

## SAC-5P-M12MS/ 5,0-920/M12FS

Order No.: 1507560



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1507560>

Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 5 m



### Commercial data

|                          |                    |
|--------------------------|--------------------|
| GTIN (EAN)               | 4017918900359      |
| sales group              | D117               |
| Pack                     | 1 pcs.             |
| Customs tariff           | 85444290           |
| Weight/Piece             | 0.3275 KG          |
| Catalog page information | Page 279 (PC-2009) |

### Product notes

WEEE/RoHS-compliant since:  
10/31/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

### Technical data

#### General data

|                       |        |
|-----------------------|--------|
| Rated current at 40°C | 4 A    |
| Rated voltage         | 60 V   |
| Number of positions   | 5      |
| Volume resistance     | ≤ 5 mΩ |

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Insulation resistance           | ≥ 100 MΩ                                             |
| 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                             |
| Insertion/withdrawal cycles | ≥ 100                                       |
| 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                                          |

#### Conductor data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Cable type                          | CAN Bus/DeviceNet                   |
| Cable type (abbreviation)           | 920                                 |
| Conductor cross section             | 0.2 mm <sup>2</sup> (signal line)   |
|                                     | 0.32 mm <sup>2</sup> (Power supply) |
|                                     | 0.32 mm <sup>2</sup> (Drain wire)   |
| AWG signal line                     | 24                                  |
| Conductor structure signal line     | 19x 0.12 mm                         |
| AWG power supply                    | 22                                  |
| Conductor structure, voltage supply | 19x 0.15 mm                         |
| Core diameter including insulation  | 2.05 mm ±0.1 mm (signal line)       |
|                                     | 1.4 mm ±0.05 mm (Power supply)      |
| External cable diameter             | 6.70 mm                             |
| Wire colors                         | Red-black, blue-white               |
| External sheath, color              | Violet, RAL 4001                    |
| Insulation resistance               | ≥ 5 GΩ*km (signal line)             |
|                                     | ≥ 100 MΩ*km (Power supply)          |

|                                               |                                                       |
|-----------------------------------------------|-------------------------------------------------------|
| Conductor resistance                          | $\leq 78.4 \Omega/\text{km}$ (signal line)            |
|                                               | $\geq 51.6 \Omega/\text{km}$ (Power supply)           |
| Working capacitance                           | 39.3 pF (Signal line, Core-Core)                      |
|                                               | 78.7 pF (Signal line, Core-Shield)                    |
| Nominal voltage, conductor                    | 30 V (signal line)                                    |
|                                               | 300 V (Power supply)                                  |
| Test voltage, conductor                       | 1500 V (signal line)                                  |
|                                               | 2000 V (Power supply)                                 |
| 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 %                                                  |
| Outer sheath, material                        | PUR                                                   |
| Material conductor insulation                 | PE (Power supply)                                     |
|                                               | Foamed PE (signal line)                               |
| Conductor material                            | Tin-plated Cu litz wires                              |
| 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>                                    |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)          |
|                                               | -20 °C ... 75 °C (cable, flexible installation)       |
| Halogen-free                                  | complying with IEC 60754-1/2                          |

#### Certificates / Approvals



Certification

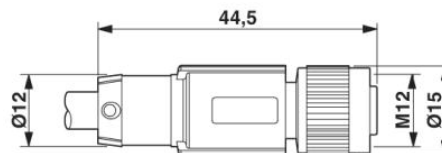
GOST

## Diagrams/Drawings

### Dimensioned drawing

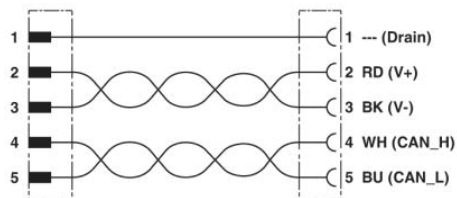


M12 x 1 male connector, straight, shielded



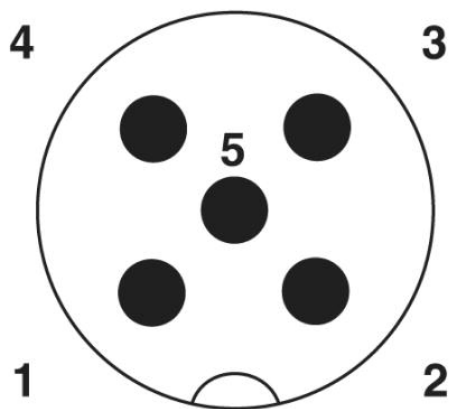
M12 x 1 female connector, straight, shielded

### Circuit diagram

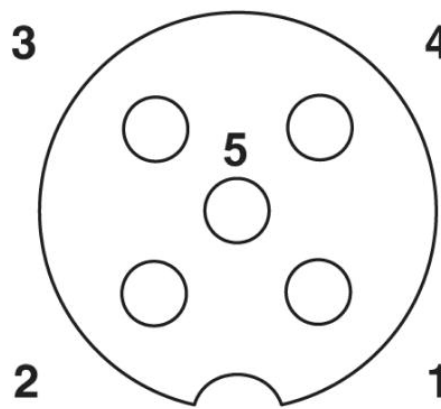


Contact assignment of the M12 connector and the M12 socket

### Schematic diagram



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



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

**Address**

PHOENIX CONTACT Deutschland GmbH  
Flachsmarktstr. 8  
32825 Blomberg, Germany  
Phone +49 5235 3 12000  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.de>



© 2010 Phoenix Contact  
Technical modifications reserved;