

Connector - SACC-M12FS-5PL SH



1424660

<https://www.phoenixcontact.com/pc/products/1424660>

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Connector, Universal, 5-position, shielded, Socket straight M12, 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

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Commercial Data

| | |
|--------------------------------------|--------------------|
| Item number | 1424660 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product Key | BF2CFA |
| Catalog Page | Page 19 (C-2-2019) |
| GTIN | 4055626375878 |
| Weight per Piece (including packing) | 41.9 g |
| Weight per Piece (excluding packing) | 41.9 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

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Technical Data

Notes

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.

Product properties

| | |
|----------------------|---------------------------------|
| Product type | Circular connector (cable-side) |
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A - standard |
| Cable outlet | straight |

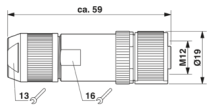
Insulation characteristics

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

Ambient conditions

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

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Length | 59 mm |

External dimensions

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

Housing

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

Connector

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

Header 1

| | |
|-------------------|----------|
| Head design | Socket |
| Head cable outlet | straight |
| Head thread type | M12 |

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| | |
|-----------------------------|-----------------------------|
| Coding | A-coded |
| Number of positions | 5 |
| Coding | A - standard |
| Insertion/withdrawal cycles | ≥ 100 |
| Connection method | Push-lock spring connection |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Number of positions | 5 |
| Coding | A - standard |
| Insertion/withdrawal cycles | ≥ 100 |
| Connection method | Push-lock spring connection |
| Contact material | CuSn |
| Contact surface material | Ni/Au |

Electrical properties

| | |
|-----------------------|--|
| Rated surge voltage | 1.5 kV |
| Contact resistance | ≤ 8 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 mm ² conductors) |

Material specifications

| | |
|--|---|
| Material | TPE-U (Clamping cage, weight: 1.1 g) |
| | PA 6 (Actuation lever) |
| Flammability rating according to UL 94 | V0 |
| Sealing 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 |
| Cable gland material | 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 |
| Conductor cross section flexible | 0.14 mm ² ... 0.75 mm ² |
| Cross section AWG | 26 ... 18 |

Pin assignment

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| | |
|---|--------|
| Contact Color (signal designation) Contact (optional) | 1 = BN |
| | 2 = WH |
| | 3 = BU |
| | 4 = BK |
| | 5 = GY |

Mounting

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

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 |
|--------------------------|-----------------|

M12

| | |
|--------------------------|---------------|
| Standards/specifications | EN 50155:2001 |
|--------------------------|---------------|

Cable / line

Cable structure

| | |
|---|-----------|
| Signal type/category | Universal |
| Stripping length of the individual wire | 7 mm |

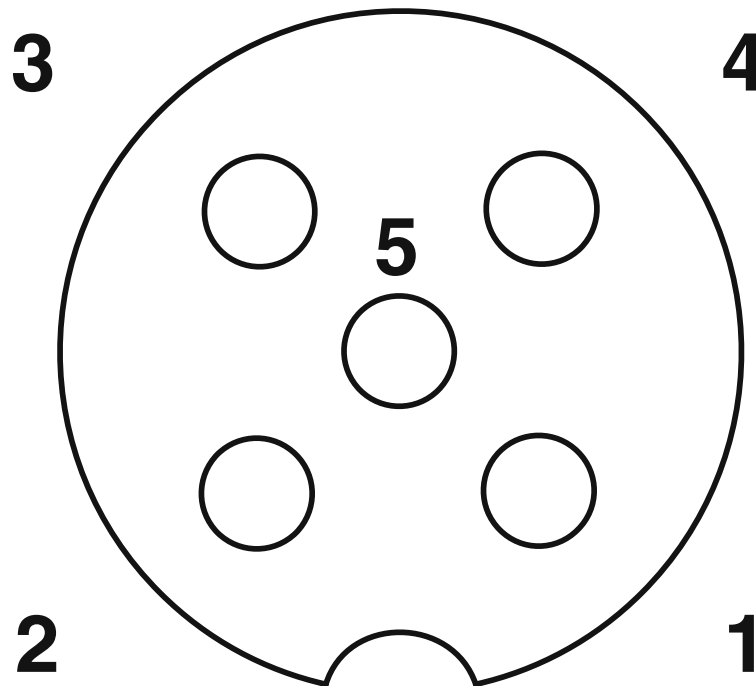
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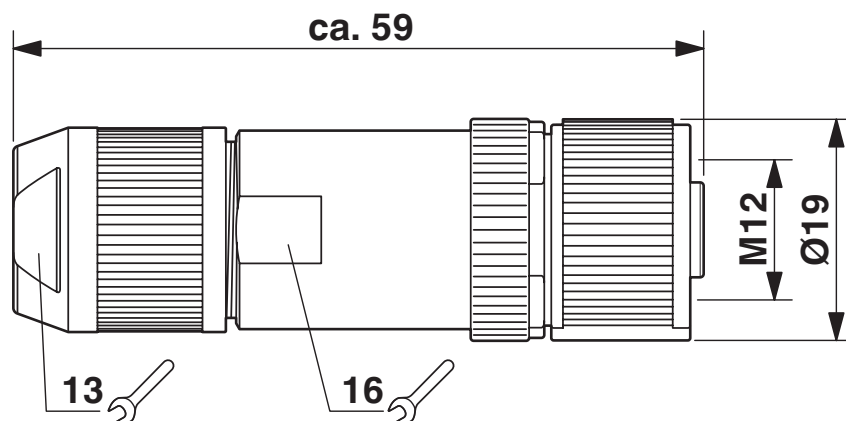
Drawings

