

## Bus system cable - SAC-2P-M12MSB/ 3,0-910/M12FSB - 1525445


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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: 3 m



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 950040
GTIN	4017918950040

### Technical data

#### Dimensions

Length of cable	3 m
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#### Ambient conditions

Degree of protection	IP65/IP68/IP69K
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#### General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	2
Insulation resistance	≥ 100 MΩ
Coding	B - inverse
Signal type/category	PROFIBUS
Status display	No
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

#### Material

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## Technical data

### Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

### Standards and Regulations

Flammability rating according to UL 94	V0
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### Cable

Cable type	PROFIBUS
Cable type (abbreviation)	910
UL AWM style	21198 (80°C/300 V)
Cable structure	1x2xAWG24/19
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
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 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>
Number of bending cycles	5000000
Bending radius	80 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s <sup>2</sup>
Cable weight	90 kg/km
Outer sheath, material	PUR
Material, filler	PP
Material conductor insulation	Foam-Skin PP

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### Technical data

#### Cable

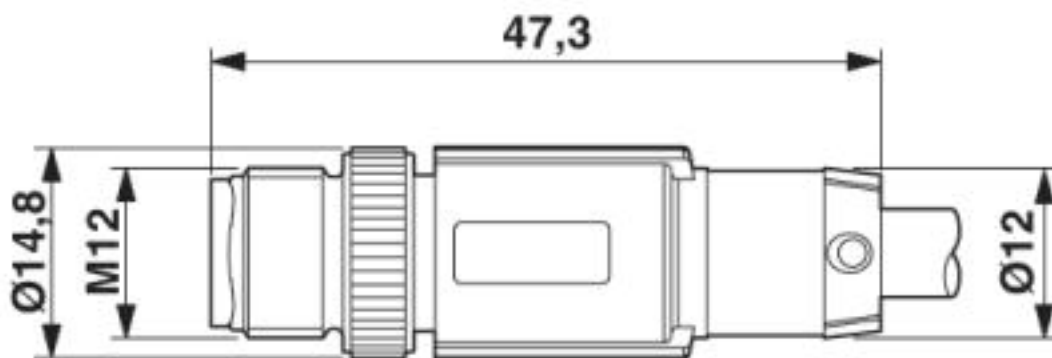
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Conductor resistance	$\leq 78.6 \text{ }\Omega/\text{km}$
Cable capacity	nom. 30 pF/m
Wave impedance	$150 \text{ }\Omega \pm 10 \%$ (3 MHz ... 20 MHz)
Attenuation	$\leq 0.049 \text{ dB/m}$ (at 16 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 60332-1-2
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 80 °C (cable, flexible installation)
	$\leq 70 \text{ }^\circ\text{C}$ (cable, drag chain applications)

#### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

### Drawings

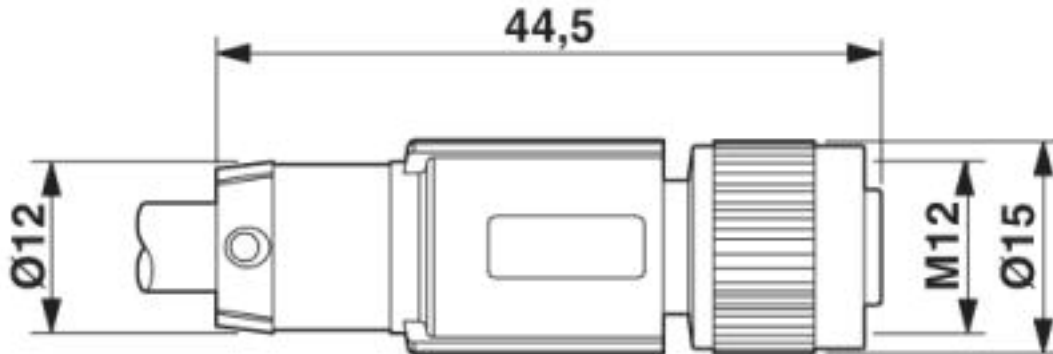
Dimensional drawing



Plug, M12 x 1, straight, shielded

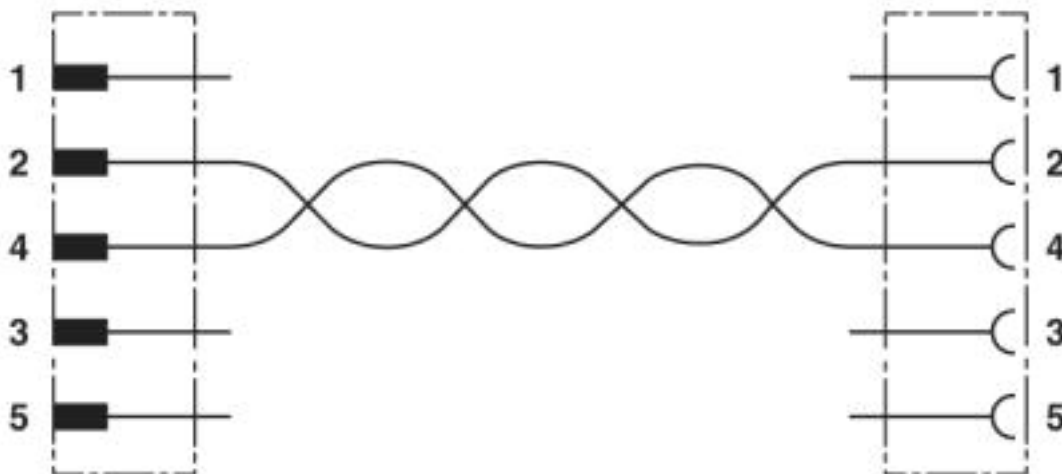
# Bus system cable - SAC-2P-M12MSB/ 3,0-910/M12FSB - 1525445

