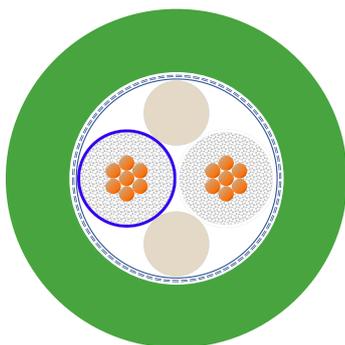


<b>2170922</b>	<b>DATA SHEET</b>	
<b>valid from: 26.10.2023</b>	<b>ETHERLINE® T1 PN FLEX T Y 1x2x22/7 AWG</b>	

## Application

Field of use:	Flexible Industrial Ethernet cable for generic cable system acc. to ISO/IEC 11801 and EN 50173. Suitable for occasional flexing. Meeting the transmission requirements of IEC 61156-11, T1-D (Downwards compatible to T1-C and T1-A-100). PROFINET® Type B acc. to the "PROFINET Cabling and Interconnection Technology" guideline.
Performance:	1-pair, overall braid and foil screened symmetrical cable (SF/UTP), having a nominal impedance of 100 Ω, supporting a bandwidth of 1 Gbit/s (e.g. 10BASE T1, 100BASE-T1, 1000BASE-T1) over up to 40 m.
Characteristics:	flame retardant, no flame propagation, oil resistant, UV resistant
Applications:	PROFINET® Type B flexible cable for occasional movement or vibration, 10BASE-T1 (IEEE 802.3cg), 100BASE-T1 (IEEE 802.3bw), 1000BASE-T1 (IEEE 802.3bp), PoDL (IEEE 802.3bu) and other



## Design

Certification	E224262 UL PLTC 75°C OIL RES I SUN RES acc. to UL 13 E236660 c(UL)us CM 75°C acc. to UL 444 & CSA 22.2 No. 214 E63634 cRUus AWM Style 21695 AWM I/II A/B 80°C 600V FT1 acc. to UL 758 & CSA 22.2 No. 210
Conductor	stranded bare copper 22/7 AWG (0.34 mm <sup>2</sup> )
Insulation	foam-skin polyolefine core diameter: max. 1.65 mm
Core identification code	white/blue
Stranding	two cores stranded to pair (with filling elements)
Taping	plastic tape
Screen	plastic laminated aluminium foil (overlapping) on top: braid of tinned copper wires (coverage: nom. 85 %)
Outer sheath	PVC (Polyvinylchloride) green, similar to RAL 6018 outer diameter: nom. 5.8 mm (± 0.3 mm)

## Electrical properties at 20 °C

Loop resistance	20 °C:	≤ 11.08 Ω/100 m
Test voltage	core/core:	2000 V
	core/screen:	2000 V
Rated voltage	UL:	300 V acc. to UL 13 and UL 444 600 V acc. to UL 758
	IEC/EN:	125 V (not intended to be used in conjunction with low impedance sources, such as power grids)
Insulation resistance	20 °C:	≥ 5 GΩxkm
Mutual capacitance	1 kHz:	nom. 45 nF/km
Capacitance unbalance	1 kHz:	≤ 1200 pF/km
Inductance	1 kHz:	nom. 700 mH/km

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Temperature range	fixed installation: -40 °C up to +80 °C occasional flexing: -10 °C up to +70 °C UL: 75 °C acc. to UL 13 and UL 444 80 °C acc. to UL 758
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Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 FT2 horizontal flame test acc. to UL 1581 §1100 FT1 vertical flame test acc. to UL 1581, §1060 UL flame exposure acc. to UL 1685, §4 - §11
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Oil resistance	OIL RES I acc. to UL 13, §40.2
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UV resistance	SUN RES acc. to UL 13, § 29
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**General requirements**

These cables conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and the LV-Directive 2014/35/EU (Low voltage Directive).

**Environmental information**

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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