



for drag chain applications, high requirements 0,6/1kV, shielded, UL/CSA, acc. MC800PLUS



## APPLICATION

shielded, low capacity power cable, also with 2, 3 resp. 4 control cores for temperature sensors or brake for EMC-compatible connecting between drives and frequency converter for high requirements in drag chain applications, moving drive systems, in the field of robotic technology, in manufacturing plants as well as in dry and humid rooms.



## SPECIAL FEATURES

- low adhesion and low abrasion
- flame-retardant acc. to IEC 60332-1-2
- halogen- and CFC-free acc. to DIN VDE 0472-815, IEC 60754-1
- resistant to oil acc. to DIN EN 60811-404, VDE 0473-811-404 and EN 50363-10-2
- largely resistant to grease, coolant fluids and lubricants
- UV-resistant, silicone-free
- conform to DESINA, UL/CSA approved
- MUD resistant acc. to NEK 606-2009
- from production date 12/23 UL/CSA 1000V/90°C, before 12/23 UL/CSA 1000V/80°

## REMARKS

- RoHS compliant
- compliant with the 2014/35/EU Directive ("Low Voltage Directive") CE
- Very long service life, optimum cost-benefit ratio
- Space and weight saving
- Special designs, other dimensions, cross-sections, wire and sheath colors are available on request.

## PRODUCT DETAILS

### DESIGN

Conductor material	bare copper strand
Conductor class	acc. to DIN VDE 0295 cl. 6 resp. IEC 60228 cl. 6
Core insulation	PELON®2
Core identification	supply cores: BK with WH print U/L1/C/L+; V/L2; W/L3/D/L- and GNYE; control cores: 1-pair, BK and WH; 2-pair: BK with WH print 5, 6, 7, 8; triple: bk with wh numerals 1, 2, 3
Element shielding	control pairs resp. triple with tinned copper shield
Overall stranding	all cores and elements stranded together with high flexible fillers
Overall shield	copper braid tinned, opt. coverage appr. 85 %
Outer sheath material	PUR, halogen-free, flame retardant
Sheath colour	orange, RAL 2003

### ELECTRICAL PROPERTIES

Rated voltage AC IEC	U <sub>0</sub> /U 600/1.000 V; UL & CSA: 1.000 V
Testing voltage	4 kV
Conductor resistance	at +20 °C acc. to IEC 60228 cl. 6
Insulation resistance	at +20 °C ≥ 20 MOhm x km

**MECHANICAL & DYNAMIC PROPERTIES**

Min. bending radius fixed	4 x d - after installation
Min. bending radius moved	7,5 x d ( $\leq 16 \text{ mm}^2$ ) / 10 x d ( $\geq 25 \text{ mm}^2$ )
Traverse length (m) - drag chain	horiz.: $\leq 16 \text{ mm}^2$ max. 50 m / $\geq 25 \text{ mm}^2$ max. 20 m; vertical: max. 5 m
Traverse speed (m/s) - drag chain	max. 300 m/min
Acceleration (m/s <sup>2</sup> ) - drag chain	max. 50 m/s <sup>2</sup>
Bending cycles (mln)	up to 10 Mio.
Torsion angle (°/m)	30°/m

**THERMAL PROPERTIES**

Operat. temp. fixed min./max. [°C]	-50 °C / +90 °C
Operat. temp. moved min/max [°C]	-40 °C / +90 °C

**PROPERTIES IN CASE OF FIRE**

Halogen-free	acc. to IEC 60754-1
Burning behavior	self-extinguishing and flame-retardant acc. to IEC 60332-1-2

**CHEMICAL RESISTANCE & OTHER PROPERTIES**

Oil resistance	Oil-resistant in acc. to DIN EN 60811-404 and EN 50363-10-2, MUD-resistant acc. to NEK 606-2009
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**STANDARDS & APPROVALS**

Approvals	UL/CSA - cURus 1.000 V, 90 °C
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**ITEM OVERVIEW****nach / acc. to Standard Siemens MC 800PLUS: V, U, W, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504266	4 G 1,5	9,2	90,0	163,0
1504267	4 G 2,5	10,6	135,0	233,0

**nach / acc. to Standard Siemens MC 800PLUS: U, V, W, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504268	4 G 4	11,9	205,0	314,0
1504269	4 G 6	14,7	296,0	437,0
1504270	4 G 10	17,6	488,0	654,0
1504271	4 G 16	21,6	769,0	1.016,0
1504272	4 G 25	25,3	1.098,0	1.440,0
1504273	4 G 35	28,7	1.525,0	1.991,0
1504274	4 G 50	33,4	2.131,0	2.604,0

**nach / acc. to Standard Siemens MC 800PLUS: V, U, W, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504275	4 G 1,5 + (2 X 1,5)	11,7	163,5	251,0
1504276	4 G 2,5 + (2 X 1,5)	13,4	196,0	316,0

