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# Data sheet

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

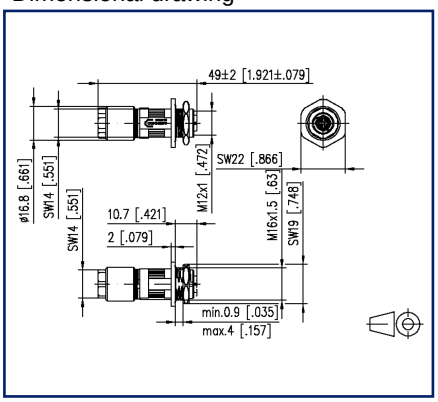


**P/N**
**MMF881A315-0001**
**EAN 4250184171096**
2022/06/22
Version: AW

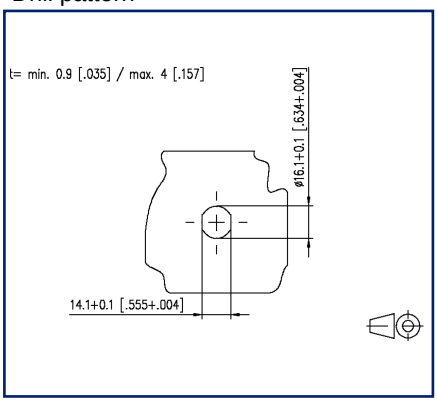
## Illustrations



Dimensional drawing




Drill pattern




See enlarged drawings at the end of document

## Product specification

- 8-pole M12 jack for field assembly Cat.$6_A$
- per IEC/PAS 61076-2-109 with flange
- 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 according to data sheet

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Weitere Dokumentation siehe / additional documentation see / documentation supplémentaire voir www.metz-connect.com

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## Technical Data

| General Data | |
|---|---|
| Electromagnetic measurement according to MICE | E2 |
| Design | Jack |
| Mounting style | back side |
| 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 |

| Transmission characteristics | |
|---|---|
| Category (ISO) | $6_A$ |
| 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 mm² - 0.324 mm² |
| Conductor diameter, solid wire (bare copper) | 0.409 mm - 0.643 mm |
| Conductor diameter, solid wire (bare copper) | 0.016 in. - 0.025 in. |

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## Technical Data

| | |
|---|---|
| **Connections/interfaces** | |
| Termination data, stranded wire (min. - max.) | |
| Conductor cross section, stranded wire | AWG 26/7 - AWG 22/7 |
| Conductor cross section, stranded wire | 0.141 mm² - 0.355 mm² |
| Conductor diameter, stranded wire (bare copper) | 0.483 mm - 0.762 mm |
| Conductor diameter, stranded wire (bare copper) | 0.019 in. - 0.03 in. |
| Aderdurchmesser (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 | CuZnPb (brass) |
| Material - Contact finish | Ni + Au (nickel-gold) |
| Material - Shield | CuSn (tin bronze) |
| Material - Shield finish | Sn (tin) |
| Material - Stuffer cap | PA UL94-V0 |
| Halogen free | yes |
| Silicone free | no paint wetting interfering substances (LaBS) in the process chain |

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## Technical Data

| | |
|---|---|
| **Materials and material properties** | |
| LaBS Note | subsequent contamination possible due to handling and possible storage in your company |
| Material - Finish | Ni (nickel) |
| RoHS | compliant |
| REACH | 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 |
| Particulate ingress interface 2 | IP6X when plugged in |
| Liquid ingress/immersion interface 2 | IPX5 when plugged in, IPX7 when plugged in |
| Overvoltage category | II |
| Degree of pollution | 2 |
| Shock | 490 m/s² |
| **Approvals** | |
| UL listed (file no.) | DUXR.E178484 |
| **Standards/Regulations** | |
| Application-specific communications cabling systems | |
| Profinet | yes |
| Connectors for electronic equipment | |
| circular connector | DIN EN 61076-2-109:2010-08 |
| Railway applications | |
| Electronic equipment used on rolling stock | following to DIN EN 50155 |
| Fire protection on railway vehicles | following to DIN EN 45545-2 |
| Contact holder | Thermoplastic HL3 according to R22 EN 45545-2 |
| Stuffer cap | Thermoplastic HL3 according to R22 EN 45545-2 |
| Sealings | Elastomer |
| Shock and vibration | DIN EN 50155:2018-05, DIN EN 61373:2011-04 Class 1 Category B |

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### Standards/Regulations

| | |
|---|---|
| Railway applications | |
| Salt spray | DIN EN 50155:2018-05, (DIN EN 60068-2-11:2000-02/ 48h test KA) |

