

## Bus system cable - SAC-5P-MR/ 5,0-923/FS CAN SCO - 1419061

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Bus system cable, CANopen®, 5-position, PUR halogen-free, Gray RAL 7001, shielded, Plug angled M12-SPEEDCON, A-coded, on Socket straight M12-SPEEDCON, A-coded, Cable length: 5 m



### Key commercial data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 0                                                                                                       |
| Minimum order quantity | 1                                                                                                       |
| Catalog page           | Page 395 (PC-2011)                                                                                      |
| GTIN                   | <br>4 046356 543224 |
| Custom tariff number   | 85444290                                                                                                |
| Country of origin      | GERMANY                                                                                                 |

### Technical data

#### General data

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Rated current at 40°C           | 4 A                                                  |
| Rated voltage                   | 60 V                                                 |
| Number of positions             | 5                                                    |
| Length of cable                 | 5 m                                                  |
| Ambient temperature (operation) | -25 °C ... 90 °C (Male connector / female connector) |

#### General characteristics

|                          |                                             |
|--------------------------|---------------------------------------------|
| Coding                   | A - standard                                |
| Surge voltage category   | II                                          |
| Pollution degree         | 3                                           |
| Degree of protection     | IP65/IP67/IP69K                             |
| 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                                         |
| Status display           | No                                          |

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## Technical data

### Conductor data

|                                               |                                                       |
|-----------------------------------------------|-------------------------------------------------------|
| Cable type                                    | CAN Bus/DeviceNet                                     |
| Cable type (abbreviation)                     | 923                                                   |
| Conductor cross section                       | 2x 0.2 mm <sup>2</sup> (signal line)                  |
| Conductor cross section                       | 2x 0.32 mm <sup>2</sup> (Power supply)                |
| Conductor cross section                       | 1x 0.32 mm <sup>2</sup> (Drain wire)                  |
| AWG signal line                               | 24                                                    |
| AWG power supply                              | 22                                                    |
| Conductor structure signal line               | 19x 0.12 mm                                           |
| Conductor structure, voltage supply           | 19x 0.15 mm                                           |
| Core diameter including insulation            | 2.05 mm ±0.1 mm (signal line)                         |
| Core diameter including insulation            | 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                        | Aluminum-lined polyester foil                         |
| Overall twist                                 | 2 pairs around a drain wire in the center to the core |
| Shielding                                     | Tinned copper braided shield                          |
| Optical shield covering                       | 70 %                                                  |
| External sheath, color                        | Gray RAL 7001                                         |
| External cable diameter                       | 6.70 mm                                               |
| Smallest bending radius, fixed installation   | 67 mm                                                 |
| Smallest bending radius, movable installation | 67 mm                                                 |
| Number of bending cycles                      | 5000000                                               |
| Bending radius                                | 67 mm                                                 |
| Traversing path                               | 10 m                                                  |
| Traversing rate                               | 3 m/s                                                 |
| Acceleration                                  | 7 m/s <sup>2</sup>                                    |
| Outer sheath, material                        | PUR                                                   |
| Material conductor insulation                 | PE (Power supply)                                     |
| Material conductor insulation                 | Foamed PE (signal line)                               |
| Conductor material                            | Tin-plated Cu litz wires                              |
| Insulation resistance                         | ≥ 5 GΩ*km (signal line)                               |
| Insulation resistance                         | ≥ 100 MΩ*km (Power supply)                            |
| Conductor resistance                          | ≤ 78.4 Ω/km (signal line)                             |
| Conductor resistance                          | ≥ 51.6 Ω/km (Power supply)                            |
| Working capacitance                           | 39.3 pF (Signal line, Core-Core)                      |
| Working capacitance                           | 78.7 pF (Signal line, Core-Shield)                    |
| Nominal voltage, conductor                    | 30 V (signal line)                                    |
| Nominal voltage, conductor                    | 300 V (Power supply)                                  |
| Test voltage, conductor                       | 1500 V (signal line)                                  |
| Test voltage, conductor                       | 2000 V (Power supply)                                 |
| Halogen-free                                  | complying with IEC 60754-1/2                          |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)          |

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## Technical data

### Conductor data

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Ambient temperature (operation) | -20 °C ... 75 °C (cable, flexible installation) |
|---------------------------------|-------------------------------------------------|

## Classifications

### eclass

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060307 |
| eCl@ss 4.1 | 27060307 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27060307 |
| eCl@ss 6.0 | 27279218 |
| eCl@ss 7.0 | 27279218 |

### etim

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC000830 |
| ETIM 4.0 | EC001855 |

### unspsc

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 26121616 |
| UNSPSC 7.0901 | 26121616 |
| UNSPSC 11     | 26121604 |
| UNSPSC 12.01  | 26121616 |
| UNSPSC 13.2   | 26121616 |

## Approvals

### Approvals

Approvals

GOST

Ex Approvals

Approvals submitted

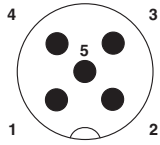
### Approval details

|                                                                                          |
|------------------------------------------------------------------------------------------|
| GOST  |
|------------------------------------------------------------------------------------------|

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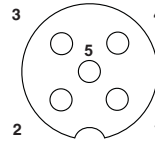
## Drawings

Schematic diagram



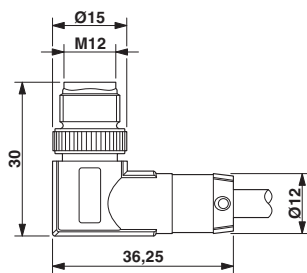
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



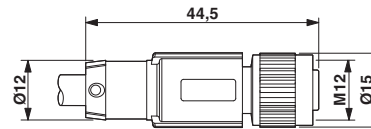
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Dimensioned drawing



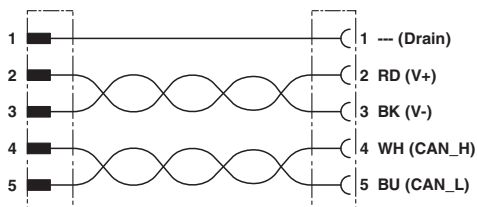
M12 x 1 male connector, angled

Dimensioned drawing



M12 x 1 female connector, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket