



Technical data

- Special PVC data cables, adapted to DIN VDE 0245, 0812
- **Temperature range**
flexing -5°C to +80°C
fixed installation -40°C to +80°C
- **Nominal voltage**
0,14 mm² = 350 V
≥0,25 mm² = 500 V
- **Test voltage**
up to 0,25 mm² 1200 V
from 0,34 mm² 2000 V
- **Breakdown voltage**
up to 0,25 mm² 2400 V
from 0,34 mm² 4000 V
- **Insulation resistance**
min. 20 MΩm x km
- **Capacitance** (approx.-value) at 800 Hz
0,14 mm² 120 pF/m
≥0,25 mm² 150 pF/m
- **Inductance** approx. 0,65 mH/km
- **Impedance** approx. 78 Ωm
- **Minimum bending radius**
flexing 7,5x cable Ø
fixed installation 4x cable Ø
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable construction

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 5 and IEC 60228 cl. 5
- Special PVC core insulation Ti2, to DIN VDE 0281 part 1
- Conductor make-up for
0,14 mm² = 18x0,1 mm
0,25 mm² = 14x0,15 mm
0,34 mm² = 7x0,25 mm
- Colour coded to DIN 47100, but without colour repetition
- Cores stranded in layers with optimal lay-length
- Special PVC outer sheath TM2, to DIN VDE 0281 part 1
- Colour grey (RAL 7001)

Properties

- Extremely oil resistant.
- Chemical Resistance - see table Technical Informations
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Note

- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- HELUKABEL®-TRONIC is also available in paired version (e.g. HELUKABEL®-PAAR-TRONIC 20x2x0,14 mm²).

Application

These cables are used for flexible use with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, wherever the construction requirements call for a minimum outer diameter, TRONIC is the suitable cable to use. This applies especially to such areas as tool making and machine industries as well as electronic, computer, measurement and control sectors. CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

