

ETHERLINE®

Data communication systems for ETHERNET technology



Our ETHERLINE® branded products open up a secure, fast and reliable path to the future of Ethernet applications. The systems are made up of durable and robust cables and connection components for passive network technology, and deliver an effective solution for almost any application, particularly in an industrial environment.

Application range

- Industry and building networks
- Industrial machinery and plant engineering
- Automation technology
- Control engineering



ETHERLINE® Cat.5e FD

Highly flexible application

Info

- Industrial Ethernet cable
- For highly flexible applications
- Only for patch cable applications (max. 60 m)



Benefits

- Seamless communication from the sensor/actuator level to the Internet
- Screened against interference
- Can be used in dry or damp rooms
- Industrial use
- Cables with PUR jacket: 1000 V UL- rating for installation next to power cables

Application range

- 2pair: 10/100 Mbit/s for Industrial Ethernet
- 4pair: 10/100/1000 Mbit/s for Industrial Ethernet
- Only for patch cable applications (max. 60 m)
- Suitable for EtherCAT and EtherNet/IP applications
- Power chain applications

Product features

- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference
- PUR outer sheath is highly resistant to mineral oils and abrasion
- Halogen-free outer sheath
- Cables with PUR jacket: 1000 V UL- rating for installation next to power cables

Norm references / Approvals

- PUR versions: UL AWM Style 21576
- Flame-retardant according IEC 60332-1-2
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
- Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)

Product Make-up

- Bare stranded copper wire, 26AWG (19 x 0.10), (0.14 mm²)
- Inner sheath: thermoplastic elastomer, halogen-free
- 2 or 4-pair version
- Screening: wrapped with braided tinned-copper wires
- PUR outer sheath
- Colour: water blue (RAL 5021)

Technical data

	Classification ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
	Peak operating voltage (not for power applications) 125 V
	Minimum bending radius Fixed installation: 8 x outer diameter Flexing: 15 x outer diameter
	Test voltage Core/core: 1000 V Core/screen: 500 V
	Characteristic impedance 100 Ohm +/- 15%
	Temperature range cable with PUR jacket Fixed installation: VDE -30°C to +80°C; UL/CSA -30°C to +80°C flexing: VDE -5°C to +50°C; UL/CSA -5°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
2-pair version					
2170289	ETHERLINE® FD P CAT.5e	2 x 2 x AWG26/19	6.2	20	48
4-pair version					
2170489	ETHERLINE® FD P CAT.5e	4 x 2 x AWG26/19	6.6	27	54

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil 100 m; Drum (500; 1000) m
Detailed data sheets are available upon request. Please specify the type/dimensions of the required cable.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- Connector RJ45 CAT.6 Hirose TM21 refer to main catalogue
- SMART STRIP stripping tool refer to main catalogue
- DATA STRIP stripping tool refer to main catalogue



ETHERLINE® Cat.5 FD BK

The Ethernet cable for installation in events



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Info

- For highly flexible industrial applications
- Cat.5e-Performance
- Only for patch cable applications (max. 60 m)

Benefits

- Additional application options thanks to suitability for outdoor use, UV-resistant
- Good flexibility - easy installation with tight space requirements
- Screened against interference
- Easy to coil for mobile use
- Usable on the roads

Application range

- IEEE 802.3: 10/100/1000Base-T
- IEEE 802.5: ISDN; FDDI; ATM
- Suitable for the transfer of audio signals (ETHERSOUND), light control signals (DMX over Ethernet), or for computer networking
- Only for patch cable applications (max. 60 m)
- Suitable for EtherCAT and EtherNet/IP applications
- 4pair: 10/100/1000 Mbit/s for Industrial Ethernet

Product features

- CAT.5-Performance
- Specifically developed for road environments
- Suitable for outdoor use, UV-resistant
- PUR outer sheath is highly resistant to mineral oils and abrasion
- Premium screening against electromagnetic interference

Norm references / Approvals

- UL AWM Style 21576
- Flame retardant acc. to IEC 60332-1-2
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
- Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)

Product Make-up

- Bare stranded copper wire, 26AWG (19 x 0.10), (0.14 mm²)
- Insulation: foam skin, max. core diameter 1.0 mm
- Twisting: 2 twisted-pair cores, stranding from 4 pairs
- Inner sheath: thermoplastic elastomer, halogen-free
- Screening: wrapped with braided tinned-copper wires
- Outer sheath: halogen-free PUR, black

Technical data

Classification
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Peak operating voltage
(not for power applications) 125 V

Minimum bending radius
Flexing: 15 x outer diameter
Fixed installation: 8 x outer diameter

Test voltage
Core/core: 1000 V
Core/screen: 500 V

Characteristic impedance
100 Ohm +- 15%

Temperature range
cable with PUR jacket
Fixed installation: VDE -30°C to +80°C;
UL/CSA -30°C to +80°C
flexing: VDE -5°C to +50°C;
UL/CSA -5°C to +80°C



ETHERLINE® EC FD Cat.5e

Highly flexible application



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Info

- For EtherCAT applications
- For highly flexible industrial applications
- Cat.5e-Performance

Benefits

- Can be used for Industrial Ethernet in harsh industrial environments
- Can be used in dry or damp rooms
- Lower space requirement

