**Product specification**

- Field-attachable M12 plug, Cat.5, D-coded based on DIN EN 61076-2-101
- for a 4 wire cable connection
- connection of AWG 26/7 - 22/7, AWG 24/1 - 22/1 possible
- solid copper wire diameter from 0.4 to 0.64 mm
- stranded copper wire diameter from 0.48 to 0.76 mm
- conductor diameter up to 1.6 mm
- cable jacket from 5.0 to 9.7 mm
- consists of only 2 parts
- easy assembly - connection without special tools
- zinc die-cast housing for industrial use
- suitable for applications in the railway industry according to data sheet
## Technical Data

### General Data
- **Design**: plug
- **Shielding**: shielded
- **Transmission technology**: Copper
- **Dimensions**:
  - Dimension (L x W x H): 52 mm x 16.8 mm x 16.8 mm
  - Dimension (L x W x H): 2.047 in. x 0.661 in. x 0.661 in.
- **Field assembly ability**: yes
- **Labeling option**: on housing

### Transmission characteristics
- **Category (ISO)**: 5
- **Category (TIA)**: 5

### Connections/interfaces
- **Connector technology interface 1**: IDC-connection
- **Connector technology interface 2**: M12-plug
- **Coding interface 2**: D-coded
- **Number of ports interface 2**: 1
- **Number of ports interface 2 equipped**: 1
- **Number of positions/contacts interface 1**: 4
- **Number of positions/contacts interface 2**: 4
- **Termination data, solid wire (min. - max.)**
  - **Conductor cross section, solid wire**: AWG 24/1 - AWG 22/1
  - **Conductor cross section, solid wire**: 0.205 mm² - 0.324 mm²
  - **Conductor diameter, solid wire (bare copper)**: 0.511 mm - 0.643 mm
  - **Conductor diameter, solid wire (bare copper)**: 0.02 in. - 0.025 in.
## 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**
  - Cable access/outlet: straight M12

### Electrical characteristics
- **Current carrying capacity**: max. 1 A
- **Rated voltage**: 60 V
- **Insulation resistance**: min. 100 MOhm
- **Dielectric strength conductor-conductor (secondary)**: 1400 V DC

### Mechanical data
- **Mounting method**: screwable
- **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
- **Material - Finish**: Ni (nickel)
- **RoHS**: compliant
- **REACH - substance (SVHC)**: Lead / 7439-92-1
Technical Data

Environmental conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (min. - max.)</td>
<td>-40 °C - 85 °C</td>
</tr>
<tr>
<td>Temperature - Storage °C</td>
<td>-40 °C - 85 °C</td>
</tr>
<tr>
<td>Temperature - Storage °F</td>
<td>-40 °F - 185 °F</td>
</tr>
<tr>
<td>Temperature - Operating °C</td>
<td>-40 °C - 85 °C</td>
</tr>
<tr>
<td>Temperature - Operating °F</td>
<td>-40 °F - 185 °F</td>
</tr>
<tr>
<td>Particulate ingress</td>
<td>IP6X when plugged in</td>
</tr>
<tr>
<td>Liquid ingress/immersion</td>
<td>IPX7 when plugged in</td>
</tr>
<tr>
<td>Damp heat</td>
<td>25 °C / +40 °C / 93% RH // 5 cycles</td>
</tr>
<tr>
<td>Overvoltage category</td>
<td>III</td>
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<tr>
<td>Degree of pollution</td>
<td>2</td>
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<tr>
<td>Electromagnetic measurement</td>
<td>E2</td>
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<tr>
<td>Shock</td>
<td>490 m/s²</td>
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</tbody>
</table>

The product meets the following standards

Application-specific communications cabling systems

- PROFINET: yes
- Connectors for electronic equipment: circular connector DIN EN 61076-2-101
- Railway applications:
  - Electronic equipment used on rolling stock: according to DIN EN 50155
  - Fire protection on railway vehicles: according to DIN EN 45545-2
  - Contact holder: Thermoplastic HL3 according to R24 EN 45545-2
  - Stuffer cap: Thermoplastic HL3 according to R22 EN 45545-2
  - Sealings: Elastomer
  - Shock and vibration: acc. to DIN EN 50155/DIN EN 61373 Class 1 Category B salt spray acc. to DIN EN 50155 (48h acc. to EN 60086-2-11 test KA)

Classifications

- ETIM 6.0: EC001121
- ETIM 7.0: EC002635
- ETIM 8.0: EC002635
## Technical Data

### Packing details

<table>
<thead>
<tr>
<th>Type of packaging</th>
<th>10 pc(s) / box</th>
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# P | Cabling

## Data sheet
- **M12 plug, D-coded, IP67**
- **Cat. 5, field assembly, straight**

## Accessories

<table>
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<tr>
<th>P/N</th>
<th>Designation</th>
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<tbody>
<tr>
<td>700669</td>
<td>M12 plug protection cap IP54</td>
</tr>
</tbody>
</table>
P | Cabling

Data sheet
M12 plug, D-coded, IP67
Cat. 5, field assembly, straight

Illustrations
Dimensional drawing

Wiring diagram

M12 plug

1. yellow
2. white
3. orange
4. blue

white/orange
white/blue
orange
blue