MULTIFLEX 512®-PUR UL/CSA special cable for drag

chains, 80°C, 600V, two approvals control cable, halogen-free





HELUKABEL MULTIFLEX 512-PUR UL/CSA 12G1,5 QMM / 21600 600 V 001062040 €



Technical data

- Special drag chain cables for high 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/CSA 600 V
- Test voltage
- Insulation resistance min. 100 MOhm x km
- Minimum bending radius flexing 5x cable Ø fixed installation 3x cable Ø
- Alternating bending cycles approx. 10 million
- Radiation resistance up to 50x106 cJ/kg (up to 50 Mrad)

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 layer (up to 4 mm² without core wrapping over the outer layer)
- Special **full-polyurethane** outer jacket TMPU, to DIN VDE 0282 part 10
- Colour grey (RAL 7001) outer surface mat
- with meter marking, change-over in 2011

Properties

- Very good oil resistant
- 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, and Hydrolysis
- 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)

Note

- G = with green-yellow earth core;
 x = without green-yellow earth core (OZ).
- Cleanroom qualification tested with analog type. Please note "cleanroom qualified" when ordering.
- screened analogue type: MULTIFLEX 512® -C-PUR UL/CSA, see page N 92

Application

These special UL/CSA cables for drag chains are 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. The PUR material is adhesion-low and cut-resistant.

For applications which go beyond standard solutions (for example for composting appliances or high shelf conveyors with extremely high processing speeds etc.) we recommend for our especially developed enquiry sheet for energy guiding systems.

Before installation in cable trays please read the instructions. Further technical details see selection table for drag chain cables, see lead text. • The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm ²	AWG-No.	Outer Ø approx.	Cop. weight kg/km	Weight approx. kg / km	
21559	2 x 0,5	20	5,5	9,6	38,0	
21560	3 G 0,5	20	5,8	14,4	46,0	
21561	4 G 0,5	20	6,4	19,0	59,0	
21562	5 G 0,5	20	7,0	24,0	68,0	
21563	7 G 0,5	20	8,1	33,6	88,0	
21564	12 G 0,5	20	9,9	58,0	131,0	
21565	18 G 0,5	20	11,5	86,0	197,0	
21566	20 G 0,5	20	12,0	96,0	260,0	
21567	25 G 0,5	20	13,7	120,0	282,0	
21568	30 G 0,5	20	14,3	144,0	315,0	
21569	36 G 0,5	20	15,3	172,0	374,0	
21570	2 x 0,75	18	6,2	14,4	47,0	

Part no.	No.cores x cross-sec. mm ²	AWG-No.	Outer Ø approx. mm	Cop. weight kg/km	Weight approx. kg/km	
21571	3 G 0,75	18	6,5	21,6	58,0	
21572	4 G 0,75	18	7,0	29,0	69,0	
21573	5 G 0,75	18	7,8	36,0	85,0	
21574	7 G 0,75	18	9,0	50,0	118,0	
21575	12 G 0,75	18	11,0	86,0	183,0	
21576	18 G 0,75	18	13,0	130,0	270,0	
21577	20 G 0,75	18	13,5	144,0	290,0	
21578	25 G 0,75	18	15,4	180,0	374,0	
21579	30 G 0,75	18	16,2	216,0	420,0	
21580	36 G 0,75	18	17,6	259,0	498,0	

Continuation •



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Part no.	No.cores x cross-sec. mm ²	AWG-No.	approx. mm	Cop. weight kg/km	Weight approx. kg/km	
21581	2 x 1	17	6,9	19,2	55,0	
21582	3 G 1	17	7,4	29,0	70,0	
21583	4 G 1	17	8,0	38,0	86,0	
21584	5 G 1	17	8,7	48,0	102,0	
21585	7 G 1	17	10,2	67,0	143,0	
21586	12 G 1	17	12,6	115,0	225,0	
21587	18 G 1	17	14,8	173,0	334,0	
21588	20 G 1	17	15,8	192,0	370,0	
21589	25 G 1	17	18,1	240,0	460,0	
21590	30 G 1	17	18,5	288,0	530,0	
21591	36 G 1	17	20,1	346,0	625,0	
21592	41 G 1	17	22,0	410,0	779,0	
21593	50 G 1	17	24,0	498,0	953,0	
21594	65 G 1	17	27,2	650,0	1205,0	
21595	2 x 1,5	16	7,6	29,0	70,0	
21596	3 G 1,5	16	8,1	43,0	90,0	
21597	4 G 1,5	16	8,7	58,0	106,0	
21598	5 G 1,5	16	9,7	72,0	145,0	
21599	7 G 1,5	16	11,3	101,0	205,0	
21600	12 G 1,5	16	13,8	173,0	320,0	
21601	18 G 1,5	16	16,3	259,0	465,0	
21602	20 G 1,5	16	17,3	288,0	510,0	
21603	25 G 1,5	16	19,8	360,0	650,0	
21604	30 G 1,5	16	20,3	432,0	750,0	
21605	36 G 1,5	16	22,2	518,0	880,0	
21606	42 G 1,5	16	24,0	628,0	1209,0	
21607	50 G 1,5	16	26,2	749,0	1449,0	
21608	61 G 1,5	16	28,9	912,0	1712,0	

Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø approx.	Cop. weight kg/km	Weight approx. kg / km	
21609	2 x 2,5	14	9,2	48,0	115,0	
21610	3 G 2,5	14	9,7	72,0	162,0	
21611	4 G 2,5	14	10,5	96,0	196,0	
21612	5 G 2,5	14	11,6	120,0	230,0	
21613	7 G 2,5	14	13,8	168,0	312,0	
21614	12 G 2,5	14	16,9	288,0	532,0	
21615	18 G 2,5	14	20,0	432,0	762,0	
21616	20 G 2,5	14	21,2	480,0	858,0	
21617	25 G 2,5	14	24,4	600,0	998,0	
21618	4 G 4	12	13,2	154,0	283,0	
21619	5 G 4	12	14,6	192,0	349,0	
21620	7 G 4	12	17,6	79,0	498,0	
21621	4 G 6	10	14,4	230,0	432,0	
21622	5 G 6	10	15,9	288,0	529,0	
21623	7 G 6	10	19,2	403,0	782,0	
21624	4 G 10	8	18,4	384,0	685,0	
21625	5 G 10	8	20,7	480,0	817,0	
21626	7 G 10	8	24,7	672,0	1023,0	
21627	4 G 16	6	21,3	614,0	1042,0	
21628	5 G 16	6	23,8	768,0	1292,0	
21629	7 G 16	6	28,6	1075,0	1709,0	

Dimensions and specifications may be changed without prior notice. (RN05)

