

Sensor/Actuator cable - SAC-4P- 3,0-PUR/M12FR - 1668234

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Sensor/Actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket angled M12, A-coded, Cable length: 3 m

Product Features

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable

Key commercial data

| | |
|-------------------------|---------------|
| package_quantity | 1 |
| GTIN | 4017918136390 |

Technical data

Dimensions

| | |
|---|-------|
| Length of cable | 3 m |
| Stripping length of the free conductor end | 50 mm |

Ambient conditions

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

General

| | |
|-------------------------------------|-------------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 250 V |
| Number of positions | 4 |
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 10 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Protective circuit/component | Unwired |
| Surge voltage category | II |
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |

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Technical data

General

| | |
|---------------|------------------------|
| Torque | 0.4 Nm (M12 connector) |
|---------------|------------------------|

Material

| | |
|--|---|
| Inflammability class according to UL 94 | HB |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Material, knurls | Zinc die-cast, nickel-plated |
| Sealing material | NBR |

Cable

| | |
|--|--------------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| UL AWM style | 20549 / 10493 (80°C/300 V) |
| Conductor cross section | 4x 0.34 mm ² |
| AWG signal line | 22 |
| Conductor structure signal line | 42x 0.10 mm |
| Core diameter including insulation | 1.27 mm ±0.02 mm |
| Thickness, insulation | ≥ 0.21 mm |
| Wire colors | brown, white, blue, black |
| Overall twist | 4 wires, twisted |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 0.8 mm |
| External cable diameter D | 4.7 mm ±0.15 mm |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 4000000 |
| Minimum bending radius, drag chain applications | 10 x D |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 30 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | ≥ 1 GΩ*km |
| Conductor resistance | ≤ 58 Ω/km |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage, cable | ≥ 3000 V |
| Special properties | Flexible cable conduit capable |

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Technical data

Cable

| | |
|--|---|
| Special properties | Silicone-free |
| Special properties | Free of substances which would hinder coating with paint or varnish |
| Special properties | Flexible |
| Flame resistance | in accordance with DIN UL-Style 20549 |
| Flame resistance | in accordance with FT1 as per UL 758 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Halogen-free | in accordance with DIN EN 50267-2-1 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| Other resistance | hydrolysis and microbe resistant |
| Other resistance | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Other resistance | Low adhesion |
| Other resistance | abrasion-resistant |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, flexible installation) |

classifications

eCl@ss

| | |
|-------------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27061801 |

ETIM

| | |
|-----------------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

| | |
|----------------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |

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approvals

UL Listed / cUL Listed / GOST / cULus Listed /

Approval details

| | |
|----------------------------|-------|
| UL Listed | |
| Nominal voltage UN | 300 V |
| Nominal current IN | 4 A |
| mm ² /AWG/kcmil | |

| | |
|----------------------------|-------|
| cUL Listed | |
| Nominal voltage UN | 300 V |
| Nominal current IN | 4 A |
| mm ² /AWG/kcmil | |

