

# MULTIFLEX 512<sup>®</sup>-C-PUR special cable for drag chains, halogen-free, screened, EMC-preferred type, meter marking



## Technical data

- Special cables for drag chains with high degree of resistance to mechanical stress in adapted to DIN VDE 0282 part 1 and part 10
- **Temperature range**  
flexing -40°C to +70°C  
fixed installation -50°C to +70°C
- **Nominal voltage** U<sub>0</sub>/U 300/500 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 structure

- 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 TMPU, to DIN VDE 0282 part 10, appendix A
- Colour grey (RAL 7001) outer surface mat
- with meter marking, change-over in 2009

## 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 VDE 0482-332-1-2, DIN EN 60332-1-2/ 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.
- **unscreened analogue type:**  
**MULTIFLEX 512<sup>®</sup>-PUR** confer page C 14

## Application

The special screened 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 copper braiding on both ends.

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

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.	Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
22571	2 x 0,5	8,3	47,0	90,0	20	22577	18 G 0,5	14,7	157,0	325,0	20
22572	3 G 0,5	8,5	52,0	105,0	20	22578	20 G 0,5	15,4	167,0	350,0	20
22573	4 G 0,5	9,0	55,0	124,0	20	22579	25 G 0,5	17,1	227,0	450,0	20
22574	5 G 0,5	9,7	65,0	132,0	20	22580	30 G 0,5	17,9	273,0	510,0	20
22575	7 G 0,5	11,1	84,0	175,0	20	22581	36 G 0,5	19,2	306,0	580,0	20
22576	12 G 0,5	12,7	117,0	250,0	20						

Dimensions and specifications may be changed without prior notice. (RC02)

Continuation ►

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Part No.	No. cores x cross-sec. mm²	Outer ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.	Part No.	No. cores x cross-sec. mm²	Outer ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
22582	2 x 0,75	8,8	53,0	110,0	18	22610	18 G 1,5	19,9	393,0	675,0	16
22583	3 G 0,75	9,3	62,0	120,0	18	22611	25 G 1,5	23,7	533,0	927,0	16
22584	4 G 0,75	9,7	77,0	148,0	18	22612	30 G 1,5	24,6	607,0	1025,0	16
22585	5 G 0,75	10,5	86,0	160,0	18	22613	36 G 1,5	26,4	702,0	1210,0	16
22586	7 G 0,75	11,9	106,0	205,0	18	22887	42 G 1,5	28,4	829,0	1441,0	16
22587	12 G 0,75	14,2	156,0	308,0	18	22888	50 G 1,5	31,2	1025,0	1709,0	16
22588	18 G 0,75	16,3	233,0	420,0	18	22889	61 G 1,5	34,2	1190,0	2025,0	16
22589	20 G 0,75	16,9	249,0	450,0	18						
22590	25 G 0,75	19,2	313,0	579,0	18	22614	2 x 2,5	11,9	104,0	198,0	14
22591	30 G 0,75	19,7	351,0	630,0	18	22615	3 G 2,5	12,6	129,0	284,0	14
22592	36 G 0,75	21,2	400,0	745,0	18	22616	4 G 2,5	13,6	164,0	378,0	14
						22617	5 G 2,5	14,7	190,0	423,0	14
22593	2 x 1	9,7	60,0	120,0	17	22618	7 G 2,5	17,4	274,0	486,0	14
22594	3 G 1	10,0	70,0	135,0	17	22619	12 G 2,5	20,9	426,0	756,0	14
22595	4 G 1	10,8	86,0	173,0	17	22620	18 G 2,5	24,2	607,0	1127,0	14
22596	5 G 1	11,7	99,0	187,0	17	22621	20 G 2,5	25,6	661,0	1210,0	14
22597	7 G 1	13,4	124,0	240,0	17	22622	25 G 2,5	29,1	796,0	1530,0	14
22598	12 G 1	16,0	186,0	360,0	17						
22599	18 G 1	18,5	279,0	498,0	17	22623	4 G 4	16,8	222,0	448,0	12
22600	20 G 1	19,4	322,0	568,0	17	22624	5 G 4	18,4	328,0	533,0	12
22601	25 G 1	21,7	377,0	670,0	17	22625	7 G 4	21,6	360,0	678,0	12
22602	30 G 1	22,5	429,0	774,0	17						
22603	36 G 1	24,3	516,0	895,0	17	22626	4 G 6	18,1	305,0	636,0	10
22884	41 G 1	26,1	610,0	1032,0	17	22627	5 G 6	19,6	441,0	772,0	10
22885	50 G 1	28,4	690,0	1160,0	17	22628	7 G 6	23,2	505,0	1028,0	10
22886	65 G 1	32,2	852,0	1660,0	17						
						22629	4 G 10	22,5	485,0	1052,0	8
22604	2 x 1,5	10,2	79,0	145,0	16	22630	5 G 10	24,7	610,0	1096,0	8
22605	3 G 1,5	11,0	94,0	168,0	16	22631	7 G 10	29,3	820,0	1530,0	8
22606	4 G 1,5	11,6	113,0	217,0	16						
22607	5 G 1,5	12,6	129,0	235,0	16	22632	4 G 16	25,7	840,0	1386,0	6
22608	7 G 1,5	14,5	170,0	325,0	16	22633	5 G 16	28,2	1050,0	1759,0	6
22609	12 G 1,5	17,4	279,0	481,0	16	22634	7 G 16	33,6	1510,0	2087,0	6

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## Our Service on the Internet

### Metal quotes

On our Internet site, you will find the current metal prices for copper, brass, lead and aluminium as well as DEL prices developments and the dollar prices over the last few months.

[www.helukabel.de](http://www.helukabel.de)