

# P | Cabling

## Data sheet

### M12 Jack X-coded IP67, field assembly

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P/N

MMF881A315

EAN 4250184171089

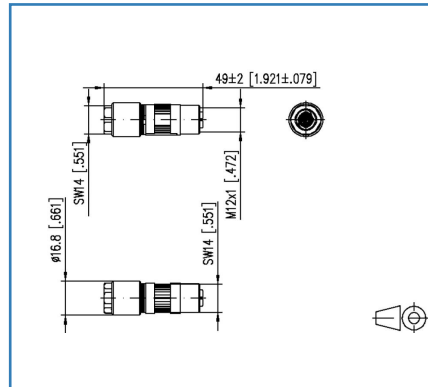
2020/06/16

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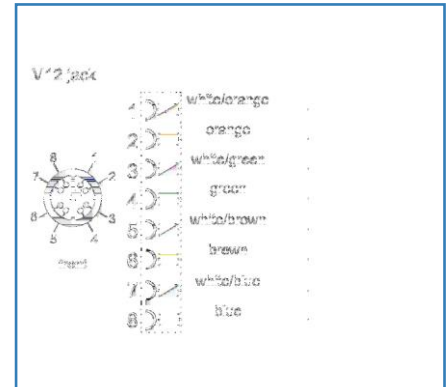
## Illustrations



Dimensional drawing



Wiring



See enlarged drawings at the end of document

## Product specification

- 8-pole M12 jack for field assembly Cat.6<sub>A</sub> per IEC/PAS 61076-2-109
- suitable for 10 GBit as per IEEE 802.3an
- AWG 26/1-22/1, AWG 26/7-22/7 can be connected
- solid copper wire diameter 0.4 to 0.64 mm
- stranded copper wire diameter 0.48 to 0.76 mm
- wire diameter with isolation up to 1.6 mm
- overall cable diameter from 5.0 to 9.7 mm
- jack consists of only two parts
- easy assembly without special tools
- industry-compatible zinc die-cast housing
- suitable for applications in the railway industry



### Technical Data

#### General Data

Design	Jack
Shielding	shielded
Transmission technology	Copper
Dimensions	
Dimension (L x W x H)	49 mm x 16.8 mm x 16.8 mm
Dimension (L x W x H)	1.929 in. x 0.661 in. x 0.661 in.
Field assembly ability	yes
Labeling option	on housing

#### Transmission characteristics

Category (ISO)	6A
Category (TIA)	6A
Transmission rate up to 10 GBit	IEEE 802.3an

#### Connections/interfaces

Connector technology interface 1	IDC-connection
Connector technology interface 2	M12-jack
Coding interface 2	X-coded
Number of ports interface 2	1
Number of ports interface 2 equipped	1
Number of positions/contacts interface 1	8
Number of positions/contacts interface 2	8
Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 26/1 - AWG 22/1
Conductor cross section, solid wire	0.128 mm <sup>2</sup> - 0.324 mm <sup>2</sup>
Conductor diameter, solid wire (bare copper)	0.409 mm - 0.643 mm
Conductor diameter, solid wire (bare copper)	0.016 in. - 0.025 in.
Termination data, stranded wire (min. - max.)	
Conductor cross section, stranded wire	AWG 26/7 - AWG 22/7
Conductor cross section, stranded wire	0.141 mm <sup>2</sup> - 0.355 mm <sup>2</sup>
Conductor diameter, stranded wire (bare copper)	0.483 mm - 0.762 mm
Conductor diameter, stranded wire (bare copper)	0.019 in. - 0.03 in.

### Technical Data

#### Connections/interfaces

##### Core diameter (min. - max.)

Core diameter (conductor with insulation) 0.85 mm - 1.6 mm

Core diameter (conductor with insulation) 0.033 in. - 0.063 in.