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

Dimensional drawing



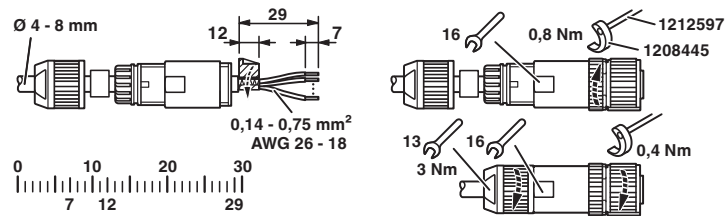
Socket M12-SPEEDCON, straight, shielded

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Functional drawing



Slide the pressure nut and sleeve housing along the cable, strip the cable, shorten the shield, strip the single wires, connect the wires, in the case of a straight sleeve housing gently twist the wires together, stick the shielding foil around the shortened shield, in the case of a cable outside diameter < 6 mm stick an additional shielding foil around the wire pack, screw the sleeve housing to the plug insert, screw the pressure nut tight.

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Approvals



EAC

Approval ID: RU C-DE.AI30.B.01102



EAC

Approval ID: RU C-DE.BL08.B.00511



UL Listed

Approval ID: E221474

| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | 60 V | 4 A | - | 26 - 18 |



cUL Listed

Approval ID: E221474

| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | 60 V | 4 A | 26 - 18 | - |

cULus Listed

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440102 |
| ECLASS-10.0.1 | 27440102 |
| ECLASS-11.0 | 27440102 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002635 |
|----------|----------|

UNSPSC

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

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Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

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Accessories

Screw plug

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

<https://www.phoenixcontact.com/pc/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



Cable reel

Cable reel - SAC-5P-100,0-PUR/SH-0,34 - 1501728

<https://www.phoenixcontact.com/pc/products/1501728>

By the meter, Cable reel, shielded, PUR halogen-free, black-gray RAL 7021, 5-wire, color single wire: Brown, white, blue, black, gray, cable length: 100 m



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Shielding foil

Shielding foil - ALU-SB - 1404531

<https://www.phoenixcontact.com/pc/products/1404531>

Shielding foil, for fixing the braided shield of shielded cables. Length: 4 cm, width: 1.2 cm



Ferrule

Ferrule - AI 0,25- 6 YE - 3203024

<https://www.phoenixcontact.com/pc/products/3203024>

Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow



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Ferrule

Ferrule - A 0,25- 7 - 3202478

<https://www.phoenixcontact.com/pc/products/3202478>



Ferrule, length: 7 mm, color: silver

Ferrule

Ferrule - A 0,34- 7 - 3009202

<https://www.phoenixcontact.com/pc/products/3009202>



Ferrule, length: 7 mm, color: silver

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Ferrule

Ferrule - A 0,5 - 6 - 3200218

<https://www.phoenixcontact.com/pc/products/3200218>

Ferrule, length: 6 mm, color: silver



Ferrule

Ferrule - AI 0,5 - 6 WH - 3200687

<https://www.phoenixcontact.com/pc/products/3200687>

Ferrule, sleeve length: 6 mm, length: 12 mm, color: white



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Stripping tool

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407

<https://www.phoenixcontact.com/pc/products/1657407>

Stripping tool, for the multi-level stripping of shielded cables



Stripping tool

Stripping tool - WIREFOX 2,5 - 1212368

<https://www.phoenixcontact.com/pc/products/1212368>

Stripping tool, for conductors and cables with a conductor cross section from 0.08 to 2.5 mm², self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm² stranded/1.5 mm² solid



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Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

<https://www.phoenixcontact.com/pc/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver

Torque screwdriver - TSD 08 SAC - 1212597

<https://www.phoenixcontact.com/pc/products/1212597>



Torque screw driver with preset torque of 0.8 Nm, with 4 mm hexagon for accommodating SAC bits, two-component handle with non-slip grip

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Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

<https://www.phoenixcontact.com/pc/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

Torque screwdriver

Torque screwdriver - TSD-M 3NM - 1212225

<https://www.phoenixcontact.com/pc/products/1212225>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1.2 - 3 Nm

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Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

<https://www.phoenixcontact.com/pc/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

Crimping pliers

Crimping pliers - CRIMPFOX 6H - 1212046

<https://www.phoenixcontact.com/pc/products/1212046>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm² ... 6 mm², unlockable pressure lock, lateral entry

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Tool

Tool - SACC BIT M12-D20 - 1208445

<https://www.phoenixcontact.com/pc/products/1208445>

Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive



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