


U.I. Lapp GmbH	PRODUCT INFORMATION	
	UNITRONIC® FD CP (TP) plus	05.11.2015

Screened highly flexible data transmission cable with PUR outer sheath and twisted pairs - UL/CSA-listed
 Wide temperature range for applications in harsh climatic environments
 Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)
 UL AWM voltage rating 1000V in case of internal wiring allows for internal laying next to power cables with applied UL rating of 1kV
 In the USA inside of industrial machines, per NFPA 79, 2015 Ed., 12.9.2 (condition 3 under 12.9.2: Through 1 mm² and <16 AWG), but not inside drag chains or on machines since AWM style is limited to internal wiring
 ATTENTION: 3rd condition acc. to NFPA 79, 2015 Ed., 12.9.2, not applicable for this product before May 2016



Single halogen-free cable



Cold-resistant



Mechanical resistance



Oil-resistant



Power chain



Interference signals



Torsion-resistant




Wind Energy

Info

Flexible at low temperatures
 Low capacitance
 Single halogen-free cable

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Application range

Suitable for use in measuring, control and regulating circuits
 Linear robots, automated handling equipment
 Drag chain use - in case of horizontal installation travel distances up to 100 m
 For use in drag chains: Please respect the assembly guidelines listed in Appendix T3
 Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

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)

Norm references / Approvals

cULus CMX (Communications Cable listing) acc. to UL 444 and CSA C22.2 No.214, certified by UL (UL file no. for Stuttgart-based U.I. Lapp GmbH: E236660)
 cULus AWM/ Recognized certification (by UL/ UL file no. for Stuttgart-based U.I. Lapp GmbH: E63634): UL AWM Style 21576 acc. to UL 758 and AWM A/B I/II to CSA C22.2 No. 210-11


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 retardance ratings: IEC 60332-1-2, VW-1 acc. UL 1581, FT2 (Horizontal Flame Test)
 Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter

Remark

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
 Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
 Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
 Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
 Photographs are not to scale and do not represent detailed images of the respective products.

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Technical Data

Core identification code:	DIN 47100, refer to Appendix T9
Mutual capacitance:	Up to 0.5 mm ² : 60 nF/km Up to 1.0 mm ² : 70 nF/km
Peak operating voltage:	Peak: 250 V (not for power current use or continuous operating voltage to ground above 49VAC or 74VDC)
Classification:	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
Inductivity:	approx. 0.65 mH/km
Conductor stranding:	Stranded, extra-fine wire From 0.5 mm ² : 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 CMX: +75 °C UL AWM: +80 °C

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Part number	Number of pairs and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® FD CP (TP) plus				
0030910	2 x 2 x 0,14	5.9	19.4	42
0030911	3 x 2 x 0,14	6.2	23.4	53
0030912	4 x 2 x 0,14	6.7	27.1	59
0030913	5 x 2 x 0,14	7.3	37.4	75
0030914	6 x 2 x 0,14	7.5	49.4	91
0030915	8 x 2 x 0,14	8.8	54.8	109
0030916	10 x 2 x 0,14	10.1	60.1	120
0030962	1 x 2 x 0,25	4.9	14.0	27
0030919	2 x 2 x 0,25	6.5	32.0	60
0030920	3 x 2 x 0,25	6.8	38.4	72
0030921	4 x 2 x 0,25	7.4	43.2	85
0030922	5 x 2 x 0,25	8.3	51.5	103
0030923	6 x 2 x 0,25	8.9	71.8	131
0030924	8 x 2 x 0,25	10.4	74.4	155
0030925	10 x 2 x 0,25	12.0	90.0	186
0030926	14 x 2 x 0,25	12.2	111.2	219
0030963	1 x 2 x 0,34	5.3	20.0	36
0030928	2 x 2 x 0,34	7.1	41.0	81
0030929	3 x 2 x 0,34	7.5	52.0	101
0030930	4 x 2 x 0,34	8.4	59.0	119
0030932	6 x 2 x 0,34	10.1	86.2	165
0030934	10 x 2 x 0,34	13.8	131.1	274
0030964	1 x 2 x 0,5	5.9	22.0	47
0030937	2 x 2 x 0,5	8.3	50.0	99
0030938	3 x 2 x 0,5	8.8	71.8	130
0030939	4 x 2 x 0,5	9.8	74.4	148
0030940	5 x 2 x 0,5	10.7	84.5	168
0030941	6 x 2 x 0,5	11.8	99.6	194
0030942	8 x 2 x 0,5	14.0	144.3	284
0030943	10 x 2 x 0,5	15.9	176.0	343
0030944	14 x 2 x 0,5	16.2	215.4	401
0030965	1 x 2 x 0,75	6.3	34.0	61
0030946	2 x 2 x 0,75	8.9	60.0	112

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Part number	Number of pairs and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0030947	3 x 2 x 0,75	9.7	85.7	157
0030948	4 x 2 x 0,75	10.6	93.6	172
0030950	6 x 2 x 0,75	12.8	130.4	231
0030951	8 x 2 x 0,75	15.2	192.2	342
0030952	10 x 2 x 0,75	17.3	258.0	466
0030953	14 x 2 x 0,75	18.2	316.6	545
0030955	1 x 2 x 1	6.7	42.0	71
0030956	2 x 2 x 1	9.7	73.0	129
0030957	3 x 2 x 1	10.4	93.6	169
0030958	4 x 2 x 1	11.6	117.8	204
0030959	5 x 2 x 1	12.7	139.0	237