UNITRONIC® FD CP (TP) plus

Screened highly flexible data transmission cable with PUR outer sheath and twisted pairs - UL/CSA-listed

Info

- **Flexible at low temperatures**
- **Low capacitance**
- **Halogen-free**

Benefits

- Wide temperature range for applications in harsh climatic environments
- Optimized cable construction for power chain use
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)
- Overall braid minimises electrical interference

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Linear robots, automated handling equipment
- For the North American market
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

- Halogen-free, has low capacitance and is flexible down to -40°C
- PUR outer sheath, tear and notch-resistant, resistant to mineral oils and abrasion when used in power chains
- Low-adhesive surface, resistant to hydrolysis and microbes, oil resistant
- Flame-retardant according to IEC 60332-1-2 and VW-1 acc. to UL-1581
- Designed for 5 up to 10 million bending/unbending cycles in the power chain.

Norm references / Approvals

- Approval: UL/CSA type CMX in accordance with UL 444 and CSA C22.2 no. 214
- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Product make-up

- Extra-fine wire strand made of bare copper wires
- Core insulation: Based on Polyolefin TP structure
- Non-woven wrapping
- Tinned-copper braiding
- Outer sheath made of special PUR compound
  Outer sheath colour: grey (RAL 7001)

Technical data

Core identification code
DIN 47100, refer to Appendix T9

Mutual capacitance
Up to 0.5 mm²: 60 nF/km
Up to 1.0 mm²: 70 nF/km

Peak operating voltage
(not for power applications) 250 V

Specific insulation resistance
> 5 GOhm x km

Inductivity
approx. 0.65 mH/km

Conductor stranding
Stranded, extra-fine wire
From 0.5 mm²: extra-fine wire according to IEC 60228 class 6

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Flexing: 7.5 x outer diameter
Fixed installation: 4 x outer diameter

Test voltage
Core/core: 1500 V rms
Core/screen: 500 V

Temperature range
Flexing: -40°C to +80°C
Fixed installation: -40°C to +80°C
UL/CSA: up to +75°C

Article number	Number of pairs and mm² per conductor	AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® FD CP (TP) plus					
0030910	2 x 2 x 0.14	26 AWG	5.9	19.4	42
0030911	3 x 2 x 0.14	26 AWG	6.2	23.4	53
0030912	4 x 2 x 0.14	26 AWG	6.7	27.1	59
0030913	5 x 2 x 0.14	26 AWG	7.3	37.4	75
0030914	6 x 2 x 0.14	26 AWG	7.5	49.4	91
0030915	8 x 2 x 0.14	26 AWG	8.8	54.8	109
0030916	10 x 2 x 0.14	26 AWG	10.1	60.1	120
0030962	1 x 2 x 0.25	24 AWG	4.9	14.0	27
0030919	2 x 2 x 0.25	24 AWG	7.0	32.0	60
0030920	3 x 2 x 0.25	24 AWG	7.4	38.4	72
0030921	4 x 2 x 0.25	24 AWG	8.3	43.2	85
0030922	5 x 2 x 0.25	24 AWG	9.0	51.5	103
0030923	6 x 2 x 0.25	24 AWG	9.3	71.8	131
0030924	8 x 2 x 0.25	24 AWG	10.9	74.4	155
0030925	10 x 2 x 0.25	24 AWG	12.6	90.0	186
0030926	14 x 2 x 0.25	24 AWG	12.8	111.2	219
0030963	1 x 2 x 0.34	22 AWG	5.3	20.0	36
0030928	2 x 2 x 0.34	22 AWG	7.9	41.0	81
0030929	3 x 2 x 0.34	22 AWG	8.4	52.0	101
0030930	4 x 2 x 0.34	22 AWG	9.2	59.0	119
0030932	6 x 2 x 0.34	22 AWG	10.6	86.2	165
0030933	8 x 2 x 0.34	22 AWG	12.4	107.3	221
0030934	10 x 2 x 0.34	22 AWG	14.5	131.1	274
0030964	1 x 2 x 0.5	20 AWG	5.9	22.0	47
0030937	2 x 2 x 0.5	20 AWG	9.0	50.0	99
0030938	3 x 2 x 0.5	20 AWG	9.8	71.8	130
0030939	4 x 2 x 0.5	20 AWG	10.7	74.4	148
0030940	5 x 2 x 0.5	20 AWG	11.9	84.5	168