

SAC-5P-M12MS/40,0-923/M12FS - Bus system cable



1413289

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, silver-gray RAL 7001, shielded, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: 40 m

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1413289 |
| Packing unit | 1 pc |
| Minimum order quantity | 15 pc |
| Product key | AF1CDD |
| GTIN | 4046356995566 |
| Weight per piece (including packing) | 2,395.3 g |
| Weight per piece (excluding packing) | 2,358.5 g |
| Country of origin | PL |

Technical data

Product properties

| | |
|----------------------|-------------------------|
| Product type | Data cable preassembled |
| Sensor type | CANopen® |
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |

Insulation characteristics

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

Interfaces

| | |
|----------------------|---------------------|
| Bus system | CANopen®/DeviceNet™ |
| Signal type/category | CANopen® |
| | DeviceNet™ |

Signaling

| | |
|------------------------|----|
| Status display | no |
| Status display present | no |

Electrical properties

| | |
|--------------------------------|----------|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 4 A |

Material specifications

| | |
|--|---|
| Flammability rating according to UL 94 | HB |
| Seal material | NBR |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material for screw connection | Zinc die-cast, nickel-plated |

Connector

Connection 1

| | |
|---------------------|----------------------------|
| Type | Plug straight M12 SPEEDCON |
| Number of positions | 5 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |

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Connection 2

| | |
|---------------------|------------------------------|
| Type | Socket straight M12 SPEEDCON |
| Number of positions | 5 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |

Cable/line

| | |
|--------------|------|
| Cable length | 40 m |
|--------------|------|

CANopen®/DeviceNet™, PUR, gray [923]

| | |
|--------------------------------|--|
| Dimensional drawing |  |
| UL AWM Style | 21198 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | CANopen®/DeviceNet™, PUR, gray [923] |
| Conductor structure | 2xAWG24/19+2xAWG22/19 |
| AWG signal line | 24 |
| AWG power supply | 22 |
| Conductor cross-section | 2x 0.25 mm ² (Data cable) 2x 0.34 mm ² (Power supply) 1x 0.34 mm ² (Drain wire) |
| Wire diameter incl. insulation | 1.95 mm ±0.05 mm (Data cable) 1.4 mm ±0.05 mm (Power supply) |
| External cable diameter | 6.70 mm ±0.3 mm |
| Outer sheath, material | PUR |
| External sheath, color | silver-gray RAL 7001 |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | Foamed PE (Data cable) PE (Power supply) |
| Single wire, color | red-black, blue-white |
| Twisted pairs | 2 cores to the pair |
| Overall twist | 2 pairs around a drain wire in the center to the core |
| Optical shield covering | 80 % |
| Insulation resistance | ≥ 5 GΩ*km (Data cable) ≥ 5 GΩ*km (Power supply) |
| Wave impedance | 120 Ω ±10 % (with 1 MHz) |
| Nominal voltage, cable | ≤ 300 V (Peak value, not for high-power applications) |

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| | |
|---|---|
| Test voltage Core/Core | 2000 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 2000.00 V (50 Hz, 1 min.) |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 8 x D |
| Dynamic load capacity (bending) | Max. bending cycles: 5000000, Bending radius: 70 mm, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s ² , Ambient temperature: -20 °C ... 60 °C |
| Shield attenuation | ≤ 22.9 dB/km (with 1 MHz) |
| | ≤ 16.4 dB/km (At 500 kHz) |
| | ≤ 9.5 dB/km (At 125 kHz) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | according to IEC 60754-1 |
| Flame resistance | UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) |
| | UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2) |
| | IEC 60332-1-2 |
| | in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01) |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -30 °C ... 70 °C (Cable, flexible installation) |
| | -20 °C ... 60 °C (for installation) |
| | -20 °C ... 60 °C (cable, drag chain applications) |

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram

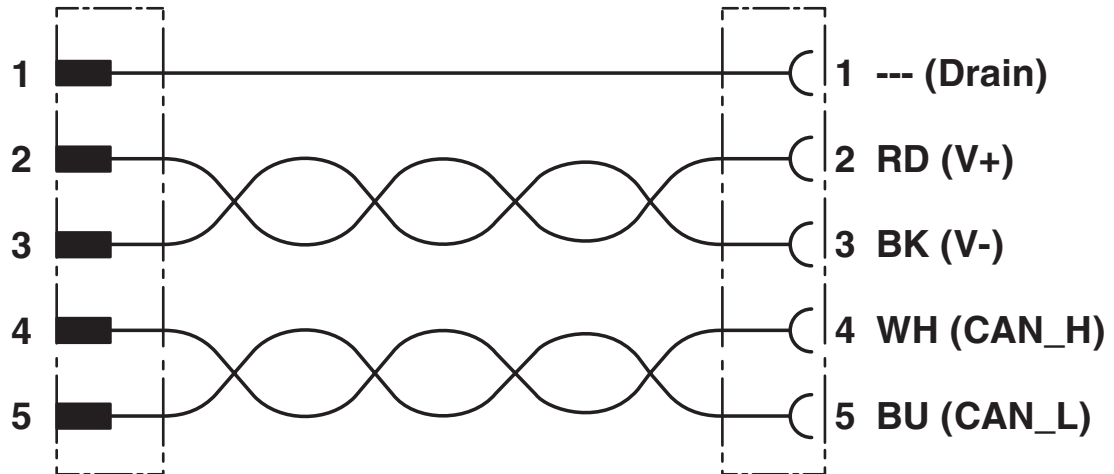


Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

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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