# SACC-M12MSD-4PL SH PN - Data connector

1424682

https://www.phoenixcontact.com/in/products/1424682

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Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12, D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

## Your advantages

- Time-saving Push-Lock connection: Tool-free connection and disconnection of conductors by opening the contact levers
- Intuitive connection: Easy assignment of individual litz wires with color-coded and numerical identification of the contact levers
- Integrated Push-in Technology: Wire rigid and pretreated conductors easily by means of simple, direct insertion
- Shock- and vibration-resistant connection: Proven spring-cage technology guarantees secure and reliable contacting
- Safely shielded: Reliable 360° shield connection even under extreme mechanical strain

## Commercial Data

| | |
|---|---|
| Item number | 1424682 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | BF2 |
| Product Key | BF2CFN |
| Catalog Page | Page 343 (C-2-2019) |
| GTIN | 4055626376097 |
| Weight per Piece (including packing) | 36.72 g |
| Weight per Piece (excluding packing) | 37.5 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

## Technical Data

### Notes

| | |
|---|---|
| General | This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling) |
| Assembly instruction: | NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties. |

### Mounting

| | |
|---|---|
| Assembly instructions | The wires can be connected both with ferrules and without ferrules |

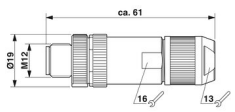
### Product properties

| | |
|---|---|
| Product type | Circular connector (cable-side) |
| Number of positions | 4 |
| Application | Data |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | D |
| Cable outlet | straight |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | II |
| Degree of pollution | 3 |

### Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Length | 60 mm |
| Wrench size, union nut | 13 mm |

External dimensions

| | |
|---|---|
| Outside diameter | 4 mm ... 8 mm |

Housing

| | |
|---|---|
| Diameter housing | 19 mm |

### Material specifications

| | |
|---|---|
| Material | TPE-U |
| | PA 6 |

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Seal material | NBR |
| Material of grip body | Zinc die-cast, nickel-plated |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
| | PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

## Connection data

### Conductor connection

| | |
|---|---|
| Connection method | Push-lock spring connection |
| Connection cross section | 0.14 mm² ... 0.75 mm² (without ferrule) |
| | 0.08 mm² ... 0.5 mm² (with ferrule) |
| | 0.14 mm² ... 0.75 mm² (solid) |
| Connection cross section AWG | 26 ... 18 (without ferrule) |
| | 28 ... 20 (with ferrule) |
| Stripping length of the individual wire | 7 mm |
| Tightening torque | 0.4 Nm (M12 knurl) |
| | 0.8 Nm (Connector with coupling sleeve) |
| | 3 Nm (Pressure nut with coupling sleeve) |

### Pin assignment

| | |
|---|---|
| Contact \| Color (signal designation) \| Contact (optional) | 1 = YE (TD+) |
| | 2 = WH (RD+) |
| | 3 = OG (TD-) |
| | 4 = BU (RD-) |

## Electrical properties

| | |
|---|---|
| Rated surge voltage | 1.5 kV |
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 48 V AC |
| | 60 V DC |
| Nominal current $I_N$ | 4 A (2 A when using 0.14 mm² conductors) |

## Mechanical properties

### Mechanical data

| | |
|---|---|
| Insertion/withdrawal cycles | ≥ 100 (Quantity: 500 with Phoenix Contact mating connector) |

## Connector

Connection 1

| | |
|---|---|
| Head design | Plug |
| Head cable outlet | straight |
| Head thread type | M12 |
| Coding | D |

## Cable/line

| | |
|---|---|
| Signal type/category | PROFINET CAT5 (on the basis of IEC 11801), 100 Mbps |
| Stripping length of the individual wire | 7 mm |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -40 °C ... 85 °C (Plug / socket) |

## Standards and regulations

Testing

| | |
|---|---|
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
| | PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

M12

| | |
|---|---|
| Standards/specifications | IEC 61076-2-101 |
| Standards/specifications | EN 50155:2001 |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