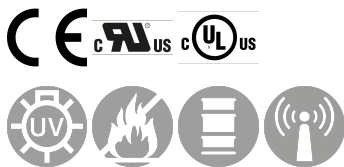
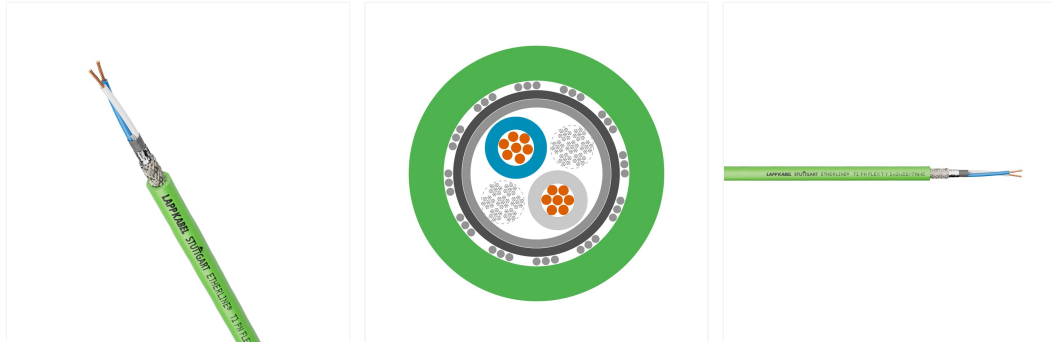


**ETHERLINE® T1 PN FLEX T Y 1x2x22/7AWG**
**Article No.:** 2170922

Single Pair Ethernet cable; Flexible; Ethernet; PROFINET® application: Type B; PVC; green



## Details

### Benefits

- Fast information exchange thanks to future-proof Single Pair Ethernet (SPE) technology for a consistent and uniform network infrastructure right up to the field level.
- Ethernet networking of the field devices enables real-time data collection and analysis as well as providing a wealth of additional information (big data) for process optimization (e.g. predictive maintenance).
- Complete interoperability of field devices and systems from various manufacturers thanks to seamless connection to the Industrial Ethernet network.
- For the transmission of analog and digital signals in the frequency range up to 600 MHz and up to 40 m (131.24 ft) distance.
- Single-paired cable design saves weight and space. Small bending radii and outer diameters are essential for connection to the field level.
- Power over Data Line (PoDL)-capable cable according to IEEE 802.3bu for simultaneous power and data supply of SPE terminal devices with low energy requirements (up to 50 W).
- Ideal protection against electromagnetic interference thanks to double shielding made of aluminum-laminated foil and copper shielding braiding with high degree of coverage (SF/UTP).
- UL certification according to technical data enables the product to be used on the North American market.

### Application

- For structured building cabling according to DIN EN 50173 and ISO/IEC 11801.
- For Single Pair Ethernet (SPE) applications 100Base-T1 according to IEEE 802.3bw and 1000Base-T1 according to IEEE 802.3bp.
- Also available as a Power Limited Tray Cable (PLTC) variant listed according to UL for open installation on cable trays.
- For fixed installation and occasional flexing.
- Can be used in dry and damp rooms.
- Suitable for medium mechanical stress.
- The PVC outer jacket is resistant to acids and alkaline solutions and has limited oil resistance.

### Notes

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

If applicable, the prices are solid metal prices without additional charges and VAT. Sales only to business customers.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive additional values, such as tolerances, upon request if they are available and have been released for publication.

The absence of PWIS raw materials does not protect against the potential risk of contamination with substances that interfere with the paint wetting during subsequent handling of the product(s) during transport, storage or further processing after delivery.

### Remarks

### Technical Data

#### General information

Brand	ETHERLINE®
Product type	Single Pair Ethernet cable
Copper index	134.39 lb/10000 ft
valid Fieldbus or Ethernet System	Ethernet

#### Electrical parameters

Nominal voltage	50 V AC rms according to (manufacturer specifications)
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Rated voltage conductor to conductor	50 V AC rms according to IEC 600 V AC rms according to UL AWM
Maximum operating voltage (not for power transmission)	125 V
Test voltage conductor/conductor	2 kV
Test voltage conductor/shielding	2 kV
Supports Power over Ethernet	IEEE 802.3bu (PoDL)
Loop resistance at 20°C	110.8 Ω/km
Nominal characteristic impedance	100 Ω
Possible data transmission rates	1000 Mbit/s
Nominal velocity of propagation	0.76 c

### Product design

Conductor count/size	1x2x22/7AWG
Nominal cross section conductor (AWG)	22 AWG
Leading conductor cross-section	AWG
Wire count	7
Conductor material	Bare Copper
Conductor design	7-wire
Including protective ground	No
Number of cores	2
Number of pairs	1
Stranding type	Twisted-pair
Wrapping above stranding	Plastic film
Shielded	Yes
Type of overall shielding	Aluminum-laminated plastic foil Tin-plated copper braiding
Optical degree of coverage of the stranded shielding, overall shield	85 %
Nominal conductor diameter	0.063 in
Nominal outer diameter	0.228 in
Cable form	Round
Core insulation base material	Polyethylene foam
Conductor insulation basic material, short form	Foam-Skin PE

Basic material of outer jacket	Polyvinylchloride
Base material of outer sheath, shortname	PVC
Outer jacket color	green
Colour outer sheath RAL code	RAL 6018
Core identification	Colors
Conductor color code	PROFINET Colour code SPE

**Product features**

Application area	Flexible
PROFINET® application	Type B
Installation type	Cable tray
For permanent bending	No
For torsional load	No
Windable	No
Minimum bending radius, stationary	4 x outer diameter
Minimum bending radius in inch, fixed installation	0.913 in
Minimum bending radius, occasionally moved	8 x outer diameter
Minimum bending radius in mm, occasionally moved	1.827 in
Flame-retardant	Yes
Flame retardance according to	UL Horizontal Flame Test UL Vertical-Tray Flame Test IEC 60332-1-2
UV-resistant	Yes
UV-resistant according to	UL sunlight resistant
Halogenfree	No
Oil resistant	Yes
Oil resistance according to	UL OILRES I
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L
Fast Connect (FC) cable	No

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**Certifications and standards**

CE marking	Yes
UL recognized	Yes
UL listed	Yes
UL certification	UL PLTC according to UL 13
cUR recognized	Yes
cUR certification	AWM I A according to CSA C22.2 No. 210 (e-file number: E63634) AWM I B according to CSA C22.2 No. 210 (e-file number: E63634) AWM II A according to CSA C22.2 No. 210 (e-file number: E63634) AWM II B according to CSA C22.2 No. 210 (e-file number: E63634)
cUL listed	Yes
cUL certification	cUL CMX (75°C) according to CSA C22.2 No. 214 (e-file number: E236660)
CSA certified	No
VDE certified	No
Tested for fire protection for railway vehicles	No
Ecolab certified	No

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**ETHERLINE® T1 FLEX**

Article No.	Name	Conductor count/size	Nominal cross section conductor (mm <sup>2</sup> )	Ethernet cable category	Nominal outer diameter	Copper index
2170922	ETHERLINE® T1 PN FLEX T Y 1x2x22/7AWG	1x2x22/7AWG			0.228 in	134.39 lb/10000 ft
2170924	ETHERLINE® T1 PN FLEX Y 1x2x22/7AWG	1x2x22/7AWG			0.217 in	
2170925	ETHERLINE® T1 FLEX Y 1x2x26/7AWG	1x2x26/7AWG			0.181 in	79.96 lb/10000 ft

V1.1