

# MULTISPEED® 500-PUR safety against high bending in drag chain systems, low torsion, halogen-free, meter marking



## Technical data

- Special drag chain cables for high mechanical stress in adapted to DIN VDE 0281 part 13, DIN VDE 0282 part 10 and E DIN VDE 0245
- **Temperature range**  
flexing -30°C to +105°C  
fixed installation -50°C to +105°C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V
- **Test voltage** 3000 V
- **Insulation resistance**  
min. 100 MΩm x km
- **Minimum bending radius**  
flexing 7,5x cable Ø  
fixed installation 4x cable Ø
- **Radiation resistance**  
up to 100x10<sup>6</sup> cJ/kg (up to 100 Mrad)

## Cable structure

- Bare copper, fine wire conductors, Unilay with short pitch length
- Special TPE core insulation
- Black cores with continuous white numbering
- Green-yellow earth core (3 cores and above)
- Stranding:  
<7 cores: cores stranded in a layer with optimal lay-length around a filler as per construction  
≥7 cores: cores stranded with optimal lay-length to bunch-construction with low torsion strength, optimal selected short lay-length around a filler
- Special-PUR outer sheath, especially resistant against fatigue strength, extruded as filler with pressure
- Sheath colour pine green (RAL 6028)
- with meter marking, change-over in 2009

## Properties

- 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)
- Low adhesion
- Halogen-free
- Oil resistance
- Better chemical resistance
- UV and ozone resistance
- Higher economical solution
- Reduced Ø, results low weight of moving materials
- High property of alternating bending strength
- High resistant to mechanical strain
- Long life durability due to low friction-resistance
- High tensile strength, abrasion- and impact resistance at low temperature
- Tear resistance and high stability
- 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).
- **screened analogue type:**  
**MULTISPEED® 500-C-PUR** cf. page C 21

## Application

For permanent application in drag chains for long distances, high and low speed of movements. These cables are installed in dry, moist and wet rooms and in open air with free movement without tensile stress or forced movements. These robust and abrasion resistant special control cables are installed there, where the problems appear for the application in permanent stresses e.g. in energy drag chains, industry robotics, production lines, automatic control systems and permanent movable machinery parts for multi-shift operation. These cables are installed everywhere, where high requirements for the flexibility, abrasion, oxygen and chemical resistance are necessary.

For applications which go beyond standard solutions we recommend for our especially developed enquiry sheet for energy guiding systems.

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.
24119	2 x 0,5	4,3	9,6	41,0	20	24138	5 G 1	6,7	48,0	84,0	17
24120	3 G 0,5	4,6	14,4	48,0	20	24139	7 G 1	11,1	67,0	111,0	17
24121	4 G 0,5	5,0	19,0	62,0	20	24140	12 G 1	12,0	115,0	200,0	17
24122	5 G 0,5	5,4	24,0	70,0	20	24141	18 G 1	14,8	173,0	286,0	17
24123	7 G 0,5	8,9	33,6	88,0	20	24142	25 G 1	17,2	240,0	370,0	17
24124	12 G 0,5	9,7	58,0	131,0	20						
24125	18 G 0,5	11,8	86,0	204,0	20	24143	3 G 1,5	6,4	43,0	81,0	16
24126	25 G 0,5	13,9	120,0	266,0	20	24144	4 G 1,5	7,0	58,0	102,0	16
						24145	5 G 1,5	7,8	72,0	121,0	16
24127	3 G 0,75	5,2	21,6	51,0	18	24146	7 G 1,5	13,0	101,0	164,0	16
24128	4 G 0,75	5,6	29,0	68,0	18	24147	12 G 1,5	14,2	173,0	293,0	16
24129	5 G 0,75	6,3	36,0	73,0	18	24148	18 G 1,5	17,5	259,0	450,0	16
24130	7 G 0,75	10,3	50,0	92,0	18	24149	25 G 1,5	20,1	360,0	631,0	16
24131	12 G 0,75	11,0	86,0	170,0	18						
24132	18 G 0,75	13,9	130,0	257,0	18	24150	4 G 2,5	8,8	86,0	173,0	14
24133	25 G 0,75	15,9	180,0	280,0	18	24151	5 G 2,5	9,8	120,0	220,0	14
24134	36 G 0,75	19,6	260,0	411,0	18	24152	7 G 2,5	16,1	168,0	290,0	14
24135	42 G 0,75	21,5	302,0	608,0	18	24153	12 G 2,5	17,8	288,0	504,0	14
						24154	18 G 2,5	21,8	432,0	719,0	14
24136	3 G 1	5,4	29,0	59,0	17	24155	25 G 2,5	24,4	600,0	940,0	14
24137	4 G 1	5,9	38,0	71,0	17						

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