

# MULTIFLEX 512®-C-PUR UL/CSA special

cable for drag chains, 80°C, 600V, two approvals control cable, EMC-preferred type



## Technical data

- Special cables for drag chains with high degree of resistance to mechanical stress according to UL -Style -20939
- **Temperature range**  
flexing -40°C to +80°C  
fixed installation -50°C to +80°C
- **Nominal voltage** UL 600 V
- **Test voltage**  
3000 V
- **Insulation resistance**  
min. 100 MOhm x km
- **Minimum bending radius**  
flexing 7,5x cable Ø  
fixed installation 4x cable Ø
- **Test of alternating bending cycles**  
approx. **10 million**
- **Radiation resistance**  
up to 50x10<sup>6</sup> cJ/kg (up to 50 Mrad)
- **Coupling resistance**  
max. 250 Ohm/km

## Cable construction

- Bare copper, extra fine wire conductors, bunch stranded to DIN VDE 0295 cl. 6, col. 4, BS 6360 cl. 6 and IEC 60228 cl. 6
- Special core insulation, modified TPE
- Black cores with continuous white numbering
- Green-yellow earth core in the outer layer (3 cores and above)
- Cores stranded in layers with optimal selected lay-length
- Special core wrapping over each layers and an additional fleece over outer layer
- **TPE-inner sheath**, halogen-free
- Wrapping with special tapes
- Tinned copper braided screening, approx. 85% coverage
- Special core wrapping of fleece (up to 4 mm<sup>2</sup> without core wrapping over the outer layer)
- Special **full-polyurethane** outer jacket TPU, to DIN VDE 0282 part 10, appendix A
- Colour grey (RAL 7001) outer surface mat

## Properties

- Very good oil resistant, test method according to DIN VDE 0472 part 803
- Guaranteed permanent application in multi-shift operation under extreme high bending stress
- Adhesion-low
- High resistant to mechanical strain
- High property of alternating bending strength
- Long life durabilities through low friction-resistance by using the TPE insulation
- High tensile strength-, abrasion- and impact resistant at low temperature
- Resistant to Weather, Ozone and UV-radiation, Solvents, acids and alkalis, Hydraulic liquidity
- PUR-jacket 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

- G = with green-yellow earth core;  
x = without green-yellow earth core (OZ).
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- Please note the cleanroom qualification when ordering.

## Application

The special screened UL/CSA cables for drag chains are mainly applied for impulse transmission to prevent external interference effects and used for permanent flexible applications in machineries, machine tools, robot technics, for movable automated machinery parts and multi-shift operation. Those cables are developed according to the newest state of technology improvement. These high flexible control cables with sliding abilities guaranteed an optimum service life durabilities and also very economic by using the TPE-core insulation and the PUR-outer jacket which is adhesive-free and cut-resistant.

**EMC** = Electromagnetic compatibility

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

**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 <sup>2</sup>	AWG-no.	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km
21630	2 x 0,5	20	8,3	47,0	90,0
21631	3 G 0,5	20	8,5	52,0	105,0
21632	4 G 0,5	20	9,0	55,0	124,0
21633	5 G 0,5	20	9,7	65,0	132,0
21634	7 G 0,5	20	11,1	84,0	175,0
21635	12 G 0,5	20	12,7	117,0	250,0
21636	18 G 0,5	20	14,7	157,0	325,0
21637	20 G 0,5	20	15,4	167,0	350,0
21638	25 G 0,5	20	17,0	227,0	450,0
21639	30 G 0,5	20	17,9	273,0	510,0
21640	36 G 0,5	20	19,2	306,0	580,0

Part No.	No. cores x cross-sec. mm <sup>2</sup>	AWG-no.	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km
21641	2 x 0,75	18	8,8	53,0	110,0
21642	3 G 0,75	18	9,3	62,0	120,0
21643	4 G 0,75	18	9,7	77,0	148,0
21644	5 G 0,75	18	10,5	86,0	160,0
21645	7 G 0,75	18	11,9	106,0	205,0
21646	12 G 0,75	18	14,2	156,0	308,0
21647	18 G 0,75	18	16,3	233,0	420,0
21648	20 G 0,75	18	16,9	249,0	450,0
21649	25 G 0,75	18	19,2	313,0	579,0
21650	30 G 0,75	18	19,7	351,0	630,0
21651	36 G 0,75	18	21,2	400,0	745,0

Dimensions and specifications may be changed without prior notice.

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