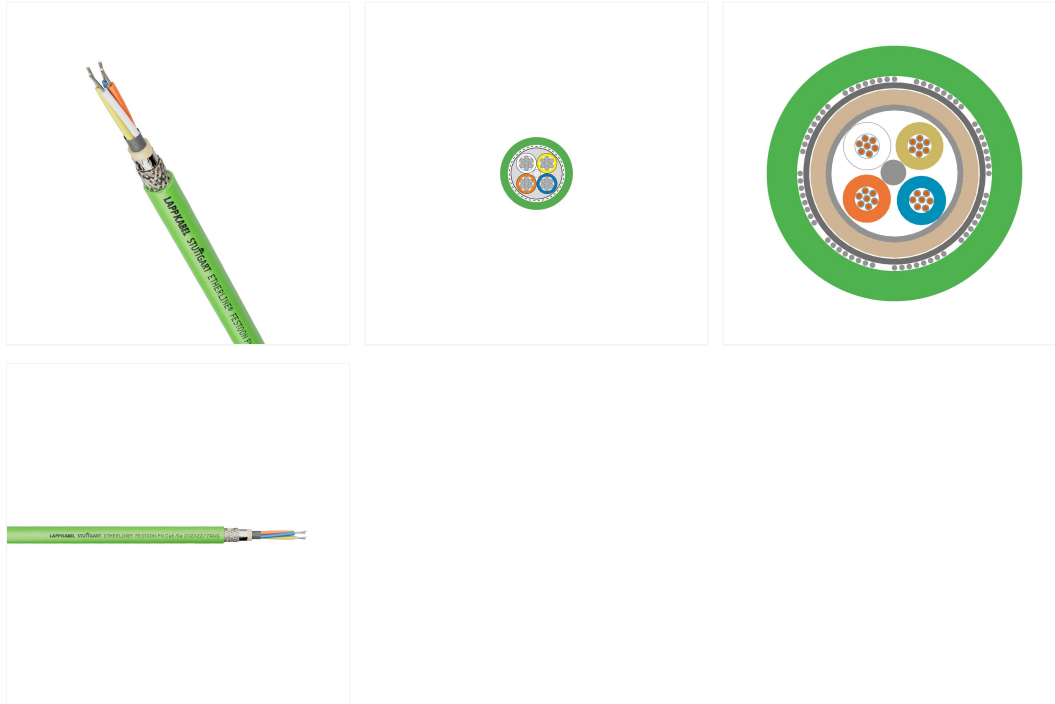


ETHERLINE® FESTOON PN Cat.5e
Article No.: 2170936

Ethernet cable; Cable chain, Flexible; ETHERNET/IP, PROFINET, Ethernet; PROFINET® application: Type C; Cat.5e; SF/UTP; PVC; green


Details
Benefits

- Fast information exchange through Ethernet technology.
- Cat. 5e performance up to 100 Mbit/s.
- For transmission of analog and digital signals in the frequency range up to 100 MHz.
- The "Fast Connect" design, including inner jacket and cross separator, significantly reduces the cable assembly time, by eliminating the time-consuming removal of the pair shielding. It also provides undiminished shielding of the conductor pairs.
- High resistance to electromagnetic interference thanks to star quad design as well as double shielding made of aluminum-laminated foil and high degree of copper shielding braiding (SF/UTP).

- UL/CSA certification according to technical data enables the product to be used on the North American market.

Application

- Specially designed for data and signal transmission in festoon systems (festoon suspension/cable cart).
- For highly flexible, continuously flexing use in moving machine parts and in the cable chain in the PROFINET network (type C).
- Also suitable for EtherCAT and EtherNET/IP applications.
- Can be used in dry, damp or wet environments.
- Withstands high mechanical stress.
- PVC outer jacket is resistant to acids and alkaline solutions and has increased oil resistance and flame retardance.
- Suitable for outdoor use.

Notes

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.

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 additional charges and VAT. Sales only to business customers.

PROFINET® is a registered trademark of PNO (PROFIBUS user organization).

