

SAC-5P-M12MS/40-921/FS 2ST AV - Bus system cable



1579129  
<https://www.phoenixcontact.com/pc/products/1579129>

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, black RAL 9005, shielded, Plug straight M12, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: 40 m, Customer versions

Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1579129                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 5 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | BF1CDD                         |
| GTIN                                 | 4046356518512                  |
| Weight per piece (including packing) | 2,416 g                        |
| Weight per piece (excluding packing) | 2,400 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | PL                             |

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## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Sensor type         | CANopen®                |
| Number of positions | 5                       |

### Interfaces

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

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 48 V AC |
|                       | 60 V DC |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Connector

#### Connection 1

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

#### Connection 2

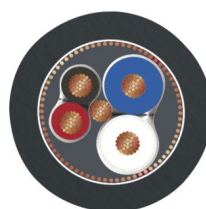
|                     |                              |
|---------------------|------------------------------|
| Type                | Socket straight M12 SPEEDCON |
| Number of positions | 5                            |
| Locking type        | SPEEDCON                     |
| Coding type         | A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

### Cable/line

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

CANopen®/DeviceNet™, PUR, black [921]

Dimensional drawing



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|                                                 |                                                       |
|-------------------------------------------------|-------------------------------------------------------|
| Cable weight                                    | 90 kg/km                                              |
| UL AWM Style                                    | 21198 (80°C/300 V)                                    |
| Number of positions                             | 4                                                     |
| Shielded                                        | yes                                                   |
| Cable type                                      | CANopen®/DeviceNet™, PUR, black [921]                 |
| Conductor structure                             | 2xAWG24/19+2xAWG22/19                                 |
| Conductor structure signal line                 | 19x 0.13 mm                                           |
| AWG signal line                                 | 24                                                    |
| Conductor cross section                         | 2x 0.25 mm² (Data cable)                              |
|                                                 | 2x 0.34 mm² (Power supply)                            |
|                                                 | 1x 0.34 mm² (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                          | black RAL 9005                                        |
| 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                                   |
| 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 |
| Optical shield covering                         | 80 %                                                  |
| Insulation resistance                           | ≥ 5 GΩ*km (Data cable)                                |
|                                                 | ≥ 5 GΩ*km (Power supply)                              |
| Loop resistance                                 | ≤ 181.80 Ω/km (Data cable)                            |
|                                                 | ≤ 114.80 Ω/km (Power supply)                          |
| Wave impedance                                  | 120 Ω ±10 % (with 1 MHz)                              |
| Cable capacity                                  | nom. 40 nF/km (Data cable)                            |
| 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      | 5 x D                                                 |
| Minimum bending radius, flexible installation   | 10 x D                                                |
| Smallest bending radius, fixed installation     | 34 mm                                                 |
| Smallest bending radius, movable installation   | 67 mm                                                 |
| Max. bending cycles                             | 5000000                                               |
| Minimum bending radius, drag chain applications | 10 x D                                                |
| Bending radius                                  | 70 mm                                                 |
| Traversing path                                 | 4.5 m                                                 |
| Traversing rate                                 | 3 m/s                                                 |
| Acceleration                                    | 3 m/s²                                                |
|                                                 | ≤ 22.9 dB/km (with 1 MHz)                             |

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|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Shield attenuation              | ≤ 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, Sec. 1060 (FT-1)                       |
|                                 | IEC 60332-1                                     |
| 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)        |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060307 |
| ECLASS-12.0 | 27060307 |
| ECLASS-13.0 | 27060307 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | 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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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)