HELUKABEL® USB BUS 3.0 PUR CHAIN

TECHNICAL DATA

USB bus core acc. to AWM Style 20963 AWM I/II A/B

Temperature range	flexible -30°C to +70°C
Test voltage core/core	500 V
Conductor resistance at 20°C	max. 233 Ohm/km
Loop resistance at 20°C	max. 446 Ohm/km
Insulation resistance	min. 10 GOhm x km
Mutual capacitance core/core	USB 3.0: at 800 Hz, approx. 60 pF/m USB 2.0: at 800 Hz, approx. 52 pF/m
Rel. Velocity of Propagation	USB 3.0: approx. 75% USB 2.0: approx. 67%
Characteristic impedance	USB 3.0: at 1 - 1000 MHz, 90 +- 18 Ohm USB 2.0: at 1 MHz, 105 +- 15 Ohm
Caloric load	approx. 0.69 MJ/m
Minimum bending radius	flexible 6x Outer-Ø

CABLE STRUCTURE

- Inner conductor: Copper, tinned (AWG 28/19)
- Core insulation USB 3.0: Foam-skin-PE
- Core insulation USB 2.0: PE
- Colour pairs: bu/ye, or/vio
- Colour pairs: rd/bk, gn/gn-wh
- Stranding element 1: Double core
- Separator: Polyester foil over stranded bundle
- Shielding USB 3.0: aluminium foil + braid, tinned
- Total shielding: Cu braid, tinned
- Outer sheath: PUR
- Sheath colour: violet

PROPERTIES

- halogen-free
- flame-retardant

TESTS

- USB-Standard 3.0
- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 603321-2 / IEC 60332-1-2, CSA FT1

APPLICATION

HELUKABEL ® USB BUS 3.0 PUR CHAIN, designed specifically for use in heavy-duty industries, are the ideal solution for highly-flexible applications such as drag chains and camera technology. They guarantee superior transmission properties. The design includes 2 shielded pairs for USB 3.0 and 2 unshielded pairs for USB 2.0 and power supply.

NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm²) are approximated and are for reference only

TYPICAL VALUES

Frequency (MHz)	1	625	1200
Attenuation USB 2.0 (dB/100m)	4.0	126.0	195.0
Attenuation USB 2.0 (dB/100m)	4.0	115.0	180.0

Part no.	No. cores x AWG-No.	Cross-sec. mm², approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx
805287	2 x 2 x AWG 28 + 2 x (1 x 2 x AWG 28)	0.09	6.5	42.0	62.0