##### Cable sheath diameter (min. - max.)

Cable sheath diameter 5 mm - 9.70

Cable sheath diameter 0.197 in. - 0.382

##### Cable access/outlet

straight M12

#### Electrical characteristics

Current carrying capacity 0.5 A

Rated voltage 50 V AC / 60 V DC

Through resistance max. 5 mOhm

Insulation resistance min. 100 MOhm

#### Mechanical data

Mounting method screwable

Insertion and withdrawal force max. 30 N

Life - Number of mating cycles min. 100

#### Materials and material properties

Material - Housing GD-Zn (zinc die-cast)

Material - Contact CuZn (brass)

Material - Contact finish Ni + Au (nickel-gold)

Material - Shield CuSn (tin bronze)

Material - Shield finish Sn (tin)

Material - Stuffer cap PA UL94-V0

Material - Finish Ni (nickel)

RoHS compliant

REACH - substance (SVHC) Lead / 7439-92-1

#### Environmental conditions

##### Temperature (min. - max.)

Temperature - Storage °C -40 °C - 85 °C

Temperature - Storage °F -40 °F - 185 °F

Temperature - Operating °C -40 °C - 85 °C

Temperature - Operating °F -40 °F - 185 °F



### Technical Data

#### Environmental conditions

Particulate ingress interface 2	IP6X when plugged in
Liquid ingress/immersion interface 2	IPX5 when plugged in, IPX7 when plugged in
Overtoltage category	III
Pollution degree	2
Electromagnetic measurement	E2
Shock	490 m/s <sup>2</sup>

#### Approvals

UL listed (file no.)	DUXR.E178484
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#### The product meets the following standards

Connectors for electronic equipment	
circular connector	DIN EN 61076-2-109:2010-08
Railway applications	
Electronic equipment used on rolling stock	DIN EN 50155
Fire protection on railway vehicles	DIN EN 45545-2

#### Classifications

ETIM 5.0	EC001121
ETIM 6.0	EC001121
ETIM 7.0	EC001121

#### Packing details

Type of packaging	1 pc(s) / plastic bag
Packaging unit - Weight (gram)	30 g
Packaging unit - Weight (pound)	0.07 lb

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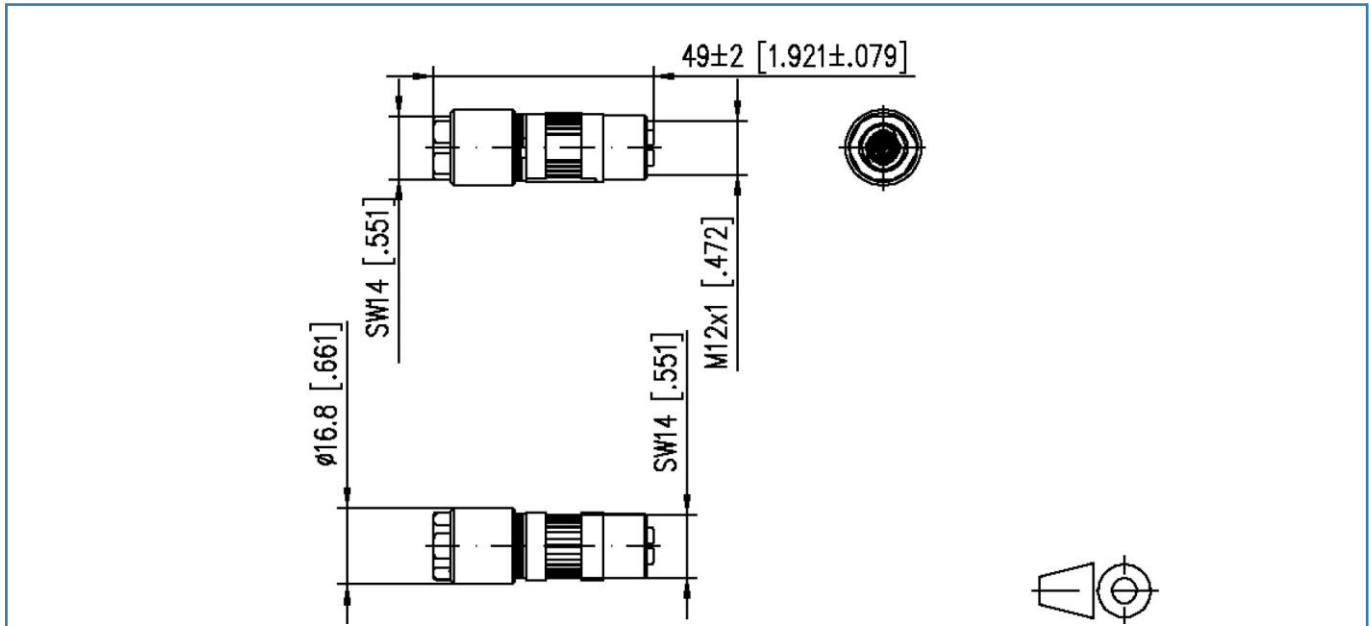
### Accessories

