WT, PTFE | 7 x AWG 42 | 0,2 | 0,06 | 0,02 | 880 | 0,63 | 0,84 | 1 | - |

Strands and Wires, Insulation Class EE for Voltages up to max. 1000 VAC_{eff}

Insulation color white (WT). Other colors on request.

Type Selection with Silver Plated Copper Conductor (SPC)

| Article No. | Description | Data of the Conductor | | | | | Data of the Insulated Strand | | | |
|-------------|------------------------------|------------------------------------|----------------|-----------------------------|----------------------------------|----------------------------|------------------------------|-----------------------------|---------------|------------------------------|
| | | Number of single wires and AWG-No. | Diameter in mm | Diameter of the Single Wire | Cross-Section in mm ² | Resistance in Ω/km at 20°C | Outer Diameter in mm (min.) | Outer Diameter in mm (max.) | Weight in g/m | • = According to MIL-W-16878 |
| 10863 | AWG 6/133/27 SPC EE WT, PTFE | 133 x AWG 27 | 5,4 | 0,36 | 13,8 | 1,37 | 6,43 | 6,93 | 149 | • |
| 10864 | AWG 6/60/24 SPC EE WT, PTFE | 60 x AWG 24 | 4,6 | 0,51 | 12,3 | 1,54 | 5,35 | 5 | 135 | - |
| 11479 | AWG 7/133/28 SPC EE WT, PTFE | 133 x AWG 28 | 4,8 | 0,32 | 10,7 | 1,81 | 5,83 | 6,33 | 122 | - |
| 11480 | AWG 7/60/25 SPC EE WT, PTFE | 60 x AWG 25 | 4,1 | 0,45 | 9,75 | 1,94 | 4,85 | 5,36 | 110 | - |
| 10865 | AWG 8/133/29 SPC EE WT, PTFE | 133 x AWG 29 | 4,3 | 0,29 | 8,6 | 2,16 | 5,05 | 5,56 | 97 | • |
| 10866 | AWG 8/60/26 SPC EE WT, PTFE | 60 x AWG 26 | 3,6 | 0,4 | 7,7 | 2,4 | 4,35 | 4,86 | 86 | - |
| 10867 | AWG 9/60/27 SPC EE WT, PTFE | 60 x AWG 27 | 3,3 | 0,36 | 6,1 | 3,1 | 4,05 | 4,56 | 70 | - |
| 11481 | AWG 9/37/25 SPC EE WT, PTFE | 37 x AWG 25 | 3,2 | 0,45 | 6 | 3,1 | 3,95 | 4,46 | 69 | - |
| 11482 | AWG 9/19/22 SPC EE WT, PTFE | 19 x AWG 22 | 3,2 | 0,64 | 6,1 | 3,1 | 3,95 | 4,46 | 71 | - |
| 11662 | AWG 10/60/28 SPC EE WT, PTFE | 60 x AWG 28 | 3,04 | 0,32 | - | 4,0 | 3,54 | 3,9 | 55 | - |
| 11663 | AWG 10/37/26 SPC EE WT, PTFE | 37 x AWG 26 | 2,8 | 0,4 | 4,7 | 3,9 | 3,48 | 3,9 | 53 | • |
| 11664 | AWG 11/60/29 SPC EE WT, PTFE | 60 x AWG 29 | 2,6 | 0,29 | 3,9 | 4,7 | 3,28 | 3,7 | 45 | - |
| 11665 | AWG 11/37/27 SPC EE WT, PTFE | 37 x AWG 27 | 2,5 | 0,36 | 3,8 | 4,9 | 3,18 | 3,6 | 44 | - |
| 11666 | AWG 12/60/30 SPC EE WT, PTFE | 60 x AWG 30 | 2,3 | 0,25 | 3 | 6,2 | 2,98 | 3,4 | 36 | - |
| 11667 | AWG 12/37/28 SPC EE WT, PTFE | 37 x AWG 28 | 2,2 | 0,32 | 3 | 6,23 | 2,92 | 3,33 | 35 | • |
| 11668 | AWG 12/19/25 SPC EE WT, PTFE | 19 x AWG 25 | 2,3 | 0,45 | 3,1 | 5,94 | 2,97 | 3,38 | 36 | • |
| 11669 | AWG 13/19/26 SPC EE WT, PTFE | 19 x AWG 26 | 2 | 0,4 | 2,4 | 7,3 | 2,67 | 3,08 | 30 | - |
| 11670 | AWG 14/37/30 SPC EE WT, PTFE | 37 x AWG 30 | 1,8 | 0,25 | 1,9 | 9,9 | 2,47 | 2,88 | 24 | - |
| 11671 | AWG 14/19/27 SPC EE WT, PTFE | 19 x AWG 27 | 1,8 | 0,36 | 1,9 | 9,5 | 2,49 | 2,9 | 24 | • |
| 11672 | AWG 15/19/28 SPC EE WT, PTFE | 19 x AWG 28 | 1,6 | 0,32 | 1,5 | 12,5 | 2,26 | 2,67 | 20 | - |
| 11673 | AWG 16/37/32 SPC EE WT, PTFE | 37 x AWG 32 | 1,4 | 0,2 | 1,2 | 16,3 | 2,1 | 2,4 | 16 | - |
| 11674 | AWG 16/19/29 SPC EE WT, PTFE | 19 x AWG 29 | 1,4 | 0,29 | 1,2 | 14,9 | 2,11 | 2,41 | 16 | • |
| 11676 | AWG 18/19/30 SPC EE WT, PTFE | 19 x AWG 30 | 1,3 | 0,25 | 0,96 | 19 | 1,88 | 2,13 | 13 | • |
| 11677 | AWG 18/7/26 SPC EE WT, PTFE | 7 x AWG 26 | 1,2 | 0,4 | 0,9 | 20,6 | 1,88 | 2,13 | 12,5 | • |
| 11678 | AWG 18/1/18 SPC EE WT, PTFE | 1 x AWG 18 | 1 | 1,02 | 0,82 | 21,7 | 1,68 | 1,93 | 11,2 | • |
| 11679 | AWG 19/19/31 SPC EE WT, PTFE | 19 x AWG 31 | 1,1 | 0,23 | 0,76 | 26 | 1,78 | 2,03 | 11,2 | - |
| 11680 | AWG 19/7/27 SPC EE WT, PTFE | 7 x AWG 27 | 1,1 | 0,36 | 0,71 | 26,7 | 1,78 | 2,03 | 10,5 | - |
| 11681 | AWG 20/19/32 SPC EE WT, PTFE | 19 x AWG 32 | 1 | 0,2 | 0,61 | 30,2 | 1,62 | 1,83 | 9,4 | • |
| 11682 | AWG 20/7/28 SPC EE WT, PTFE | 7 x AWG 28 | 0,96 | 0,32 | 0,56 | 32,8 | 1,62 | 1,83 | 9,4 | • |
| 11683 | AWG 20/1/20 SPC EE WT, PTFE | 1 x AWG 20 | 0,81 | 0,81 | 0,52 | 34,5 | 1,47 | 1,68 | 7,9 | • |
| 11684 | AWG 22/19/34 SPC EE WT, PTFE | 19 x AWG 34 | 0,8 | 0,16 | 0,38 | 49,6 | 1,42 | 1,63 | 6,4 | • |
| 11685 | AWG 22/7/30 SPC EE WT, PTFE | 7 x AWG 30 | 0,78 | 0,25 | 0,35 | 52,2 | 1,42 | 1,63 | 6,1 | • |
| 11686 | AWG 22/1/22 SPC EE WT, PTFE | 1 x AWG 22 | 0,64 | 0,64 | 0,32 | 55,8 | 1,3 | 1,52 | 5,5 | • |
| 11687 | AWG 24/19/36 SPC EE WT, PTFE | 19 x AWG 36 | 0,64 | 0,13 | 0,24 | 79,8 | 1,27 | 1,47 | 4,7 | • |
| 38543 | AWG 24/7/32 SPC EE WT, PTFE | 7 x AWG 32 | 0,61 | 0,2 | 0,23 | 82,7 | 1,27 | 1,47 | 4,5 | • |
| 11689 | AWG 24/1/24 SPC EE WT, PTFE | 1 x AWG 24 | 0,51 | 0,51 | 0,21 | 87,9 | 1,17 | 1,37 | 4,1 | • |
| 11690 | AWG 26/19/38 SPC EE WT, PTFE | 19 x AWG 38 | 0,51 | 0,1 | 0,16 | 126 | 1,14 | 1,35 | 3,6 | • |
| 11691 | AWG 26/7/34 SPC EE WT, PTFE | 7 x AWG 34 | 0,48 | 0,16 | 0,14 | 132,9 | 1,14 | 1,35 | 3,4 | • |
| 11692 | AWG 26/1/26 SPC EE WT, PTFE | 1 x AWG 26 | 0,4 | 0,4 | 0,13 | 140,1 | 1,07 | 1,27 | 3,1 | • |
| 11693 | AWG 28/19/40 SPC EE WT, PTFE | 19 x AWG 40 | 0,39 | 0,08 | 0,09 | 202 | 1,06 | 1,26 | 2,8 | - |
| 11694 | AWG 28/7/36 SPC EE WT, PTFE | 7 x AWG 36 | 0,38 | 0,13 | 0,09 | 209,3 | 1,04 | 1,25 | 2,7 | • |
| 11695 | AWG 28/1/28 SPC EE WT, PTFE | 1 x AWG 28 | 0,32 | 0,32 | 0,08 | 223,1 | 0,99 | 1,19 | 2,5 | • |
| 11696 | AWG 30/19/42 SPC EE WT, PTFE | 19 x AWG 42 | 0,32 | 0,06 | 0,06 | 315 | 0,99 | 1,19 | 2,3 | - |
| 11697 | AWG 30/7/38 SPC EE WT, PTFE | 7 x AWG 38 | 0,31 | 0,1 | 0,06 | 330,3 | 0,96 | 1,17 | 2,2 | • |
| 11698 | AWG 30/1/30 SPC EE WT, PTFE | 1 x AWG 30 | 0,25 | 0,25 | 0,05 | 354,3 | 0,91 | 1,12 | 2 | • |
| 11699 | AWG 32/7/40 SPC EE WT, PTFE | 7 x AWG 40 | 0,24 | 0,08 | 0,03 | 567,5 | 0,91 | 1,12 | 1,9 | • |
| 11700 | AWG 32/1/32 SPC EE WT, PTFE | 1 x AWG 32 | 0,2 | 0,2 | 0,03 | 554,5 | 0,86 | 1,07 | 1,8 | • |

