

SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

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Sensor/actuator cable, 4-position, PVC, gray RAL 7001, free cable end, on Socket angled M12, coding: A, with 3 LEDs, cable length: 10 m, with high-grade steel knurl

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Convenient: increased machine availability thanks to quick and easy diagnostics
- Contamination can be detected quickly – thanks to the light color

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1420977 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF03 |
| Product key | AF1CCA |
| GTIN | 4055626250076 |
| Weight per piece (including packing) | 374.54 g |
| Weight per piece (excluding packing) | 365.5 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|----------------------|--------------------------|
| Product type | Sensor/actuator cable |
| Application | Food processing industry |
| Number of positions | 4 |
| 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

| | |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 24 V DC |
| Nominal current I_N | 4 A |

Mechanical properties

Mechanical data

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

Signaling

| | |
|------------------------|--------|
| Status display | 3 LEDs |
| Status display present | yes |

Connector

Connection 1

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

Connection 2

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

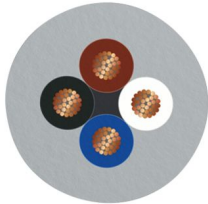
Cable/line

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| | |
|---|---|
| Cable length | 10 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 | 4.70 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 |
| Smallest bending radius, fixed installation | 24 mm |
| Smallest bending radius, movable installation | 47 mm |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation) |

Environmental and real-life conditions

Ambient conditions

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

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| | |
|---|----------------------------------|
| | IP68 |
| | IP69K |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket) |

Standards and regulations

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

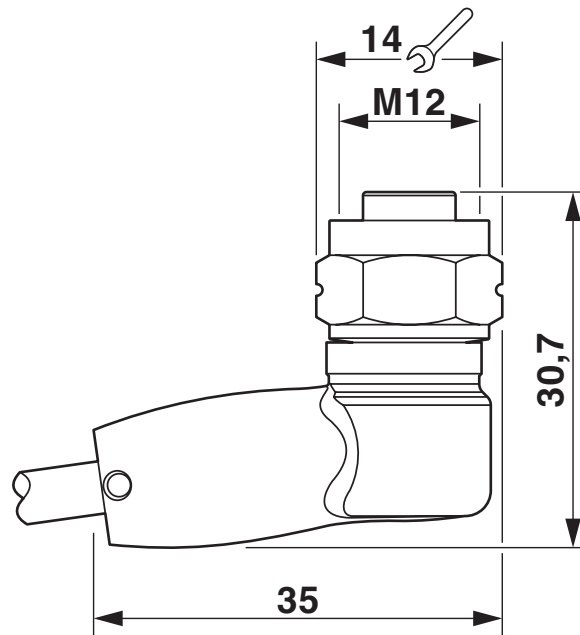
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Drawings

Dimensional drawing



M12 x 1 socket, angled

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Schematic diagram



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

Circuit diagram



Contact assignment of M12 sockets with LED

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Approvals

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

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

UNSPSC

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

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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.) | 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1) |
| SCIP | 4cd9424a-a1df-4bff-b2a7-5e50b24034f9 |

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 3.356 kg CO2e |
|---------|---------------|

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