P/N	Designation
130670-E	KAPRi plus cable and installation tester
130674-E	KAPRi plus extension set M12 X-coded

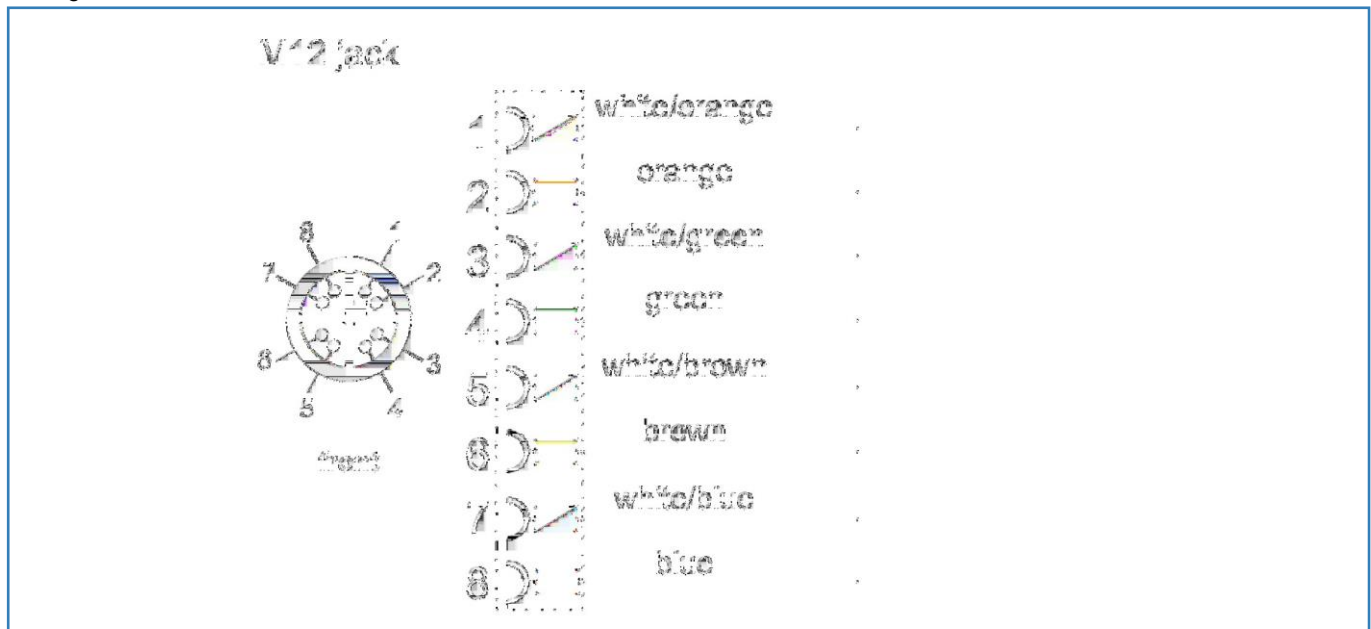


**Illustrations**

Dimensional drawing



Wiring



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