

Compensation cables

COMFLEX



Application

- Temperature measurement and regulation with thermo elements in all processing areas

Properties

- Compensation cables are required for the precise temperature measurements. The thermovoltage created by the thermoelement is conducted to the measuring device over the compensation cable. The compensation cable consists of a positive and a negative conductor which create the same thermovoltage as the thermoelement at 200°C.
- Compensation cables are composed of an alloy and are not identical with the associated thermoelement

Technical data

| | |
|-----------------------|--|
| Test voltage | 500 V |
| Insulation resistance | min. 10 MΩ × km |
| Temperature range | |
| PVC | -5 °C to +70 °C |
| Silicon | -25 °C to +180 °C |
| Burning behaviour | Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1; |
| Halogen-free | Silicone cables: according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2 |

Design

- Conductor from special material, material see table
- Conductor insulation see order details
- Conductor labelling coloured, with multi-paired conductors additional number printing
- Conductors stranded pairs
- Designs with steel wire braid are labelled with "+S" (inside jacket steel braid outer jacket)
GL=Glass silk
SI=Silicon
- Jacket colour see order details
- _ = use order designation/element short abbreviation

AC = compensation cable Cu-CuNi
 AE = compensation cable Fe-CuNi
 AN = compensation cable NiCr-Ni
 AP = compensation cable PtRh-Pt

Cu-CuNi (AC) Cu=brown(+); CuNi=white(-); Jacket brown;
 Element T
 Fe-CuNi (AE) Fe=red(+); CuNi=blue(-); Jacket blue, Element L;
 NiCr-Ni (AN) NiCr= green(+); Ni=white(-); Jacket green;
 Element K;
 PtRh-Pt (AP) PtRh=orange(+); Pt=white(-); Jacket orange;
 Element R/S

| Part-No. | Type | Number of strands/ cross-section | Insulation/Jacket | Outer Ø approx. mm | Weight kg/100 m |
|----------------|-----------|-------------------------------------|-------------------|--------------------|-----------------|
| COMFLEX | | | | | |
| 110351 | A_12L | 1×2×1.5 | PVC-PVC | 4,3×7,0 | 7.0 |
| 110353 | A_9L | 1×2×1.5 | PVC-PVC | 7 | 10.0 |
| 110359 | A_13L | 1×2×1.5 | Silicon-GL | 3,2×5,9 | 5.0 |
| 110360 | A_3LN | 1×2×1.5 | Silicon SI | 4,3×7,0 | 6.0 |
| 110361 | A_4LN | 1×2×1.5 | Silicon SI+S | 5,1×7,8 | 9.0 |
| 110362 | A_15L | 1×2×1.5 | Silicon SI | 7 | 8.0 |
| 110363 | A_15 LP | 1×2×1.5 | Silicon SI+S | 7,8 | 12.0 |
| 110364 | A_11LR | 1×2×1.5 | Silicon-GL+S | 6,7 | 10.0 |
| 110381 | A_9-4L | 2×2×1.5 | PVC-PVC | 8,1 | 12.0 |
| 110382 | A_9-6L | 3×2×1.5 | PVC-PVC | 10,1 | 17.5 |
| 110383 | A_9-12L | 6×2×1.5 | PVC-PVC | 13,2 | 30.5 |
| 110384 | A_9-16L | 8×2×1.5 | PVC-PVC | 15,1 | 45.5 |
| 110385 | A_9-20L | 10×2×1.5 | PVC-PVC | 16,7 | 63.0 |
| 110386 | A_9-24L | 12×2×1.5 | PVC-PVC | 19 | 71.0 |
| 110387 | A_9-32L | 16×2×1.5 | PVC-PVC | 21,3 | 89.0 |
| 110388 | A_9-36L | 18×2×1.5 | PVC-PVC | 22,1 | 97.0 |
| 110389 | A_9-40L | 20×2×1.5 | PVC-PVC | 24,1 | 110.0 |
| 110401 | A_9-2LSY | 1×2×1.5 | PVC-PVC+S PVC | 9,8 | 18.5 |
| 110402 | A_9-4LSY | 2×2×1.5 | PVC-PVC+S PVC | 10,9 | 24.5 |
| 110403 | A_9-6LSY | 3×2×1.5 | PVC-PVC+S PVC | 13,3 | 33.0 |
| 110404 | A_9-12LSY | 6×2×1.5 | PVC-PVC+S PVC | 17 | 52.0 |
| 110405 | A_9-16LSY | 8×2×1.5 | PVC-PVC+S PVC | 18,9 | 70.0 |
| 110406 | A_9-20LSY | 10×2×1.5 | PVC-PVC+S PVC | 20,5 | 86.0 |
| 110407 | A_9-24LSY | 12×2×1.5 | PVC-PVC+S PVC | 23,8 | 102.0 |
| 110408 | A_9-32LSY | 16×2×1.5 | PVC-PVC+S PVC | 26,1 | 122.0 |
| 110409 | A_9-36LSY | 18×2×1.5 | PVC-PVC+S PVC | 26,9 | 129.0 |
| 110410 | A_9-40LSY | 20×2×1.5 | PVC-PVC+S PVC | 28,9 | 143.0 |

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC