

2172389	DATA SHEET	
Valid from: 01.12.2021	IE-6A-M12XF-S-(L*)-P-4-26-7-RJ45	

Description

- Industrial Ethernet patchcords Cat.6_A, shielded
- Consisting of straight M12-jack, x-coded and straight RJ45-plug
- Based on ETHERLINE[®] Cat.7 FLEX (2170934)



General characteristics

Connection method, connector	M12-jack, x-coded RJ45-plug
Number of pins	8
Ambient temperature	-30°C to +70°C (-22°F to 158°F)
Degree of protection	IP 20 (RJ45) IP 65, IP 67 (M12, plugged and locked)
Shielding	Shielded
Tightening torque	1.0 Nm (M12-connector) 2.0 Nm (M12-flange nut)
Colour coding (pin assignment)	TIA/EIA-568-B
Conformity	RoHS conform REACH conform LABS free

Variation

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

Article	Description	Length (L*) [m]
2172389	IE-6A-M12XF-S-0,5-P-4-26-7-RJ45	0.5
2172390	IE-6A-M12XF-S-1-P-4-26-7-RJ45	1
2172391	IE-6A-M12XF-S-2-P-4-26-7-RJ45	2
2172392	IE-6A-M12XF-S-3-P-4-26-7-RJ45	3
2172393	IE-6A-M12XF-S-5-P-4-26-7-RJ45	5
2172394	IE-6A-M12XF-S-7-P-4-26-7-RJ45	7
2172395	IE-6A-M12XF-S-10-P-4-26-7-RJ45	10
2172396	IE-6A-M12XF-S-15-P-4-26-7-RJ45	15
2172397	IE-6A-M12XF-S-20-P-4-26-7-RJ45	20

Electrical properties

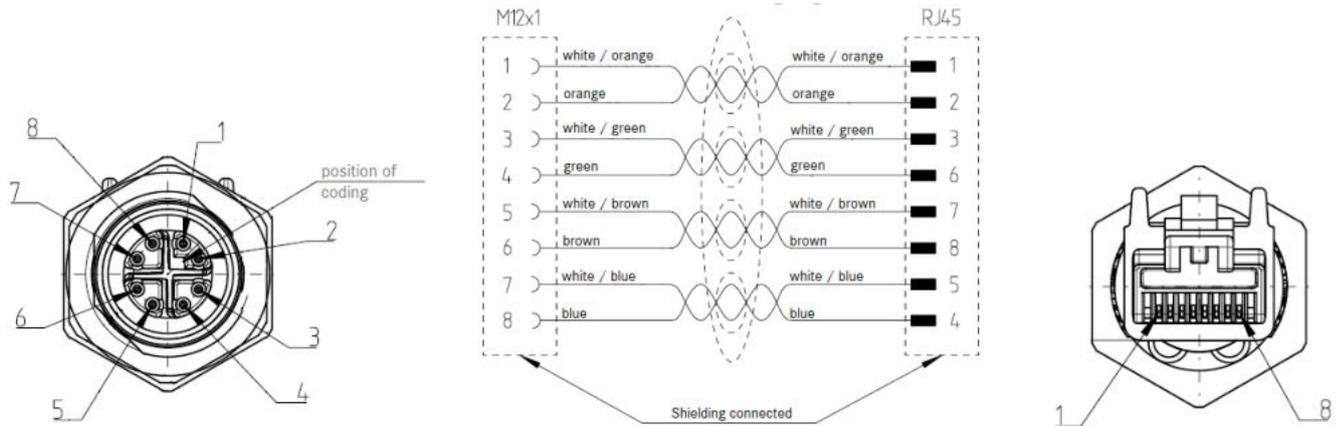
Rated voltage	50 V (max.)
Rated current at 40 °C	0.5 A
Pollution degree	1 (RJ45) 3 (M12, plugged and locked)

Transmission characteristics

Category (acc. ISO/IEC 11801)	6 _A
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Connector pin assignment



Mechanical properties

M12-jack

Flammability class according to UL 94

Contact, material
 Contact carrier, material
 Housing, material
 Handle, material
 Seal outer, material
 Seal inner, material
 Nut, material

TPU → HB
 NBR, FPM/FKM → none
 CuNi, gold plated
 TPU, green
 Cu, nickel plated
 TPU, black
 NBR, black
 FPM/FKM, red
 Cu, nickel plated

RJ45-plug

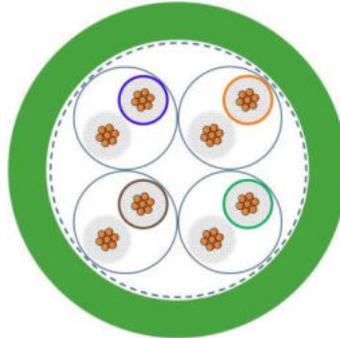
Flammability class according to UL 94

Contact, material
 Housing & insert, material
 2K-boot, plug protection, material
 2K-boot, bend protection, material