Options for Strands and Wires



Strand as twisted-pair

All strands and wires can be delivered as twisted pairs, multi-core twisted and in different colors. Also available are twisted strands with different AWG-sizes (cross section).



High-tech silver covered copper conductor consisting of 133 single cores.

The strands in the selection tables normally consists of 7 or 19 single cores. To get a better flexibility of the conductor, the number of the single cores can be increased if necessary.



2 wired high-voltage cable

Example for a development of a customized solution.

Multi-Core Round Cable with Shielding

Characteristics

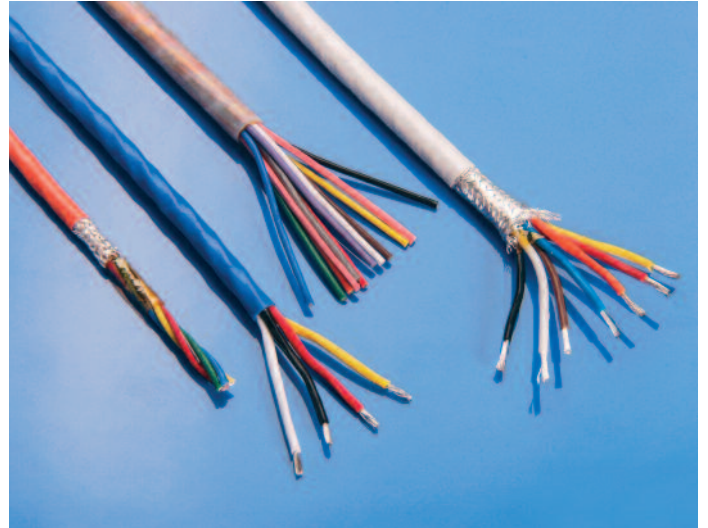
- Temperature range: -200°C to +200°C (for higher temperature, see description on page 3)
- Operating voltage, defined about the insulation classes ET, ET+, E and EE