| | |
|-------------|--|
| GOST | |
|-------------|--|

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

accessories

Conductor marking

PABA WH/15 - 1013151



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accessories

PABA YE/15 - 1013698



PABA RD/15 - 1013944



Marker carrier cable

PATG 2/15 - 1013038



PATG 3/15 - 1013041



PATG 4/15 - 1013054



Marker pen

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accessories

B-STIFT - 1051993



Cutting tools

CUTFOX-S VDE - 1212207



Stripping tool

WIREFOX SAC-1 - 1212757



WIREFOX SAC - 1212623



WIREFOX 10 - 1212150



Protective cap

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accessories

PROT-M12 MS-PA-CHAIN - 1430899



Safety locking

SAC-M12-EXCLIP-F - 1558991



Torque tool

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



Screwdriver tools

TSD-M SAC-BIT ADAPTER - 1212600



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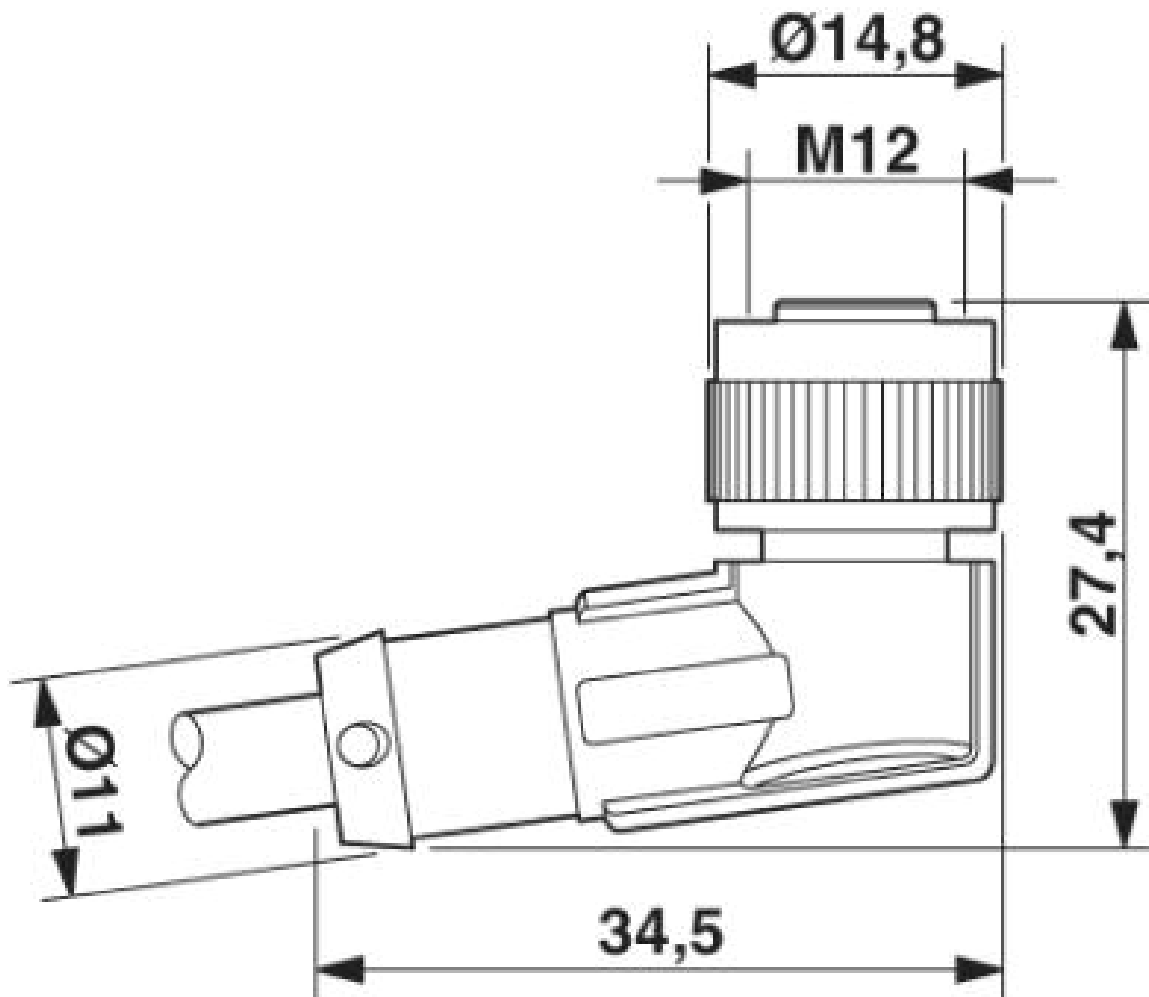
accessories

