

PAAR-TRONIC-CY flexible, Cu-unscreened, colour coded to DIN 47100, EMC-preferred type



Technical data

- Special PVC data cables, adapted to DIN VDE 0812, 0814
- **Temperature range**
flexing -5°C to +80°C
fixed installation -30°C to +80°C
- **Operating voltage** 350 V
(not for purposes of high current and power installation)
- **Test voltage**
core/core 1200 V
core/screen 800 V
- **Breakdown voltage** min. 2400 V
- **Insulation resistance**
min. 20 MOhm x km
- **Conductor resistance**
at 0,14 mm² = 138 Ohm/km
at 0,25 mm² = 75,5 Ohm/km
at 0,34 mm² = 57,5 Ohm/km
at 0,50 mm² = 39 Ohm/km
at 0,75 mm² = 26 Ohm/km
- **Capacitance** (approx.-value) at 800 Hz
core/core 0,14 mm² = 120 pF/m
core/core ≥0,25 mm² = 150 pF/m
core/screen 0,14 mm² = 240 pF/m
core/screen ≥0,25 mm² = 270 pF/m
- **Load**
at 0,14 mm² = 1,5 A
at 0,25 mm² = 2,5 A
at 0,34 mm² = 4,5 A
at 0,50 mm² = 6 A
at 0,75 mm² = 9 A
- **Inductance** approx. 0,65 mH/km
- **Impedance** approx. 78 Ohm
- **K₁-coupling** approx. 300 pF/100 m
- **Coupling resistance**
max.250 Ohm/km
- **Minimum bending radius**
flexing 10x cable Ø
fixed installation 5x 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, 0245 and IEC 60228 cl. 5
- Conductor make-up for
0,14 mm² = 18x0,1 mm
0,25 mm² = 14x0,15 mm
0,34 mm² = 7x0,25 mm
- Special PVC core insulation Y12, to DIN VDE 0207 part 4
- Colours coded to DIN 47100 with colour repetition
- Cores stranded in pairs with optimal lay-length
- Pairs stranded in layers with optimal lay-length
- Core wrapping with foil
- Tinned copper braided screening, coverage approx. 85%
- Special PVC outer sheath YM2, to DIN VDE 0207 part 5
- Sheath colour grey (RAL 7032)

Properties

- Extensively 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

- Also available in other sheath colours.

Application

These data control 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.

PAAR-TRONIC-CY is well suited for use in areas subject to signal interference. The high level of screening reduces substantially the effects of electrical disturbances from parallel running wiring etc. The copper screening is also often used as an "earth".

The twisted pairs conform favourable cross-talk attenuation values. These cables are suitable for dry and wet rooms, yet not for open air.

EMC = Electromagnetic compatibility

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

| Part No. | No.pairs x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|---------------------------------------|----------------|---------------------|--------------------|---------|
| 21001 | 1 x 2 x 0,14 | 4,0 | 15,6 | 34,0 | 26 |
| 21002 | 2 x 2 x 0,14 | 5,2 | 18,5 | 40,0 | 26 |
| 21003 | 3 x 2 x 0,14 | 5,6 | 23,0 | 49,0 | 26 |
| 21004 | 4 x 2 x 0,14 | 5,8 | 26,6 | 55,0 | 26 |
| 21005 | 5 x 2 x 0,14 | 6,5 | 30,7 | 66,0 | 26 |

| Part No. | No.pairs x cross-sec. mm ² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|---------------------------------------|----------------|---------------------|--------------------|---------|
| 21006 | 6 x 2 x 0,14 | 7,3 | 48,5 | 86,0 | 26 |
| 21007 | 7 x 2 x 0,14 | 7,3 | 51,1 | 91,0 | 26 |
| 21008 | 8 x 2 x 0,14 | 7,8 | 53,7 | 97,0 | 26 |
| 21009 | 10 x 2 x 0,14 | 8,5 | 59,0 | 109,0 | 26 |
| 21010 | 12 x 2 x 0,14 | 9,3 | 66,0 | 141,0 | 26 |

Dimensions and specifications may be changed without prior notice.