Specification

- Round cable according to MIL-C-27500
- Strands according to MIL-W-16878

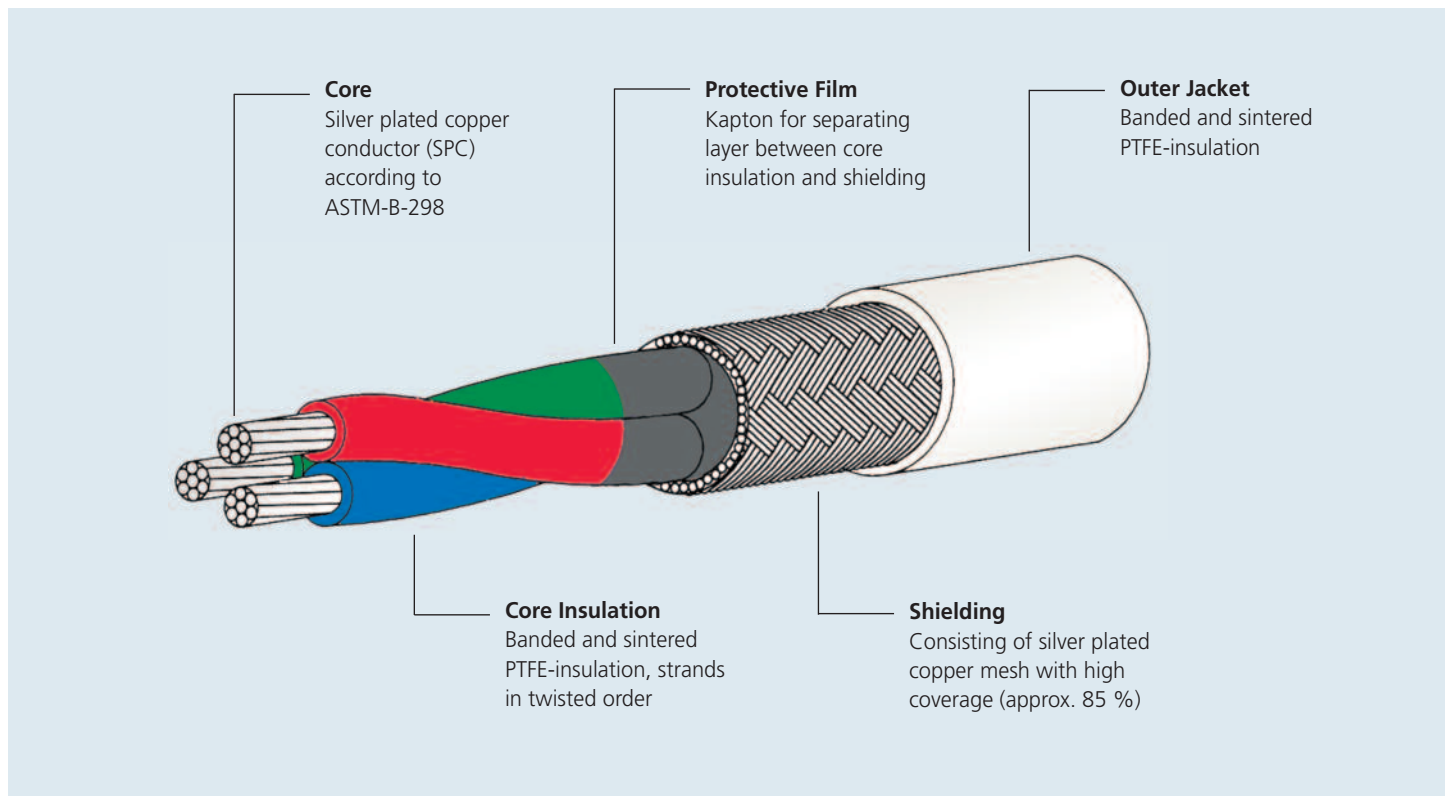
Applications

Ideal for applications, where a high reliability is necessary, for example aerospace industry, military technology, medical technology, precision production of fine equipment or apparatus construction for chemical industry



Round cable in standard- and special design.

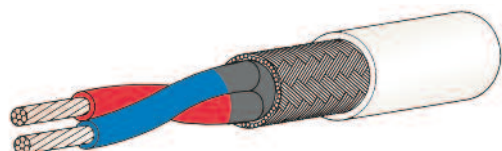
Structure (general)



Standard Type Selection, Insulation Class ET for Operating Voltages up to max. 250 VAC_{eff}

2-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red and blue (for other colors look at the description on page 5)
- Outer jacket: white (for other colors look at the description on page 5)

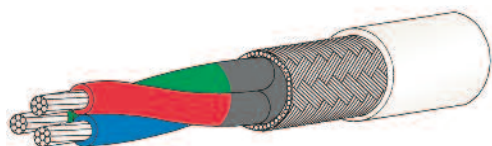


Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11701 | 20 | 19 x 32 (0,20) | 3,75 | 30,0 |
| 11702 | 20 | 7 x 28 (0,32) | 3,70 | 28,0 |
| 11703 | 22 | 19 x 34 (0,16) | 3,30 | 21,0 |
| 11704 | 22 | 7 x 30 (0,25) | 3,20 | 20,0 |
| 11705 | 24 | 19 x 36 (0,13) | 2,95 | 16,5 |
| 11706 | 24 | 7 x 32 (0,20) | 2,90 | 16,1 |
| 11707 | 26 | 19 x 38 (0,10) | 2,65 | 13,4 |
| 11708 | 26 | 7 x 34 (0,16) | 2,60 | 13,0 |
| 11709 | 28 | 7 x 36 (0,13) | 2,30 | 10,0 |
| 11710 | 30 | 7 x 38 (0,10) | 2,15 | 8,7 |
| 11711 | 32 | 7 x 40 (0,08) | 1,90 | 4,8 |
| 11712 | 34 | 7 x 42 (0,064) | 1,75 | 4,8 |

3-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue and green (for other colors look at the description on page 5)
- Outer jacket: white (for other colors look at the description on page 5)



Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11713 | 20 | 19 x 32 (0,20) | 4,10 | 42,0 |
| 11714 | 20 | 7 x 28 (0,32) | 4,00 | 39,0 |
| 11715 | 22 | 19 x 34 (0,16) | 3,60 | 28,0 |
| 11716 | 22 | 7 x 30 (0,25) | 3,40 | 26,0 |
| 11717 | 24 | 19 x 36 (0,13) | 3,10 | 21,0 |
| 11718 | 24 | 7 x 32 (0,20) | 3,00 | 21,0 |
| 11719 | 26 | 19 x 38 (0,10) | 2,85 | 17,0 |
| 11720 | 26 | 7 x 34 (0,16) | 2,80 | 16,0 |
| 11721 | 28 | 7 x 36 (0,13) | 2,50 | 13,5 |
| 11722 | 30 | 7 x 38 (0,10) | 2,30 | 11,0 |
| 11723 | 32 | 7 x 40 (0,08) | 2,00 | 7,5 |
| 11724 | 34 | 7 x 42 (0,064) | 1,90 | 6,7 |

4-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue, green and yellow (for other colors look at the description on page 5)
- Outer jacket: white (for other colors look at the description on page 5)



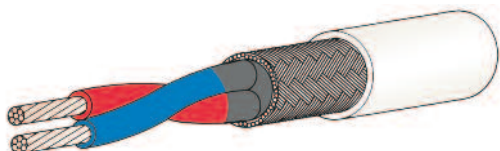
Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11725 | 20 | 19 x 32 (0,20) | 4,40 | 50,0 |
| 11726 | 20 | 7 x 28 (0,32) | 4,40 | 48,0 |
| 11727 | 22 | 19 x 34 (0,16) | 4,0 | 38,0 |
| 11728 | 22 | 7 x 30 (0,25) | 3,70 | 32,0 |
| 11729 | 24 | 19 x 36 (0,13) | 3,40 | 26,0 |
| 11730 | 24 | 7 x 32 (0,20) | 3,30 | 24,5 |
| 11731 | 26 | 19 x 38 (0,10) | 3,10 | 20 |
| 11732 | 26 | 7 x 34 (0,16) | 3,0 | 19 |
| 11733 | 28 | 7 x 36 (0,13) | 2,75 | 16 |
| 11734 | 30 | 7 x 38 (0,10) | 2,50 | 13,5 |
| 11735 | 32 | 7 x 40 (0,08) | 2,25 | 9,0 |
| 11736 | 34 | 7 x 42 (0,064) | 2,10 | 8,0 |

Standard Type Selection, Insulation Class E for Operating Voltages up to max. 600 VAC_{eff}

2-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red and blue (for other colors look at the description on page 5)
Outer jacket: white (for other colors look at the description on page 5)

