

## Bus system cable - SAC-2P-MSB/ 1,0-910/FSB SCO - 1518122

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Bus system cable, PROFIBUS, PROFIBUS, 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12 SPEEDCON, B-coded, on Socket straight M12 SPEEDCON, B-coded, Cable length: 1 m



### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 1             |
| GTIN             | 4017918968243 |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 1 m |
|-----------------|-----|

#### Ambient conditions

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

#### General

|                        |                        |
|------------------------|------------------------|
| Rated current at 40°C  | 4 A                    |
| Rated voltage          | 250 V                  |
| Number of positions    | 2                      |
| Contact resistance     | ≤ 5 mΩ                 |
| Insulation resistance  | ≥ 100 MΩ               |
| Coding                 | B - inverse            |
| Signal type/category   | PROFIBUS               |
| Status display         | No                     |
| Surge voltage category | II                     |
| Pollution degree       | 3                      |
| Torque                 | 0.4 Nm (M12 connector) |

#### Material

|                                         |       |
|-----------------------------------------|-------|
| Inflammability class according to UL 94 | V0    |
| Contact material                        | CuSn  |
| Contact surface material                | Ni/Au |

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## Technical data

### Material

|                          |                                             |
|--------------------------|---------------------------------------------|
| Contact carrier material | PA 66                                       |
| 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) | 2 (Plug) = GN (A cable) = 2 (Socket) |
| Position = wire color (signal) = position (optional) | 4 (Plug) = RD (B cable) = 4 (Socket) |

### Cable

|                                    |                                                            |
|------------------------------------|------------------------------------------------------------|
| Cable type                         | PROFIBUS                                                   |
| Cable type (abbreviation)          | 910                                                        |
| UL AWM style                       | 21198 (80°C/300 V)                                         |
| Conductor cross section            | 2x 0.25 mm <sup>2</sup> (signal line)                      |
| AWG signal line                    | 24                                                         |
| Conductor structure signal line    | 19x 0.13 mm                                                |
| Core diameter including insulation | 2.55 mm ±0.07 mm                                           |
| Wire colors                        | Red, green                                                 |
| Overall twist                      | 2 cores with 2 fillers to the core                         |
| Shielding                          | Plastic-coated aluminum foil, tinned copper braided shield |
| Optical shield covering            | 85 %                                                       |
| External sheath, color             | Violet, RAL 4001                                           |
| External cable diameter D          | 7.8 mm ± 0.2 mm                                            |
| Number of bending cycles           | 4000000                                                    |
| Bending radius                     | 65 mm                                                      |
| Traversing path                    | 4.5 m                                                      |
| Traversing rate                    | 3 m/s                                                      |
| Acceleration                       | 3 m/s <sup>2</sup>                                         |
| Max. bending cycles                | 5000000                                                    |
| Bending radius                     | 80 mm                                                      |
| Traversing path                    | 4.5 m                                                      |
| Traversing rate                    | 3 m/s                                                      |
| Acceleration                       | 3 m/s <sup>2</sup>                                         |
| Outer sheath, material             | PUR                                                        |
| Material conductor insulation      | Foamed PE                                                  |
| Conductor material                 | Tin-plated Cu litz wires                                   |
| Insulation resistance              | ≥ 5 GΩ*km                                                  |
| Conductor resistance               | 157.2 Ω/km                                                 |
| Working capacitance                | 30 nF                                                      |
| Wave impedance                     | nom. 150 Ω ±10 % (3 MHz ... 20 MHz)                        |
| Shield attenuation                 | ≤ 4.9 dB (at 16 MHz)                                       |
| Nominal voltage, cable             | 30 V                                                       |

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### Technical data

#### Cable

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Test voltage Core/Core          | 1500 V (50 Hz, 1 min.)                          |
| Test voltage Core/Shield        | 1500 V (50 Hz, 1 min.)                          |
| Flame resistance                | UL 1581, Sec. 1060 (FT-1)                       |
| Flame resistance                | IEC 60332-1                                     |
| Other resistance                | Low adhesion                                    |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
| Ambient temperature (operation) | -30 °C ... 70 °C (cable, flexible installation) |