Continuation ►

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| Part No. | No.pairs x cross-sec. mm² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|---------------------------|----------------|---------------------|--------------------|---------|
| 21011 | 14 x 2 x 0,14 | 10,0 | 74,0 | 148,0 | 26 |
| 21012 | 15 x 2 x 0,14 | 10,3 | 76,0 | 152,0 | 26 |
| 21013 | 16 x 2 x 0,14 | 10,7 | 79,0 | 155,0 | 26 |
| 21014 | 18 x 2 x 0,14 | 11,0 | 83,0 | 171,0 | 26 |
| 21015 | 20 x 2 x 0,14 | 11,2 | 97,0 | 183,0 | 26 |
| 21016 | 22 x 2 x 0,14 | 11,6 | 103,0 | 205,0 | 26 |
| 21017 | 24 x 2 x 0,14 | 12,6 | 111,0 | 228,0 | 26 |
| 21018 | 25 x 2 x 0,14 | 12,8 | 113,0 | 239,0 | 26 |
| 21019 | 26 x 2 x 0,14 | 12,8 | 122,0 | 245,0 | 26 |
| 21020 | 27 x 2 x 0,14 | 13,0 | 125,0 | 251,0 | 26 |
| 21021 | 28 x 2 x 0,14 | 13,2 | 128,0 | 258,0 | 26 |
| 21022 | 30 x 2 x 0,14 | 13,6 | 140,0 | 270,0 | 26 |
| 21023 | 32 x 2 x 0,14 | 14,2 | 145,0 | 284,0 | 26 |
| 21024 | 34 x 2 x 0,14 | 14,6 | 150,0 | 300,0 | 26 |
| 21025 | 36 x 2 x 0,14 | 14,8 | 156,0 | 316,0 | 26 |
| 21026 | 38 x 2 x 0,14 | 15,0 | 162,0 | 350,0 | 26 |
| 21027 | 40 x 2 x 0,14 | 15,4 | 177,0 | 370,0 | 26 |
| 21028 | 44 x 2 x 0,14 | 16,0 | 181,0 | 390,0 | 26 |
| 21029 | 46 x 2 x 0,14 | 16,4 | 195,0 | 430,0 | 26 |
| 21030 | 50 x 2 x 0,14 | 17,8 | 202,0 | 440,0 | 26 |
| 21031 | 52 x 2 x 0,14 | 18,0 | 206,0 | 460,0 | 26 |
| 21032 | 55 x 2 x 0,14 | 18,8 | 210,0 | 480,0 | 26 |
| | | | | | |
| 21033 | 1 x 2 x 0,25 | 4,8 | 15,0 | 45,0 | 24 |
| 21034 | 2 x 2 x 0,25 | 6,3 | 28,0 | 53,0 | 24 |
| 21035 | 3 x 2 x 0,25 | 6,7 | 32,0 | 65,0 | 24 |
| 21036 | 4 x 2 x 0,25 | 6,8 | 38,0 | 80,0 | 24 |
| 21037 | 5 x 2 x 0,25 | 7,8 | 55,0 | 98,0 | 24 |
| 21038 | 6 x 2 x 0,25 | 8,8 | 65,0 | 114,0 | 24 |
| 21039 | 7 x 2 x 0,25 | 8,9 | 70,0 | 121,0 | 24 |
| 21040 | 8 x 2 x 0,25 | 9,6 | 75,0 | 129,0 | 24 |
| 21041 | 10 x 2 x 0,25 | 10,6 | 110,0 | 157,0 | 24 |
| 21042 | 12 x 2 x 0,25 | 11,6 | 117,0 | 189,0 | 24 |
| 21043 | 14 x 2 x 0,25 | 12,0 | 122,0 | 213,0 | 24 |
| 21044 | 15 x 2 x 0,25 | 12,5 | 134,0 | 225,0 | 24 |
| 21045 | 16 x 2 x 0,25 | 13,0 | 143,0 | 237,0 | 24 |
| 21046 | 18 x 2 x 0,25 | 13,2 | 148,0 | 248,0 | 24 |
| 21047 | 20 x 2 x 0,25 | 13,7 | 162,0 | 275,0 | 24 |
| 21048 | 22 x 2 x 0,25 | 14,4 | 172,0 | 303,0 | 24 |
| 21049 | 24 x 2 x 0,25 | 15,0 | 223,0 | 330,0 | 24 |
| 21050 | 25 x 2 x 0,25 | 15,4 | 233,0 | 343,0 | 24 |
| 21051 | 26 x 2 x 0,25 | 15,8 | 238,0 | 345,0 | 24 |
| 21052 | 27 x 2 x 0,25 | 16,2 | 244,0 | 350,0 | 24 |
| 21053 | 28 x 2 x 0,25 | 16,3 | 249,0 | 360,0 | 24 |
| 21054 | 30 x 2 x 0,25 | 16,7 | 254,0 | 375,0 | 24 |
| 21055 | 32 x 2 x 0,25 | 16,9 | 290,0 | 400,0 | 24 |
| 21056 | 34 x 2 x 0,25 | 17,5 | 312,0 | 410,0 | 24 |
| 21057 | 36 x 2 x 0,25 | 17,7 | 322,0 | 420,0 | 24 |
| 21058 | 38 x 2 x 0,25 | 18,0 | 339,0 | 450,0 | 24 |
| 21059 | 40 x 2 x 0,25 | 18,8 | 349,0 | 485,0 | 24 |
| 21060 | 44 x 2 x 0,25 | 19,0 | 359,0 | 500,0 | 24 |
| 21061 | 46 x 2 x 0,25 | 19,2 | 398,0 | 540,0 | 24 |
| 21062 | 50 x 2 x 0,25 | 19,9 | 403,0 | 550,0 | 24 |
| 21063 | 52 x 2 x 0,25 | 20,0 | 435,0 | 580,0 | 24 |
| 21064 | 55 x 2 x 0,25 | 21,0 | 464,0 | 630,0 | 24 |