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- For highly flexible applications (power chains, moving machine parts)
- Many applications with Industrial Ethernet, e.g. EtherCat, i.e. fixed installation, flexible and highly flexible use
- For internal wiring of electric and electronic equipment in switch cabinets
- Only for patch cable applications (max. 60 m)

Product features

- PUR outer sheath, halogen-free
- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference

Norm references / Approvals

- UL/CSA type CMX in accordance with UL 444 and CSA C22.2 no. 214-02
- Flame-retardant according to UL VW1/ CSA FT1
- Halogen-free according to VDE 0472-815

Product Make-up

- Tinned stranded copper wire, 26AWG (19 x 0.10), (0.14 mm²)
- Core insulation: PE
- Insulation colour-codes: orange/white-orange; green/white-green
- Star quad
- SF/UTP: braid of tinned copper wire and plastic laminated aluminum foil as overall screening
- Outer sheath: PUR compound, halogen-free
- Colour: green (based on RAL 6018)

Technical data

Classification
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Peak operating voltage
max. 100 V (not for power applications)

Minimum bending radius
Fixed installation: 4 x Outer diameter
Flexing: 8 x outer diameter

Characteristic impedance
100 Ohm +- 15%

Temperature range
Fixed installation: -40°C to +80°C
Flexing: -30°C to +50°C

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ETHERLINE® EC FD Cat.5e					
2170433	ETHERLINE® P EC FD Cat.5e	1 x 4 x AWG26/19	5.0	20	35

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Detailed data sheets are available upon request. Please specify the type/dimensions of the required cable.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EPIC® SENSOR M8 refer to main catalogue

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ETHERLINE® Cat.5 FD BK					
CE217489	ETHERLINE® FD P BK Cat.5	4x2xAWG26/19	6.6	27	54

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Standard lengths: (100; 500; 1000) m
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- Connector RJ45 CAT.6 Hirose TM21 refer to main catalogue
- SMART STRIP stripping tool refer to main catalogue

Data communication systems for ETHERNET technology



Industrial Ethernet cable Cat.5/ Cat.5e • PROFINET Type C - continuous flexing application



ETHERLINE® PN Cat.5 FD

Highly flexible application



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Info

- Highly flexible application
- For PROFINET applications

Benefits

- Can be used in dry or damp rooms
- Screened against interference
- Can be used for Industrial Ethernet in harsh industrial environments
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Application range

- Power chain applications
- Wiring of machines, tools, devices, appliances and control cabinets
- Max. cable lenght für 100 Mbit/s is 85 m
- Suitable for EtherCAT and EtherNet/IP applications

Product features

- CAT.5-Performance
- PUR outer sheath is highly resistant to mineral oils and abrasion
- Flame-retardant according IEC 60332-1-2
- Optimized cable construction for power chain use
- Broad usages due to halogen-free materials

Norm references / Approvals

- UL/CSA type CMX (UL 444)

Product Make-up

- Fine-wire strand made of tinned-copper wires
- Star quad
- Colour-coded in accordance with PROFINET for Cat.5 applications
- Inner sheath: thermoplastic copolymer (FRNC)
- Overall screening with copper braid and plastic-laminated aluminium foil
- PUR outer sheath, halogen-free
- Colour: green (based on RAL 6018)

Technical data

Classification
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Peak operating voltage
(not for power applications) 125 V

Minimum bending radius
Flexing: 8 x outer diameter
Fixed installation: 5 x outer diameter

Test voltage
Core/core: 700 V
Core/screen: 700 V

Characteristic impedance
100 Ohm +/- 15%

Temperature range
Fixed installation: -30°C to +70°C
Flexing: -20°C to +60°C

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ETHERLINE® PN Cat.5 FD					
2170894	ETHERLINE® FD P FC CAT.5	2 x 2 x AWG22/7	6.8	31.3	63

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
PROFINET® is a registered trademark of the PNO (PROFIBUS user organisation)
Detailed data sheets are available upon request. Please specify the type/dimensions of the required cable.
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Accessories

- EPIC® DATA PN AX RJ45 refer to main catalogue
- EPIC® DATA PN 90 RJ45 refer to main catalogue
- EPIC® DATA AX RJ45 Cat.6_A IP68 refer to main catalogue
- EPIC® DATA M12D refer to main catalogue



Data communication systems for ETHERNET technology

Industrial Ethernet cable Cat.6 • Industrial Ethernet - high flexible application



ETHERLINE® CAT.6 FD

Highly flexible application



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Info

- CAT.6 for drag chain!

Benefits

- Highly flexible data cable with PUR outer sheath, meets the highest service life requirements, even under harsh climatic conditions.
- Premium screening against electromagnetic interference

Application range

- For use in drag chains and moving machinery parts in dry or damp rooms
- Only for patch cable applications (max. 60 m)
- Suitable for EtherCAT and EtherNet/IP applications
- Plant engineering, machinery manufacturing
- 4pair: 10/ 100/ 1000 Mbit/s for Industrial Ethernet

Product features

- Flame-retardant according IEC 60332-1-2
- PUR outer sheath is resistant to most oils and hydraulic fluids
- CAT.6 for drag chain!
- LAN Cat.6 cables are specified up to 350 MHz
- Designed for 1...2 million bending/ unbending cycles in the drag chain

Norm references / Approvals

- UL/CSA type CMX (UL 444)