| Part No. | No. cores x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. | Part No. | No. cores x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|--|----------------|---------------------|--------------------|---------|----------|--|----------------|---------------------|--------------------|---------|
| 18001 | 2 x 0,14 | 3,2 | 2,7 | 13,0 | 26 | 18029 | 2 x 0,25 | 3,8 | 4,8 | 18,0 | 24 |
| 18002 | 3 x 0,14 | 3,2 | 4,0 | 16,0 | 26 | 18030 | 3 x 0,25 | 3,9 | 7,2 | 22,0 | 24 |
| 18003 | 4 x 0,14 | 3,5 | 5,4 | 19,0 | 26 | 18031 | 4 x 0,25 | 4,3 | 9,6 | 26,0 | 24 |
| 18004 | 5 x 0,14 | 4,0 | 6,7 | 22,0 | 26 | 18032 | 5 x 0,25 | 4,8 | 12,0 | 30,0 | 24 |
| 18005 | 6 x 0,14 | 4,3 | 8,1 | 25,0 | 26 | 18033 | 6 x 0,25 | 5,2 | 14,4 | 36,0 | 24 |
| 18006 | 7 x 0,14 | 4,3 | 9,4 | 28,0 | 26 | 18034 | 7 x 0,25 | 5,2 | 16,8 | 42,0 | 24 |
| 18007 | 8 x 0,14 | 4,6 | 10,7 | 35,0 | 26 | 18035 | 8 x 0,25 | 5,7 | 19,2 | 48,0 | 24 |
| 18008 | 10 x 0,14 | 5,3 | 13,4 | 41,0 | 26 | 18036 | 10 x 0,25 | 6,4 | 24,0 | 57,0 | 24 |
| 18009 | 12 x 0,14 | 5,6 | 16,1 | 48,0 | 26 | 18037 | 12 x 0,25 | 6,7 | 28,8 | 66,0 | 24 |
| 18010 | 14 x 0,14 | 5,9 | 18,8 | 53,0 | 26 | 18038 | 14 x 0,25 | 7,1 | 33,6 | 75,0 | 24 |
| 18011 | 16 x 0,14 | 6,2 | 21,5 | 59,0 | 26 | 18039 | 16 x 0,25 | 7,5 | 38,4 | 84,0 | 24 |
| 18012 | 18 x 0,14 | 6,5 | 24,2 | 65,0 | 26 | 18040 | 18 x 0,25 | 7,9 | 43,2 | 72,0 | 24 |
| 18013 | 20 x 0,14 | 6,5 | 26,9 | 70,0 | 26 | 18114 | 19 x 0,25 | 8,4 | 46,0 | 84,0 | 24 |
| 18014 | 21 x 0,14 | 6,8 | 28,2 | 77,0 | 26 | 18041 | 20 x 0,25 | 9,1 | 48,0 | 101,0 | 24 |
| 18015 | 24 x 0,14 | 7,6 | 32,3 | 87,0 | 26 | 18042 | 21 x 0,25 | 9,3 | 50,0 | 107,0 | 24 |
| 18117 | 25 x 0,14 | 7,6 | 33,6 | 91,0 | 26 | 18043 | 24 x 0,25 | 9,8 | 60,0 | 120,0 | 24 |
| 18016 | 27 x 0,14 | 7,7 | 36,3 | 97,0 | 26 | 18118 | 25 x 0,25 | 9,9 | 61,0 | 132,0 | 24 |
| 18017 | 30 x 0,14 | 8,0 | 40,3 | 108,0 | 26 | 18044 | 27 x 0,25 | 10,1 | 65,0 | 140,0 | 24 |
| 18018 | 32 x 0,14 | 8,2 | 43,0 | 114,0 | 26 | 18045 | 30 x 0,25 | 10,3 | 72,0 | 156,0 | 24 |
| 18019 | 36 x 0,14 | 8,7 | 48,4 | 126,0 | 26 | 18046 | 32 x 0,25 | 10,5 | 77,0 | 164,0 | 24 |
| 18020 | 40 x 0,14 | 9,5 | 54,0 | 139,0 | 26 | 18047 | 36 x 0,25 | 11,1 | 86,0 | 182,0 | 24 |
| 18021 | 42 x 0,14 | 9,8 | 56,0 | 146,0 | 26 | 18115 | 37 x 0,25 | 11,3 | 89,0 | 190,0 | 24 |
| 18022 | 44 x 0,14 | 10,3 | 59,0 | 153,0 | 26 | 18048 | 40 x 0,25 | 11,5 | 96,0 | 200,0 | 24 |
| 18023 | 48 x 0,14 | 10,4 | 65,0 | 164,0 | 26 | 18049 | 42 x 0,25 | 11,8 | 101,0 | 211,0 | 24 |
| 18024 | 52 x 0,14 | 10,7 | 70,0 | 173,0 | 26 | 18050 | 44 x 0,25 | 12,6 | 106,0 | 225,0 | 24 |
| 18025 | 56 x 0,14 | 11,0 | 75,0 | 187,0 | 26 | 18051 | 48 x 0,25 | 12,7 | 115,0 | 245,0 | 24 |
| 18026 | 61 x 0,14 | 11,3 | 82,0 | 204,0 | 26 | 18052 | 52 x 0,25 | 13,6 | 125,0 | 263,0 | 24 |
| 18027 | 80 x 0,14 | 15,5 | 108,0 | 280,0 | 26 | 18053 | 56 x 0,25 | 14,0 | 134,0 | 280,0 | 24 |
| 18028 | 100 x 0,14 | 18,1 | 135,0 | 370,0 | 26 | | | | | | |

Dimensions and specifications may be changed without prior notice.

