



Data sheet

**M12 Industrial Ethernet cable, X-coded, 5.0 m,  
M12 plug straight - RJ45 plug straight, drag chain, PUR**

P/N  
142M6X18050  
EAN 4250184198291  
2025/05/19  
Version: L

**Technical Data**

**General Data**

Fields of application	Industrial Ethernet harsh environment
Design	Ethernet-Connection line
Shielding	shielded
Transmission technology	Copper
Cable Type	SF/UTP
Number of twisting elements	4
Twisting element	Pair
Wiring	T568B
Color coding fiber/ wire(s)	white, orange, white, green, white, brown, white, blue
Color	green
Dimensions	
Dimension - Interface 1 (L x W x H)	50.5 mm x 15 mm x 15 mm
Dimension - Interface 1 (L x W x H)	1.988 in. x 0.591 in. x 0.591 in.
Dimension - Interface 2 (L x W x H)	48.8 mm x 13.8 mm x 13.8 mm
Dimension - Interface 2 (L x W x H)	1.921 in. x 0.543 in. x 0.543 in.
Cable length (m)	5 m
Cable length (ft)	16.4 ft

**Transmission characteristics**

Category (ISO)	6 <sub>A</sub>
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**Connections/interfaces**

Connector technology interface 1	M12-plug
Connector technology interface 2	RJ45 plug
Coding interface 1	X-coded
Coding interface 2	T568B
Number of positions/contacts interface 1	8
Number of positions/contacts interface 2	8P/8C

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**Connections/interfaces**

Termination data, stranded wire (min. - max.)

Conductor cross section, stranded wire	AWG 26/19
Conductor diameter, stranded wire (bare copper)	0.55 mm
Conductor diameter, stranded wire (bare copper)	0.022 in.
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	0.98 mm
Core diameter (conductor with insulation)	0.039 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	7.80
Cable sheath diameter	0.307

**Electrical characteristics**

Current carrying capacity	0.5 A at 40 °C
Insulation resistance	min. 100 MOhm
Transfer impedance 10 MHz	max. 30 mOhm/m
Capacitance at 800 Hz	52 nF/km
Delay skew	30 ns/100 m

**Mechanical data**

Tensile force	100 N
Life - Number of mating cycles	min. 100
Bending radius without load	31.2 mm
Bending radius without load	1.228 in.
Bending radius with load	58.5 mm
Bending radius with load	2.303 in.
Maximum operating bending radius	58.5 mm
Maximum operating bending radius	2.303 in.
Number of alternating bending cycles (mechanical resistance) at:	4 million bending cycles
Alternating bending radius	58.5 mm
velocity	3 m/s
acceleration	3 m/s <sup>2</sup>
Shielding braid coverage	85 %

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**Materials and material properties**

Material - Conductor	Cu (copper)
Material - Conductor Insulation	polypropylene
Material - Cable jacket	PUR
Material - Inner cable jacket	FRNC, with an aluminized film
Material - Contact interface 1	CuZnPb (brass)
Material - Contact interface 2	CuSn
Material - Contact finish interface 1	Au (gold)
Material - Contact finish interface 2	Au (gold)
Material - Contact carriers interface 1	Plastics
Material - Contact carriers interface 2	Plastics
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn
Flame retardancy	according to IEC 60332-1-2
Halogen free	yes
Oil resistance	yes
UV-resistance	yes
drag chain suitable	yes
RoHS	compliant

**Environmental conditions**

Temperature (min. - max.)	
Temperature - Operating °C	-30 °C - 70 °C
Temperature - Operating °F	-22 °F - 158 °F
Particulate ingress interface 1	IP6X when plugged in
Liquid ingress/immersion interface 1	IPX5, IPX7 when plugged in
Particulate ingress interface 2	IP2X when plugged in
Liquid ingress/immersion interface 2	IPX0 when plugged in
Pollution degree interface 1	2
Pollution degree interface 2	1

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**Approvals**

UL listed (file no.) Approval pending

**Standards/Regulations**

Generic cabling systems	
General requirements	ISO/IEC 11801   ANSI/TIA-568
Connectors for electronic equipment	
circular connector	DIN EN 61076-2-109
Multi-element metallic cables used in analogue and digital communication and control	DIN EN 50288-5-2
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1-2
Determination of the halogen acid gas content	IEC 60754-1

