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# Sensor/actuator cable - SAC-4P-M12MS/0,3-600/M12FS HD

1403968

https://www.phoenixcontact.com/gb/products/1403968

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Sensor/actuator cable, 4-position, PP-EPDM, gray RAL 7035, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 0.3 m, Hygienic design, with high-grade steel knurl

## Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Stainless steel type 1.4404 used to provide corrosion protection for all exposed metal parts
- Contamination can be detected quickly – thanks to the light color

## Commercial Data

| | |
|---|---|
| Item number | 1403968 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | BF1CCA |
| Product Key | BF1CCA |
| Catalog Page | Page 142 (C-4-2013) |
| GTIN | 4046356677240 |
| Weight per Piece (including packing) | 37 g |
| Weight per Piece (excluding packing) | 28.05 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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## Technical Data

### Product properties

| | |
|---|---|
| Product type | Sensor/actuator cable |
| Number of positions | 4 |
| Application | Food processing industry |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A - standard |

Insulation characteristics

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

### Material specifications

| | |
|---|---|
| Sealing material | FKM |
| Material of grip body | PP |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PP |
| Cable gland material | Stainless steel |

### Electrical properties

| | |
|---|---|
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 250 V AC |
| | 250 V DC |
| Nominal current $I_N$ | 4 A |
| Protective circuit | unwired |

### Connection data

Conductor connection

| | |
|---|---|
| Tightening torque | 0.4 NmM12 connector |

### Connector

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

Header 1

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

Head 2

| | |
|---|---|
| Head design | Socket |

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| | |
|---|---|
| Head cable outlet | straight |
| Head thread type | M12 |
| Coding | A |

## LED signaling

| | |
|---|---|
| Status display | No |
| Status display present | No |

## Cable / line

| | |
|---|---|
| Cable length | 0.3 m |
| Cable weight | 30 kg/km |
| Number of positions | 4 |
| Shielded | no |
| Conductor structure signal line | 42x 0.10 mm |
| AWG signal line | 22 |
| Conductor cross section | 4x 0.34 mm² (Signal line) |
| Wire diameter incl. insulation | 1.27 mm ±0.02 mm (Signal line) |
| External cable diameter | 4.7 mm ±0.15 mm |
| Outer sheath, material | PP-EPDM |
| External sheath, color | gray RAL 7035 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | brown, white, blue, black |
| Thickness, insulation | ≥ 0.21 mm |
| Thickness, outer sheath | approx. 0.8 mm |
| Overall twist | 4 wires, twisted |
| Length of twist, overall twist | 48 mm |
| Max. conductor resistance | approx. 58 MΩ/km |
| Insulation resistance | ≥ 1 GΩ*km |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage | ≥ 3000 V |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Max. bending cycles | 4000000 |
| Torsional frequency | Torsion cycles/min |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Other resistance | Resistant to cold bending and cold impacts according to DIN EN 60811-1-4 (-40 °C) |
| Special properties | partly suitable for use with drag chain |
| Ambient temperature (operation) | -40 °C ... 105 °C (cable, fixed installation) |
| | -25 °C ... 105 °C (Cable, flexible installation) |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |

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| | |
|---|---|
| | IP68 |
| | IP69K |
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |

## Standards and regulations

M12

| | |
|---|---|
| Standards/specifications | IEC 61076-2-101 |

M12

| | |
|---|---|
| Standards/specifications | FDA 21 CFR 177.2600 |

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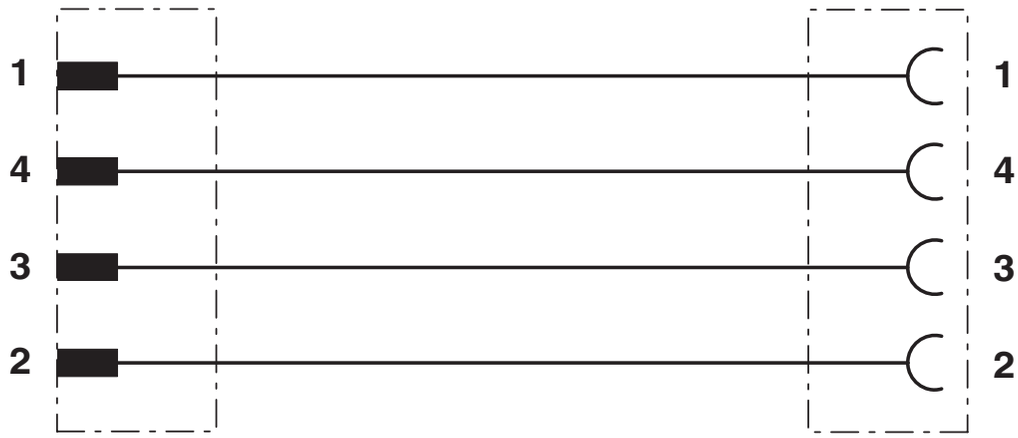
# Sensor/actuator cable - SAC-4P-M12MS/0,3-600/M12FS HD

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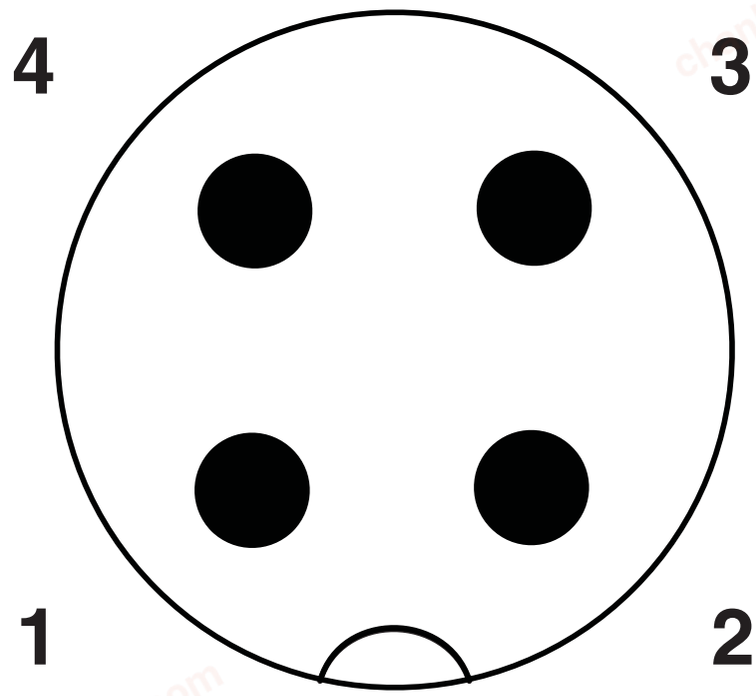
## Drawings

