

2171250	DATA SHEET	
Valid from: 16.10.2019	IE-PNC-5-M12D-S-(L*)-P-2-22-FD-M12DF-S	

Description

- Industrial Ethernet patchcord Cat.5, shielded
- Straight M12-jack, D-coded and straight M12-plug, D-coded
- Based on ETHERLINE® Cat. 5 (2170894)



General characteristics

Connection method, connector	M12-jack, D-coded M12-plug, D-coded
Number of pins	4
Ambient temperature	-30°C to +90°C (-22°F to +194°F)
Degree of protection	IP 67, IP 69 (M12, plugged and locked)
Shielding	Shielded
Conformity	RoHS conform REACH conform LABS free

Variation

Data sheet also valid for variant lengths. Other lengths on request.

Article	Description	Length (L*) [m]
2171250	IE-PNC-5-M12D-S-0,5-P-2-22-FD-M12DF-S	0.5
2171251	IE-PNC-5-M12D-S-1-P-2-22-FD-M12DF-S	1
2171252	IE-PNC-5-M12D-S-2-P-2-22-FD-M12DF-S	2
2171253	IE-PNC-5-M12D-S-3-P-2-22-FD-M12DF-S	3
2171254	IE-PNC-5-M12D-S-5-P-2-22-FD-M12DF-S	5
2171255	IE-PNC-5-M12D-S-10-P-2-22-FD-M12DF-S	10
2171256	IE-PNC-5-M12D-S-20-P-2-22-FD-M12DF-S	20

Electrical properties

Rated voltage	50 V (max.)
Rated current at 40 °C	1 A (max.)
Pollution degree	3 (M12, plugged and locked) 1 (RJ45, plugged and locked)

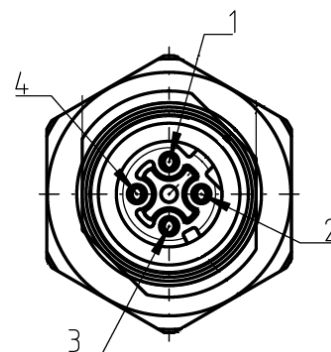
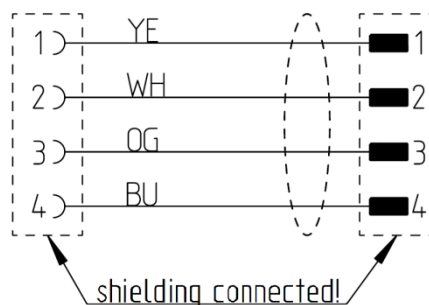
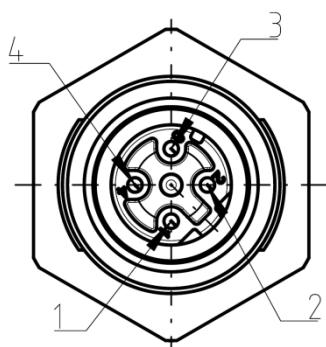
Transmission characteristics

Category (acc. product standard)	5
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Connector pin assignment



Mechanical properties

M12-plug & -jack

Contact, material

Nut, material

Handle, material

CuZn, gold plated

CuZn, nickel plated

TPU

Cable (Lapp article number: 2170894)



Design

Certification

Conductor

Insulation

Core identification code

Stranding

Inner sheath

Screen

c(UL)us, type CMX acc. to UL 444 and VW-1 acc. to UL 1581

tinned copper, fine-wire stranded 7 x ca. 0,25 mm Ø (7/30 AWG),
ca. 0.75 mm conductor Ø (22 AWG)

PE, ca. 1.5 mm outer Ø

acc. to IEC 60708-1; white, yellow, blue, orange

star quad, plastic tape

halogen free compound FRNC, ca. Ø 3,9 mm

plastic laminated aluminum foil

on top:

braid of copper wire, tinned wire 0,10 mm – 0,15 mm, coverage
85 % ± 5 %

Outer sheath

PUR halogen free and flame retardant compound, green RAL 6018,
sheath-thickness ca. 0.9 mm, outer Ø: ca. 6.5 mm

Electrical properties at 20°C

Loop resistance

max. 120 Ω/km, acc. to VDE 0812

Insulation resistance

min. 0,5 GΩ xkm

Mutual capacitance

nom. 52 nF/km (at 800 Hz

Characteristic impedance

100 Ω ± 15 Ω (1MHz up to 100 MHz)

Velocity of propagation

ca. 0,67 c

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Signal transit time	<534 ns/100 m
Peak operating voltage	100 V (not for power purposes)
Test voltage	core/core: 700 V core/screening: 700 V

Mechanical and thermal properties

Minimum bending radius	8 x cable Ø
Temperature range	moved: -20° C up to +60° C (-4 °F to +140 °F) fixed installation: -30° C up to +70° C (-22°F to +158°F)
Flammability	flame retardant acc. UL 1581 (VW-1)
Halogen free	halogen free acc. to VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Standards / Approvals

Product standard, M12-connector	IEC 61076-2-101
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