Product Make-up

- Stranded conductor, tinned
- AWG 26 (19-wire)
- PP core insulation
- Inner sheath: thermoplastic copolymer (FRNC)
- SF/UTP: braid of tinned copper wire and plastic laminated aluminum foil as overall screening
- PUR outer sheath, halogen-free
- Colour: green (based on RAL 6018)

Technical data

Classification
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Peak operating voltage
max. 100 V (not for power applications)

Minimum bending radius
Fixed installation: 4 x outer diameter
Flexing: 7.5 x outer diameter

Test voltage
700 V

Characteristic impedance
At 1 - 100 MHz: 100 ± 15 Ohm

Temperature range
Fixed installation: -40°C to +80°C
Flexing: -30°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ETHERLINE® CAT.6 FD					
2170488	ETHERLINER CAT.6 FD	4 x 2 x AWG26/ 19	7.8	31.7	63

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

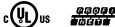
Accessories

- EPIC® DATA AX RJ45 Cat.6_A refer to main catalogue
- EPIC® DATA 90 RJ45 Cat.6_A refer to main catalogue
- DATA STRIP stripping tool refer to main catalogue

Data communication systems for ETHERNET technology



Industrial Ethernet cable Cat.6_A • Industrial Ethernet / PROFINET Type C - continuous flexing application



ETHERLINE® FD CAT.6_A

For highly flexible applications



Info

- CAT.6_A for drag chain, qualified for 10Gbit/s
- For PROFINET applications with 4 pairs

Benefits

- For use in power chains and moving machinery parts in dry or damp rooms
- 4pair: 100Mbit/s up to 10 Gbit/s for Industrial Ethernet
- Premium screening against electromagnetic interference
- Can be used for Industrial Ethernet in harsh industrial environments

Application range

- For highly flexible applications (e.g. power chains)
- Wiring of machines, tools, devices, appliances and control cabinets
- Max. cable lenght für 100 Mbit/s is 85 m
- Max. cable lenght für 100 Mbit/s is 85 m
- Suitable for EtherCAT and EtherNet/IP applications

Product features

- PUR version is halogen-free according to IEC 60754
- Oil-resistant acc. IEC 60811-2-1
- CAT.6_A for drag chain, qualified for 10Gbit/s
- Meets the requirements according to CAT.6_A, ISO/IEC 11801 and EN 50173
- Min. 2.5 million bending cycles in the power chain

Norm references / Approvals

- Electrical requirements acc. to IEC 61156-6
- PUR: UL/CSA-certified (CMX)
- PUR versions: UL AWM Style 21576
- PVC cable is UL/CSA-certified (CM)
- Flame retardant acc. to IEC 60332-1-2

Product Make-up

- 7-wire tinned stranded copper conductor
- Core insulation: Based on Polyolefin
- S/FTP: copper braid as overall screening and pair screening with aluminium compound foil
- Outer sheath: PUR, halogen-free/PVC
- Colour: green (based on RAL 6018)

Technical data

Classification
ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Minimum bending radius
Flexing: 15 x outer diameter
Fixed installation: 8 x cable diameter

Characteristic impedance
100 Ohm

Temperature range
Fixed installation
PVC: -40°C bis +80°C
PUR: -40°C bis +80°C
Flexing
PVC: -10°C to +70°C
PUR: -30°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
PVC sheath					
2170485	ETHERLINE® FD CAT.6 _A	4x2xAWG24/7	9.0	44	88
PUR outer sheath, halogen-free					
2170484	ETHERLINE® FD P CAT.6 _A	4x2xAWG24/7	9.0	44	90

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PROFINET® is a registered trademark of the PNO (PROFIBUS user organisation)
Detailed data sheets are available upon request. Please specify the type/dimensions of the required cable.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EPIC® DATA AX RJ45 Cat.6_A refer to main catalogue
- EPIC® DATA 90 RJ45 Cat.6_A refer to main catalogue
- EPIC® DATA AX RJ45 Cat.6_A IP68 refer to main catalogue
- EPIC® DATA M12X refer to main catalogue
- EPIC® DATA CCR FA refer to main catalogue



Data communication systems for ETHERNET technology

Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e M8

Industrial Ethernet EC Patchcord M8



Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with M8 connectors

Technical data

Classification
ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry

Minimum bending radius
Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Protection rating
M8 - IP 67

