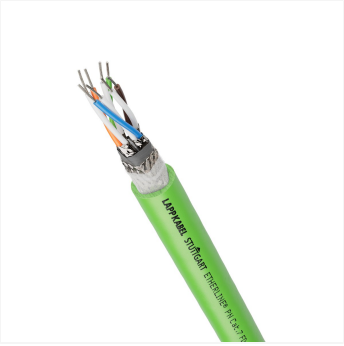
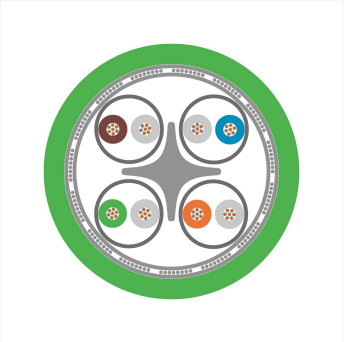
ETHERLINE® PN Cat.7 FD P 4x2x24/7AWG

Article No.: 2170487

Ethernet cable; Cable chain, Flexible; PROFINET, ETHERNET/IP, EtherCAT; PROFINET® application: Type C; Cat.7; SF/FTP; PUR; Halogen-free; green


Details

Benefits

- Fast information exchange through Ethernet technology.
- Cat. 7 performance up to 10 Gbit/s.
- For transmission of analogue and digital signals in the frequency range up to 600 MHz.
- Power over Ethernet-capable cable for simultaneous power and data supply of smaller network components with low energy requirements (e.g. IP cameras, wireless access points).
- Idealer Schutz vor elektromagnetischer Störung durch Paarschirmung mit Aluverbundfolie und doppelter Gesamtschirmung aus aluminiumkaschierter Folie und Kupferabschirmgeflecht mit hohem Bedeckungsgrad (SF/FTP).
- Successfully tested for over 3.0 million bending cycles in cable chains.
- UL/CSA certification according to technical data enables the product to be used in the North American market.

Application

- For highly flexible, constantly moving use in moving machine parts and in cable chains in the PROFINET network (type C).
- Also suitable for EtherCAT and EtherNet/IP applications.
- Suitable for all LAN networks and Ethernet applications up to 10GBase-T.

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- Can be used in dry and damp environments.
- The PUR outer sheath withstands high mechanical loads.
- The PUR outer sheath is resistant to mineral oil-based lubricants and highly resistant to chemicals.
- Suitable for outdoor use.

Notes

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

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

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.

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

Remarks

Technical Data

General information

Brand	ETHERLINE®
Product type	Ethernet cable
Weight	98 kg/km
Copper index	44 kg/km
valid fieldbus or Ethernet system	PROFINET ETHERNET/IP EtherCAT
customs code	85444993

Electrical parameters

Rated voltage core to core	600 V AC rms according to cRU AWM
Maximum operating voltage (not for power transmission)	100 V
Test voltage core/core	2 kV
Test voltage core/screening	2 kV

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Test voltage	2 kV
Supports Power over Ethernet	IEEE 802.3af (PoE) IEEE 802.3at (PoE+) IEEE 802.3bt (4PPoE)
Loop resistance at 20°C	87.6 Ω/km
Nominal surge impedance	100 Ω
Possible data transmission rates	10000 Mbit/s

Product design

Conductor number/size	4x2x24/7 AWG
Leading conductor cross-section	AWG
Number of wires	7
Conductor material	Tin-plated copper
Conductor design	7-wire
Including protective earth	No
Number of cores	8
Number of pairs	4
Pair shielding type	Aluminium-laminated plastic foil
Stranding type	Twisted-pair
Additional stranding element	Cross separator
Shielded	Yes
Type of overall screening	Aluminium-steamed fleece Tin-plated copper braiding
Shielding, short form	SF/FTP
Optical degree of coverage of the stranded screening, overall screen	85 %
Wrapping over screening	Textile wrapping
With armouring	No
With rodent protection	No
Nominal core diameter	1.4 mm
Nominal outer diameter	9.4 mm
Cable shape	Round
Core insulation basic material	Polyethylene foam
Core insulation basic material, short form	Foam-Skin PE

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Basic material of outer sheath	Polyurethane
Basic material of outer sheath, short form	PUR
Outer sheath colour	green
Cable sheath RAL colour	RAL 6018
Core identification	Colours
Conductor colour code	PROFINET Colour code 4-pair

Product features

Application area	Cable chain Flexible
PROFINET® application	Type C
For permanent bending	Yes
For torsional load	No
Reelable	No
Minimum bending radius, stationary	8 x outer diameter
Minimum bending radius in mm, fixed installation	75.2 mm
Minimum bending radius, dynamic continuously flexing	15 x outer diameter
Minimum bending radius in mm, dynamic continuously flexing	141 mm
Maximum bending cycles	3,000,000
Maximum travel distance	5 m
Temperature, fixed installation	-40 °C to 80 °C max. conductor temperature
Temperature, fixed installation max	80 °C
Temperature, fixed installation min	-40 °C
max. conductor temperature, occasionally moved	-10 °C to 70 °C max. conductor temperature
Temperature, occasionally moved max	70 °C
Temperature, occasionally moved min	-10 °C
Temperature, dynamic continuously flexing	-10 °C to 70 °C max. conductor temperature
Temperature, dynamic continuously flexing max	70 °C

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Temperature, dynamic continuously flexing min	-10 °C
Flame-retardant	Yes
Flame retardance according to	CSA FT2 IEC 60332-1-2
UV-resistant	Yes
UV-resistant according to	EN ISO 4892-2, method A (colour change permitted)
Halogen-free	Yes
Halogen-free according to	IEC 60754-1
Oil-resistant	Yes
Oil resistance according to	EN 50363-10-2
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L
Low-adhesive sheath surface	Yes
Ethernet cable category	Cat.7
Fast Connect (FC) cable	No

Certifications and standards

CE marking	Yes
UL recognized	Yes
UL AWM certification	21238 according to UL 758
UL listed	No
cUR recognised	Yes
cUR certification	AWM I A according to CSA C22.2 No. 210 AWM I B according to CSA C22.2 No. 210 AWM II A according to CSA C22.2 No. 210 AWM II B according to CSA C22.2 No. 210
cUL listed	Yes
cUL certification	cUL CMX (75°C) according to CSA C22.2 No. 210 (e-file number: E236660)
CSA certified	No
VDE certified	No
TÜV certified	No

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DNV-certified	No
Ecolab certified	No

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ETHERLINE® PN Cat.7 FD

Article No.	Name	Conductor number/size	Nominal outer diameter	Copper index	Weight
2170487	ETHERLINE® PN Cat.7 FD P 4x2x24/7AWG	4x2x24/7 AWG	9.4 mm	44 kg/km	98 kg/km

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