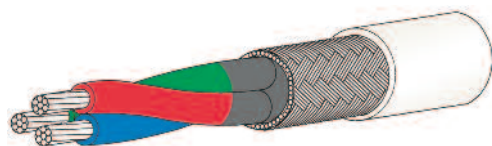


Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11737 | 14 | 19 x 27 (0,36) | 5,7 | 75 |
| 11738 | 16 | 19 x 29 (0,29) | 5,10 | 51,7 |
| 11739 | 18 | 19 x 30 (0,25) | 4,60 | 44 |
| 11740 | 20 | 19 x 32 (0,20) | 4,20 | 34 |
| 11741 | 20 | 7 x 28 (0,32) | 4,10 | 33 |
| 11742 | 22 | 19 x 34 (0,16) | 3,60 | 23 |
| 11743 | 22 | 7 x 30 (0,25) | 3,60 | 23 |
| 11744 | 24 | 19 x 36 (0,13) | 3,30 | 19 |
| 11745 | 24 | 7 x 32 (0,20) | 3,20 | 18,6 |
| 11746 | 26 | 19 x 38 (0,10) | 3,0 | 15 |
| 11747 | 26 | 7 x 34 (0,16) | 2,95 | 15,5 |
| 11748 | 28 | 7 x 36 (0,13) | 2,70 | 13,0 |
| 11749 | 30 | 7 x 38 (0,10) | 2,50 | 11,0 |

3-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue and green (for other colors look at the description on page 5)
Outer jacket: white (for other colors look at the description on page 5)

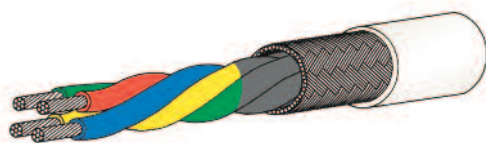


Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11750 | 14 | 19 x 27 (0,36) | 6,60 | 107 |
| 11751 | 16 | 19 x 29 (0,29) | 5,60 | 75 |
| 11752 | 18 | 19 x 30 (0,25) | 5,25 | 65 |
| 11753 | 20 | 19 x 32 (0,20) | 4,60 | 47 |
| 11754 | 20 | 7 x 28 (0,32) | 4,50 | 46 |
| 11755 | 22 | 19 x 34 (0,16) | 3,80 | 31 |
| 11756 | 22 | 7 x 30 (0,25) | 3,80 | 30 |
| 11757 | 24 | 19 x 36 (0,13) | 3,45 | 25 |
| 11758 | 24 | 7 x 32 (0,20) | 3,40 | 24 |
| 11759 | 26 | 19 x 38 (0,10) | 3,20 | 21 |
| 11760 | 26 | 7 x 34 (0,16) | 3,10 | 20 |
| 11761 | 28 | 7 x 36 (0,13) | 3,00 | 17 |
| 11762 | 30 | 7 x 38 (0,10) | 2,70 | 14,5 |

4-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue, green and yellow (for other colors look at the description on page 5)
Outer jacket: white (for other colors look at the description on page 5)



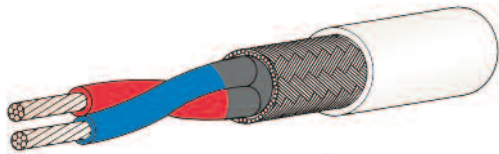
Type Selection

| Article No. | AWG-No. | Number of single wire x AWG-No. (Wire ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|--|----------------------|---------------|
| 11763 | 14 | 19 x 27 (0,36) | 7,20 | 133 |
| 11764 | 16 | 19 x 29 (0,29) | 6,15 | 93 |
| 11765 | 18 | 19 x 30 (0,25) | 5,75 | 80 |
| 11766 | 20 | 19 x 32 (0,20) | 5,00 | 59 |
| 11767 | 20 | 7 x 28 (0,32) | 4,90 | 56 |
| 11768 | 22 | 19 x 34 (0,16) | 4,40 | 43 |
| 11769 | 22 | 7 x 30 (0,25) | 4,30 | 42 |
| 11770 | 24 | 19 x 36 (0,13) | 3,75 | 31 |
| 11771 | 24 | 7 x 32 (0,20) | 3,65 | 29 |
| 11772 | 26 | 19 x 38 (0,10) | 3,45 | 25 |
| 11773 | 26 | 7 x 34 (0,16) | 3,40 | 24 |
| 11774 | 28 | 7 x 36 (0,13) | 3,20 | 20 |
| 11775 | 30 | 7 x 38 (0,10) | 2,95 | 17,5 |

Standard Type Selection, Insulation Class EE for Operating Voltages up to max. 1000 VAC_{eff}

2-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red and blue (for other colors look at the description on page 5).
Outer jacket: white (for other colors look at the description on page 5)

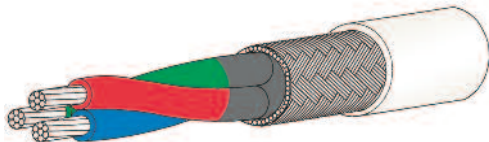


Type Selection

| Article No. | AWG-Nr. | Number of single wire x AWG-No. (wire Ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|---|-------------------------|------------------|
| 11776 | 14 | 19 x 27 (0,36) | 6,60 | 82 |
| 11777 | 16 | 19 x 29 (0,29) | 5,85 | 60 |
| 11778 | 18 | 19 x 30 (0,25) | 5,25 | 50 |
| 11779 | 20 | 19 x 32 (0,20) | 4,70 | 40 |
| 11780 | 20 | 7 x 28 (0,32) | 4,60 | 38 |
| 11781 | 22 | 19 x 34 (0,16) | 4,35 | 32 |
| 11782 | 22 | 7 x 30 (0,25) | 4,25 | 31 |
| 11783 | 24 | 19 x 36 (0,13) | 3,80 | 23 |
| 11784 | 24 | 7 x 32 (0,20) | 3,70 | 22 |
| 11785 | 26 | 19 x 38 (0,10) | 3,50 | 20,1 |
| 11786 | 26 | 7 x 34 (0,16) | 3,45 | 19,7 |
| 11787 | 28 | x 36 (0,13) | 3,20 | 16 |
| 11788 | 30 | 7 x 38 (0,10) | 3,00 | 15 |

3-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue and green (for other colors look at the description on page 5).
Outer jacket: white (for other colors look at the description on page 5)

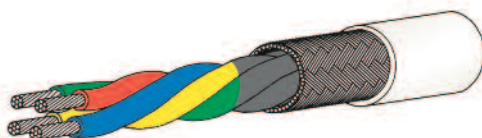


Type Selection

| Article No. | AWG-Nr. | Number of single wire x AWG-No. (wire Ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|---|-------------------------|------------------|
| 11789 | 14 | 19 x 27 (0,36) | 7,10 | 117 |
| 11790 | 16 | 19 x 29 (0,29) | 6,30 | 87 |
| 11791 | 18 | 19 x 30 (0,25) | 5,80 | 73 |
| 11792 | 20 | 19 x 32 (0,20) | 5,25 | 58 |
| 11793 | 20 | 7 x 28 (0,32) | 5,15 | 56 |
| 11794 | 22 | 19 x 34 (0,16) | 4,60 | 42 |
| 11795 | 22 | 7 x 30 (0,25) | 4,45 | 41 |
| 11796 | 24 | 19 x 36 (0,13) | 4,00 | 31 |
| 11797 | 24 | 7 x 32 (0,20) | 3,95 | 30 |
| 11798 | 26 | 19 x 38 (0,10) | 3,70 | 26 |
| 11799 | 26 | 7 x 34 (0,16) | 3,70 | 26 |
| 11800 | 28 | 7 x 36 (0,13) | 3,40 | 22 |
| 11801 | 30 | 7 x 38 (0,10) | 3,25 | 19,5 |

