PAAR-TRONIC-Li-2YCY PE-insulated, low capacitance, Termi-Point®, EMC-preferred type, meter marking

RoHS

Technical data

- PE-insulated data cable
- **Temperature range**
  flexing -5°C to +70°C
  fixed installation -30°C to +80°C
- **Conductor resistance** (loop) at 20°C
  0,22 mm² max. 186 Ohm/km
  0,34 mm² max. 115 Ohm/km
  0,5 mm² max. 78,5 Ohm/km
- **Operating peak voltage** max. 250 V
  (not for heavy current installation purposes)
- **Test voltage**
  core/core 2000 V
  core/screen 1000 V
- **Insulation resistance** min. 5 GOhm x km
- **Mutual capacitance** at 800 Hz
  > 4 pairs max. 60 nF/km
  ⩽ 4 pairs values extended by 20%
- **Inductance** approx. 0,66 mH/km
- **Line attenuation** (approx. value)
  0,22 mm² at 100 kHz 9,0 dB/km
  0,34 mm² at 100 kHz 6,6 dB/km
  0,50 mm² at 100 kHz 6,0 dB/km
  0,22 mm² at 1 MHz 25,0 dB/km
  0,34 mm² at 1 MHz 20,0 dB/km
  0,50 mm² at 1 MHz 18,0 dB/km
- **Cross-talk attenuation**
  up to 1 MHz min. 50 dB
  up to 10 MHz min. 40 dB
- **Minimum bending radius**
  flexing 12x cable Ø
  fixed installation 7,5x cable Ø

Cable structure

- Bare copper-conductor, 7-wires, adapted to DIN VDE 0881, suitable for Termi-Point® and solder-free connection technique
- Conductor construction:
  0,22 mm² = 7x0,2 mm
  0,34 mm² = 7x0,25 mm
  0,5 mm² = 7x0,3 mm
- Core insulation of PE compound type L/MD to DIN VDE 0819-103/DIN EN 50290-2-23
- Core identification (pair) to DIN 47100
- Cores stranded in pairs with optimal lay-length
- Pairs stranded in layers with optimal lay-length
- Foil wrapping
- Tinned copper braided screen, approx. 85% coverage
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1/DIN EN 50363-4-1
- Sheath colour grey
- with meter marking

Properties

- These cables make enormous advantages possible for fast and cost-effective contact-making using the Termi-Point® connection technique. With this solder-free connection technique, the stranded conductor is crimped together with a sleeve onto a contact pin without prior stripping of the insulation material
- The twisted-pair lay-up prevents electrical unbalances within the cable and this thus effectively suppresses cross-talking effects
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Tests

- PVC outer sheath self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

- At 0,22 mm² is designed for applications with Sub-D connectors.
- Termi-Point® registered trade mark AMP.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

These PE-insulated data cables with twisted pairs are used in particular for the interference-free transmission of data and signals over longer distances. The high transmission rates are particularly suitable for RS 422 and RS 485 interfaces. These cables are suitable for fixed installations as well as for flexing applications, for free movement without forced motion and without tensile stress, in dry and moist environments but not in open air (Type grey).

EMC = Electromagnetic compatibillity

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No.pairs x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
21111	2 x 2 x 0,22	5,5	26,0	48,0	24
21112	3 x 2 x 0,22	6,2	31,0	66,0	24
21113	4 x 2 x 0,22	6,5	38,0	82,0	24
21114	8 x 2 x 0,22	8,6	62,0	123,0	24
21115	10 x 2 x 0,22	9,9	79,0	165,0	24
21117	2 x 2 x 0,34	6,7	35,0	68,0	22
21118	3 x 2 x 0,34	7,2	44,0	77,0	22
21119	4 x 2 x 0,34	8,0	53,0	95,0	22
21120	8 x 2 x 0,34	10,9	86,0	158,0	22
21121	10 x 2 x 0,34	12,5	104,0	195,0	22
21123	2 x 2 x 0,5	7,9	49,0	74,0	20
21124	3 x 2 x 0,5	8,6	60,0	109,0	20
21125	4 x 2 x 0,5	9,6	73,0	128,0	20
21126	8 x 2 x 0,5	12,8	124,0	223,0	20
21127	10 x 2 x 0,5	14,8	155,0	265,0	20

