



for fixed installations, Typ A, UL/CSA



APPLICATION

Data cable for the transmission of digital and analog signals for Industrial Ethernet, ICT network applications and in PROFINET systems. Suitable for fixed installation, in harsh industrial environments for machine, device and control cabinet wiring.

Standard according to Industrial Ethernet-spec. & according to the requirements for industrial secondary & tertiary cabling: EN 50173, ISO/IEC 11801, TIA/EIA 568, TSB36, EN 50288, IEC 61156-5/-6



SPECIAL FEATURES

- Largely resistant to grease, coolant fluids and lubricants.
- Oil-resistant: acc. to DIN EN 60811-2-1 (Mineral oil) & acc. to UL OIL RES.
- UV-resistant: SUN RES acc. to UL 1581.
- Optimized EMC compliant shielding.
- FC-Type = 'fast-connect' construction.
- 4 pairs: 10/100/1000Mbit/s (Cat.5e,6) & 10Gbit/s (Cat.6A,7,7A) for Industrial Ethernet
- HF-characteristics Cat.5e,6,6A,7 & 7A acc.to IEC 61156-5 (solid)

REMARKS

- Complies with RoHS and the 2014/35/EU Directive (Low Voltage Directive) CE.
- LABS-/silicone-free (during production).
- max. cable lengths at stated transmission rate:
Typ A: 100m

PRODUCT DETAILS

DESIGN

Conductor material	bare copper wire
Conductor class	solid
Core insulation	Polyolefin
Core identification	wh-bu, wh-og, wh-gn, wh-bn
Stranding	cores twisted to pairs
Overall shielding	SF/UTP: copper braid tinned over alu-lamin. polyester foil, metal side outs., cover. 100%; S/FTP: copper braid tinned as overall shield & alu-lamin. polyester foil as pair shield, cover. 100%
Outer sheath material	PVC
Outer sheath color	green, RAL 6018 (GN)

ELECTRICAL PROPERTIES

Rated voltage	125 V (not for high voltage purposes)
Loop resistance	max. 115,0 Ω /km – AWG 22 , max.187,6 Ω /km - AWG24
Capacity	nom. 48 nF/km
Characteristic impedance	100 +/- 15 Ω
Data transfer rate	Cat.5e,6: up to 1.024Mbit/s Cat.6A,7,7A: up to 10Gbit/s.

MECHANICAL & DYNAMIC PROPERTIES

Min. bending radius fixed	8 x d
Min. bending radius moved	15 x d

THERMAL PROPERTIES

Operat. temp. fixed min/max	-40 °C / +80 °C
Operat. temp. moved min/max	-10 °C / +70 °C

FIRE BEHAVIOR

Burning behavior	flame-retardant acc. to IEC 60332-1, UL/CSA types: acc. to IEC 60332-3-24, FT4
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CHEMICAL RESISTANCE & OTHER

Oil resistance
UV resistance

OIL RES acc. to UL 1277 and UL 1063; acc. to DIN EN 60811-2-1 (Mineral oil)
SUN RES acc. to UL 1581

STANDARDS & APPROVALS

Standards
Approvals

acc. to EN 50173, ISO/IEC 11801, TIA/EIA 568, TSB36, EN 50288, IEC 61156-5/-6
UL/CSA types : cULus: 300V, 75°C, CMG/PLTC/SunRes/OilRes

ITEM OVERVIEW

INDUSTRIAL ETHERNET - STANDARD Cat.5e - CMG

Item no.	OEM Reference	Type	Dimension [n x 2 x AWG]	Conductor structure	Outer-Ø [mm] nom.	Outer-Ø. [inch] nom.	Weight [≈lbs/mft]
2003742		C-PVC UL/CSA SF/UTP 5e - GN	4 X 2 X AWG 24/1	► AWG 24 (1/AWG 24) – 0,51 mm	6,5	0,256	40,3

INDUSTRIAL ETHERNET - STANDARD Cat.6 - CMG

Item no.	OEM Reference	Type	Dimension [n x 2 x AWG]	Conductor structure	Outer-Ø [mm] nom.	Outer-Ø. [inch] nom.	Weight [≈lbs/mft]
2003744	6XV1878-2A	FC C-PVC UL/CSA SF/UTP 6 - GN	4 X 2 X AWG 24/1	► AWG 24 (1/AWG 24) – 0,51 mm	8,0	0,315	56,4
2003743	6XV1870-2E	FC C-PVC UL/CSA S/FTP 6 - GN	4 X 2 X AWG 22/1	► AWG 22 (1/AWG 22) - 0,64mm	9,6	0,378	68,5

INDUSTRIAL ETHERNET - STANDARD Cat.7 - CMG

Item no.	OEM Reference	Type	Dimension [n x 2 x AWG]	Conductor structure	Outer-Ø [mm] nom.	Outer-Ø. [inch] nom.	Weight [≈lbs/mft]
2003745		C-PVC UL/CSA S/FTP 7 - GN	4 X 2 X AWG 22/1	► AWG 22 (1/AWG 22) - 0,64mm	8,8	0,347	53,8