ETHERLINE® T1 FD

Single Pair Ethernet data cable for highly flexible use

Highly flexible, shielded single pair Ethernet data cable with PUR outer jacket and UL approval. Suitable for continuous flexing use in drag chains.

Info
Single Pair Ethernet
Industrial Ethernet at the Edge
For highly flexible applications

- Supplementary automation components from Lapp
- Mechanical and plant engineering
- Suitable for outdoor use
- Flame-retardant
- Halogen-free
- Mechanical resistance
- Assembly time
- Low weight

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You can find the current technical data in the corresponding data sheet.
PN 0456 / 02_03.16

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Space requirement

Power chain

Interference signals

Benefits

Successfully tested to over 3.0 million bending cycles in the drag chain.
Fast information exchange through future-proof Single Pair Ethernet (SPE) technology for a continuous and uniform network infrastructure down to the field level.
A single-pair cable design saves weight and space. Small bending radii and outer diameters are essential for the connection to the field level.
Power-over-Data-Line (PoDL)-capable line according to IEEE 802.3bu for simultaneous power and data supply of SPE terminals with low power requirements (up to 50 W).
Ideal protection against electromagnetic interference due to double shielding of aluminum-clad foil and copper braided shield with high coverage (SF/UTP).

Application range

For Single-Pair-Ethernet applications 100Base-T1 according to IEEE 802.3bw and 1000Base-T1 according to IEEE 802.3bp.
Cable design allows highly flexible, continuously moving use in moving machine parts and in the drag chain.
Can be used in dry, damp and especially in harsh and oily environments.
PUR outer sheath withstands high mechanical loads
PUR outer sheath is insensitive to mineral oil-based lubricants and chemically resistant in many cases

Product features

UV-resistant according to ISO 4892-2
PUR versions: UL AWM Style 20549
Flame-retardant according to IEC 60332-1-2, UL FT-2 flame test
Halogen-free according to IEC 60754-1
Oil-resistant according to EN 50363-10-2

Norm references / Approvals

IEEE 802.3cg: 10BASE-T1
IEEE 802.3bw: 100BASE-T1
IEEE 802.3bp: 1000BASE-T1
Electrical performance acc. to IEC 61156-12

Product Make-up

fine-wire stranded bare copper, 19-wire
Core insulation: Based on Polyolefin
Screening: wrapping of laminated aluminium foil in combination with tinned copper braiding
Outer sheath: PUR compound, halogen-free

Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC000830 ETIM 6.0 Class-Description: Data cable

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Peak operating voltage:	(not for power applications) 125 V
Minimum bending radius:	Fixed installation: 4 x outer diameter Flexing: 15 x outer diameter
Test voltage:	C/C: 2000 V C/S: 2000 V
Characteristic impedance:	nom. 100 Ω

Note
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Article number	Article designation	Number of pairs and AWG per conductor	Core diameter in mm	Outer diameter mm	Copper index (kg/km)	Weight (kg/km)
2170920	ETHERLINE T1 FD P 1x2x26/19AWG	1x2x26/19AWG	1.05	4.6	12.3	27.4

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