SAC BIT M12-D15 - 1208432



Drawings

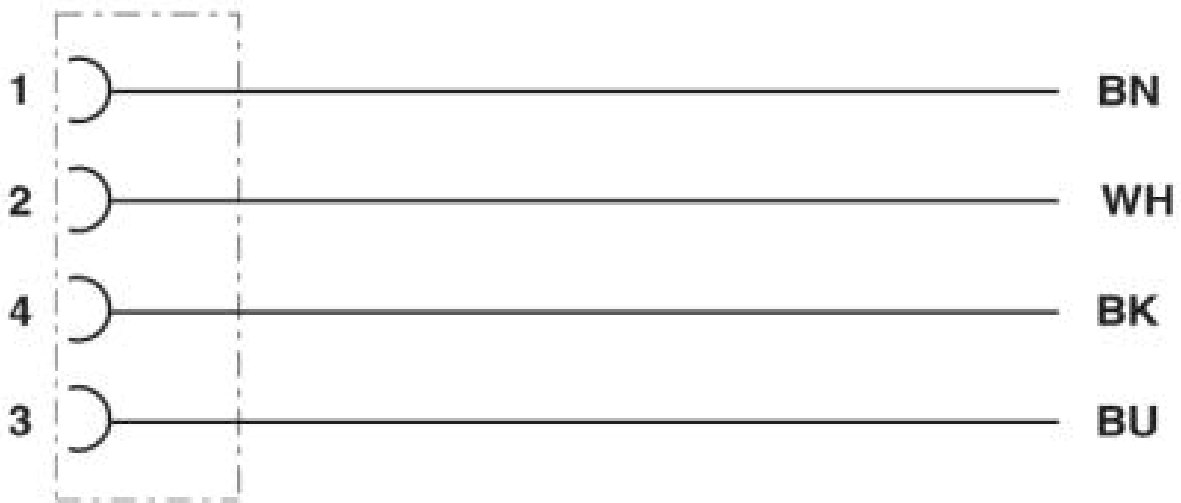
Dimensioned drawing



M12 x 1 socket, angled

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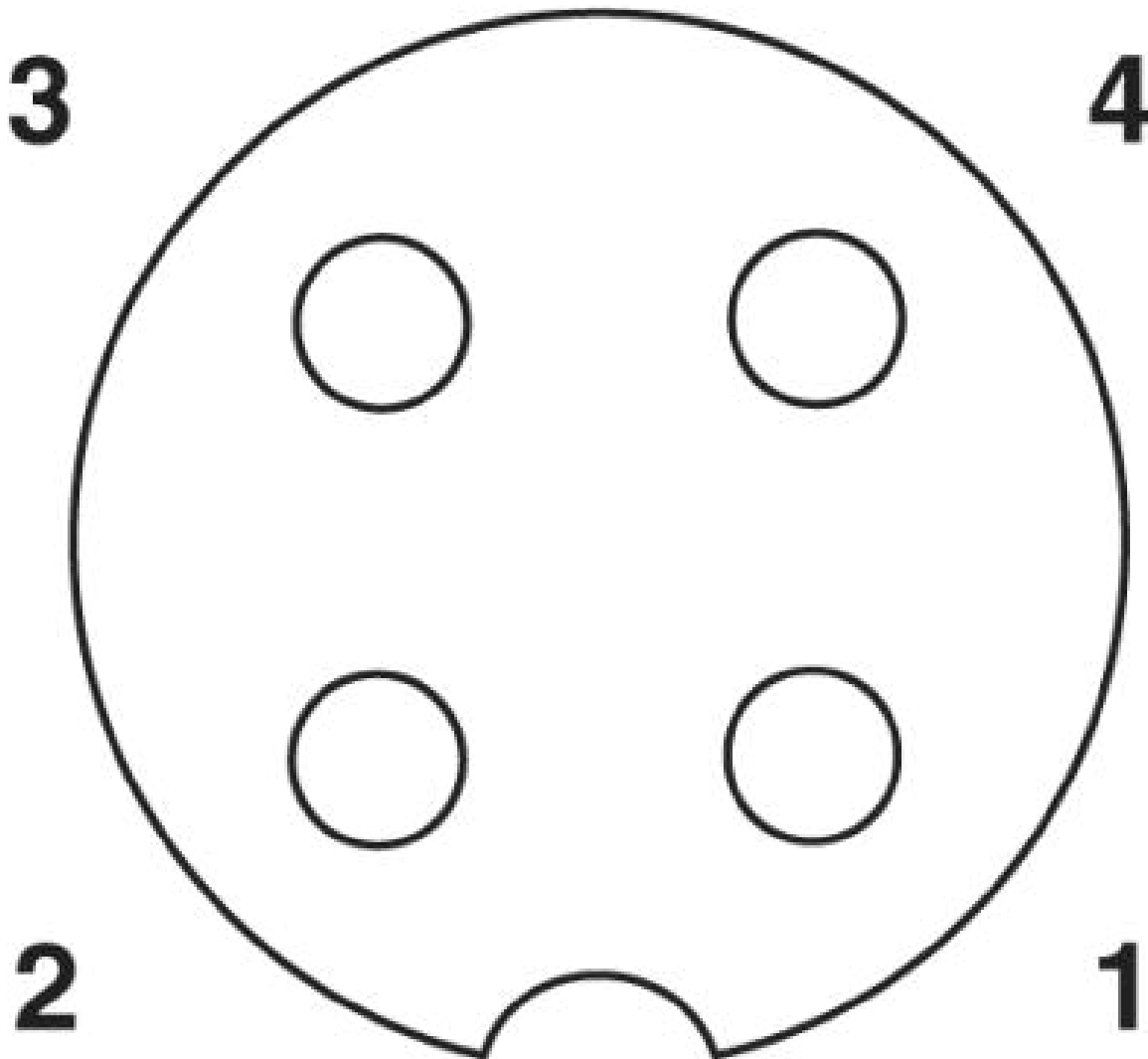
Circuit diagram