Characteristic impedance
100 Ohm +- 15%

Temperature range
During installation: -30°C to +50°C
Fixed installation: -40°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/ 1.000 pieces
Straight plug M8 on straight plug M8				
2171700	IE-EC-5-M8-S-0,5-P-2-26-FD-M8-S	2x2xAWG26	0.5	10
2171701	IE-EC-5-M8-S-1-P-2-26-FD-M8-S	2x2xAWG26	1	20
2171702	IE-EC-5-M8-S-2-P-2-26-FD-M8-S	2x2xAWG26	2	40
2171703	IE-EC-5-M8-S-3-P-2-26-FD-M8-S	2x2xAWG26	3	60
2171704	IE-EC-5-M8-S-5-P-2-26-FD-M8-S	2x2xAWG26	5	100
2171705	IE-EC-5-M8-S-7-P-2-26-FD-M8-S	2x2xAWG26	7	140
2171706	IE-EC-5-M8-S-10-P-2-26-FD-M8-S	2x2xAWG26	10	200
2171707	IE-EC-5-M8-S-15-P-2-26-FD-M8-S	2x2xAWG26	15	300
2171708	IE-EC-5-M8-S-20-P-2-26-FD-M8-S	2x2xAWG26	20	400
Angled plug M8 on straight plug M8				
2171718	IE-EC-5-M8-A-0,5-P-2-26-FD-M8-S	2x2xAWG26	0.5	10
2171719	IE-EC-5-M8-A-1-P-2-26-FD-M8-S	2x2xAWG26	1	20
2171720	IE-EC-5-M8-A-2-P-2-26-FD-M8-S	2x2xAWG26	2	40
2171721	IE-EC-5-M8-A-3-P-2-26-FD-M8-S	2x2xAWG26	3	60
2171722	IE-EC-5-M8-A-5-P-2-26-FD-M8-S	2x2xAWG26	5	100
2171723	IE-EC-5-M8-A-7-P-2-26-FD-M8-S	2x2xAWG26	7	140
2171724	IE-EC-5-M8-A-10-P-2-26-FD-M8-S	2x2xAWG26	10	200
2171725	IE-EC-5-M8-A-15-P-2-26-FD-M8-S	2x2xAWG26	15	300
2171726	IE-EC-5-M8-A-20-P-2-26-FD-M8-S	2x2xAWG26	20	400
Straight connector on free conductor end				
2171709	IE-EC-5-M8-S-0,5-P-2-26-FD-OE	2x2xAWG26	0.5	10
2171710	IE-EC-5-M8-S-1-P-2-26-FD-OE	2x2xAWG26	1	20
2171711	IE-EC-5-M8-S-2-P-2-26-FD-OE	2x2xAWG26	2	40
2171712	IE-EC-5-M8-S-3-P-2-26-FD-OE	2x2xAWG26	3	60
2171713	IE-EC-5-M8-S-5-P-2-26-FD-OE	2x2xAWG26	5	100
2171714	IE-EC-5-M8-S-7-P-2-26-FD-OE	2x2xAWG26	7	140
2171715	IE-EC-5-M8-S-10-P-2-26-FD-OE	2x2xAWG26	10	200
2171716	IE-EC-5-M8-S-15-P-2-26-FD-OE	2x2xAWG26	15	300
2171717	IE-EC-5-M8-S-20-P-2-26-FD-OE	2x2xAWG26	20	400
Angled connector on free conductor end				
2171727	IE-EC-5-M8-A-0,5-P-2-26-FD-OE	2x2xAWG26	0.5	10
2171728	IE-EC-5-M8-A-1-P-2-26-FD-OE	2x2xAWG26	1	20
2171729	IE-EC-5-M8-A-2-P-2-26-FD-OE	2x2xAWG26	2	40
2171730	IE-EC-5-M8-A-3-P-2-26-FD-OE	2x2xAWG26	3	60
2171731	IE-EC-5-M8-A-5-P-2-26-FD-OE	2x2xAWG26	5	100
2171732	IE-EC-5-M8-A-7-P-2-26-FD-OE	2x2xAWG26	7	140
2171733	IE-EC-5-M8-A-10-P-2-26-FD-OE	2x2xAWG26	10	200
2171734	IE-EC-5-M8-A-15-P-2-26-FD-OE	2x2xAWG26	15	300
2171735	IE-EC-5-M8-A-20-P-2-26-FD-OE	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.

Data communication systems for ETHERNET technology



Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e M8-RJ45

Industrial Ethernet Patchcord M8/RJ45



Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with M8 connector and RJ45 connector

Technical data



Classification

ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry



Minimum bending radius

Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter



Protection rating

M8 - IP 67
RJ45 - IP 20



Characteristic impedance

100 Ohm +/- 15%



Temperature range

During installation: -30°C to +50°C
Fixed installation: -40°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug M8 on straight plug RJ45				
2171757	IE-EC-5-M8-S-0,5-P-2-26-FD-RJ45	2x2xAWG26	0.5	10
2171758	IE-EC-5-M8-S-1-P-2-26-FD-RJ45	2x2xAWG26	1	20
2171759	IE-EC-5-M8-S-2-P-2-26-FD-RJ45	2x2xAWG26	2	40
2171760	IE-EC-5-M8-S-3-P-2-26-FD-RJ45	2x2xAWG26	3	60
2171761	IE-EC-5-M8-S-5-P-2-26-FD-RJ45	2x2xAWG26	5	100
2171762	IE-EC-5-M8-S-10-P-2-26-FD-RJ45	2x2xAWG26	10	200
2171763	IE-EC-5-M8-S-20-P-2-26-FD-RJ45	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.



Data communication systems for ETHERNET technology

Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e M12

Industrial Ethernet EC Patchcord M12



Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with M12 D-coded connectors
- 4 pole M12 connector with vibration protection