4-wired, shielded design

- Standard Insulation Color:
Insulation of wire: red, blue, green and yellow (for other colors look at the description on page 5).
Outer jacket: white (for other colors look at the description on page 5)



Type Selection

| Article No. | AWG-Nr. | Number of single wire x AWG-No. (wire Ø in mm) | Outer Diameter in mm | Weight in g/m |
|-------------|---------|---|-------------------------|------------------|
| 11802 | 14 | 19 x 27 (0,36) | 7,90 | 150 |
| 11803 | 16 | 19 x 29 (0,29) | 6,90 | 107 |
| 11804 | 18 | 19 x 30 (0,25) | 6,35 | 90 |
| 11805 | 20 | 19 x 32 (0,20) | 5,75 | 71 |
| 11806 | 20 | 7 x 28 (0,32) | 5,60 | 68 |
| 11807 | 22 | 19 x 34 (0,16) | 5,10 | 54 |
| 11808 | 22 | 7 x 30 (0,25) | 5,00 | 52 |
| 11809 | 24 | 19 x 36 (0,13) | 4,60 | 43 |
| 11810 | 24 | 7 x 32 (0,20) | 4,50 | 41 |
| 11811 | 26 | 19 x 38 (0,10) | 4,00 | 32 |
| 11812 | 26 | 7 x 34 (0,16) | 4,00 | 31 |
| 11813 | 28 | 7 x 36 (0,13) | 3,75 | 27 |
| 11814 | 30 | 7 x 38 (0,10) | 3,55 | 24 |

Customized Multi-Core Round Cable

Customized multi-core round cables are offered from quite a lot of cable suppliers. But often the minimum purchase, price and delivery time are very high, so that this offer for many users mostly is "uninteresting". As your supplier for PTFE-quality cables we made it to our business, to achieve your individual wishes. At the compilation of your cable, you have free choice in all in this catalogue mentioned single-wired strands, high voltage cables and HV-coaxial cables. Our strengths are your advantages:

- Low MOQ's: 50 m for customized cables
- Delivery time: approx. 6–8 weeks

Characteristics

- Temperature range: -200°C to +200°C (for higher temperatures see at page 3)
- Color selection see page 5

Structure

- Insulation material for strands and outer jacket: banded and sintered PTFE-insulation
- With or without common shielding
- Possible with several shielded bundles in cable (for reduction of disturbing crosstalk)
- Different cross-sections and cable types in combination possible, for example coaxial cable with control strands, multi-core high-voltage cables



Round cable with control strands, coaxial cables and several shieldings

Information

For manufacturing reasons, the outer diameter is max. 11 mm. For higher outer diameter of max. 15 mm, FEP will be used as outside material. The more accurate your request, the more convenient is our offer. So it is important to give us, apart from the request execution and required amount, as much information as possible, like kind of use, expected operating voltage, wished insulation class, special extreme environmental conditions (temperature, special mechanical load, contact with chemicals, vacuum, etc.), cross sections, colors. For complex multi-core round cable we prefer a sketch.

**More interesting products
under www.telemeter.de**

Ribbon Cable

Characteristics

- Temperature range: -200°C to +200°C
- Operating voltage:
max. permitted 600 VAC eff
- Colors: standard: PTFE natural (colorless),
outmost strand coded, colored on one side
- Other or more colors on request

Specifications

MIL-W-16878 (strands)

Applications

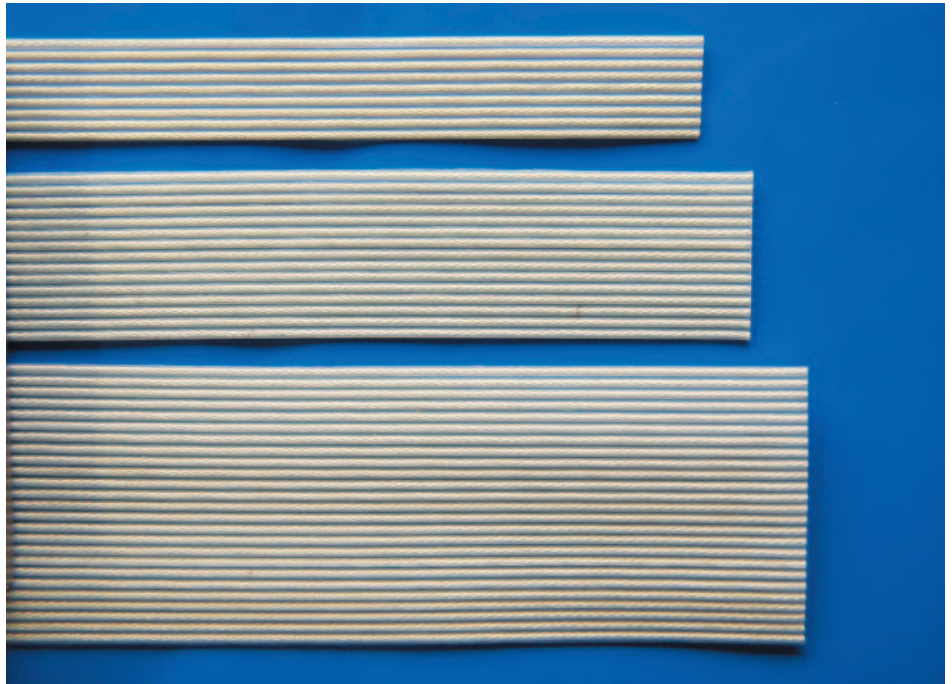
Ideally suitable for measurement and control technology in vacuum (low gas emissions) and in equipment and facilities of military industrial and chemical industry, where PVC-isolated cables are not useable.

Wire Structure

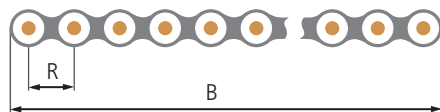
Silver plated copper conductor (SPC) according to ASTM-B-298

Insulation building

Completely PTFE insulated, Insulation class E



Ribbon cable for extreme applications



Information:

PTFE ribbon cables are **not** suitable for IDC connectors. Because of the tough insulation material, conventional stripping pliers **can't** be used.