Contact assignment of the M12 socket

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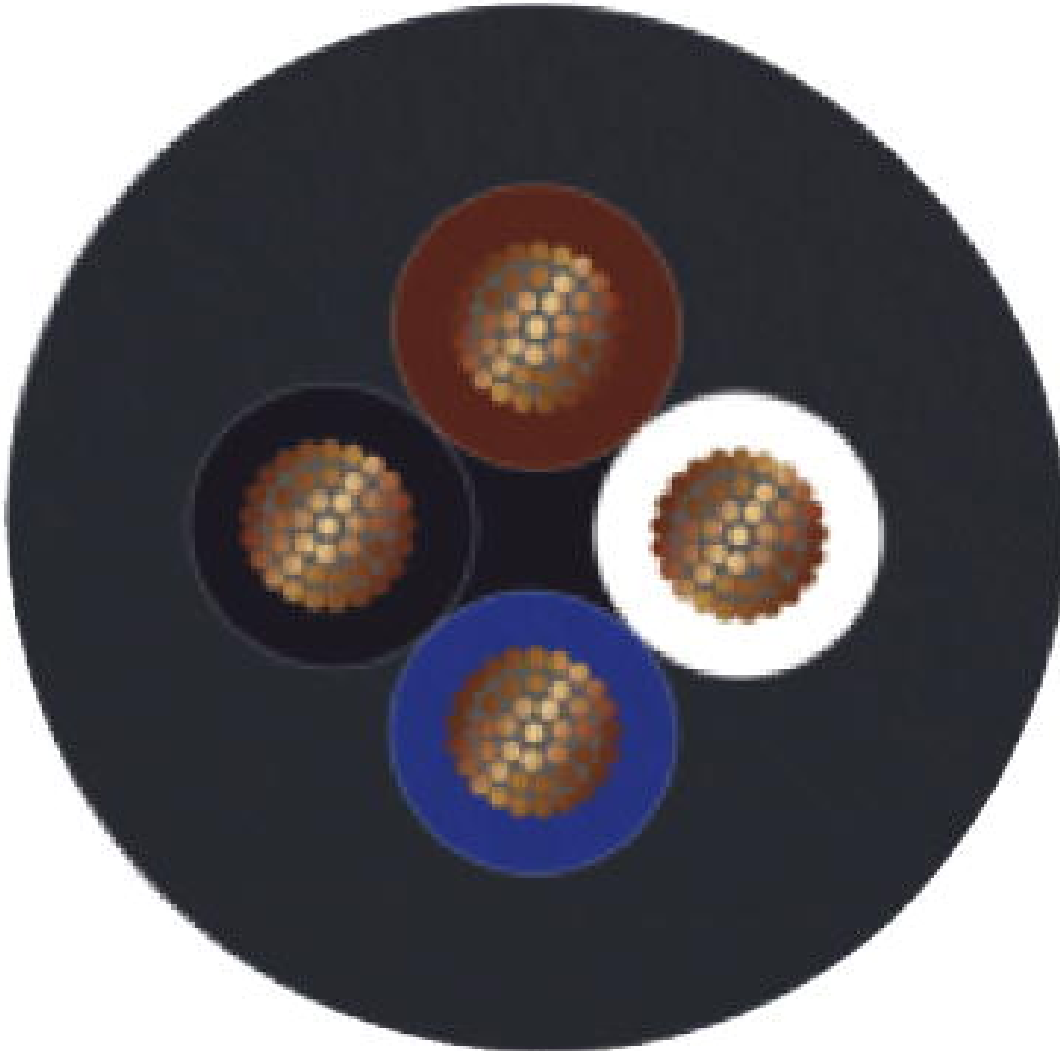
Schematic diagram



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

Sensor/Actuator cable - SAC-4P- 3,0-PUR/M12FR - 1668234

Cable cross section



PUR halogen-free black [PUR]

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