Technical data



Classification

ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry



Minimum bending radius

Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter



Protection rating

M12 - IP 67 / IP 69



Characteristic impedance

100 Ohm +/- 15%



Temperature range

During installation: -30°C to +50°C
Fixed installation: -40°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug M12 on straight plug M12				
2171778	IE-EC-5-M12D-S-0,5-P-2-26-FD-M12D-S	2x2xAWG26	0.5	10
2171779	IE-EC-5-M12D-S-1-P-2-26-FD-M12D-S	2x2xAWG26	1	20
2171780	IE-EC-5-M12D-S-2-P-2-26-FD-M12D-S	2x2xAWG26	2	40
2171781	IE-EC-5-M12D-S-3-P-2-26-FD-M12D-S	2x2xAWG26	3	60
2171782	IE-EC-5-M12D-S-5-P-2-26-FD-M12D-S	2x2xAWG26	5	100
2171783	IE-EC-5-M12D-S-10-P-2-26-FD-M12D-S	2x2xAWG26	10	200
2171784	IE-EC-5-M12D-S-20-P-2-26-FD-M12D-S	2x2xAWG26	20	400

angled plug M12 on straight plug M12

2171785	IE-EC-5-M12D-A-0,5-P-2-26-FD-M12D-S	2x2xAWG26	0.5	10
2171786	IE-EC-5-M12D-A-1-P-2-26-FD-M12D-S	2x2xAWG26	1	20
2171787	IE-EC-5-M12D-A-2-P-2-26-FD-M12D-S	2x2xAWG26	2	40
2171788	IE-EC-5-M12D-A-3-P-2-26-FD-M12D-S	2x2xAWG26	3	60
2171789	IE-EC-5-M12D-A-5-P-2-26-FD-M12D-S	2x2xAWG26	5	100
2171790	IE-EC-5-M12D-A-10-P-2-26-FD-M12D-S	2x2xAWG26	2	200
2171791	IE-EC-5-M12D-A-20-P-2-26-FD-M12D-S	2x2xAWG26	20	400

straight plug M12 on free conductor end

2171792	IE-EC-5-M12D-S-0,5-P-2-26-FD-OE	2x2xAWG26	0.5	10
2171793	IE-EC-5-M12D-S-1-P-2-26-FD-OE	2x2xAWG26	1	20
2171794	IE-EC-5-M12D-S-2-P-2-26-FD-OE	2x2xAWG26	2	40
2171795	IE-EC-5-M12D-S-3-P-2-26-FD-OE	2x2xAWG26	3	60
2171796	IE-EC-5-M12D-S-5-P-2-26-FD-OE	2x2xAWG26	5	100
2171797	IE-EC-5-M12D-S-10-P-2-26-FD-OE	2x2xAWG26	10	200
2171798	IE-EC-5-M12D-S-20-P-2-26-FD-OE	2x2xAWG26	20	400

angled plug M12 on free conductor end

2171870	IE-EC-5-M12D-A-0,5-P-2-26-FD-OE	2x2xAWG26	0.5	10
2171871	IE-EC-5-M12D-A-1-P-2-26-FD-OE	2x2xAWG26	1	20
2171872	IE-EC-5-M12D-A-2-P-2-26-FD-OE	2x2xAWG26	2	40
2171873	IE-EC-5-M12D-A-3-P-2-26-FD-OE	2x2xAWG26	3	60
2171874	IE-EC-5-M12D-A-5-P-2-26-FD-OE	2x2xAWG26	5	100
2171875	IE-EC-5-M12D-A-10-P-2-26-FD-OE	2x2xAWG26	10	200
2171876	IE-EC-5-M12D-A-20-P-2-26-FD-OE	2x2xAWG26	20	400

angled plug M12 on angled plug M12

2171906	IE-EC-5-M12D-A-0,5-P-2-26-FD-M12D-A	2x2xAWG26	0.5	10
2171907	IE-EC-5-M12D-A-1-P-2-26-FD-M12D-A	2x2xAWG26	1	20
2171908	IE-EC-5-M12D-A-2-P-2-26-FD-M12D-A	2x2xAWG26	2	40
2171909	IE-EC-5-M12D-A-3-P-2-26-FD-M12D-A	2x2xAWG26	3	60
2171910	IE-EC-5-M12D-A-5-P-2-26-FD-M12D-A	2x2xAWG26	5	100
2171911	IE-EC-5-M12D-A-10-P-2-26-FD-M12D-A	2x2xAWG26	10	200
2171913	IE-EC-5-M12D-A-20-P-2-26-FD-M12D-A	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.

Data communication systems for ETHERNET technology



Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e M12-RJ45

Industrial Ethernet EC Patchcord M12/RJ45



i

Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with D-coded M12 connector and RJ45-connector
- 4 pole M12 connector with vibration protection

Technical data

Classification
ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry

Minimum bending radius
Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Protection rating
M12 - IP 67 / IP 69
RJ45 - IP 20

Characteristic impedance
100 Ohm +- 15%

Temperature range
During installation: -30°C to +50°C
Fixed installation: -40°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug M12 on straight plug RJ45				
2171750	IE-EC-5-M12D-S-0,5-P-2-26-FD-RJ45	2x2xAWG26	0,5	10
2171751	IE-EC-5-M12D-S-1-P-2-26-FD-RJ45	2x2xAWG26	1	20
2171752	IE-EC-5-M12D-S-2-P-2-26-FD-RJ45	2x2xAWG26	2	40
2171753	IE-EC-5-M12D-S-3-P-2-26-FD-RJ45	2x2xAWG26	3	60
2171754	IE-EC-5-M12D-S-5-P-2-26-FD-RJ45	2x2xAWG26	5	100
2171755	IE-EC-5-M12D-S-10-P-2-26-FD-RJ45	2x2xAWG26	10	200
2171756	IE-EC-5-M12D-S-20-P-2-26-FD-RJ45	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.



Data communication systems for ETHERNET technology

Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e RJ45

Industrial Ethernet EC Patchcord RJ45



i

Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcord with RJ45 connectors

Technical data

Classification
ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry

Minimum bending radius
Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Protection rating
RJ45 - IP 20

Characteristic impedance
100 Ohm +- 15%

Temperature range
During installation: -30°C to +50°C
Fixed installation: -40°C to +80°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug RJ45 on straight plug RJ45				
2171764	IE-EC-5-RJ45-0,5-P-2-26-FD-RJ45	2x2xAWG26	0,5	10
2171765	IE-EC-5-RJ45-1-P-2-26-FD-RJ45	2x2xAWG26	1	20
2171766	IE-EC-5-RJ45-2-P-2-26-FD-RJ45	2x2xAWG26	2	40
2171767	IE-EC-5-RJ45-3-P-2-26-FD-RJ45	2x2xAWG26	3	60
2171768	IE-EC-5-RJ45-5-P-2-26-FD-RJ45	2x2xAWG26	5	100
2171769	IE-EC-5-RJ45-10-P-2-26-FD-RJ45	2x2xAWG26	10	200
2171770	IE-EC-5-RJ45-20-P-2-26-FD-RJ45	2x2xAWG26	20	400
straight plug RJ45 on free conductor end				
2171771	IE-EC-5-RJ45-0,5-P-2-26-FD-OE	2x2xAWG26	0,5	10
2171772	IE-EC-5-RJ45-1-P-2-26-FD-OE	2x2xAWG26	1	20
2171773	IE-EC-5-RJ45-2-P-2-26-FD-OE	2x2xAWG26	2	40
2171774	IE-EC-5-RJ45-3-P-2-26-FD-OE	2x2xAWG26	3	60
2171775	IE-EC-5-RJ45-5-P-2-26-FD-OE	2x2xAWG26	5	100
2171776	IE-EC-5-RJ45-10-P-2-26-FD-OE	2x2xAWG26	10	200
2171777	IE-EC-5-RJ45-20-P-2-26-FD-OE	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.

Data communication systems for ETHERNET technology



Industrial Ethernet Patchcord Cat.5/Cat.5e • Industrial Ethernet EC FD - continuous flexing application



ETHERLINE® EC FD Cat.5e M 12F



Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use
- For highly flexible applications
- Automation technology

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Product Make-up

- AWG 26 (19-wire)
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with M12 socket, D-coded
- 4 pole M12 connector with vibration protection



Info

- Industrial Ethernet cable
- Suitable for drag chains
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Technical data

	Classification ETIM 5.0 Class-ID: EC002599 ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry
	Minimum bending radius Flexing: 8 x outer diameter Fixed installation: 4 x outer diameter
	Protection rating M12 - IP 67 / IP 69
	Characteristic impedance 100 Ohm +/- 15%
	Temperature range During installation: -30°C to +50°C Fixed installation: -40°C to +80°C

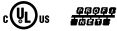
Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight socket M12 on straight plug M12				
2171736	IE-EC-5-M12DF-S-0,5-P-2-26-FD-M12D-S	2x2xAWG26	0,5	10
2171737	IE-EC-5-M12DF-S-1-P-2-26-FD-M12D-S	2x2xAWG26	1	20
2171738	IE-EC-5-M12DF-S-2-P-2-26-FD-M12D-S	2x2xAWG26	2	40
2171739	IE-EC-5-M12DF-S-3-P-2-26-FD-M12D-S	2x2xAWG26	3	60
2171740	IE-EC-5-M12DF-S-5-P-2-26-FD-M12D-S	2x2xAWG26	5	100
2171741	IE-EC-5-M12DF-S-10-P-2-26-FD-M12D-S	2x2xAWG26	10	200
2171742	IE-EC-5-M12DF-S-20-P-2-26-FD-M12D-S	2x2xAWG26	20	400
straight socket M12 on angled plug M12				
2171743	IE-EC-5-M12DF-S-0,5-P-2-26-FD-M12D-A	2x2xAWG26	0,5	10
2171744	IE-EC-5-M12DF-S-1-P-2-26-FD-M12D-A	2x2xAWG26	1	20
2171745	IE-EC-5-M12DF-S-2-P-2-26-FD-M12D-A	2x2xAWG26	2	40
2171746	IE-EC-5-M12DF-S-3-P-2-26-FD-M12D-A	2x2xAWG26	3	60
2171747	IE-EC-5-M12DF-S-5-P-2-26-FD-M12D-A	2x2xAWG26	5	100
2171748	IE-EC-5-M12DF-S-10-P-2-26-FD-M12D-A	2x2xAWG26	10	200
2171749	IE-EC-5-M12DF-S-20-P-2-26-FD-M12D-A	2x2xAWG26	20	400
straight socket M12 on straight socket M12				
2171915	IE-EC-5-M12DF-S-0,5-P-2-26-FD-M12DF-S	2x2xAWG26	0,5	10
2171916	IE-EC-5-M12DF-S-1-P-2-26-FD-M12DF-S	2x2xAWG26	1	20
2171917	IE-EC-5-M12DF-S-2-P-2-26-FD-M12DF-S	2x2xAWG26	2	40
2171918	IE-EC-5-M12DF-S-3-P-2-26-FD-M12DF-S	2x2xAWG26	3	60
2171919	IE-EC-5-M12DF-S-5-P-2-26-FD-M12DF-S	2x2xAWG26	5	100
2171920	IE-EC-5-M12DF-S-10-P-2-26-FD-M12DF-S	2x2xAWG26	10	200
2171921	IE-EC-5-M12DF-S-20-P-2-26-FD-M12DF-S	2x2xAWG26	20	400

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.