| Part No. | No.pairs x cross-sec. mm² | Outer ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|---------------------------|----------------|---------------------|--------------------|---------|
| 19970 | 1 x 2 x 0,34 | 5,4 | 16,0 | 58,0 | 22 |
| 19971 | 2 x 2 x 0,34 | 6,3 | 36,9 | 65,0 | 22 |
| 19972 | 3 x 2 x 0,34 | 7,5 | 44,9 | 78,0 | 22 |
| 19973 | 4 x 2 x 0,34 | 8,0 | 54,2 | 90,0 | 22 |
| 19974 | 5 x 2 x 0,34 | 8,9 | 63,5 | 110,0 | 22 |
| 19975 | 6 x 2 x 0,34 | 10,5 | 73,1 | 130,0 | 22 |
| 19976 | 7 x 2 x 0,34 | 10,5 | 79,5 | 145,0 | 22 |
| 19977 | 8 x 2 x 0,34 | 10,9 | 88,4 | 150,0 | 22 |
| 19978 | 9 x 2 x 0,34 | 11,4 | 99,3 | 170,0 | 22 |
| 19979 | 10 x 2 x 0,34 | 12,0 | 106,9 | 190,0 | 22 |
| 19980 | 12 x 2 x 0,34 | 13,2 | 122,1 | 220,0 | 22 |
| 19981 | 14 x 2 x 0,34 | 13,6 | 138,2 | 245,0 | 22 |
| 19982 | 16 x 2 x 0,34 | 15,1 | 154,2 | 250,0 | 22 |
| 19983 | 18 x 2 x 0,34 | 15,2 | 197,9 | 275,0 | 22 |
| 19984 | 21 x 2 x 0,34 | 16,2 | 214,4 | 300,0 | 22 |
| 19985 | 25 x 2 x 0,34 | 17,9 | 238,5 | 400,0 | 22 |
| 19986 | 27 x 2 x 0,34 | 18,2 | 262,5 | 410,0 | 22 |
| 19987 | 30 x 2 x 0,34 | 19,0 | 286,6 | 440,0 | 22 |
| 19988 | 34 x 2 x 0,34 | 20,0 | 310,1 | 510,0 | 22 |
| 19989 | 37 x 2 x 0,34 | 20,3 | 368,7 | 550,0 | 22 |
| 19990 | 40 x 2 x 0,34 | 21,0 | 392,6 | 590,0 | 22 |
| 19991 | 44 x 2 x 0,34 | 22,2 | 424,3 | 600,0 | 22 |
| 19992 | 50 x 2 x 0,34 | 23,5 | 455,9 | 650,0 | 22 |
| 19993 | 52 x 2 x 0,34 | 24,6 | 487,6 | 680,0 | 22 |
| 19994 | 56 x 2 x 0,34 | 25,1 | 518,5 | 750,0 | 22 |
| 19995 | 61 x 2 x 0,34 | 26,3 | 557,2 | 840,0 | 22 |
| | | | | | |
| 17047 | 1 x 2 x 0,5 | 6,3 | 24,0 | 60,0 | 20 |
| 17001 | 2 x 2 x 0,5 | 7,8 | 54,0 | 89,0 | 20 |