Continuation ▶

TRONIC (LIYY) flexible, colour coded to DIN 47100



| Part No. | No. cores x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. | Part No. | No. cores x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|--|----------------|---------------------|--------------------|---------|----------|--|----------------|---------------------|--------------------|---------|
| 18054 | 61 x 0,25 | 14,4 | 146,0 | 305,0 | 24 | 18085 | 2 x 0,5 | 4,8 | 9,6 | 40,0 | 20 |
| 18055 | 80 x 0,25 | 19,6 | 192,0 | 450,0 | 24 | 18086 | 3 x 0,5 | 5,1 | 14,4 | 46,0 | 20 |
| 18056 | 100 x 0,25 | 23,1 | 240,0 | 590,0 | 24 | 18087 | 4 x 0,5 | 5,7 | 19,2 | 55,0 | 20 |
| 18057 | 2 x 0,34 | 4,2 | 6,5 | 22,0 | 22 | 18088 | 5 x 0,5 | 6,2 | 24,0 | 64,0 | 20 |
| 18058 | 3 x 0,34 | 4,4 | 9,8 | 30,0 | 22 | 18089 | 6 x 0,5 | 6,7 | 28,8 | 73,0 | 20 |
| 18059 | 4 x 0,34 | 4,9 | 13,1 | 43,0 | 22 | 18090 | 7 x 0,5 | 7,4 | 33,6 | 81,0 | 20 |
| 18060 | 5 x 0,34 | 5,3 | 16,3 | 54,0 | 22 | 18091 | 8 x 0,5 | 8,0 | 38,4 | 97,0 | 20 |
| 18061 | 6 x 0,34 | 5,8 | 19,6 | 58,0 | 22 | 18092 | 10 x 0,5 | 8,8 | 48,0 | 116,0 | 20 |
| 18062 | 7 x 0,34 | 5,9 | 22,8 | 61,0 | 22 | 18093 | 12 x 0,5 | 9,1 | 58,0 | 135,0 | 20 |
| 18063 | 8 x 0,34 | 6,3 | 26,1 | 73,0 | 22 | 18103 | 16 x 0,5 | 10,0 | 77,0 | 168,0 | 20 |
| 18064 | 10 x 0,34 | 7,2 | 32,6 | 82,0 | 22 | 18101 | 20 x 0,5 | 11,2 | 96,0 | 213,0 | 20 |
| 18065 | 12 x 0,34 | 7,6 | 39,2 | 102,0 | 22 | 18094 | 24 x 0,5 | 12,3 | 116,0 | 241,0 | 20 |
| 18066 | 14 x 0,34 | 8,0 | 45,7 | 108,0 | 22 | 18102 | 30 x 0,5 | 13,5 | 144,0 | 303,0 | 20 |
| 18067 | 16 x 0,34 | 8,4 | 52,0 | 126,0 | 22 | 18095 | 40 x 0,5 | 15,8 | 192,0 | 391,0 | 20 |
| 18068 | 18 x 0,34 | 8,9 | 59,0 | 143,0 | 22 | 18104 | 2 x 0,75 | 5,2 | 14,4 | 47,0 | 18 |
| 18069 | 20 x 0,34 | 9,8 | 65,0 | 160,0 | 22 | 18097 | 3 x 0,75 | 5,5 | 21,6 | 54,0 | 18 |
| 18070 | 21 x 0,34 | 9,8 | 69,0 | 166,0 | 22 | 18098 | 4 x 0,75 | 6,2 | 29,0 | 66,0 | 18 |
| 18071 | 24 x 0,34 | 11,0 | 78,0 | 186,0 | 22 | 18099 | 5 x 0,75 | 6,8 | 36,0 | 80,0 | 18 |
| 18096 | 25 x 0,34 | 11,2 | 82,0 | 192,0 | 22 | 18100 | 7 x 0,75 | 8,1 | 50,0 | 110,0 | 18 |
| 18072 | 27 x 0,34 | 11,2 | 88,0 | 206,0 | 22 | 18105 | 8 x 0,75 | 8,9 | 58,0 | 125,0 | 18 |
| 18073 | 30 x 0,34 | 11,6 | 98,0 | 226,0 | 22 | 18106 | 10 x 0,75 | 9,6 | 72,0 | 148,0 | 18 |
| 18074 | 32 x 0,34 | 11,9 | 104,0 | 245,0 | 22 | 18107 | 12 x 0,75 | 9,9 | 86,0 | 176,0 | 18 |
| 18075 | 36 x 0,34 | 12,6 | 118,0 | 285,0 | 22 | 18108 | 16 x 0,75 | 11,6 | 115,0 | 220,0 | 18 |
| 18116 | 37 x 0,34 | 12,9 | 121,0 | 292,0 | 22 | 18109 | 20 x 0,75 | 12,6 | 144,0 | 276,0 | 18 |
| 18076 | 40 x 0,34 | 13,5 | 131,0 | 318,0 | 22 | 18110 | 2 x 1 | 5,5 | 19,2 | 56,0 | 17 |
| 18077 | 42 x 0,34 | 14,0 | 137,0 | 330,0 | 22 | 18111 | 3 x 1 | 6,0 | 29,0 | 71,0 | 17 |
| 18078 | 44 x 0,34 | 14,7 | 144,0 | 370,0 | 22 | 18112 | 2 x 1,5 | 6,5 | 29,0 | 75,0 | 16 |
| 18079 | 48 x 0,34 | 14,9 | 157,0 | 405,0 | 22 | 18113 | 3 x 1,5 | 6,9 | 43,0 | 90,0 | 16 |
| 18080 | 52 x 0,34 | 15,3 | 170,0 | 430,0 | 22 | | | | | | |
| 18081 | 53 x 0,34 | 15,5 | 183,0 | 440,0 | 22 | | | | | | |
| 18082 | 61 x 0,34 | 16,2 | 199,0 | 610,0 | 22 | | | | | | |
| 18083 | 80 x 0,34 | 22,0 | 264,0 | 880,0 | 22 | | | | | | |
| 18084 | 100 x 0,34 | 25,4 | 327,0 | 1050,0 | 22 | | | | | | |

Dimensions and specifications may be changed without prior notice.