### 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 | 27061801 |

#### ETIM

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

GOST /

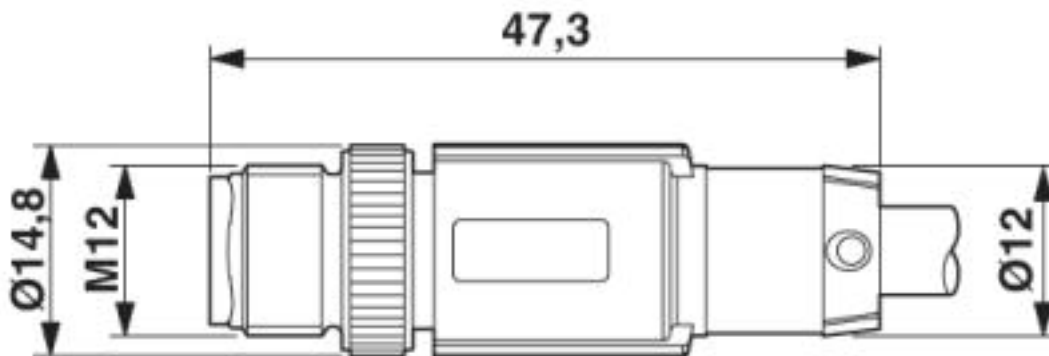
#### Approval details

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

### Drawings

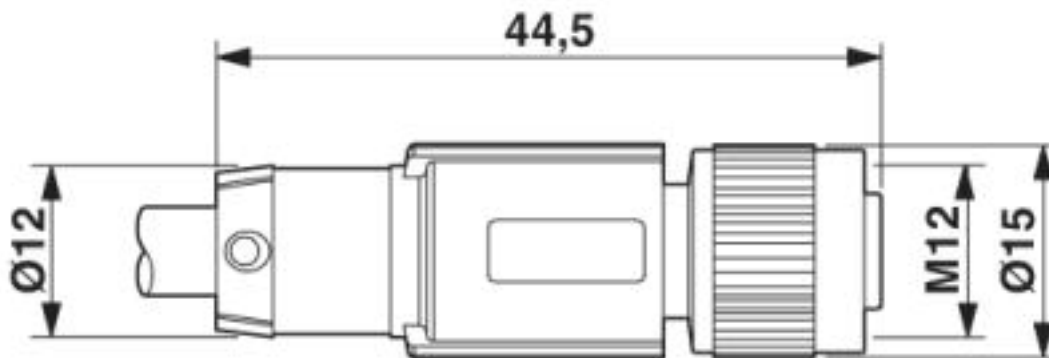
## Bus system cable - SAC-2P-MSB/ 1,0-910/FSB SCO - 1518122

Dimensioned drawing



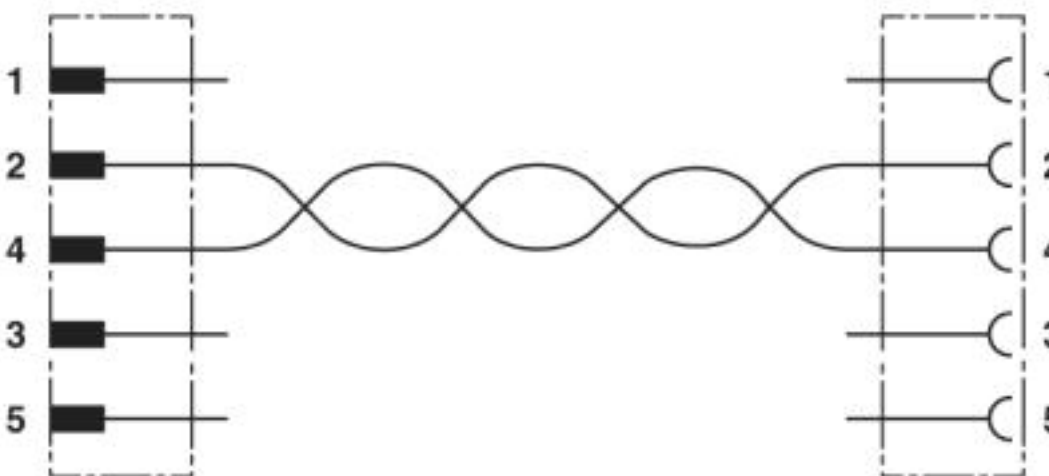
Plug, M12 x 1, straight, shielded

Dimensioned drawing



M12 x 1 socket, straight, shielded

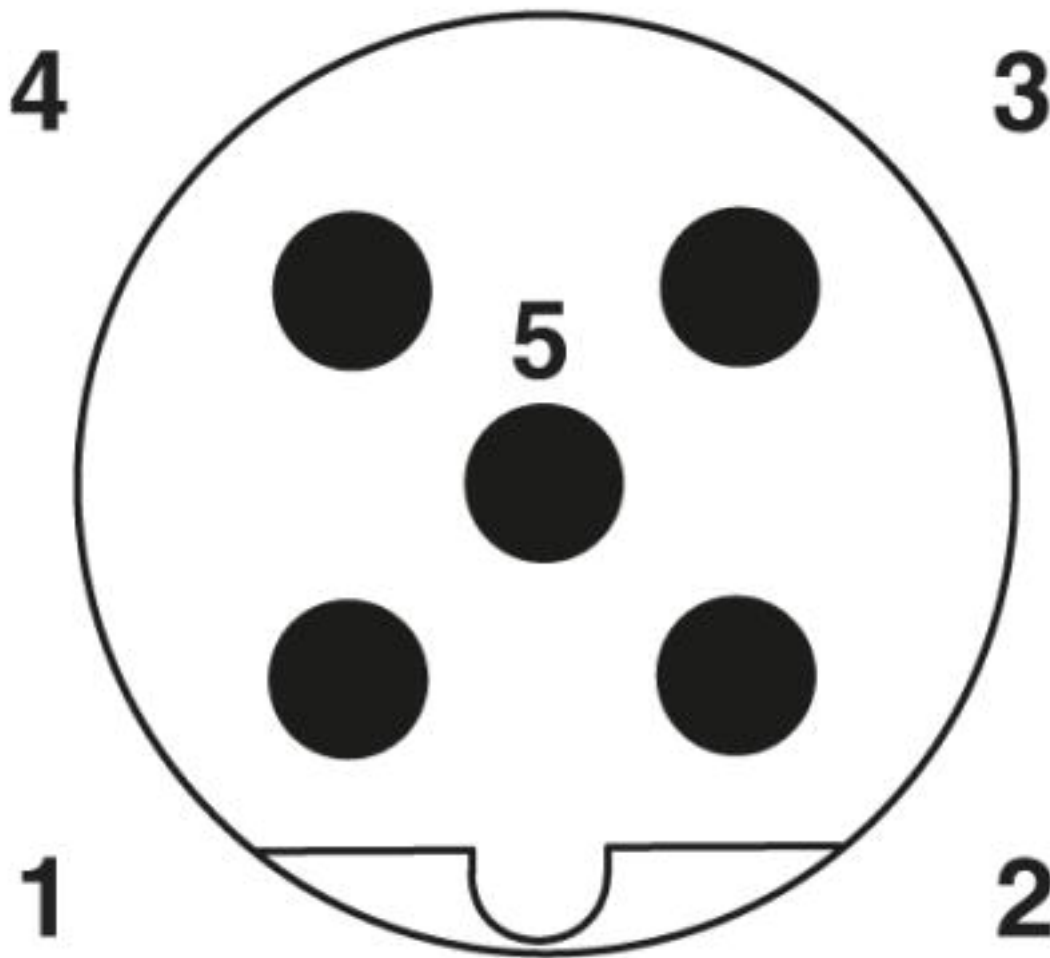
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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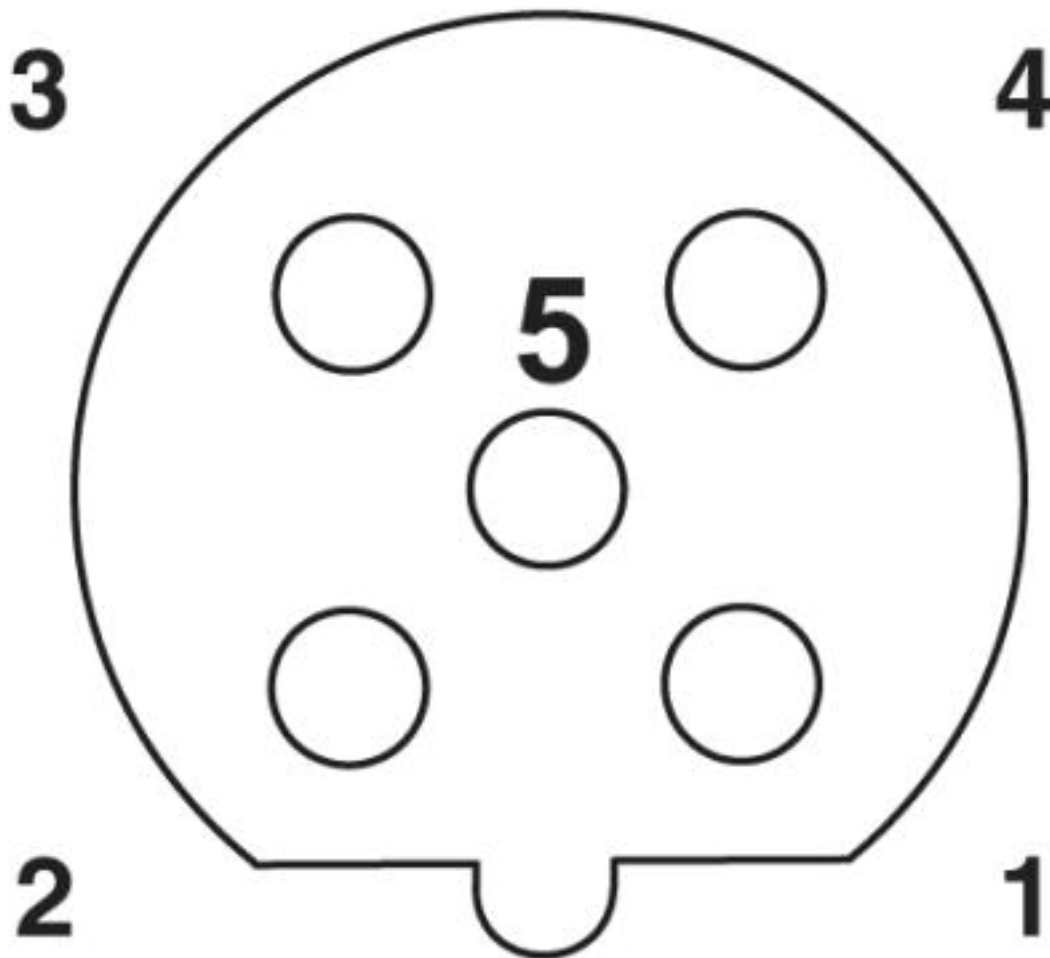
Schematic diagram