| 17002 | 3 x 2 x 0,5 | 8,5 | 70,0 | 104,0 | 20 |
| 17003 | 4 x 2 x 0,5 | 9,1 | 91,0 | 126,0 | 20 |
| 17004 | 5 x 2 x 0,5 | 10,4 | 105,0 | 148,0 | 20 |
| 17005 | 6 x 2 x 0,5 | 11,8 | 120,0 | 171,0 | 20 |
| 17006 | 8 x 2 x 0,5 | 13,1 | 144,0 | 290,0 | 20 |
| 17007 | 10 x 2 x 0,5 | 14,3 | 178,0 | 320,0 | 20 |
| 17008 | 12 x 2 x 0,5 | 15,0 | 199,0 | 361,0 | 20 |
| 17009 | 16 x 2 x 0,5 | 17,5 | 254,0 | 421,0 | 20 |
| 17010 | 20 x 2 x 0,5 | 19,5 | 302,0 | 580,0 | 20 |
| 17011 | 25 x 2 x 0,5 | 22,5 | 344,0 | 740,0 | 20 |
| | | | | | |
| 17048 | 1 x 2 x 0,75 | 7,4 | 28,0 | 71,0 | 18 |
| 17012 | 2 x 2 x 0,75 | 8,2 | 58,0 | 105,0 | 18 |
| 17013 | 3 x 2 x 0,75 | 9,0 | 84,0 | 128,0 | 18 |
| 17014 | 4 x 2 x 0,75 | 9,2 | 108,0 | 156,0 | 18 |
| 17015 | 5 x 2 x 0,75 | 11,0 | 126,0 | 189,0 | 18 |
| 17016 | 6 x 2 x 0,75 | 12,4 | 146,0 | 216,0 | 18 |
| 17017 | 8 x 2 x 0,75 | 14,1 | 180,0 | 309,0 | 18 |
| 17018 | 10 x 2 x 0,75 | 15,3 | 220,0 | 355,0 | 18 |
| 17019 | 12 x 2 x 0,75 | 16,4 | 261,0 | 405,0 | 18 |
| 17020 | 16 x 2 x 0,75 | 19,2 | 328,0 | 565,0 | 18 |
| 17021 | 20 x 2 x 0,75 | 21,2 | 392,0 | 700,0 | 18 |
| 17022 | 25 x 2 x 0,75 | 23,5 | 470,0 | 950,0 | 18 |
| | | | | | |
| 17049 | 1 x 2 x 1 | 7,7 | 46,0 | 75,0 | 18 |
| 17050 | 2 x 2 x 1 | 8,9 | 82,0 | 116,0 | 18 |
| 17051 | 3 x 2 x 1 | 9,5 | 103,0 | 140,0 | 18 |
| 17052 | 4 x 2 x 1 | 10,5 | 132,0 | 191,0 | 18 |
| | | | | | |
| 17053 | 1 x 2 x 1,5 | 8,6 | 63,0 | 84,0 | 18 |
| 17054 | 2 x 2 x 1,5 | 10,7 | 111,0 | 122,0 | 18 |
| 17055 | 3 x 2 x 1,5 | 11,6 | 136,0 | 194,0 | 18 |
| 17056 | 4 x 2 x 1,5 | 13,0 | 172,0 | 240,0 | 18 |

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