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Bus system cable - SAC-5P-MS/10,0-920/FS SCO - 1518300

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, Cable length: 10 m



Key Commercial Data

| | |
|--------------|---------------------|
| Packing unit | 1 STK |
| GTIN | 4 017918 968427 |

Technical data

Dimensions

| | |
|-----------------|------|
| Length of cable | 10 m |
|-----------------|------|

Ambient conditions

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

General

| | |
|-----------------------|------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| Number of positions | 5 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Signal type/category | CANopen® |
| | DeviceNet™ |
| Status display | No |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Torque | 0.4 Nm (M12 connector) |

Material

Bus system cable - SAC-5P-MS/10,0-920/FS SCO - 1518300

Technical data

Material

| | |
|----------------------------------------|---------------------------------------------|
| Flammability rating 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 |

Pin assignment

| | |
|------------------------------------------------------|-------------------------------------|
| Position = wire color (signal) = position (optional) | 1 (Plug) = SR (shield) = 1 (Socket) |
| | 2 (Plug) = RD (V+) = 2 (Socket) |
| | 3 (Plug) = BK (V-) = 3 (Socket) |
| | 4 (Plug) = WH (CAN_H) = 4 (Socket) |
| | 5 (Plug) = BU (CAN_L) = 5 (Socket) |

Standards and Regulations

| | |
|----------------------------------------|----|
| Flammability rating according to UL 94 | HB |
|----------------------------------------|----|

Cable

| | |
|-----------------------------------------------|-------------------------------------------------------|
| Cable type | CAN Bus/DeviceNet |
| Cable type (abbreviation) | 920 |
| UL AWM style | 21198 (80°C/300 V) |
| Cable structure | 2xAWG24/19+2xAWG22/19 |
| Conductor cross section | 2x 0.25 mm ² (Data cable) |
| | 2x 0.34 mm ² (Power supply) |
| | 1x 0.34 mm ² (Drain wire) |
| AWG signal line | 24 |
| AWG power supply | 22 |
| Conductor structure signal line | 19x 0.13 mm |
| Conductor structure, voltage supply | 19x 0.15 mm |
| Core diameter including insulation | 1.95 mm ±0.05 mm (Data cable) |
| | 1.4 mm ±0.05 mm (Power supply) |
| Wire colors | Red-black, blue-white |
| Twisted pairs | 2 cores to the pair |
| Type of pair shielding | Plastic-coated aluminum foil, aluminum side outside |
| Overall twist | 2 pairs around a drain wire in the center to the core |
| Shielding | Tinned copper braided shield |
| Optical shield covering | 80 % |
| External sheath, color | violet RAL 4001 |
| External cable diameter D | 6.7 mm ±0,3 mm |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 5000000 |

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Technical data

Cable

| | |
|---------------------------------|-------------------------------------------------------|
| Bending radius | 70 mm |
| Traversing path | 4.5 m |
| Traversing rate | 3 m/s |
| Acceleration | 3 m/s ² |
| Outer sheath, material | PUR |
| Material conductor insulation | Foamed PE (Data cable) |
| | PE (Power supply) |
| Conductor material | Tin-plated Cu litz wires |
| Insulation resistance | ≥ 5 GΩ*km (Data cable) |
| | ≥ 5 GΩ*km (Power supply) |
| Conductor resistance | ≤ 90.9 Ω/km (Data cable) |
| | ≤ 57.4 Ω/km (Power supply) |
| Cable capacity | nom. 40 pF/m (Data cable) |
| Wave impedance | 120 Ω ±10 % (with 1 MHz) |
| Wave attenuation | ≥ 0.0229 dB/m (with 1 MHz) |
| Nominal voltage, cable | ≤ 300 V (Peak value, not for high-power applications) |
| Test voltage Core/Core | 2000 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 2000 V (50 Hz, 1 min.) |
| Flame resistance | UL 1581, Sec. 1060 (FT-1) |
| | IEC 60332-1 |
| | in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | According to IEC 60754-1 |
| Other resistance | Low adhesion |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -20 °C ... 80 °C (cable, flexible installation) |
| | ≤ 70 °C (cable, drag chain applications) |

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 | 27279218 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000830 |
|----------|----------|

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Classifications

ETIM

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

Approvals

Approvals

Approvals

EAC

Ex Approvals

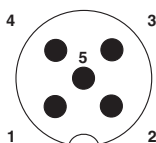
Approvals submitted

Approval details

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| EAC |
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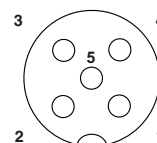
Drawings

Schematic diagram



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

Schematic diagram



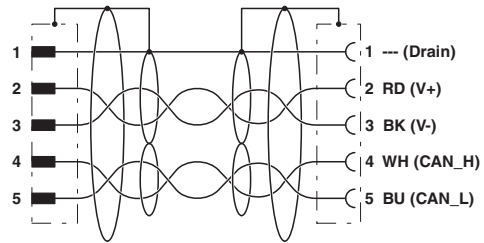
Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Cable cross section



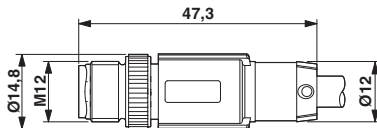
Circuit diagram



CAN Bus/DeviceNet [920]

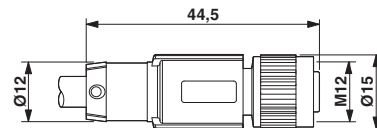
Contact assignment of the M12 connector and the M12 socket

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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