

SAC-4P-20,0-600/M12FS HD - Sensor/actuator cable



1412215

<https://www.phoenixcontact.com/us/products/1412215>

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Sensor/actuator cable, 4-position, PP-EPDM, gray RAL 7035, free cable end, on Socket straight M12, coding: A, cable length: 20 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 | 1412215 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF03 |
| Product key | AF1CCA |
| GTIN | 4046356951722 |
| Weight per piece (including packing) | 544 g |
| Weight per piece (excluding packing) | 544 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

| | |
|-------------------------------|-----------------|
| Seal material | FKM |
| 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 | 250 V AC |
| | 250 V DC |
| Nominal current I_N | 4 A |

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

Connector

Connection 1

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

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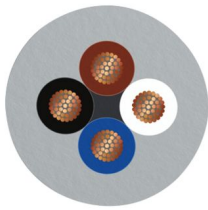
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Connection 2

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

Cable/line

| | |
|---|--|
| Cable length | 20 m |
| Dimensional drawing |  |
| 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 mm ² (Signal line) |
| Wire diameter incl. insulation | 1.27 mm ±0.02 mm (Signal line) |
| External cable diameter | 4.70 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. 0.80 mm |
| Overall twist | 4 wires, twisted |
| Length of twist, overall twist | 48 mm |
| Max. conductor resistance | approx. 58 Ω/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 |
| Smallest bending radius, fixed installation | 24 mm |
| Smallest bending radius, movable installation | 47 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 4000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ² |
| Dynamic load capacity (torsion) | Torsion: ±270 °/m, Torsion cycles: ≥4000000, Torsional |

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1412215

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| | |
|---------------------------------|---|
| | frequency: ≤ 25 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) |

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|-----------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |

Standards and regulations

M12

| | |
|--------------------------|----------------------|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-101 |
| Standard designation | Material conformance |
| Standards/specifications | FDA 21 CFR 177.2600 |

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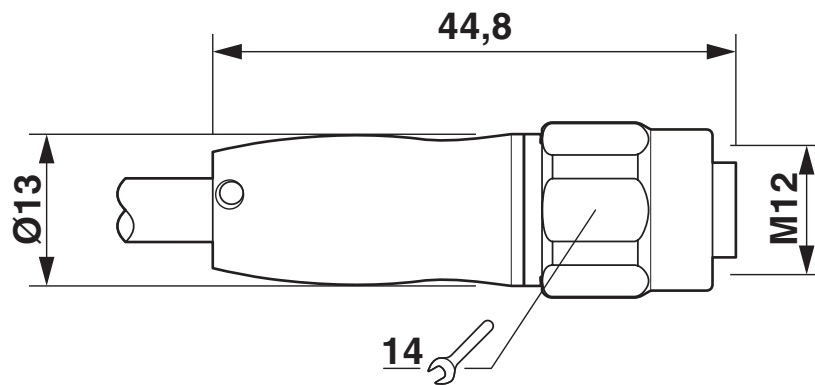


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Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Approvals

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EAC-RoHS

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

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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.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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