Data communication systems for ETHERNET technology

Industrial Ethernet Patchcord Cat.5/Cat.5e • PROFINET Type C - continuous flexing application



ETHERLINE® PN FD Cat.5 M 12

PROFINET Patchcord M12



Info

- For PROFINET applications (D-coded)
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- For directly connecting two electric components
- Non-permanent connections allow for easy change of equipment
- CAT.5-Performance

Application range

- For PROFINET applications type C
- Highly flexible application
- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/ 100 Mbit/s for Industrial Ethernet

Norm references / Approvals

- The cable is UL/CSA-certified (CMX)
- UL File Number: E249137

Product Make-up

- Extra-fine wire, tinned braided conductor
- Star quad
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with M12 D-coded connectors
- 4 pole M12 connector with vibration protection

Technical data

	Classification ETIM 5.0 Class-ID: EC002599 ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry
	Minimum bending radius Flexing: 8 x outer diameter
	Protection rating IP 67 /IP 69
	Characteristic impedance 100 Ohm +/- 15%
	Temperature range Flexing: -20°C to +60°C Fixed installation: -30°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug M12 on straight plug M12				
2171049	IE-PNC-5-M12D-S-1-P-2-22-FD-M12D-S	2x2xAWG22	1	31.3
2171050	IE-PNC-5-M12D-S-2-P-2-22-FD-M12D-S	2x2xAWG22	2	62.6
2171051	IE-PNC-5-M12D-S-3-P-2-22-FD-M12D-S	2x2xAWG22	3	93.9
2171052	IE-PNC-5-M12D-S-5-P-2-22-FD-M12D-S	2x2xAWG22	5	156.5
2171053	IE-PNC-5-M12D-S-10-P-2-22-FD-M12D-S	2x2xAWG22	10	313
2171054	IE-PNC-5-M12D-S-20-P-2-22-FD-M12D-S	2x2xAWG22	20	626
angled plug M12 on straight plug M12				
2171061	IE-PNC-5-M12D-A-1-P-2-22-FD-M12D-S	2x2xAWG22	1	31.3
2171062	IE-PNC-5-M12D-A-2-P-2-22-FD-M12D-S	2x2xAWG22	2	62.6
2171063	IE-PNC-5-M12D-A-3-P-2-22-FD-M12D-S	2x2xAWG22	3	93.9
2171064	IE-PNC-5-M12D-A-5-P-2-22-FD-M12D-S	2x2xAWG22	5	156.5
2171065	IE-PNC-5-M12D-A-10-P-2-22-FD-M12D-S	2x2xAWG22	10	313
2171066	IE-PNC-5-M12D-A-20-P-2-22-FD-M12D-S	2x2xAWG22	20	626
straight plug M12 on free conductor end				
2171055	IE-PNC-5-M12D-S-1-P-2-22-FD-OE	2x2xAWG22	1	31.3
2171056	IE-PNC-5-M12D-S-2-P-2-22-FD-OE	2x2xAWG22	2	62.6
2171057	IE-PNC-5-M12D-S-3-P-2-22-FD-OE	2x2xAWG22	3	93.9
2171058	IE-PNC-5-M12D-S-5-P-2-22-FD-OE	2x2xAWG22	5	156.5
2171059	IE-PNC-5-M12D-S-10-P-2-22-FD-OE	2x2xAWG22	10	313
2171060	IE-PNC-5-M12D-S-20-P-2-22-FD-OE	2x2xAWG22	20	626
angled plug M12 on free conductor end				
2171067	IE-PNC-5-M12D-A-1-P-2-22-FD-OE	2x2xAWG22	1	31.3
2171068	IE-PNC-5-M12D-A-2-P-2-22-FD-OE	2x2xAWG22	2	62.6
2171069	IE-PNC-5-M12D-A-3-P-2-22-FD-OE	2x2xAWG22	3	93.9
2171070	IE-PNC-5-M12D-A-5-P-2-22-FD-OE	2x2xAWG22	5	156.5
2171071	IE-PNC-5-M12D-A-10-P-2-22-FD-OE	2x2xAWG22	10	313
2171072	IE-PNC-5-M12D-A-20-P-2-22-FD-OE	2x2xAWG22	20	626

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EPIC® DATA PN AX RJ45 refer to main catalogue
- EPIC® DATA PN 90 RJ45 refer to main catalogue

Data communication systems for ETHERNET technology



Industrial Ethernet Patchcord Cat.5/Cat.5e • PROFINET Type C - continuous flexing application



ETHERLINE® PN FD Cat.5 M 12-RJ45

PROFINET Patchcord M 12/RJ45



Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- For PROFINET applications type C
- Highly flexible application
- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/100 Mbit/s for Industrial Ethernet

Norm references / Approvals

- The cable is UL/CSA-certified (CMG)

Product Make-up

- Flexible fine-wire copper conductor
- Star quad
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcords with D-coded M12 connector and RJ45-connector
- 4 pole M12 connector with vibration protection



Info

- For PROFINET applications
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Technical data

