

2171314	DATA SHEET	
Valid from: 04.03.2019	IE-PNC-5-M12DF-S-10-P-2-22-FD-RJ45	

Description

- Industrial Ethernet patchcord Cat.5, shielded
- Straight M12-jack, D-coded and straight RJ45-plug
- Based on ETHERLINE® Cat. 5 (2170894)



General characteristics

Connection method, connector	M12-jack, D-coded RJ45-plug
Number of pins	4
Ambient temperature	-30°C to +70°C (-22°F to +158°F)
Degree of protection	IP 65, IP 67 (M12, plugged and locked) IP 20 (RJ45, plugged and locked)
Shielding	Shielded
Conformity	RoHS conform REACH conform LABS free

Variation

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

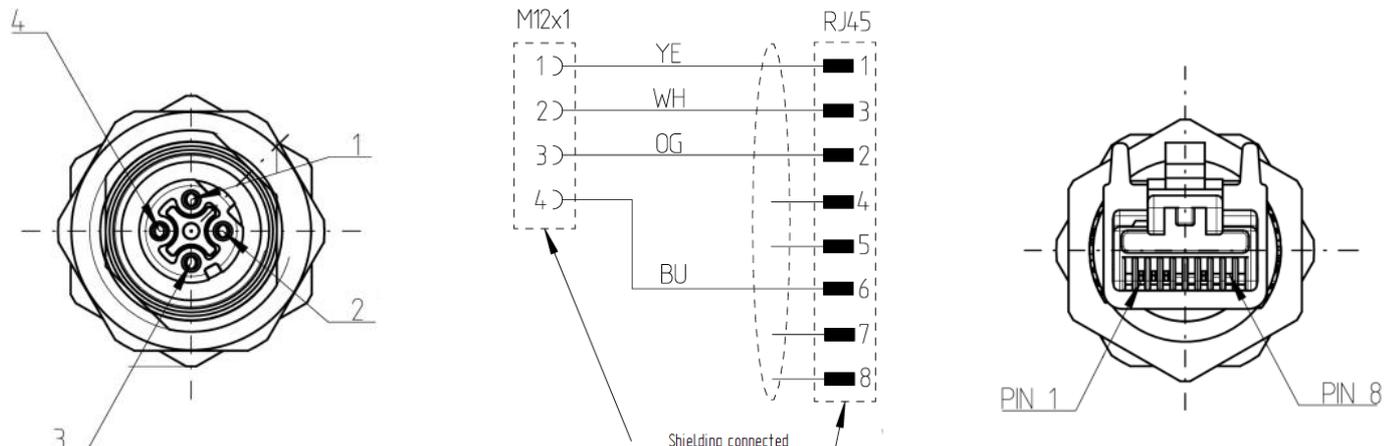
Electrical properties

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



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Mechanical properties

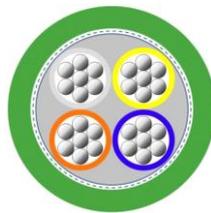
M12-jack

Contact, material	CuZn, gold plated
Nut, material	CuZn, nickel plated
Handle, material	TPU

RJ45-plug

Contact, material	CuZn, gold plated
Handle, material	TPE

Cable (Lapp article number: 2170894)



Design

Certification	c(UL)us, type CMX acc. to UL 444 and VW-1 acc. to UL 1581
Conductor	tinned copper, fine-wire stranded 7 x ca. 0,25 mm ϕ (7/30 AWG), ca. 0.75 mm conductor ϕ (22 AWG)
Insulation	PE, ca. 1.5 mm outer ϕ
Core identification code	acc. to IEC 60708-1; white, yellow, blue, orange
Stranding	star quad , plastic tape
Inner sheath	halogen free compound FRNC, ca. ϕ 3,9 mm
Screen	plastic laminated aluminum foil on top: braid of copper wire, tinned wire 0,10 mm - 0,15 mm, coverage 85 % \pm 5 %
Outer sheath	PUR halogen free and flame retardant compound, green RAL 6018, sheath-thickness ca. 0.9 mm, outer ϕ : ca. 6.5 mm

Electrical properties at 20°C

Loop resistance	max. 120 Ω /km, acc. to VDE 0812
Insulation resistance	min. 0,5 G Ω xkm
Mutual capacitance	nom. 52 nF/km (at 800 Hz)
Characteristic impedance	100 Ω \pm 15 Ω (1MHz up to 100 MHz)
Velocity of propagation	ca. 0,67 c
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 ϕ
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)

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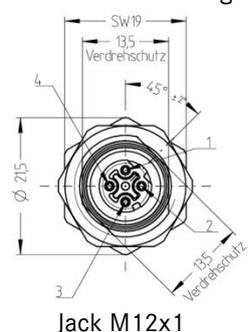
Flammability	flame retardant acc. UL 1581 (VW-1)
Halogen free	halogen free acc. to VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Standards / Approvals

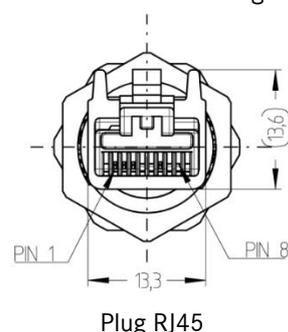
Product standard, M12-connector	IEC 61076-2-101
Product standard, RJ45-connector	IEC 60603-7-5

Technical drawing

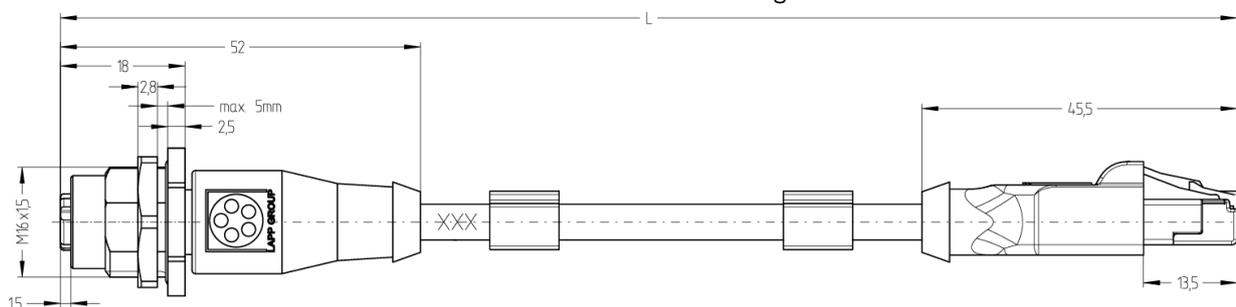
Dimensional drawing



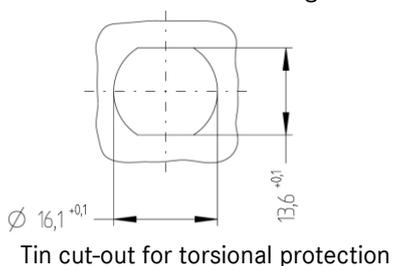
Dimensional drawing



Dimensional drawing



Dimensional drawing



Application range

Automation, industrial machinery and plant engineering

Note

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

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