Dimensional drawing



M12 x 1 socket, straight, shielded

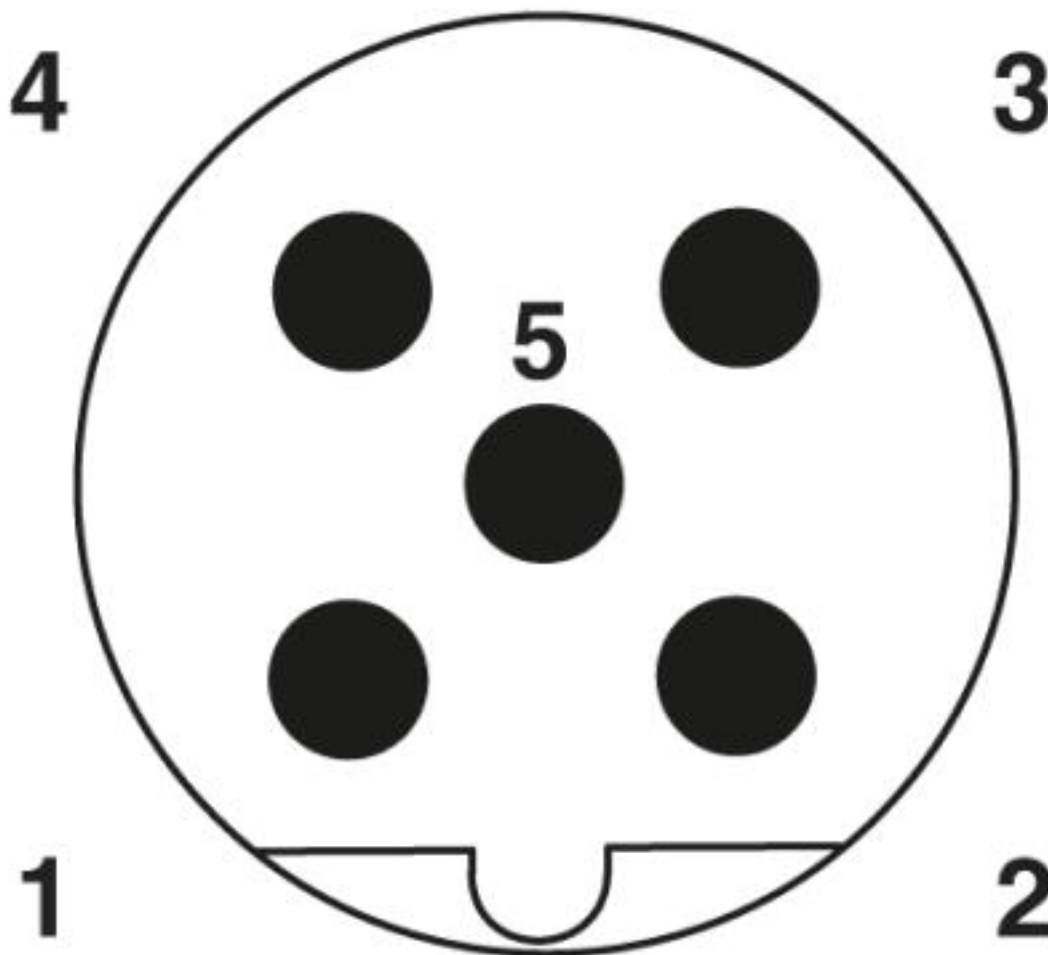
Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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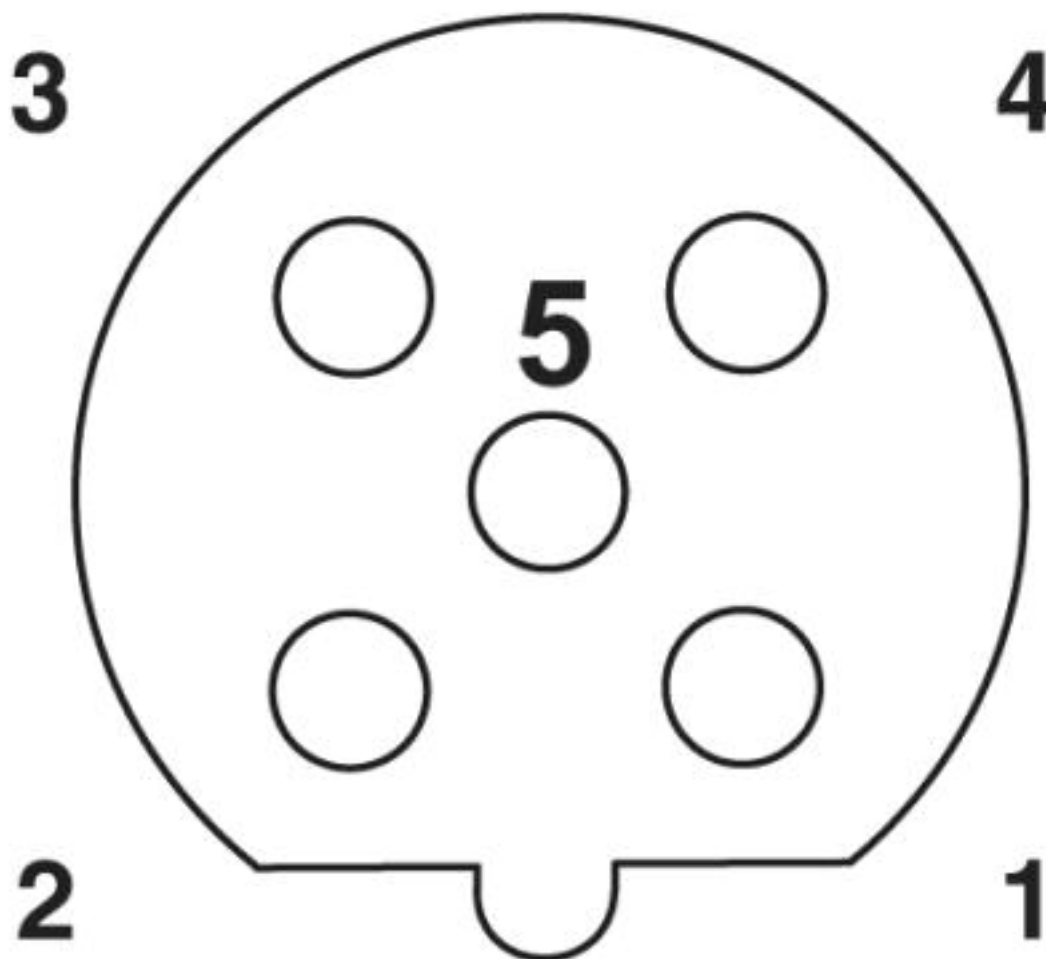
Schematic diagram