	Classification ETIM 5.0 Class-ID: EC002599 ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry
	Minimum bending radius Flexing: 8 x outer diameter
	Protection rating M12 - IP 67 / IP 69 RJ45 - IP 20
	Characteristic impedance 100 Ohm +/- 15%
	Temperature range Flexing: -20°C to +60°C Fixed installation: -30°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug M12 on straight plug RJ45				
2171264	IE-PNC-5-M12D-S-0,5-P-2-22-FD-RJ45	2x2xAWG22	0,5	15.65
2171265	IE-PNC-5-M12D-S-1-P-2-22-FD-RJ45	2x2xAWG22	1	31.3
2171266	IE-PNC-5-M12D-S-2-P-2-22-FD-RJ45	2x2xAWG22	2	62.6
2171267	IE-PNC-5-M12D-S-3-P-2-22-FD-RJ45	2x2xAWG22	3	93.9
2171268	IE-PNC-5-M12D-S-5-P-2-22-FD-RJ45	2x2xAWG22	5	156.5
2171269	IE-PNC-5-M12D-S-10-P-2-22-FD-RJ45	2x2xAWG22	10	313
2171270	IE-PNC-5-M12D-S-20-P-2-22-FD-RJ45	2x2xAWG22	20	626
angled plug M12 on straight plug RJ45				
2171271	IE-PNC-5-M12D-A-0,5-P-2-22-FD-RJ45	2x2xAWG22	0,5	15.65
2171272	IE-PNC-5-M12D-A-1-P-2-22-FD-RJ45	2x2xAWG22	1	31.3
2171273	IE-PNC-5-M12D-A-2-P-2-22-FD-RJ45	2x2xAWG22	2	62.6
2171274	IE-PNC-5-M12D-A-3-P-2-22-FD-RJ45	2x2xAWG22	3	93.9
2171275	IE-PNC-5-M12D-A-5-P-2-22-FD-RJ45	2x2xAWG22	5	156.5
2171276	IE-PNC-5-M12D-A-10-P-2-22-FD-RJ45	2x2xAWG22	10	313
2171277	IE-PNC-5-M12D-A-20-P-2-22-FD-RJ45	2x2xAWG22	20	626

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.



Data communication systems for ETHERNET technology

Industrial Ethernet Patchcord Cat.5/Cat.5e • PROFINET Type C - continuous flexing application



ETHERLINE® PN FD Cat.5 RJ45

PROFINET Patchcord RJ45



Info

- For PROFINET applications
- Other types are available on www.lappgroup.com/assemblyfinder or upon request

Benefits

- Non-permanent connections allow for easy change of equipment
- For directly connecting two electric components
- CAT.5-Performance

Application range

- For PROFINET applications type C
- Highly flexible application
- Suitable for EtherCAT and EtherNet/IP applications
- Suitable for use in industrial applications
- For indoor use

Product features

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- 2pair: 10/100 Mbit/s for Industrial Ethernet

Norm references / Approvals

- The cable is UL/CSA-certified (CMG)

Product Make-up

- Flexible fine-wire copper conductor
- Star quad
- Overall screening with copper braid and plastic-laminated aluminium foil
- Outer sheath made of PUR
- Colour: green (based on RAL 6018)
- Pre-assembled patchcord with RJ45 connectors

Technical data

	Classification ETIM 5.0 Class-ID: EC002599 ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry
	Minimum bending radius Flexing: 8 x outer diameter
	Protection rating RJ45 - IP 20
	Characteristic impedance 100 Ohm +/- 15%
	Temperature range During installation: -20°C to +60°C Fixed installation: -30°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Length (m)	Copper index kg/1.000 pieces
straight plug RJ45 on straight plug RJ45				
2171278	IE-PNC-5-RJ45-0,5-P-2-22-FD-RJ45	2x2xAWG22	0,5	15.65
2171279	IE-PNC-5-RJ45-1-P-2-22-FD-RJ45	2x2xAWG22	1	31.3
2171280	IE-PNC-5-RJ45-2-P-2-22-FD-RJ45	2x2xAWG22	2	62.6
2171281	IE-PNC-5-RJ45-3-P-2-22-FD-RJ45	2x2xAWG22	3	93.9
2171282	IE-PNC-5-RJ45-5-P-2-22-FD-RJ45	2x2xAWG22	5	156.5
2171283	IE-PNC-5-RJ45-10-P-2-22-FD-RJ45	2x2xAWG22	10	313
2171284	IE-PNC-5-RJ45-20-P-2-22-FD-RJ45	2x2xAWG22	20	626
straight plug RJ45 on free conductor end				
2171285	IE-PNC-5-RJ45-0,5-P-2-22-FD-OE	2x2xAWG22	0,5	15.65
2171286	IE-PNC-5-RJ45-1-P-2-22-FD-OE	2x2xAWG22	1	31.3
2171287	IE-PNC-5-RJ45-2-P-2-22-FD-OE	2x2xAWG22	2	62.6
2171288	IE-PNC-5-RJ45-3-P-2-22-FD-OE	2x2xAWG22	3	93.9
2171289	IE-PNC-5-RJ45-5-P-2-22-FD-OE	2x2xAWG22	5	156.5
2171290	IE-PNC-5-RJ45-10-P-2-22-FD-OE	2x2xAWG22	10	313
2171291	IE-PNC-5-RJ45-20-P-2-22-FD-OE	2x2xAWG22	20	626

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Other lengths and types of connectors are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.
For detailed technical information please refer to the data sheet

Accessories

- EPIC® DATA PN AX RJ45 refer to main catalogue
- EPIC® DATA PN 90 RJ45 refer to main catalogue