Wire strip service

Type Selection

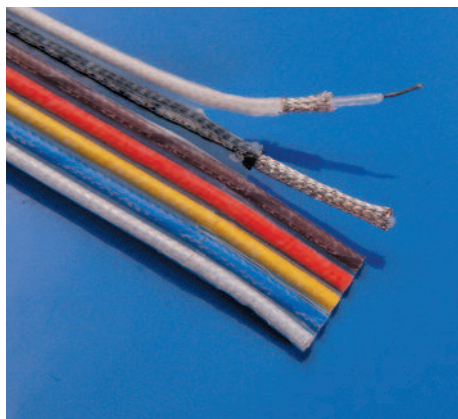
| Article No. | Number of wires* | AWG-No. *** | Number of single wire x AWG-No. (wire Ø in mm)*** | Total width B (in mm) | Grid R ** (in mm) |
|-------------|------------------|-------------|---|-----------------------|-------------------|
| 11833 | 10 | 24 | 7 x 32 (0,36) | 14 | 1,4 |
| 11834 | 14 | 24 | 7 x 32 (0,36) | 19,6 | 1,4 |
| 11835 | 16 | 24 | 7 x 32 (0,36) | 22,4 | 1,4 |
| 11836 | 20 | 24 | 7 x 32 (0,36) | 28 | 1,4 |
| 11837 | 25 | 24 | 7 x 32 (0,36) | 35 | 1,4 |
| 11838 | 36 | 24 | 7 x 32 (0,36) | 50,4 | 1,4 |
| 11839 | 40 | 24 | 7 x 32 (0,36) | 56 | 1,4 |
| 11840 | 10 | 28 | 7 x 36 (0,13) | 11,4 | 1,14 |
| 11841 | 14 | 28 | 7 x 36 (0,13) | 16 | 1,14 |
| 11842 | 16 | 28 | 7 x 36 (0,13) | 18,2 | 1,14 |
| 11843 | 20 | 28 | 7 x 36 (0,13) | 22,8 | 1,14 |
| 11844 | 25 | 28 | 7 x 36 (0,13) | 28,5 | 1,14 |
| 11845 | 36 | 28 | 7 x 36 (0,13) | 41 | 1,14 |
| 11846 | 40 | 28 | 7 x 36 (0,13) | 39,6 | 1,14 |

* Available as 2 core on request!

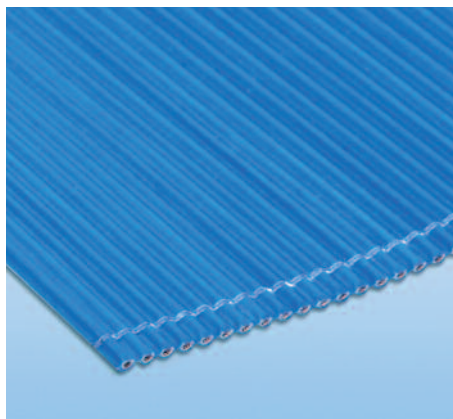
** On request possible with grid dimension of 1,27 mm!

*** On request also available with other AWG-numbers and other single wires.

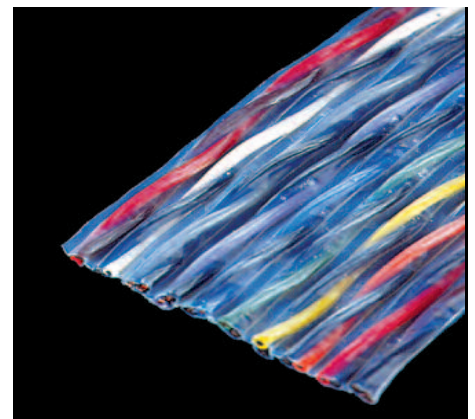
Special versions



Ribbon cable consisting of coaxial cables



For the precise stripping of PTFE-insulated ribbon cables, special tools are required. Our service will do this for you.



Ribbon cable consisting of twisted pair strands

High Voltage Cable

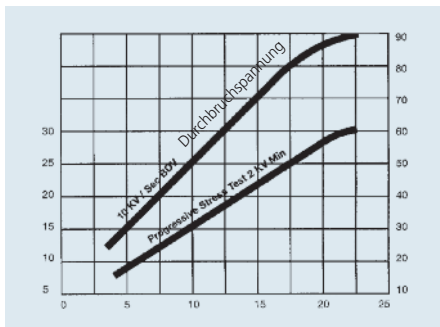
16.1 In the high voltage range, no compromises are allowed. The high safety-related aspect calls best quality and processing. To satisfy the claims, our high voltage cable are proofed by strict Q tests, whereby a consistent high quality standard can be reached. By the use of patented corona resistant PTFE as insulation material, other excellent product properties will be achieved, which can be significant in the application of high voltages.

Characteristics

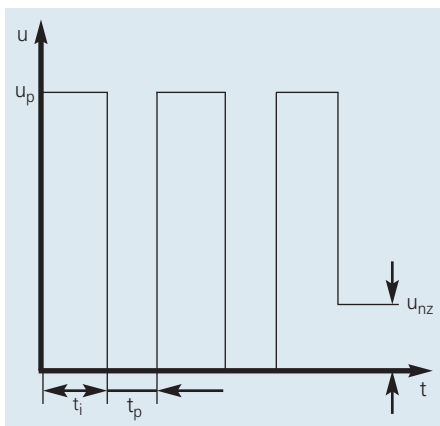
- No "Stress Cracking"
- Relatively low weight and small cable diameter
- Temperature range: -200°C to +200°C (for higher temperatures see description on page 3)
- Not flammable
- UV resistant (no material decomposition also at high UV radiation)
- Low gas emissions (vacuum suitable)
- Other colors on request



High Voltage Test Diagram



The graphic shows the typical course of a progressive stress test (lower characteristic curve). The test gives information about the breakdown voltage under corona influence. The Characteristic curve above applies generally for our high voltage cables. For a cable, which has for example 5kV AC continuous operating voltage, has his breakdown voltage at 30 kV AC.



Voltage curve of a operation

Proofed high-voltage strength

Before delivery, every high voltage cable goes through different test methods.

1. Standard high voltage test

Therefore the whole cable will immersed in a water tank and following tests will conducted:

– Dielectric test

For a duration of 5 minutes the cable is going to work with + 1kV AC + 10% of the max. permissible operating voltage – for example, a cable with a max. admissible operating of 10 kV AC the cable is run during the test with 12 kV AC.

– Tip Test

For a duration of 1 second the cable has to withstand the 2,25 times of the max. permissible operating voltage – for example, a cable with a max. admissible operating of 10 kV AC the cable is run while the test with 22,5 kV AC.