### Classifications

| | |
|---|---|
| ETIM 5.0 | EC001121 |
| ETIM 6.0 | EC001121 |
| ETIM 7.0 | EC002635 |
| ETIM 8.0 | EC002635 |

### Packing details

| | |
|---|---|
| Type of packaging | 10 pc(s) / box |

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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 |

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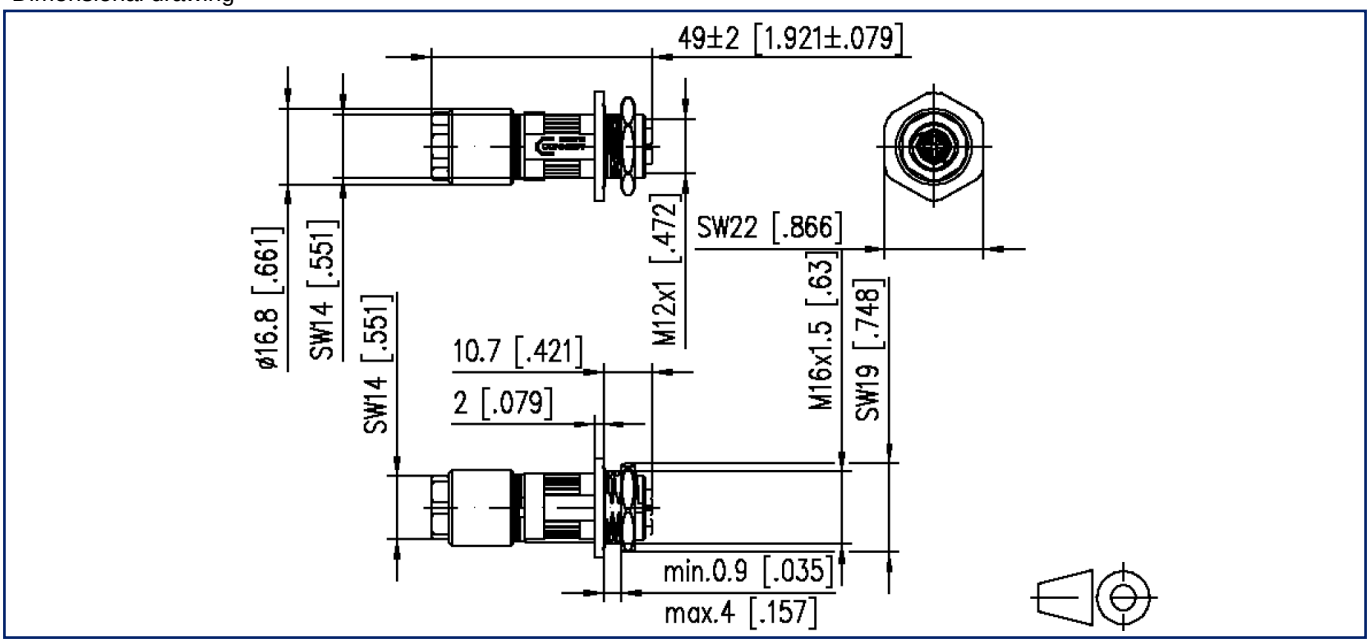
