# SACC-P12FR-4PL-CM SH - Connector

1438172

https://www.phoenixcontact.com/us/products/1438172

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Connector, Universal, 4-position, shielded, Socket angled M12 Push-Pull, coding: A, 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
- Save time, thanks to installation with push-pull fast locking

## Commercial data

| | |
|---|---|
| Item number | 1438172 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF33 |
| Product key | AF2CFA |
| GTIN | 4063151814885 |
| Weight per piece (including packing) | 41.3 g |
| Weight per piece (excluding packing) | 22.22 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

## Technical data

### Notes

| | |
|---|---|
| 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. |

### Product properties

| | |
|---|---|
| Product type | Circular connector (cable-side) |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Cable outlet | angled |

Insulation characteristics

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

### Dimensions

External dimensions

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

### Material specifications

| | |
|---|---|
| Material | TPE-U (Clamping cage, weight: 1.1 g) |
| | PA 6 (Actuation lever) |
| 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 |

### Connection data

Conductor connection

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

| | |
|---|---|
| | 3 Nm (Pressure nut with coupling sleeve) |

Connection assignment

| | |
|---|---|
| Contact \| Color (signal designation) \| Contact (optional) | 1 = BN |
| | 2 = WH |
| | 3 = BU |
| | 4 = BK |

## Electrical properties

| | |
|---|---|
| Rated surge voltage | 1.5 kV |
| 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 |

## Connector

Connection 1

| | |
|---|---|
| Head design | Socket |
| Head cable outlet | angled |
| Head thread type | M12 |
| Head locking type | Push-Pull |
| Coding | A |

## Interfaces

| | |
|---|---|
| Signal type/category | Universal |

## 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) |

## Standards and regulations

| | |
|---|---|
| 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) |

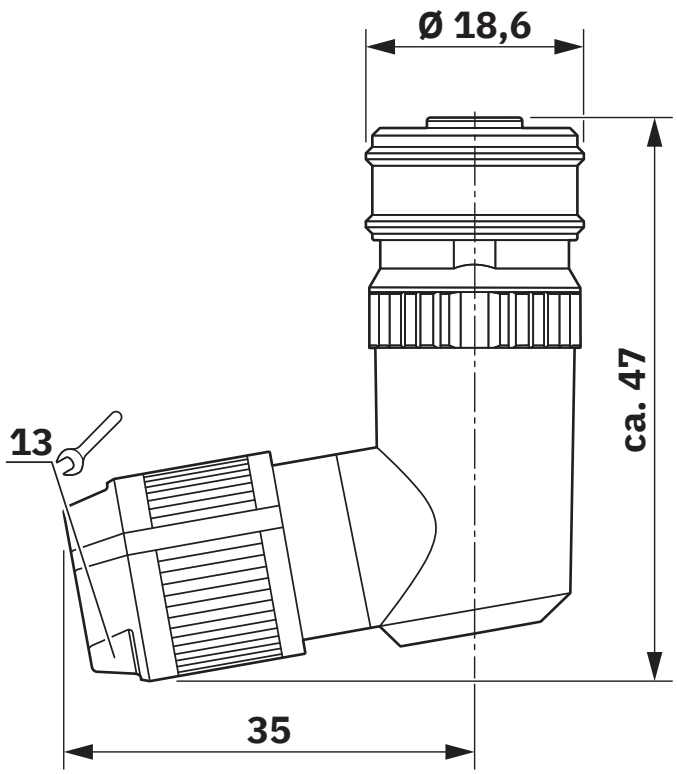
M12

| | |
|---|---|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-101 |

| | |
|---|---|
| Standard designation | Shock, vibration |
| Standards/specifications | EN 50155 Cat. 1B |
| Standard designation | M12-Push-Pull |
| Standards/specifications | IEC 61076-2-010 |

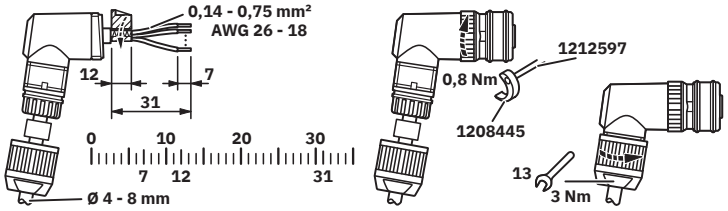
## Drawings

Dimensional drawing



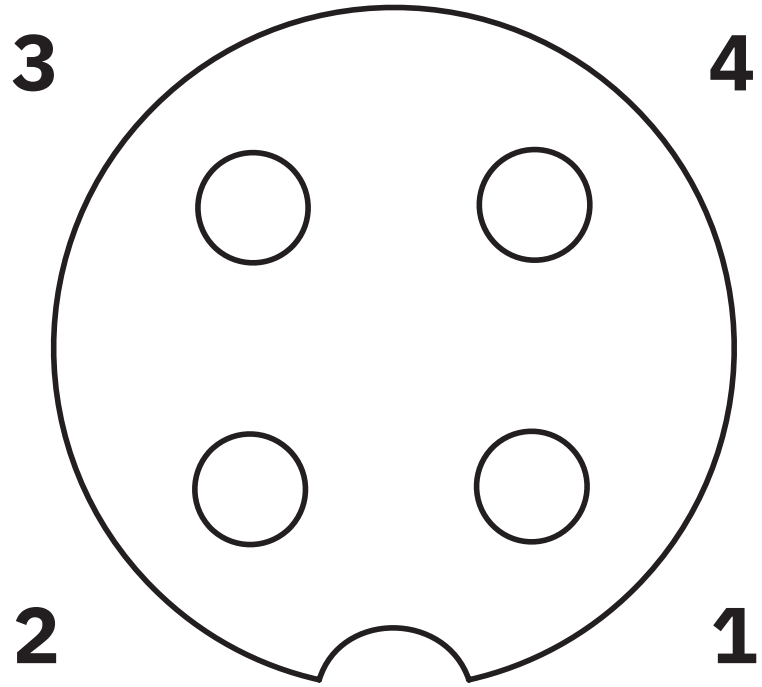

Dimensional drawing

Functional drawing




Functional drawing

Schematic diagram




Pin assignment M12 socket, 4-pos., A-coded, view female side

## 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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