



## Technical data

- Special PVC control cables, adapted to DIN VDE 0245, 0281 part 13
- **Temperature range**  
flexing -5°C to +80°C  
fixed installation -30°C to +80°C
- **Nominal voltage**  $U_0/U$  300/500 V
- **Test voltage**  
core/core 4000 V  
core/screen 2000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**  
min. 20 MΩm x km
- **Mutual capacitance** according to different cross-sections  
0,5 mm<sup>2</sup> to 2,5 mm<sup>2</sup>:  
core/core approx. 150 nF/km  
core/screen approx. 270 nF/km
- **Coupling resistance**  
max. 250 Ωm/km
- **Minimum bending radius**  
flexing 10x cable Ø  
fixed installation 5x cable Ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> Cj/kg (up to 80 Mrad)

## Cable construction

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of special PVC Z7225
- Black cores with continuous white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Cores stranded in layers with optimal lay-length
- Foil separator
- Tinned copper braided screening, approx. 85% coverage
- Special PVC outer sheath TM2, to special PVC, TM2 to DIN VDE 0281 part 1 and HD 21.1
- Colour grey (RAL 7001)

## Properties

- Extensively oil resistant.  
Chemical Resistance - see table Technical Informations
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- 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).
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- Please note the cleanroom qualification when ordering.
- To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

## Application

For use as a data cable in control circuits, in tool-making and machine industries as well as a signal cable in computer systems and electronics. The more usual PVC inner sheath has been replaced in these cables by a stabilising foil separator, thus reducing the total diameter of the cables considerably and thereby reducing the bending radius, total weight etc. The high covering percentage of the copper screening offers interference-free signal transfer etc.

The dense screening assures disturbance-free transmission of all signals and impulses. An ideal disturbance-free control cable for the above application.

**EMC** = Electromagnetic compatibility

**CE** = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
16320	2 x 0,5	5,7	29,0	45,0	20
16321	3 G 0,5	6,0	39,0	55,0	20
16322	4 G 0,5	6,5	46,0	61,0	20
16323	5 G 0,5	7,0	52,0	74,0	20
16324	6 G 0,5	7,4	66,0	89,0	20
16325	7 G 0,5	7,9	68,0	98,0	20
16326	8 G 0,5	8,5	80,0	117,0	20
16327	10 G 0,5	9,3	93,0	135,0	20
16328	12 G 0,5	9,6	117,0	157,0	20
16329	14 G 0,5	10,0	122,0	190,0	20
16330	16 G 0,5	10,7	129,0	210,0	20
16331	18 G 0,5	11,2	152,0	217,0	20
16332	20 G 0,5	11,9	173,0	240,0	20

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
16333	21 G 0,5	12,5	189,0	250,0	20
16334	24 G 0,5	12,9	236,0	300,0	20
16335	25 G 0,5	13,5	250,0	314,0	20
16336	30 G 0,5	14,0	297,0	360,0	20
16337	32 G 0,5	14,6	301,0	425,0	20
16165	34 G 0,5	15,3	312,0	433,0	20
16338	36 G 0,5	15,3	320,0	446,0	20
16339	40 G 0,5	16,4	345,0	475,0	20
16490	41 G 0,5	16,4	355,0	486,0	20
16340	50 G 0,5	18,1	407,0	573,0	20
16341	61 G 0,5	19,8	580,0	653,0	20
16342	80 G 0,5	21,9	690,0	784,0	20
16343	100 G 0,5	24,3	814,0	995,0	20

Dimensions and specifications may be changed without prior notice.

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