

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, red lilac RAL 4001, shielded, Socket straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A and Plug straight M12 SPEEDCON, coding: A, cable length: 0.3 m, all connectors unshielded, Shield connected to pin 1

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1436013 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF10 |
| Product key | AF1GAD |
| GTIN | 4046356428361 |
| Weight per piece (including packing) | 92.5 g |
| Weight per piece (excluding packing) | 93 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

1436013

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Technical data

Product properties

| | |
|----------------------|-------------------------|
| Product type | Data cable preassembled |
| Application | Standard |
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | no |
| 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 |
| Transmission medium | Copper |

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 |

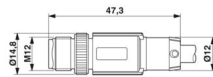
Dimensions

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

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| | |
|---------------------|--|
| Dimensional drawing |  |
| Center distance | 21 mm |

Connection data

Connection assignment

| | |
|---|--|
| Contact Color (signal designation) Contact (optional) | 1 (Distributor) SR (shield) 1 (Plug) 1 (Socket) |
| | 2 (Distributor) RD (V+) 2 (Plug) 2 (Socket) |
| | 3 (Distributor) BK (V-) 3 (Plug) 3 (Socket) |
| | 4 (Distributor) WH (CAN_H) 4 (Plug) 4 (Socket) |
| | 5 (Distributor) BU (CAN_L) 5 (Plug) 5 (Socket) |

Connector

Connection 1

| | |
|---------------------------------|------------------------------|
| Type | Socket straight M12 SPEEDCON |
| Number of positions | 5 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |
| Ambient temperature (operation) | -25 °C ... 90 °C |

Connection 2

| | |
|---------------------------------|------------------------------|
| Type | Socket straight M12 SPEEDCON |
| Number of positions | 5 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |
| Ambient temperature (operation) | -25 °C ... 90 °C |

Connection 3

| | |
|---------------------------------|----------------------------|
| Type | Plug straight M12 SPEEDCON |
| Number of positions | 5 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |
| Ambient temperature (operation) | -25 °C ... 90 °C |

Cable/line

| | |
|--------------|-------|
| Cable length | 0.3 m |
|--------------|-------|


CANopen®/DeviceNet™, PUR, violet [920]

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1436013

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| | |
|---|---|
| Dimensional drawing |  |
| UL AWM Style | 21198 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | CANopen®/DeviceNet™, PUR, violet [920] |
| 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 | red lilac RAL 4001 |
| 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) |
| 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) |

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1436013

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| | |
|---------------------------------|--|
| 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) |
| Special properties | Flexible cable conduit capable |
| 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) |

