

SAC-4P-M12MR/3,0-500 FB - Sensor/actuator cable



1420963

<https://www.phoenixcontact.com/us/products/1420963>

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Sensor/actuator cable, 4-position, Plug angled M12, coding: A, on free cable end, cable length: 3 m, with high-grade steel knurl

Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Contamination can be detected quickly – thanks to the light color

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1420963 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF03 |
| Product key | BF1CCA |
| GTIN | 4055626249933 |
| Weight per piece (including packing) | 128.49 g |
| Weight per piece (excluding packing) | 119.45 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 |

Insulation characteristics

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

Material specifications

| | |
|-------------------------------|-----------------|
| Material of grip body | PP |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PP |
| Material for screw connection | Stainless steel |

Electrical properties

| | |
|-----------------------|----------------------------|
| Contact resistance | $\leq 5 \text{ m}\Omega$ |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 250 V AC |
| | 250 V DC |
| Nominal current I_N | 4 A |
| Protective circuit | unwired |

Mechanical properties

Mechanical data

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

Signaling

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

Connection data

Conductor connection

| | |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

Connector

Connection 1

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| | |
|---------------------|-----------------|
| Type | Plug angled M12 |
| Number of positions | 4 |
| Coding type | A |
| Number of positions | 4 |


Connection 2

| | |
|------|----------------|
| Type | free cable end |
|------|----------------|

Cable/line

| | |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

PVC gray [500]

| | |
|---|---|
| Dimensional drawing |  |
| Cable weight | 40 kg/km |
| UL AWM Style | 2464 / 1729 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | no |
| Cable type | PVC gray [500] |
| Conductor structure signal line | 19x 0.15 mm |
| AWG signal line | 22 |
| Conductor cross section | 4x 0.34 mm ² (Signal line) |
| Wire diameter incl. insulation | 1.26 mm ±0.05 mm |
| External cable diameter | 4.7 mm ±0.15 mm |
| Outer sheath, material | PVC |
| External sheath, color | gray RAL 7001 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PVC |
| Single wire, color | brown, white, blue, black |
| Thickness, insulation | ≥ 0.23 mm (Core insulation) |
| Thickness, outer sheath | ≥ 0.76 mm |
| Overall twist | 4 wires, twisted |
| Max. conductor resistance | max. 57 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 200 MΩ*km (at 20 °C) |
| 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 |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |

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| |
|---|
| -25 °C ... 80 °C (Cable, flexible installation) |
|---|

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|----------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| | IP69K |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |

Standards and regulations

M12

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

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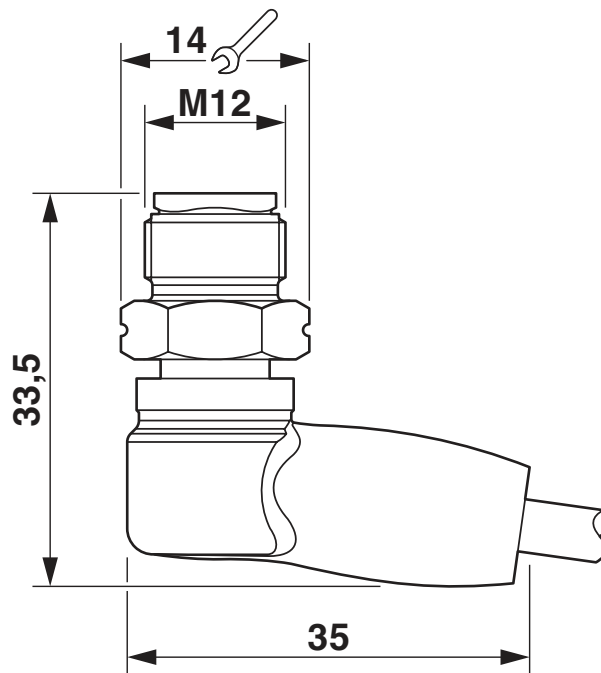
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Drawings

Dimensional drawing



M12 x 1 male plug, angled

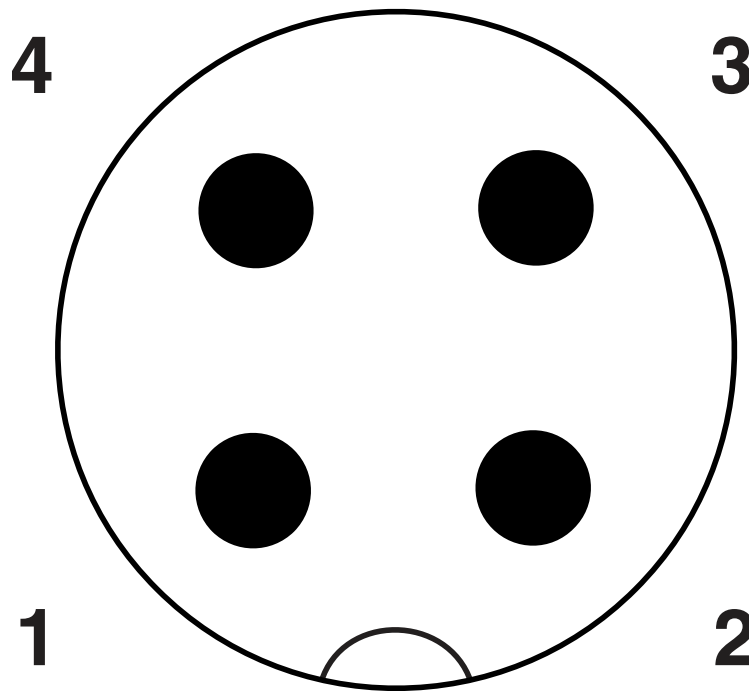
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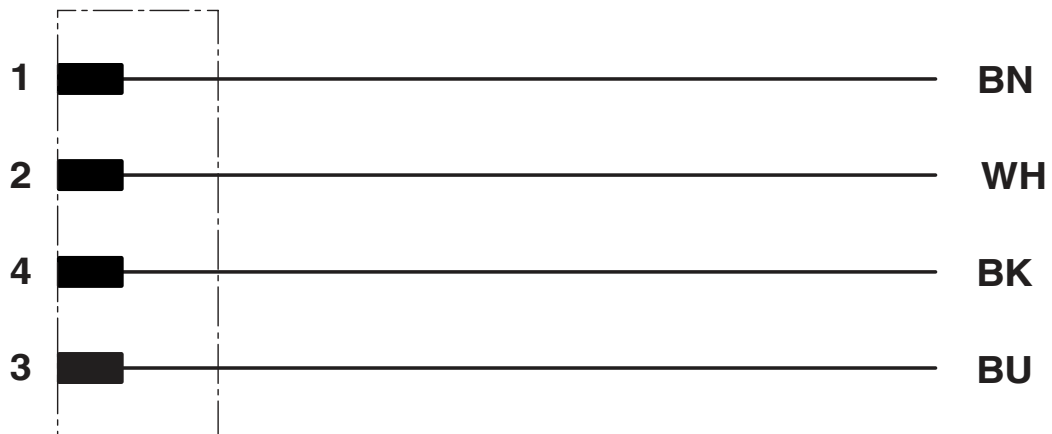
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Schematic diagram



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

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1420963>

| | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  UL Listed Approval ID: FILE E 221474 | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 250 V | 4 A | - | - |

| | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|  cUL Listed Approval ID: FILE E 221474 | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 250 V | 4 A | - | - |

| |
|---|
|  EAC-RoHS Approval ID: RU D-DE.HB35.B.00385 |
|---|

| |
|---------------------|
| cULus Listed |
|---------------------|

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

ETIM

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

UNSPSC

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

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Environmental product compliance

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

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Accessories

TSD 04 SAC - Torque screwdriver

1208429

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



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

TSD-M 1,2NM - Torque screwdriver

1212224

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



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

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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

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



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

SAC BIT M12-W14 - Tool

1212513

<https://www.phoenixcontact.com/us/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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CUTFOX-S VDE - Diagonal cutter

1212207

<https://www.phoenixcontact.com/us/products/1212207>



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/us/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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WIREFOX 10 - Stripping tool

1212150

<https://www.phoenixcontact.com/us/products/1212150>



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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