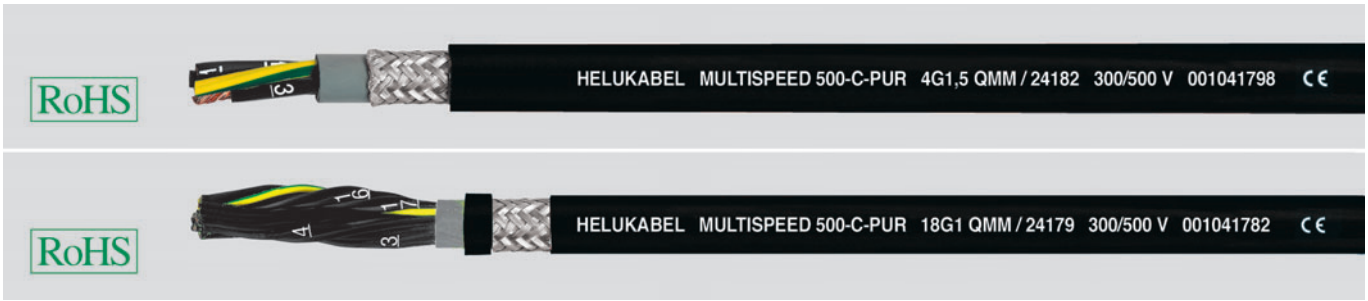
MULTISPEED® 500-C-PUR safety against high bending in drag chain systems, low torsion, halogen-free, EMC-preferred type, halogen-free, meter marking



Technical data

- Special drag chain cables for high mechanical stress in adapted to DIN VDE 0281 part 3, DIN VDE 0282 part 10 and DIN VDE 0245
- **Temperature range**
  flexing -30 °C to +80 °C
  fixed installation -50 °C to +80 °C
- **Nominal voltage** U_0/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
- **Coupling resistant**
  max. 250 Ohm/km
- **Radiation resistance**
  up to 100x10^6 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-TPE inner sheath, extruded as filler with pressure, grey RAL 7001
- Tinned copper braided screen, coverage 85% max., with optimal pitch
- Fleece separator, ensure good dismantling ability
- Special-PUR outer sheath
- Sheath colour black (RAL 9005)
- with meter marking, change-over in 2011

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
- High property of alternating bending strength
- High resistant to mechanical strain
- Long life durabilitys due to low friction-resistance
- High tensile strength, abrasion- and impact resistance at low temperature
- Tear resistance
- High stability and oil resistance
- Better chemical resistance
- UV and ozone resistance
- Higher economical solution
- Reduced ø, results low weight of moving materials
- 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).
- unscreened analogue type:
  MULTISPEED® 500-PUR see page C 16

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. These cables are installed everywhere, where high requirements for the flexibility, abrasion, oxygen and chemical resistance are necessary. These screened cables are particularly suitable for the interference-free transmission in instrumentation and control engineering applications. For applications which go beyond standard solutions we recommend for our especially developed enquiry sheet for energy guiding systems.
EMC = Electromagnetic compatibillity
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. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
24156	2 x 0,5	6,4	30,0	90,0	20
24157	3 G 0,5	6,7	36,0	104,0	20
24158	4 G 0,5	7,2	42,0	118,0	20
24159	5 G 0,5	7,6	48,0	148,0	20
24160	7 G 0,5	11,4	64,0	184,0	20
24161	9 G 0,5	11,4	80,0	219,0	20
24162	12 G 0,5	12,4	105,0	276,0	20
24163	18 G 0,5	14,7	137,0	378,0	20
24164	25 G 0,5	17,1	210,0	547,0	20
24165	2 x 0,75	6,8	40,0	100,0	18
24166	3 G 0,75	7,3	48,0	117,0	18
24167	4 G 0,75	7,8	55,0	143,0	18
24168	5 G 0,75	8,3	66,0	167,0	18
24169	7 G 0,75	12,7	85,0	229,0	18
24170	12 G 0,75	13,7	135,0	319,0	18
24171	18 G 0,75	17,1	190,0	492,0	18
24172	25 G 0,75	19,5	275,0	659,0	18

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
24173	2 x 1	7,1	50,0	120,0	17
24174	3 G 1	7,6	59,0	140,0	17
24175	4 G 1	8,1	70,0	167,0	17
24176	5 G 1	8,9	84,0	201,0	17
24177	7 G 1	13,6	106,0	256,0	17
24178	12 G 1	14,6	174,0	417,0	17
24179	18 G 1	18,4	240,0	557,0	17
24180	25 G 1	21,0	332,0	766,0	17
24181	3 G 1,5	8,4	75,0	170,0	16
24182	4 G 1,5	9,1	90,0	204,0	16
24183	5 G 1,5	10,2	108,0	236,0	16
24184	7 G 1,5	15,7	157,0	309,0	16
24185	12 G 1,5	17,4	240,0	509,0	16
24186	18 G 1,5	21,3	355,0	718,0	16
24187	25 G 1,5	24,3	448,0	944,0	16
24188	4 G 2,5	11,2	134,0	280,0	14
24189	5 G 2,5	12,2	175,0	346,0	14
24190	7 G 2,5	14,0	229,0	410,0	14

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