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

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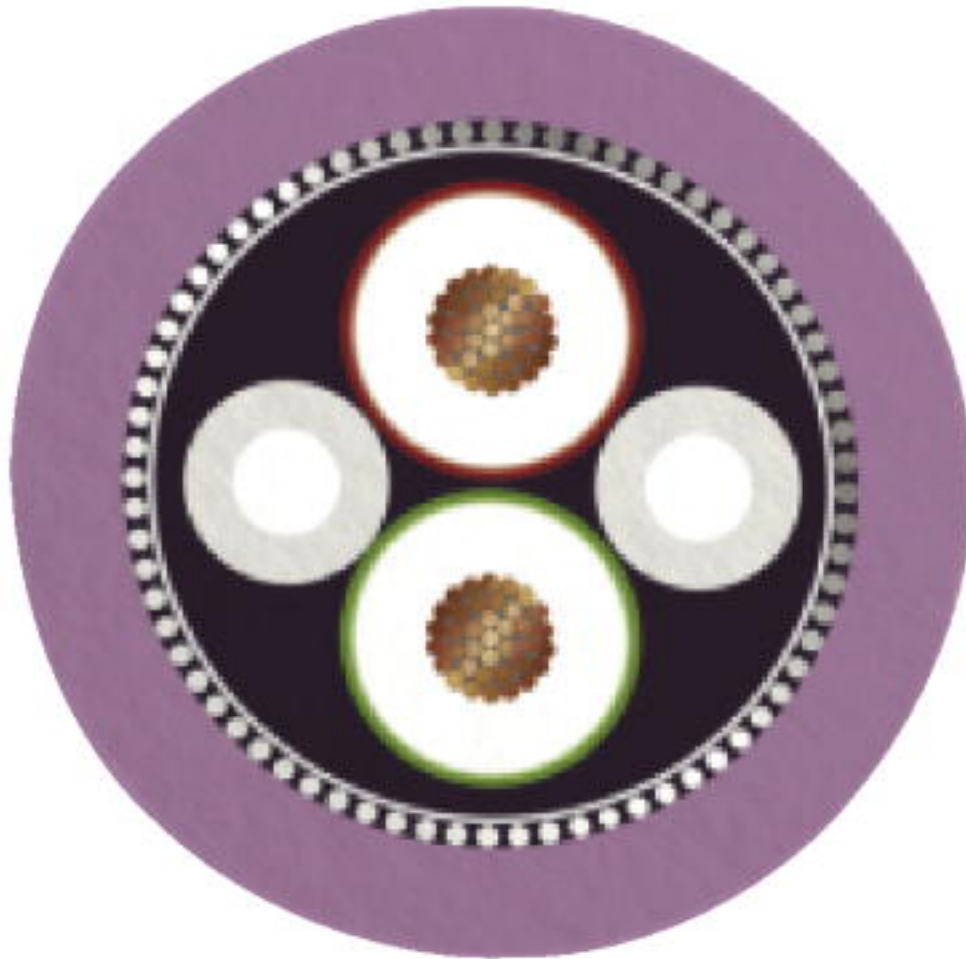
Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

## Bus system cable - SAC-2P-MSB/ 1,0-910/FSB SCO - 1518122

Cable cross section



PROFIBUS [910]

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