PC → V0
 TPE → HB
 CuSn, gold plated
 PC, crystal clear
 TPE, black
 TPE, black

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Cable (Lapp article number: 2170934)



Design

Certification	E63634 cRUus AWM Style 21238 80°C 600V I/II A/B acc. to UL 758 & CSA C22.2 No.210
Conductor	stranded bare copper 26/7 AWG
Insulation	polyolefin (foamed) insulation-diameter: ca. 1.0 mm
Core identification code	pair 1: white/blue, pair 2: white/orange, pair 3: white/green, pair 4: white/brown (colored ring marking on the white cores is optional)
Stranding	2 cores stranded to pair, 4 pairs stranded to bundle
Pair screen	plastic laminated aluminium foil (overlapping)
Screen	braid of tinned copper wire (coverage ca. 70 %)
Outer sheath	PUR green, similar to RAL 6018 outer diameter: ca. 6.4 mm

Electrical properties at 20°C

Loop resistance	≤ 29 Ω/100 m
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 46 nF/km
Characteristic impedance	100 Ω acc. to IEC 61156-6
Maximum operating voltage	100 V (not for power applications)
Test voltage	core/core: 2000 V core/screen: 2000 V

Mechanical and thermal properties

Minimum bending radius	fixed: 4 × outer diameter occasional flexing: 10 × outer diameter
Temperature range	fixed: -50 °C up to +80 °C occasional flexing: -40 °C up to +80 °C UL/CSA: 80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 HFT acc. to UL 1581 §1090
Halogen free	acc. to VDE 0472-815
UV resistance	acc. to ISO 4892-2, method A
Oil resistance	acc. to EN 50363-10-2

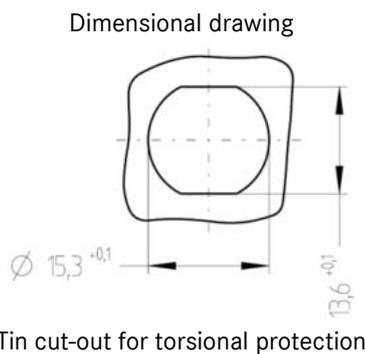
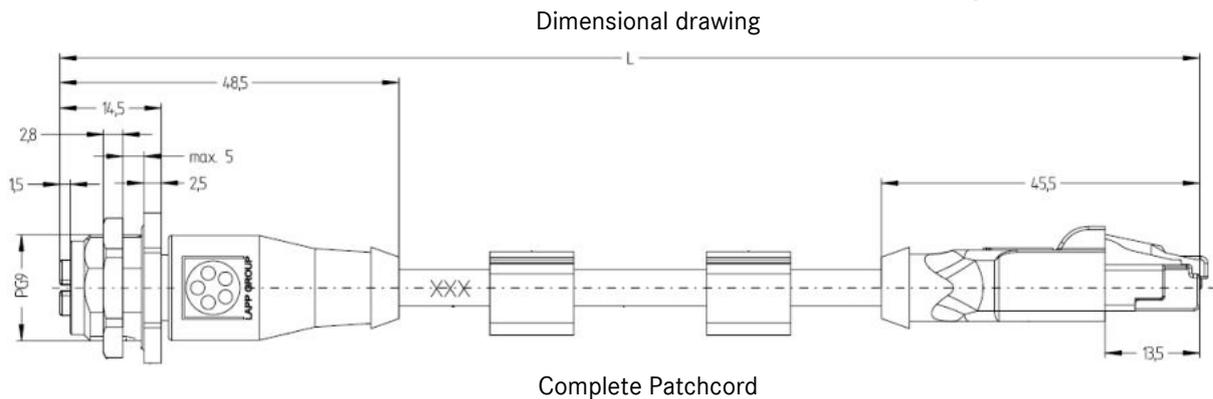
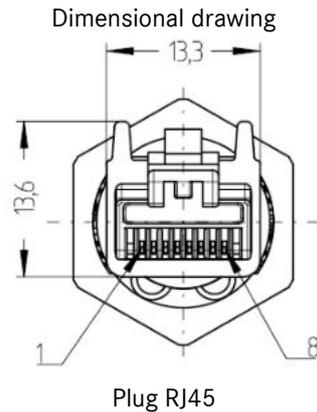
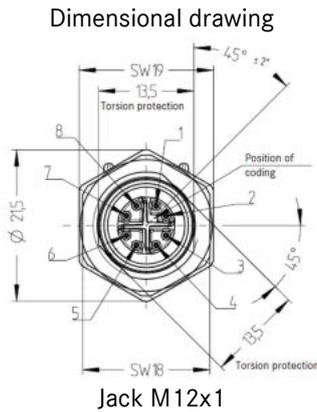
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Standards / Approvals

Product standard, RJ45-connector	IEC 60603-7-51
Product standard, M12-connector	IEC 61076-2-109
Generic cabling for customer premises – General requirements	DIN EN 50173-1 ISO/IEC 11801-1

Technical drawing



Certification

Certified acc. to ECE R118

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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