– Conductor resistance check and final visual inspection

2. Progressive Stress Test Along Section (0,6 m)

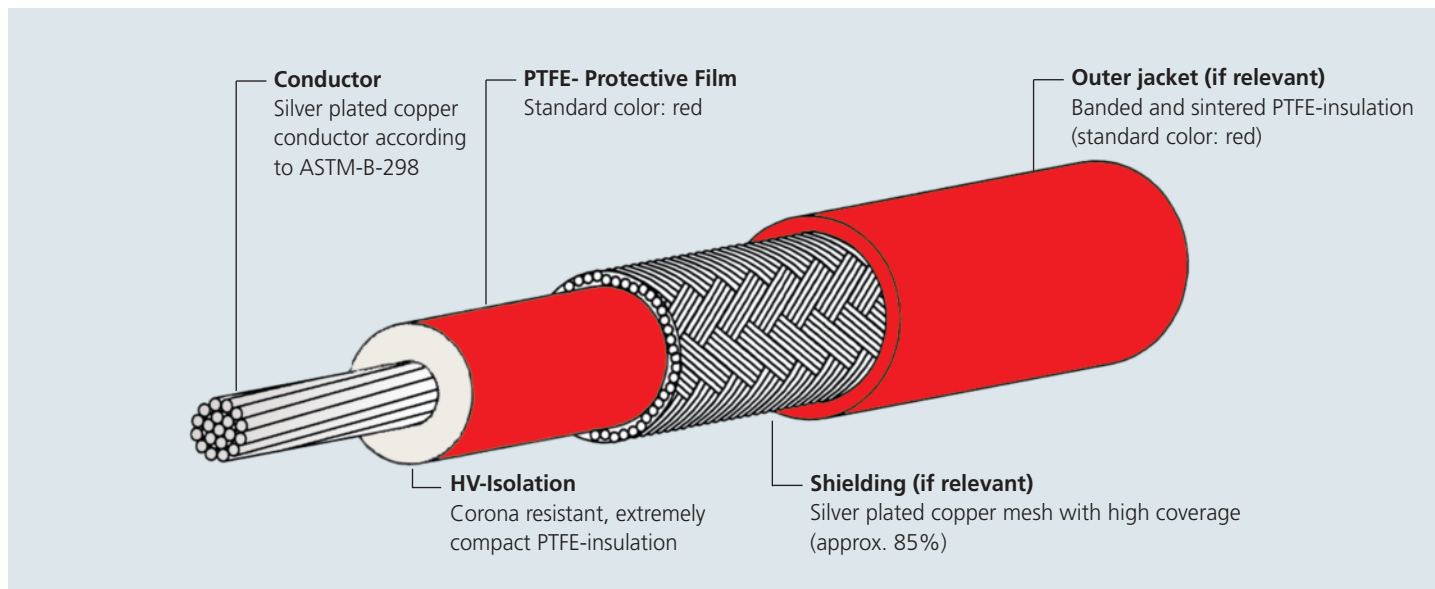
The cable piece will immersed in a water bath and successive commencing at 1 kV AC and with 2 kV AC after every minute impinged – to the breakdown. The caused data (breakdown voltage and time) will be documented.

Our expertise helps you to save money!

At the high voltage technology Energy is often transferred in ignition or pulse operation. For that, customers often use to big cables for this applications. Consequences are unnecessarily high costs. Is the awaiting pulse voltage at 40 kV AC, a cable with a max. continuous operating voltage with 40 kV AC would be fit, but it wouldn't be economical, because for a pure pulse voltage a cheaper cable with a lower continuous operating voltage can be used. To recommend you an optimal cable, we need following information about your application like:

- Type of applications (short description)
- Ambient temperature
- Pulse duration (t), pause duration (t_p), pulse peak (u_p) for ignition operation also operating voltage (u_{nz}) or operating current after ignition

Structure (Shielded Version)



Type Selection

RED = available from stock

| Article-Nr. | Conductor | | | | | Insulated Strand | | | | |
|-------------|-----------|--|-----------------|----------------------------------|-----------|-------------------------|-----------------|--------------------------------------|------|--|
| | AWG-No. | Number of single-wire x AWG-No. (Wire ø in mm) | Dia-meter in mm | Cross-section in mm ² | Shielding | Outer Dia-meter nominal | Insulation size | Max. continuous operating voltage kV | AC | Dielectric-test voltage in VA _{eff} |
| 11815 | 24 | 19 x 36 (0,13) | 0,64 | 0,24 | nein | 1,6 | 2,0 | 4 | 9 | 5,4 |
| 11816 | 24 | 19 x 36 (0,13) | 0,64 | 0,24 | nein | 2,4 | 3,5 | 6 | 13 | 7,6 |
| 11817 | 24 | 19 x 36 (0,13) | 0,64 | 0,24 | ja | 3,7 | 3,5 | 6 | 13 | 7,6 |
| 11818 | 22 | 19 x 34 (0,16) | 0,80 | 0,38 | nein | 2,3 | 3,0 | 6 | 13 | 7,6 |
| 11819 | 22 | 19 x 34 (0,16) | 0,80 | 0,38 | nein | 3,1 | 4,5 | 8 | 18 | 9,8 |
| 11820 | 22 | 19 x 34 (0,16) | 0,80 | 0,38 | ja | 4,4 | 4,5 | 8 | 18 | 9,8 |
| 10922 | 20 | 19 x 32 (0,20) | 1,0 | 0,61 | nein | 3,0 | 4,0 | 8 | 18 | 9,8 |
| 11821 | 20 | 19 x 32 (0,20) | 1,0 | 0,61 | nein | 3,8 | 5,5 | 10 | 22 | 12 |
| 11822 | 20 | 19 x 32 (0,20) | 1,0 | 0,61 | ja | 5,3 | 5,5 | 10 | 22 | 12 |
| 13626 | 18 | 19 x 30 (0,25) | 1,3 | 0,96 | nein | 3,8 | 5,0 | 10 | 22 | 12 |
| 11823 | 18 | 19 x 30 (0,25) | 1,3 | 0,96 | nein | 4,8 | 7,0 | 12 | 27 | 14,2 |
| 11824 | 18 | 19 x 30 (0,25) | 1,3 | 0,96 | ja | 6,4 | 7,0 | 12 | 27 | 14,2 |
| 10924 | 16 | 19 x 29 (0,29) | 1,4 | 1,2 | nein | 4,4 | 6,0 | 12 | 27 | 14,2 |
| 11825 | 16 | 19 x 29 (0,29) | 1,4 | 1,2 | nein | 5,4 | 8,0 | 14 | 31,5 | 16,4 |
| 11826 | 16 | 19 x 29 (0,29) | 1,4 | 1,2 | ja | 7,0 | 8,0 | 14 | 31,5 | 16,4 |
| 11827 | 14 | 19 x 27 (0,36) | 1,8 | 1,9 | nein | 5,5 | 7,5 | 14 | 31,5 | 16,4 |
| 10926 | 14 | 19 x 27 (0,36) | 1,8 | 1,9 | nein | 5,8 | 8,0 | 16 | 36 | 18,6 |
| 11828 | 14 | 19 x 27 (0,36) | 1,8 | 1,9 | ja | 7,4 | 8,0 | 16 | 36 | 18,6 |
| 11829 | 12 | 37 x 28 (0,32) | 2,2 | 3,0 | nein | 6,0 | 7,5 | 16 | 36 | 18,6 |
| 10927 | 12 | 37 x 28 (0,32) | 2,2 | 3,0 | nein | 6,7 | 9,0 | 18 | 40,5 | 20,8 |
| 11830 | 12 | 37 x 28 (0,32) | 2,2 | 3,0 | ja | 8,6 | 9,0 | 18 | 40,5 | 20,8 |
| 11831 | 10 | 37 x 26 (0,40) | 2,8 | 4,7 | nein | 6,8 | 8,0 | 18 | 40,5 | 20,8 |
| 11832 | 10 | 37 x 26 (0,40) | 2,8 | 4,7 | nein | 7,3 | 9,0 | 20 | 45 | 20,8 |
| 10929 | 10 | 37 x 26 (0,40) | 2,8 | 4,7 | nein | 7,8 | 10,0 | 22 | 49,5 | 20,8 |

Special Versions

High voltage cables in double-shielded or triaxial version.