**nach / acc. to Standard Siemens MC 800PLUS: U, V, W, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504277	4 G 4 + (2 X 1,5)	14,9	260,5	408,0
1504278	4 G 6 + (2 X 1,5)	16,8	365,0	535,0
1504279	4 G 10 + (2 X 1,5)	19,9	560,0	755,0
1504280	4 G 16 + (2 X 1,5)	22,7	816,0	1.090,0
1504281	4 G 25 + (2 X 1,5)	26,3	1.172,0	1.570,0
1504282	4 G 35 + (2 X 1,5)	31,2	1.595,0	2.073,0

**nach / acc. to Standard Siemens MC 800PLUS: U, V, W, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504283	4 G 50 + (2 X 1,5)	34,7	2.214,0	2.800,0

**nach / acc. Standard Bosch Rexroth: U, V, W, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1505385	4 G 0,75 + (2 X 0,5)	9,4	99,0	165,0

**nach / acc. Standard Bosch Rexroth: U, V, 5, 6, W, GNGE, 7, 8**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504293	4 G 1 + 2 X (2 X 0,75)	12,0	130,0	203,0
1504284	4 G 1,5 + 2 X (2 X 0,75)	13,0	151,0	228,0
1504285	4 G 2,5 + 2 X (2 X 1)	14,8	213,9	343,0
1504286	4 G 4 + (2 X 1) + (2 X 1,5)	16,3	336,0	449,0
1504287	4 G 6 + (2 X 1) + (2 X 1,5)	18,6	438,0	572,0
1504288	4 G 10 + (2 X 1) + (2 X 1,5)	22,0	602,0	881,0
1505386	4 G 16 + 2 X (2 X 1,5)	25,9	838,0	1.169,0
1504290	4 G 25 + 2 X (2 X 1,5)	28,9	1.217,0	1.513,0
1504291	4 G 35 + 2 X (2 X 1,5)	31,4	1.640,0	1.969,0
1504292	4 G 50 + 2 X (2 X 2,5)	37,0	2.273,0	2.875,0

**nach / acc. Standard SEW: U, V, W, 1, 2, 3, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1504711	4 G 1,5 + (3 X 1)	11,6	163,5	213,0
1504712	4 G 2,5 + (3 X 1)	13,4	196,0	284,0
1504713	4 G 4 + (3 X 1)	14,8	260,5	366,0
1504714	4 G 6 + (3 X 1,5)	17,4	367,0	492,0
1504715	4 G 10 + (3 X 1,5)	20,3	563,0	717,0
1504716	4 G 16 + (3 X 1,5)	23,7	821,0	1.052,0

**nach / acc. Standard Lenze: WWW, VV, U, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1505387	4 G 1 + (2 X 0,5)	9,8	81,0	134,0
1505388	4 G 1,5 + (2 X 0,5)	11,6	114,0	180,0
1505389	4 G 2,5 + (2 X 0,5)	11,8	145,0	229,0
1505390	4 G 4 + (2 X 1)	14,3	244,0	361,0
1505391	4 G 6 + (2 X 1)	16,6	325,0	451,0
1505392	4 G 10 + (2 X 1)	19,7	517,0	670,0
1505393	4 G 16 + (2 X 1)	22,5	760,0	978,0

**nach / acc. Diverse: WWW, VV, U, SW-WS, GNGE**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1505395	4 G 1,5 + (2 X 1)	11,5	117,0	200,0

**nach / acc. Diverse: U, V, 5, 6, W, GNGE, 7, 8**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1505394	4 G 0,75 + 2 X (2 X 0,34)	9,7	79,0	132,0
1505396	4 G 1,5 + 2 X (2 X 0,5)	12,0	123,0	211,0
1505397	4 G 1,5 + 2 X (2 X 1)	13,0	149,0	249,0
1505398	4 G 2,5 + 2 X (2 X 0,75)	14,6	199,0	340,0
1505399	4 G 2,5 + 2 X (2 X 1,5)	15,6	243,0	377,0
1505400	4 G 4 + 2 X (2 X 1)	16,1	273,0	423,0
1505401	4 G 4 + 2 X (2 X 1,5)	16,7	312,0	450,0
1505402	4 G 6 + 2 X (2 X 1)	18,4	384,0	535,0
1505403	4 G 6 + 2 X (2 X 1,5)	19,4	424,0	57,8
1505404	4 G 10 + 2 X (2 X 1)	21,8	549,0	746,0
1505405	4 G 10 + 2 X (2 X 1,5)	22,5	589,0	810,0

**nach / acc. Diverse: U, V, 5, 6, W, GNGE, 7, 8**

Item no. [TKD]	Dimension	Outer-Ø [mm]	Cu Index [kg/km]	Weight [kg/km]
1505406	4 G 16 + 2 X (2 X 1)	25,3	801,0	1.107,0
1504289	4 G 16 + (2 X 1) + (2 X 1,5)	25,5	834,0	1.155,0