

## Bus system cable - SAC-2P-M12MSB/13,0-910/M12FSB - 1544633

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Bus system cable, PROFIBUS, 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 13 m



### Key commercial data

|                                      |           |
|--------------------------------------|-----------|
| Packing unit                         | 1 pc      |
| Minimum order quantity               | 25 pc     |
| Weight per Piece (excluding packing) | 878.1 GRM |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Poland    |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 13 m |
|-----------------|------|

#### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP65 |
|                      | IP67 |
|                      | IP68 |

#### 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          |

## Bus system cable - SAC-2P-M12MSB/13,0-910/M12FSB - 1544633

### Technical data

#### General

|                             |       |
|-----------------------------|-------|
| Surge voltage category      | II    |
| Pollution degree            | 3     |
| Insertion/withdrawal cycles | ≥ 100 |

#### Material

|   |   |
|---|---|
| Inflammability class according to UL 94 | V0  |
| Contact material                        | CuSn  |
| Contact surface material                | Ni/Au                                       |
| Contact carrier material                | PA 66                                       |
| Material of grip body                   | TPU, hardly inflammable, self-extinguishing |
| Material, knurls                        | Zinc die-cast, nickel-plated                |
| Sealing material                        | NBR   |

#### 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  |

## Bus system cable - SAC-2P-M12MSB/13,0-910/M12FSB - 1544633

### Technical data

#### Cable

|                                 |   |
|---------------------------------|---|
| Material conductor insulation   | Foamed PE                                       |
| Conductor material              | Tin-plated Cu litz wires                        |
| Insulation resistance           | $\geq 5 \text{ G}\Omega\cdot\text{km}$          |
| Conductor resistance            | 157.2 $\Omega/\text{km}$                        |
| Working capacitance             | 30 nF   |
| Wave impedance                  | nom. 150 $\Omega \pm 10 \%$ (3 MHz ... 20 MHz)  |
| Shield attenuation              | $\leq 4.9 \text{ dB}$ (at 16 MHz)               |
| Nominal voltage, cable          | 30 V  |
| 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)                       |
|                                 | IEC 60332-1                                     |
| Other resistance                | Low adhesion                                    |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -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 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

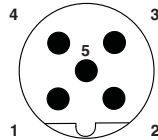
#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

# Bus system cable - SAC-2P-M12MSB/13,0-910/M12FSB - 1544633

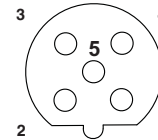
## Drawings

Schematic diagram



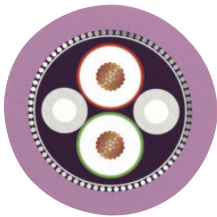
Pin assignment M12 male connector, 5-pos., B-coded, male side

Schematic diagram

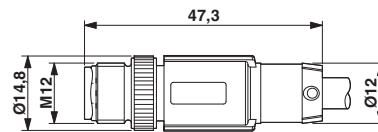


Pin assignment M12 socket, 5-pos., B-coded, female side

Cable cross section



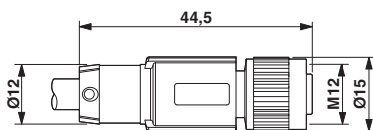
Dimensioned drawing



PROFIBUS [910]

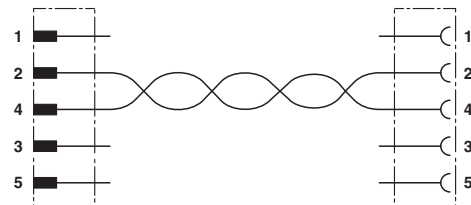
Plug, M12 x 1, straight, shielded

Dimensioned drawing



M12 x 1 socket, straight, shielded

Circuit diagram



Contact assignment of the M12 connector and the M12 socket