For special, extreme sensitive applications, high voltage cables are not sufficient. As solution, we offer the above mentioned cables with double-shielding (overlying) on request. If the shielding braid shall also be used for power transmission (due to application), we would recommend a triaxial version.

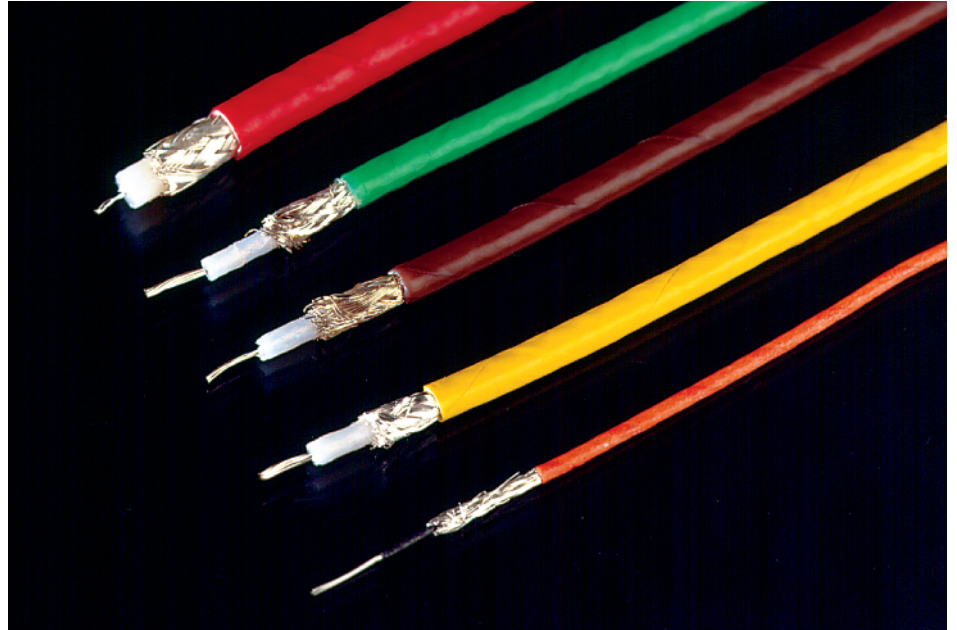


Triaxial high voltage cable up to 40000 VDC max.

Flexible Coaxial Cable

The PTFE material is suitable for dielectric in coaxial cables. The dielectric constant is comparatively low and the excellent characteristics survive also in the GHz area.

Available are cables according to MIL-C-17 specification with wave impedance 50, 75 and 95 Ω. The cables are very smooth and flexible. They are characterized by a high breaking strength and a very good long-term stability (also in harsh environments). All following coaxial cables are available in standard color black. On request other colors and color coding's are possible. In the below mentioned cables are some types with description "GLN...", also called "Low Microphone Noise cable". These cables are normally used for small signal transmission or as instrument cables.



Type Selection of Flexible Coaxial Cable according to MIL-C-17 (Standard Color = Black)

| Article-No. | Type | Frequency max. GHz | Outer-diameter in mm | Outer-jacket* | Shielding type** outside/inside | Dielectric*** kind in mm | Innerconductor structure**** number of single wires x diameter | Capacity in pF/m | Impedance in Ω | Damping in dB at 400 MHz | at 3 GHz | at 10 GHz |
|-------------|---------------|--------------------|----------------------|---------------|---------------------------------|--------------------------|--|------------------|----------------|--------------------------|----------|-----------|
| 28066 | RG-196 A/U | 3 | 1,82 | PTFE | - / S | 0,86 / T | 7x0,1/SCW | 100 | 50 | 95 | - | - |
| 28049 | RG-188 A/U | 3 | 2,54 | PTFE | - / S | 1,52 / T | 7x0,17/SCW | 98 | 50 | 54 | - | - |
| 28050 | RG-141 A/U | 3 | 4,57 | VFG | - / S | 2,95 / T | 1x0,94/SCW | 95 | 50 | 27,6 | - | - |
| 28069 | RG-142 A/U | 12,4 | 5,00 max. | VFG | S / S | 2,95 / T | 1x0,94/SCW | 95 | 50 | 27,6 | - | - |
| 28077 | RG-142 B/U | - | 4,95 | PTFE | S / S | 2,95 / T | 1x0,94/SCW | 96 | 50 | - | - | - |
| 28051 | RG-143 A/U | 12,4 | 8,25 | VFG | S / S | 4,70 / T | 1x1,5/SCW | 105 | 50 | 21 | 72 | 144 |
| 28067 | RG-115 A/U | 12,4 | 10,50 | VFG | S / S | 6,48 / T | 19x0,43/SCW | 96 | 50 | 18 | 51 | 98 |
| 28052 | RG-225 /U | - | 10,92 | VFG | S / S | 7,23 / T | 7x0,79/S | 106 | 50 | 16,4 | - | - |
| 28060 | RG-187 A/U | 3 | 2,64 | PTFE | - / S | 1,52 / T | 7x0,1/SCW | 63 | 75 | 53 | - | - |
| 28075 | RG-140 /U | 3 | 5,91 | VFG | - / S | 3,71 / T | 1x0,63/SCW | 64 | 75 | 26 | 85 | - |
| 28064 | RG-195 A/U | 3 | 3,68 | PTFE | - / S | 2,59 / T | 7x0,1/SCW | 51 | 95 | 46 | - | - |
| 28058 | GLN-188 | - | 2,54 | PTFE | - / S | 1,65 / TSC | 7x1,70/SCW | - | 50 | - | - | - |
| 28059 | GLN-196 RG404 | - | 2,03 | PTFE | - / S | 0,86 / TSC | 7x0,1/SCW | - | 50 | - | - | - |
| 28063 | GLN-187 | - | 2,79 | PTFE | - / S | 1,52 / TSC | 7x0,1/SCW | - | 75 | - | - | - |

* PTFE for polytetrafluorethylene, VFG for lacquered glass silk
** S for silver plated copper mesh

*** S for silver plated copper conductor, SCW for silver plated steel copper conductor
**** T for solid PTFE, TSC for PTFE semi conductive coated

Miniature Coaxial Cable, RF-Mini COAX 50-1

Technical data

| | |
|-----------------|--|
| Inner conductor | Single core (7x0,08 mm) SPHSCA*, Ø 0,24 mm |
| Inner conductor | Single core (7x0,08 mm) SPHSCA*, Ø 0,24 mm |
| Dielectric | PTFE**, 0,65 mm, standard color white, other on request |
| Shielding | Mesh copper silver plated, Ø 0,9 mm, 6,3 crossings/cm or foil on request |
| Outer sheath | PTFE**, 1,2 mm max. standard color white, other on request |
| Impedance | 50 Ω ± 5 Ω |
| Damping | 90 dB/100 m at 200 MHz |
| Weight | 3,5 kg/km nom. |

* SPHSCA = silver plated copper alloy with high elongation strength
**PTFE = Polytetrafluorethylene

Area of Application

RF, medical technology, circuits of high packing density

Delivery Time

Approx. 6 – 8 weeks,
Minimum Order Quantity: 100 m





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