**Classifications**

ETIM 7.0	EC002599
ETIM 8.0	EC002599
ETIM 9.0	EC002599

**Packing details**

Type of packaging 1 pc(s) / plastic bag

**Application note**

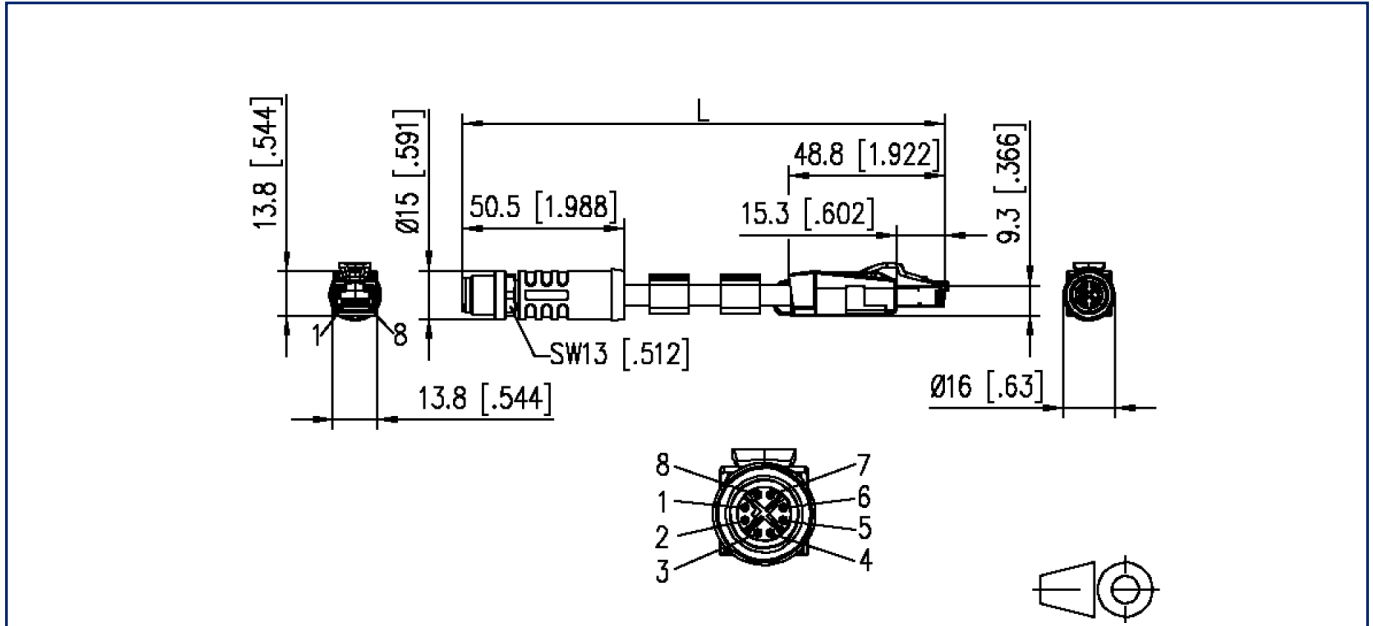
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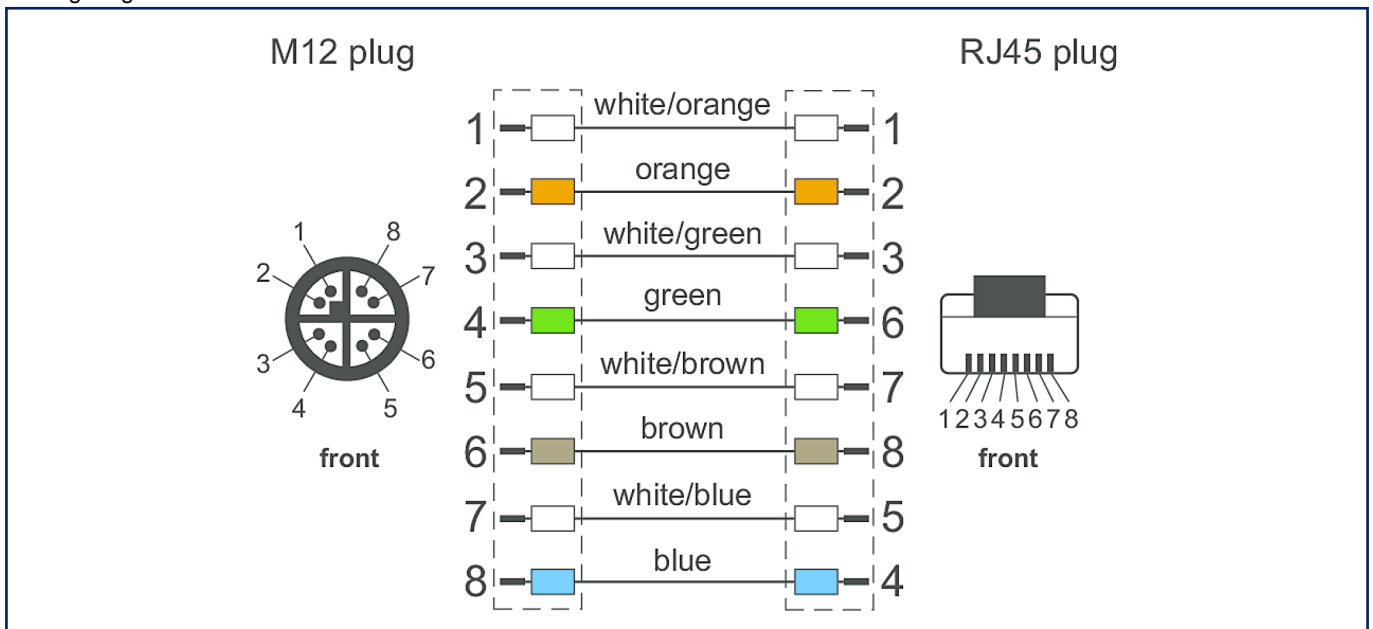
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**Illustrations**

Dimensional drawing



Wiring diagram



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## Illustrations

Principle diagram