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

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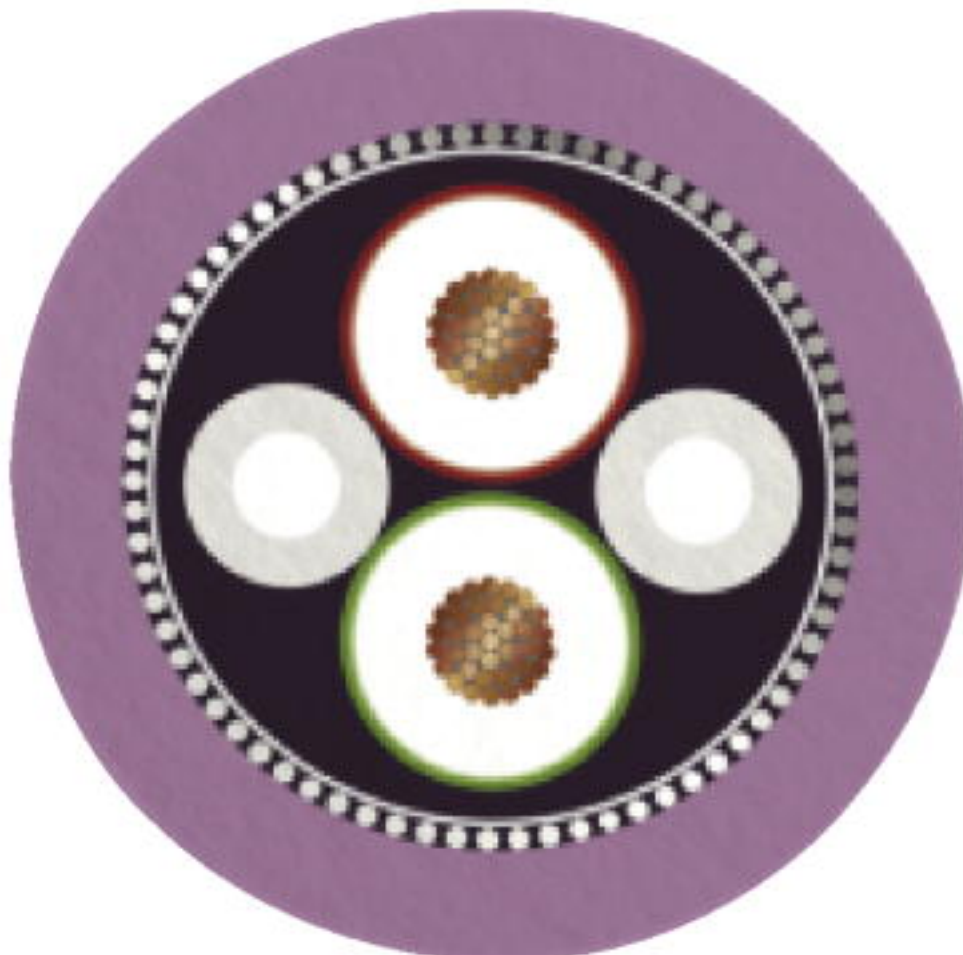
Schematic diagram



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

## Bus system cable - SAC-2P-M12MSB/ 3,0-910/M12FSB - 1525445

Cable cross section



PROFIBUS [910]

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