Remarks

Technical Data

General information

Brand	ETHERLINE®
Product type	Ethernet cable
Copper index	215.03 lb/10000 ft
valid Fieldbus or Ethernet System	ETHERNET/IP PROFINET Ethernet

Electrical parameters

Nominal voltage	48 V AC rms according to IEC
Rated voltage conductor to conductor	600 V AC rms according to UL AWM 50 V AC rms according to IEC
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 802.3af (PoE) IEEE 802.3at (PoE+)
Loop resistance at 20°C	110.8 Ω /km
Nominal characteristic impedance	100 Ω
Possible data transmission rates	100 Mbit/s
Nominal velocity of propagation	0.67 c

Product design

Conductor count/size	2x2x22/7AWG
Nominal cross section conductor (mm ²)	0.34 mm ²
Nominal cross section conductor (AWG)	22 AWG
Nominal diameter conductor (mm)	0.03 in
Leading conductor cross-section	AWG
Wire count	7
Conductor material	Tin-plated Copper
Conductor design	7-wire
Including protective ground	No
Number of cores	4

Number of pairs	2
Stranding type	Star quad
Wrapping above stranding	Plastic film
Shielded	Yes
Type of overall shielding	Aluminum-laminated plastic foil Tin-plated copper braiding
Abbreviation shielding	SF/UTP
Optical degree of coverage of the stranded shielding, overall shield	85 %
With armoring	No
With rodent protection	No
With supporting element	No
Nominal conductor diameter	0.059 in
Min. outer diameter	0.248 in
Nominal outer diameter	0.256 in
Max. outer diameter	0.264 in
Cable form	Round
Core insulation base material	Polyethylene
Conductor insulation basic material, short form	PE
Basic material of inner jacket	Polyvinylchloride
Basic material of inner jacket, short form	PVC
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 Color code star quad

Product features

Application area	Cable chain Flexible
PROFINET® application	Type C
For permanent bending	Yes

For torsional load	No
Windable	No
Minimum bending radius, stationary	4 x outer diameter
Minimum bending radius in inch, fixed installation	1.055 in
Minimum bending radius, dynamic continuously flexing	10 x outer diameter
Minimum bending radius in inch, dynamic continuously flexing	2.638 in
Minimum bending radius, occasionally moved	10 x outer diameter
Minimum bending radius in mm, occasionally moved	2.638 in
Maximum bending cycles	5,000,000
Maximum travel distance	16.404 ft
Temperature, fixed installation	-40 °C to 80 °C max. conductor temperature
Temperature, occasionally moved	-10 °C to 70 °C max. conductor temperature
Installation temperature min.	-10 °C
Max. assembly temperature	70 °C
Flame-retardant	Yes
Flame retardance according to	CSA FT4 UL FT1
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
Ethernet cable category	Cat.5e
Fast Connect (FC) cable	Yes

Certifications and standards

CE marking	Yes
EAC certified	Yes
EAC certification number	EAЭC N RU Д-DE.АЮ64.В.00130/20
UL recognized	Yes
UL AWM certification	21694 according to UL 758 (e-file number: E63634)
UL listed	Yes
UL certification	UL PLTC according to UL 444 (e-file number: E236660)
cUR recognized	Yes
cUR certification	AWM I B according to CSA C22.2 No. 210 (e-file number: E236660) AWM I A according to CSA C22.2 No. 210 (e-file number: E236660) AWM II B according to CSA C22.2 No. 210 (e-file number: E236660) AWM II A according to CSA C22.2 No. 210 (e-file number: E236660)
cUL listed	Yes
cUL certification	cUL CMG (75°C) according to CSA C22.2 No. 210 (e-file number: E236660) cUL PLTC according to CSA C22.2 No. 210 (e-file number: E236660)
CSA certified	No
VDE certified	No
TÜV certified	No
DNV-certified	No
Ecolab certified	No

ETHERLINE® FESTOON PN Cat.5e

Article No.	Name	Conductor count/size	Basic material of outer jacket	Nominal outer diameter	Copper index
2170936	ETHERLINE® FESTOON PN Cat.5e	2x2x22/7AWG	Polyvinylchloride	0.256 in	215.03 lb/10000 ft

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