## **MULTIFLEX 512®-PUR**

#### Special cable for drag chains, halogen-free, meter marking





HELUKABEL MULTIFLEX 512-PUR 12G1,5 QMM / 22539 300/500 V 001041825 €

#### **Technical data**

- Special drag chain cables for extreme mechanical stress adapted to DIN VDE 0285-525-2-21 / DIN EN 50525-2-21
- Temperature range flexing -30°C to +80°C fixed installation -40°C to +80°C
- Nominal voltage  $U_0/U 300/500 \, V$
- Test voltage 3000 V
- Minimum bending radius flexing 5x cable Ø fixed installation 3x cable Ø
- Test of alternating bending cycles approx. 10 million

#### **Cable structure**

- Bare copper conductor, extra fine wire acc. to DIN VDE 0295 cl.6, col. 4 / IEC 60228 cl.6
- Core insulation of special PP
- Core identification black cores with continuous white numbering
- GN-YE conductor, 3 cores and above in the outer layer
- Cores stranded in layers with optimal selected lay length
- Fleece wrapping over each layer (from 4 mm<sup>2</sup> without fleece wrapping)
- Outer sheath of special full-polyurethane compound type TMPU acc. to DIN VDE 0207-363-10-2 / DIN EN 50363-10-2
- Sheath colour: grey (RAL 7001), with a matte surface
- With meter marking

#### **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 PP-insulation
- High tensile strength-, abrasion- and impact resistant at low temperature
- Resistant to weather, ozone and UV-radiation, solvents, acids and alkalis, hydraulic liquidity and hydrolysis
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

#### Note

- G = with GN-YE conductor x = without GN-YE conductor (OZ)
- Cleanroom qualification tested with analog type. Please note "cleanroom qualified" when ordering.
- AWG sizes are approximate equivalent values. The actual cross section is in mm<sup>2</sup>.
- Screened analogue type:

#### **MULTIFLEX 512®-C-PUR**

#### **Application**

The special 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 PP-core insulation and the PUR-outer sheath. 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 chapter "Technical Information".

**C** ∈ Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	cross-sec. mm <sup>2</sup>	app. mm	weight kg/km	app.kg/ki	n Awg-No.
22501	2 x 0,5	5,5	9,6	38,0	20
22502	3 G 0,5	5,8	14,4	46,0	20
22503	4 G 0,5	6,5	19,0	59,0	20
22504	5 G 0,5	7,0	24,0	68,0	20
22505	7 G 0,5	8,3	33,6	88,0	20
22506	12 G 0,5	9,9	58,0	131,0	20
22507	18 G 0,5	11,6	86,0	197,0	20
22508	20 G 0,5	12,2	96,0	260,0	20
22509	25 G 0,5	14,0	120,0	282,0	20
22510	30 G 0,5	14,5	144,0	315,0	20
22511	36 G 0.5	15.5	172.0	374.0	20

Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg/km	Weight app.kg/km	AWG-No.
22512	2 x 0,75	6,5	14,4	47,0	19
22513	3 G 0,75	6,9	21,6	58,0	19
22514	4 G 0,75	7,4	29,0	69,0	19
22515	5 G 0,75	8,3	36,0	85,0	19
22516	7 G 0,75	9,6	50,0	118,0	19
22517	12 G 0,75	11,8	86,0	183,0	19
22518	18 G 0,75	13,8	130,0	270,0	19
22519	20 G 0,75	14,5	144,0	290,0	19
22520	25 G 0,75	16,8	180,0	374,0	19
22521	30 G 0,75	17,2	216,0	420,0	19
22522	36 G 0,75	18,7	259,0	498,0	19

Continuation ▶





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Part no.	No.cores x cross-sec.	Outer Ø app. mm	Cop. weight	Weight app.kg/km	AWG-No.
	mm²		kg / km		-
22523	2 x 1	6,9	19,2	55,0	18
22524	3 G 1	7,5	29,0	70,0	18
22525	4 G 1	8,1	38,0	86,0	18
22526	5 G 1	8,8	48,0	102,0	18
22527	7 G 1	10,5	67,0	143,0	18
22528	12 G 1	12,8	115,0	225,0	18
22529	18 G 1	15,0	173,0	334,0	18
22530	20 G 1	16,0	192,0	370,0	18
22531	25 G 1	18,5	240,0	460,0	18
22532	30 G 1	18,7	288,0	530,0	18
22533	36 G 1	20,3	346,0	625,0	18
22878	41 G 1	22,4	410,0	779,0	18
22879	50 G 1	24,2	498,0	953,0	18
22880	65 G 1	27,5	650,0	1205,0	18
22534	2 x 1,5	7,7	29,0	70,0	16
22535	3 G 1,5	8,2	43,0	90,0	16
22536	4 G 1,5	8,9	58,0	106,0	16
22537	5 G 1,5	9,8	72,0	145,0	16
22538	7 G 1,5	11,7	101,0	205,0	16
22539	12 G 1,5	14,1	173,0	320,0	16
22540	18 G 1,5	16,8	259,0	465,0	16
22541	20 G 1,5	17,8	288,0	510,0	16
22542	25 G 1,5	20,6	360,0	650,0	16
22543	30 G 1,5	20,9	432,0	750,0	16
22544	36 G 1,5	22,9	518,0	880,0	16
22881	42 G 1,5	24,8	628,0	1209,0	16
22882	50 G 1,5	27,0	749,0	1449,0	16
22883	61 G 1,5	29,8	912,0	1712,0	16

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.
22545	2 x 2,5	9,1	48,0	115,0	14
22546	3 G 2,5	9,7	72,0	162,0	14
22547	4 G 2,5	10,5	96,0	196,0	14
22548	5 G 2,5	11,7	120,0	230,0	14
22549	7 G 2,5	13,9	168,0	312,0	14
22550	12 G 2,5	17,0	288,0	532,0	14
22551	18 G 2,5	20,2	432,0	762,0	14
22552	20 G 2,5	21,4	480,0	858,0	14
22553	25 G 2,5	25,0	600,0	998,0	14
22554	4 G 4	13,3	154,0	283,0	12
22555	5 G 4	14,7	192,0	349,0	12
22556	7 G 4	17,8	269,0	498,0	12
22557	4 G 6	14,9	230,0	432,0	10
22558	5 G 6	16,6	288,0	529,0	10
22559	7 G 6	20,1	403,0	782,0	10
22560	4 G 10	18,8	384,0	685,0	8
22561	5 G 10	21,0	480,0	817,0	8
22562	7 G 10	25,4	672,0	1023,0	8
22563	4 G 16	21,9	614,0	1042,0	6
22564	5 G 16	24,5	768,0	1292,0	6
22565	7 G 16	29,7	1075,0	1709,0	6

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