

## Bus system cable - SAC-4P-M12MSD/ 2,0-933 - 1524307

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Bus system cable, PROFINET, PROFINET, 4-position, PVC, Green RAL 6018, shielded, Plug straight M12, D-coded, on Free cable end, Cable length: 2 m



### Key commercial data

|                      |          |
|----------------------|----------|
| Packing unit         | 1 1      |
| Custom tariff number | 85444290 |
| Country of origin    | Poland   |

### Technical data

#### Dimensions

|  |       |
|--|-------|
| Length of cable                            | 2 m   |
| Stripping length of the free conductor end | 50 mm |

#### Ambient conditions

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

#### General

|                       |  |
|-----------------------|--|
| Note                  | This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling) |
| Rated current at 40°C | 4 A  |
| Rated voltage         | 250 V  |
| Number of positions   | 4  |
| Contact resistance    | ≤ 5 mΩ   |
| Insulation resistance | ≥ 100 MΩ   |
| Coding                | D - data   |

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### Technical data

#### General

|                             |          |
|-----------------------------|----------|
| Signal type/category        | PROFINET |
| Status display              | No       |
| 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                |

#### Cable

|   |  |
|---|--|
| Cable type                                    | PROFINET PVC stranded CAT5e                        |
| Cable type (abbreviation)                     | 93B  |
| UL AWM style                                  | 21694  |
| Cable structure                               | 1x4xAWG22/7; SF/TQ                                 |
| Conductor cross section                       | 4x 0.34 mm <sup>2</sup>                            |
| AWG signal line                               | 22   |
| Conductor structure signal line               | 7x 0.25 mm   |
| Core diameter including insulation            | approx. 1.5 mm                                     |
| Wire colors                                   | White, yellow, blue, orange                        |
| Overall twist                                 | Star quad  |
| Shielding                                     | Aluminum-coated foil, tinned copper braided shield |
| Optical shield covering                       | 85 %   |
| External sheath, color                        | Green RAL 6018                                     |
| Outer sheath thickness                        | approx. 0.9 mm                                     |
| External cable diameter D                     | 6.5 mm ± 0.2 mm                                    |
| Minimum bending radius, fixed installation    | 3 x D  |
| Minimum bending radius, flexible installation | 7 x D  |
| Torsion force                                 | ± 180 °/m (30,000 torsion cycles)                  |
| Cable weight                                  | 67 kg/km   |
| Outer sheath, material                        | PVC  |
| Material, inner sheath                        | PVC  |
| Material conductor insulation                 | PE   |
| Conductor material                            | Tin-plated Cu litz wires                           |

## Bus system cable - SAC-4P-M12MSD/ 2,0-933 - 1524307

### Technical data

#### Cable

|   |   |
|---|---|
| Insulation resistance                   | ≥ 500 MΩ*km                                     |
| Conductor resistance                    | ≤ 120 Ω/km                                      |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001)    |
| Working capacitance                     | 52 pF   |
| Wave impedance                          | 100 Ω ± 15 Ω (At 100 MHz)                       |
| Signal runtime                          | 5.3 ns/m  |
| Coupling resistance                     | ≤ 20.00 mΩ/m                                    |
| Nominal voltage, cable                  | 600 V   |
| Test voltage Core/Core                  | 2000 V (50 Hz, 1 min.)                          |
| Test voltage Core/Shield                | 2000 V (50 Hz, 1 min.)                          |
| Flame resistance                        | According to UL 1685 (CSA FT 4)                 |
| Resistance to oil                       | Resistant to oil to a limited extent            |
| Other resistance                        | UV resistant According to UL 1581, Section 1200 |
| Ambient temperature (operation)         | -40 °C ... 70 °C (cable, fixed installation)    |
|   | -40 °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 |

# Bus system cable - SAC-4P-M12MSD/ 2,0-933 - 1524307

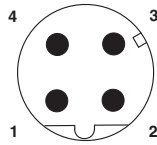
## Classifications

UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 31251501 |
|-------------|----------|

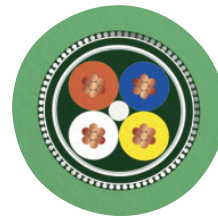
## Drawings

Schematic diagram



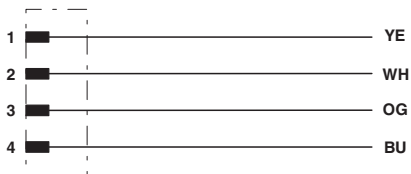
Pin assignment M12 male connector, 4-pos., D-coded, male side

Cable cross section



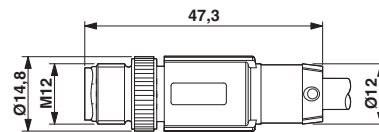
PROFINET [93B]

Circuit diagram



Contact assignment of the M12 connector

Dimensioned drawing



Plug, M12 x 1, straight, shielded