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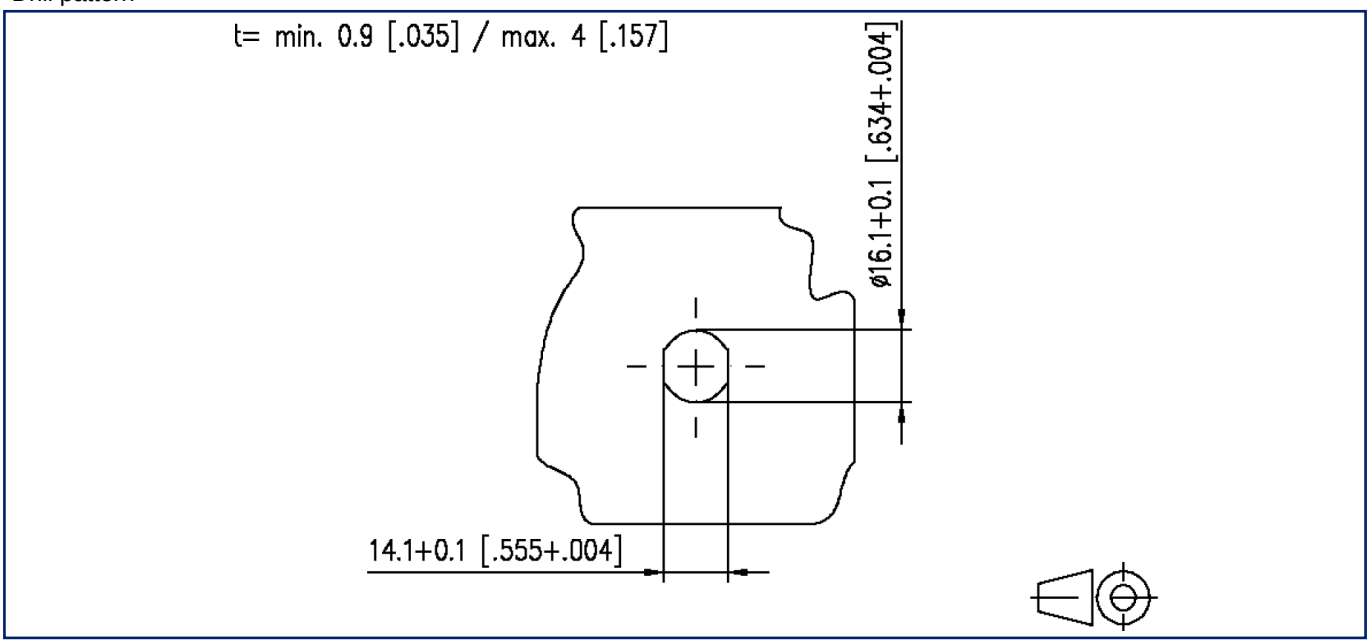
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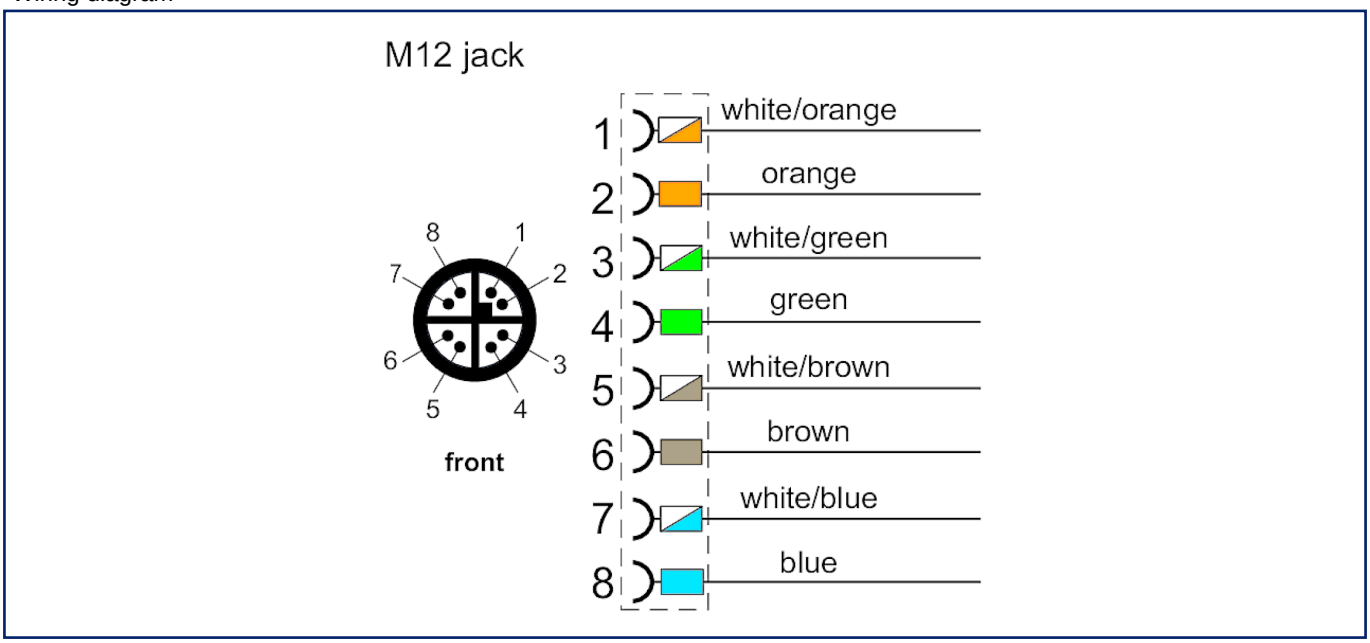


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## Illustrations

Wiring diagram




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