# SACC-M12MRX-8CT-CL SH - Data connector

1422845

https://www.phoenixcontact.com/us/products/1422845

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Data connector, Ethernet CAT6$_A$ (10 Gbps), PROFINET CAT6$_A$ (10 Gbps), 8-position, shielded, Plug angled M12, coding: X, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

## Your advantages

- Extremely compact, thanks to the small wiring space and high contact density
- Safe use in the field, thanks to a high degree of protection
- Safely shielded: reliable shield connection even under extreme mechanical strain
- Robust connection: suitable for railway applications with high shock and vibration loads

## Commercial data

| | |
|---|---|
| Item number | 1422845 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF34 |
| Product key | AF2CJJ |
| GTIN | 4055626381893 |
| Weight per piece (including packing) | 39 g |
| Weight per piece (excluding packing) | 36.53 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 note | NOTE: Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties. |

### Mounting

| | |
|---|---|
| Assembly note | Contacts can be clipped in place and unclipped without tools |
| | The pin assignment can be rotated in a 30° pitch to the cable outlet |

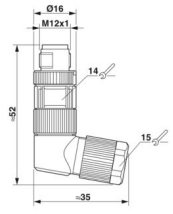
### Product properties

| | |
|---|---|
| Product type | Circular connector (cable-side) |
| Application | Data |
| Number of positions | 8 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | X |
| Cable outlet | angled |

Insulation characteristics

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

### Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Length | 52 mm |
| Wrench size, union nut | 15 mm |
| Wrench size, counter nut | 14 mm |

External dimensions

| | |
|---|---|
| Outside diameter | 6.5 mm ... 10 mm |

Housing

| | |
|---|---|
| Diameter housing | 16 mm |

## Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Seal material | FKM |
| Material of grip body | Zinc die-cast, nickel-plated |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, tin-plated |

## Connection data

### Conductor connection

| | |
|---|---|
| Connection method | Crimp connection |
| Connection cross section | 0.14 mm² ... 0.34 mm² (flexible) |
| Connection cross section AWG | 26 ... 22 (flexible) |
| Stripping length of the individual wire | 4 mm +0,5 mm |
| Tightening torque | 0.4 Nm (M12 knurl) |
| | 1.5 Nm (Screw plug insert with sleeve housing as far it will go) |
| | 4 Nm (Pressure nut with coupling sleeve) |

### Connection assignment

| | |
|---|---|
| Contact \| Color (signal designation) \| Contact (optional) | 1 = WHOG (D1+) |
| | 2 = OG (D1-) |
| | 3 = WHGN (D2+) |
| | 4 = GN (D2-) |
| | 5 = WHBN (D4+) |
| | 6 = BN (D4-) |
| | 7 = WHBU (D3-) |
| | 8 = BU (D3+) |

## Electrical properties

| | |
|---|---|
| Rated surge voltage | 0.8 kV |
| Insulation resistance | ≥ 100 Ω |
| Nominal voltage $U_N$ | 48 V AC |
| | 60 V DC |
| Nominal current $I_N$ | 0.5 A |
| Transmission speed | 10 Gbps |

## Mechanical properties

### Mechanical data

| | |
|---|---|
| Insertion/withdrawal cycles | ≥ 100 |

## Connector

### Connection 1

| | |
|---|---|
| Head design | Plug |
| Head cable outlet | angled |

| | |
|---|---|
| Head thread type | M12 |
| Coding | X |

## Interfaces

| | |
|---|---|
| Signal type/category | Ethernet $CAT6_A$ (IEC 11801), 10 Gbps |
| | PROFINET $CAT6_A$ (IEC 11801), 10 Gbps |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 85 °C (Plug / socket) |
| Ambient temperature (assembly) | -5 °C ... 50 °C |