Circuit diagram




Contact assignment of the M12 plug and the M12 socket

Schematic diagram




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

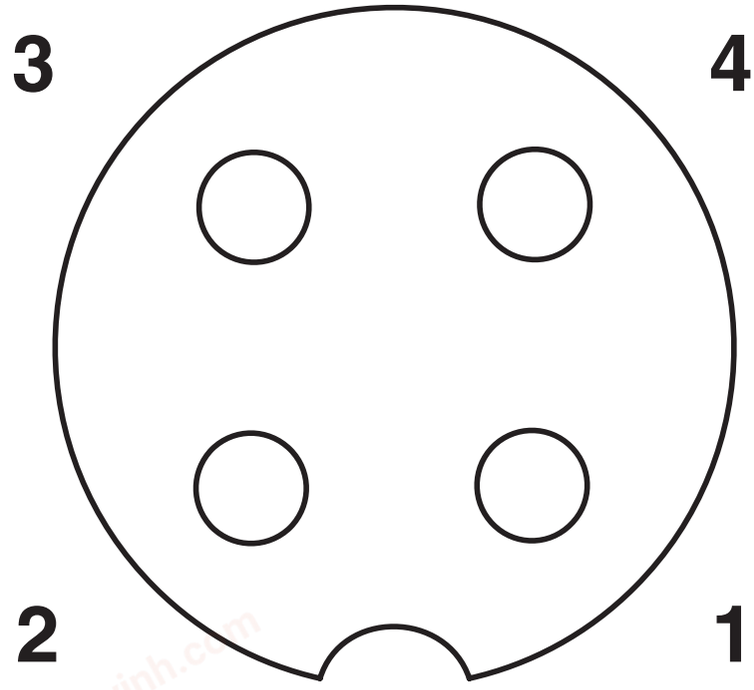
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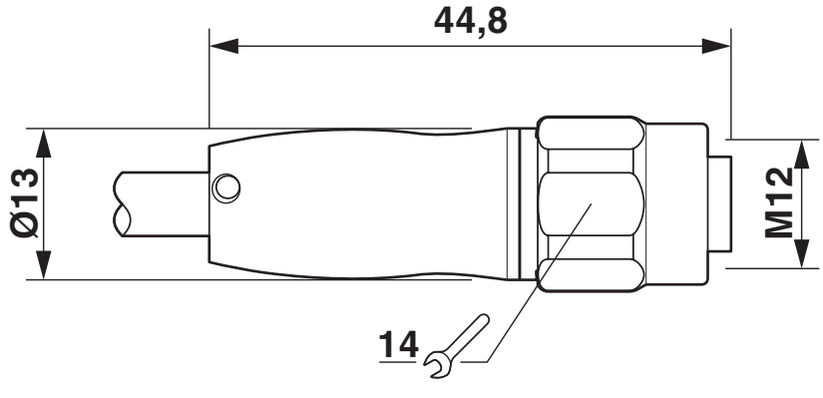
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Schematic diagram




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

Dimensional drawing




M12 x 1 socket, straight

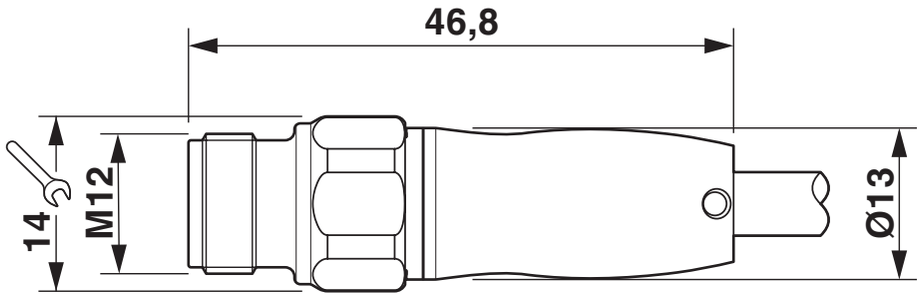
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Dimensional drawing




Plug, M12 x 1, straight, shielded

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# Sensor/actuator cable - SAC-4P-M12MS/0,3-600/M12FS HD

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## Approvals

**EAC**
Approval ID: RU C-DE.BL08.B.00286

**EAC**
Approval ID: RU D-DE.HB35.B.00387

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# Sensor/actuator cable - SAC-4P-M12MS/0,3-600/M12FS HD

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-9.0 | 27060311 |
| ECLASS-10.0.1 | 27060311 |
| ECLASS-11.0 | 27060311 |

### ETIM

| | |
|---|---|
| ETIM 8.0 | EC001855 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 26121600 |

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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

### Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

https://www.phoenixcontact.com/gb/products/1208429



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

### Torque screwdriver

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

https://www.phoenixcontact.com/gb/products/1212224



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

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## Adapter insert

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

https://www.phoenixcontact.com/gb/products/1212600



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

## Tool

Tool - SAC BIT M12-W14 - 1212513

https://www.phoenixcontact.com/gb/products/1212513



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 4 mm hexagonal drive

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