Dimensions and specifications may be changed without prior notice. (RB01)

16.04.2015 / Dimensions and specifications may be changed without prior

PAAR-TRONIC-Li-2YCYv PE-insulated, low capacitance, Termi-Point®, EMC-preferred type, meter marking

RoHS

Technical data

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  flexing -5°C to +70°C
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  0,5 mm² max. 78,5 Ohm/km
  1,0 mm² max. 39,2 Ohm/km
- **Operating peak voltage** max. 250 V
  (not for heavy current installation purposes)
- **Test voltage**
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- **Insulation resistance** min. 5 GOhm x km
- **Mutual capacitance** at 800 Hz
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  ⩽ 4 pairs values extended by 20%
- **Inductance** approx. 0,66 mH/km
- **Line attenuation** (approx. value)
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- **Cross-talk attenuation**
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- **Minimum bending radius**
  flexing 12x cable Ø
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Cable structure

- Bare copper-conductor, 7-wires, adapted to DIN VDE 0881, suitable for Termi-Point® and solder-free connection technique
- Conductor construction:
  0,22 mm² = 7x0,2 mm
  0,34 mm² = 7x0,25 mm
  0,5 mm² = 7x0,3 mm
  1 mm² = 7 x 0,42 mm
- Core insulation of PE compound type L/MD to DIN VDE 0819-103 /DIN EN 50290-2-23
- Core identification (pair) to DIN 47100
- Cores stranded in pairs with optimal lay-length
- Pairs stranded in layers with optimal lay-length
- Foil wrapping
- Tinned copper braided screening, coverage approx. 85%
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1/DIN EN 50363-4-1
- Type . . . Yv with reinforced outer sheath
- Sheath colour black
- with meter marking

Properties

- The line offers enormous advantages through fast and cheap contacting possibilty in Termi-Point® connection technology. With this solder-free connection technique, the stranded conductor is crimped together with a sleeve onto a contact pin without prior stripping of the insulation material
- The twisted-pair lay-up prevents electrical unbalances within the cable and this thus effectively suppresses cross-talking effects
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Tests

- PVC outer sheath self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2,
  DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

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Application

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EMC = Electromagnetic compatibillity

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

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Part no.	No.pairs x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
21129	2 x 2 x 0,22	7,8	26,0	60,0	24
21130	3 x 2 x 0,22	8,1	31,0	79,0	24
21131	4 x 2 x 0,22	8,5	38,0	96,0	24
21132	8 x 2 x 0,22	10,6	62,0	140,0	24
21133	10 x 2 x 0,22	11,6	79,0	184,0	24
21135	2 x 2 x 0,34	8,7	35,0	83,0	22
21136	3 x 2 x 0,34	9,4	44,0	92,0	22
21137	4 x 2 x 0,34	10,0	53,0	112,0	22
21138	8 x 2 x 0,34	12,4	86,0	179,0	22
21139	10 x 2 x 0,34	13,8	104,0	219,0	22

Part no.	No.pairs x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
21141	2 x 2 x 0,5	9,8	49,0	90,0	20
21142	3 x 2 x 0,5	10,4	60,0	126,0	20
21143	4 x 2 x 0,5	11,2	73,0	146,0	20
21144	8 x 2 x 0,5	13,9	124,0	246,0	20
21145	10 x 2 x 0,5	16,0	155,0	292,0	20
21146	2 x 2 x 1	10,8	81,0	141,0	18
21147	3 x 2 x 1	11,5	102,0	170,0	18
21148	4 x 2 x 1	12,0	130,0	203,0	18
21149	8 x 2 x 1	16,1	240,0	261,0	18
21150	10 x 2 x 1	17,2	282,0	287,0	18

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