## Standards and regulations

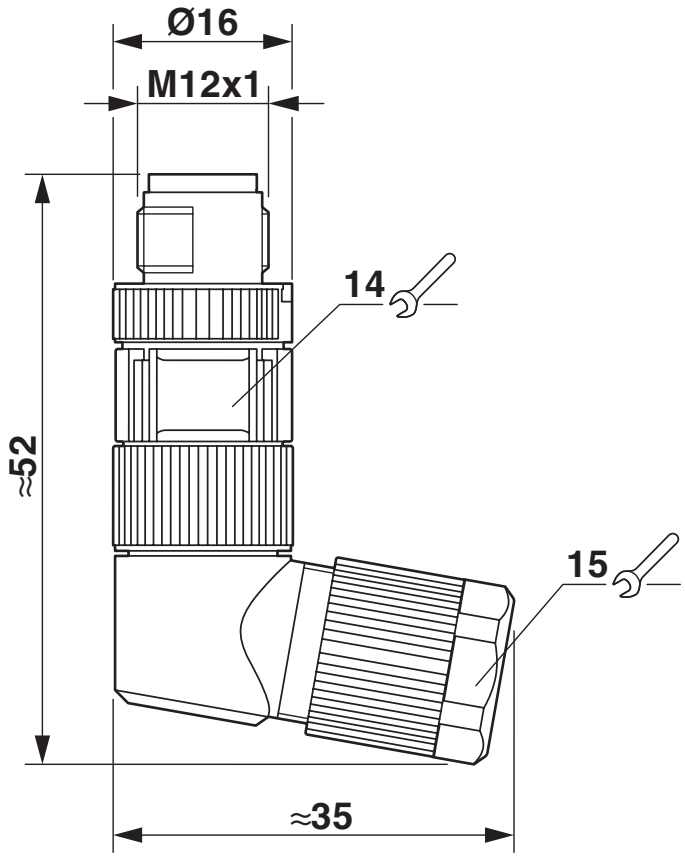
| | |
|---|---|
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

M12

| | |
|---|---|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-109 |
| Standard designation | Shock, vibration |
| Standards/specifications | EN 50155:2001 |

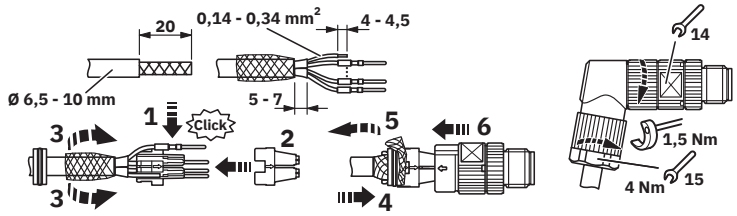
## Drawings

Dimensional drawing

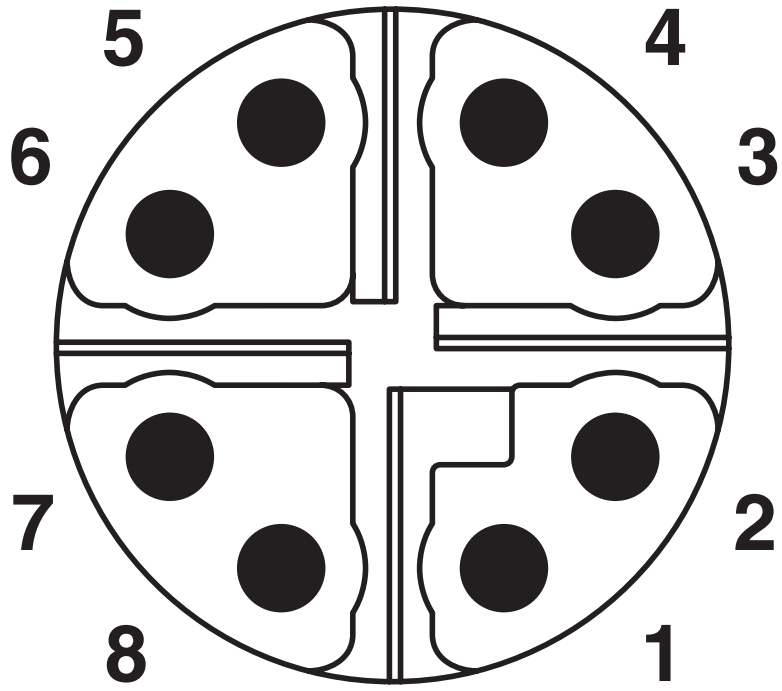



M12 x 1 male plug, angled, shielded

Functional drawing



Schematic diagram




Pin assignment M12 plug, 8-pos., view plug side

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1422845

**UL Listed**
Approval ID: E335024

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Approval ID: E335024

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440116 |
| ECLASS-15.0 | 27440116 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002635 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |


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