Standards and regulations

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

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Drawings

Dimensional drawing



M12 SPEEDCON plug, straight

Dimensional drawing



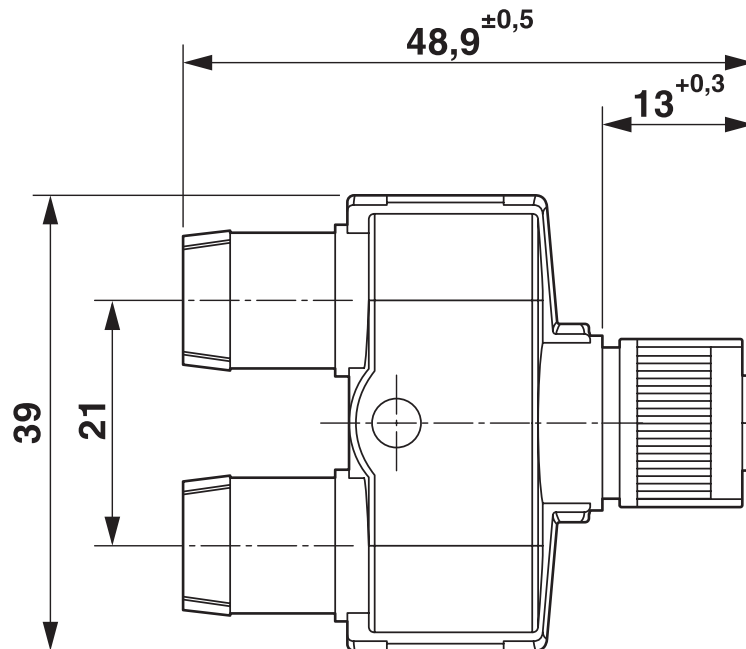
M12-SPEEDCON socket, straight

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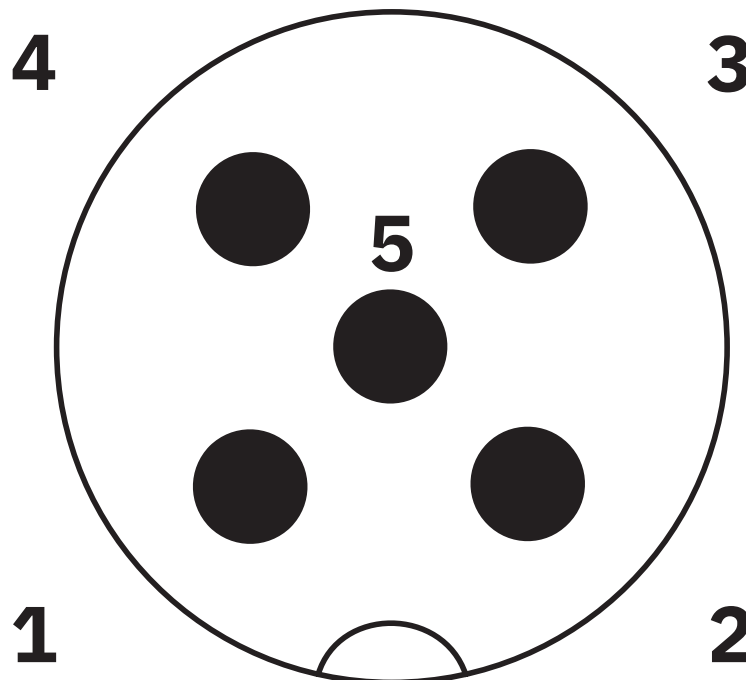
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Dimensional drawing



M12-SPEEDCON socket, Y distributor

Schematic diagram

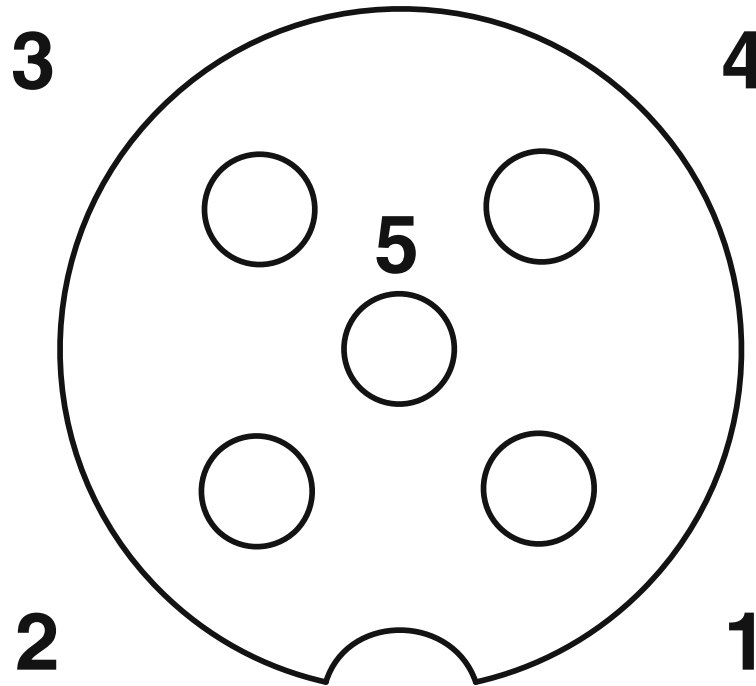


Pin assignment M12 male connector, 5-pos., A-coded, male side

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Schematic diagram



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

Circuit diagram



Contact assignment of the M12 socket and the M12 plug

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1436013>

|  UL Listed Approval ID: FILE E 221474 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 125 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 | | | | |
| | 125 V | 4 A | - | - |

|  EAC-RoHS Approval ID: RU D-DE.HB35.B.00387 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

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Classifications

ECLASS

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

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.888 kg CO2e |
|---------|---------------|

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