

## Bus system cable - SAC-2P-M12MSB/1,0-910/M12FSBBR - 1564451


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Bus system cable, PROFIBUS, 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 1 m, Customer version



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 046356 518932
GTIN	4046356518932

### Technical data

#### Dimensions

Length of cable	1 m
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#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65
	IP67
	IP68

#### 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

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## Technical data

### General

Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

### 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

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## Technical data

### Cable

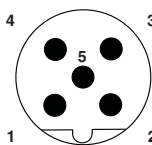
Acceleration	3 m/s <sup>2</sup>
Cable weight	90 kg/km
Outer sheath, material	PUR
Material, filler	PP
Material conductor insulation	Foam-Skin PP
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Conductor resistance	≤ 78.6 Ω/km
Cable capacity	nom. 30 pF/m
Wave impedance	150 Ω ±10 % (3 MHz ... 20 MHz)
Attenuation	≤ 0.049 dB/m (at 16 MHz)
Nominal voltage, cable	300 V
Test voltage Core/Core	1500 V (50 Hz, 1 min.)
Test voltage Core/Shield	1500 V (50 Hz, 1 min.)
Other resistance	Low adhesion
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
	IEC 60332-1-2
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (Cable, flexible installation)
	-20 °C ... 60 °C (for installation)
	-20 °C ... 60 °C (cable, drag chain applications)

### Environmental Product Compliance

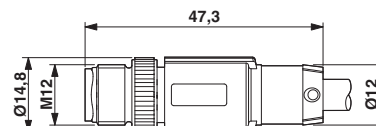
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Schematic diagram



Dimensional drawing

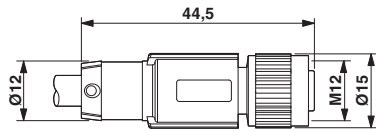


Pin assignment M12 male connector, 5-pos., B-coded, male side

Plug, M12 x 1, straight, shielded

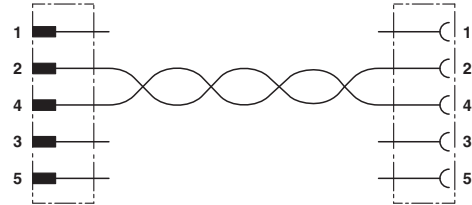
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Dimensional drawing



M12 x 1 socket, straight, shielded

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

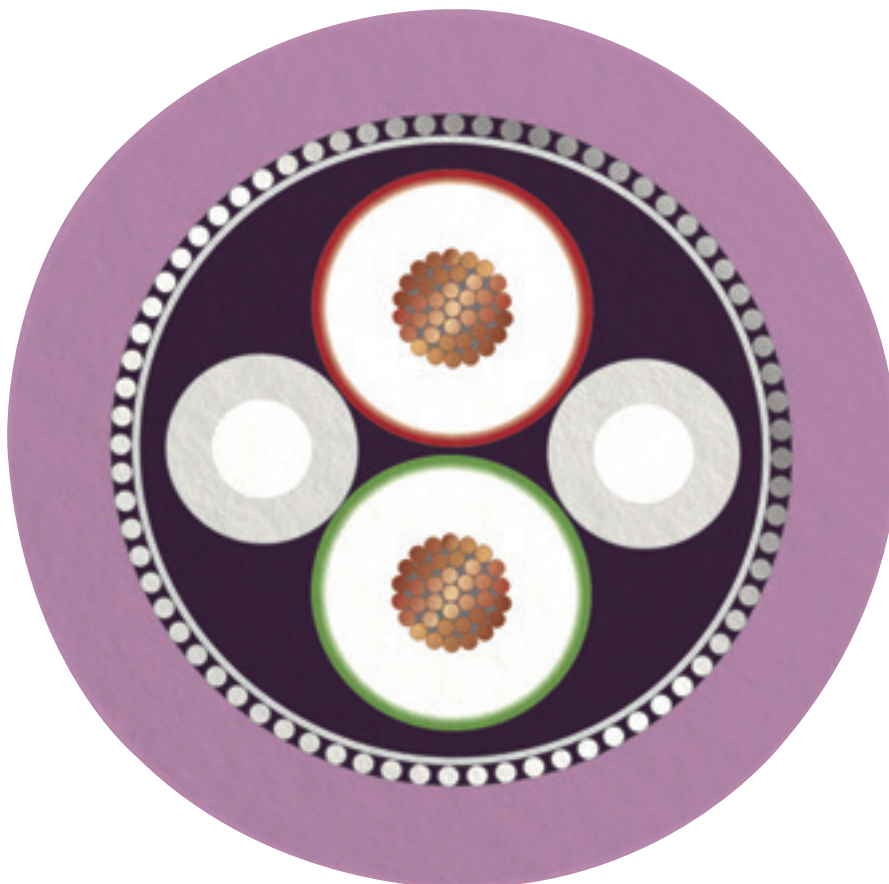
Schematic diagram



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

# Bus system cable - SAC-2P-M12MSB/1,0-910/M12FSBBR - 1564451

Cable cross section



PROFIBUS [910]

## Classifications

eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 11.0	27060307
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27061800
eCl@ss 5.1	27061800
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 2.0	EC000830
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### Classifications

#### ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855

#### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501
UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

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