

## Bus system cable - SAC-2P-MRB/0,5-910/FRB SCO - 1403633


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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug angled M12 SPEEDCON, B-coded, on Socket angled M12 SPEEDCON, B-coded, Cable length: 0.5 m



### Key commercial data

Packing unit	1
GTIN	 4 046356 663540
Custom tariff number	85444290

### Technical data

#### Dimensions

Length of cable	0.5 m
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#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65
	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, 12 Mbps
Status display	No
Surge voltage category	II
Pollution degree	3

#### Material

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### Technical data

#### 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>
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>
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)
	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	27269202
eCl@ss 7.0	27449203

### ETIM

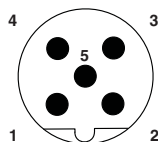
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

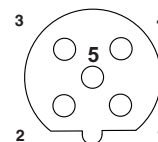
## Drawings

Schematic diagram



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

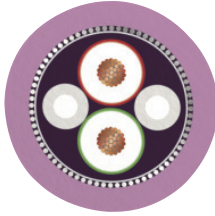
Schematic diagram



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

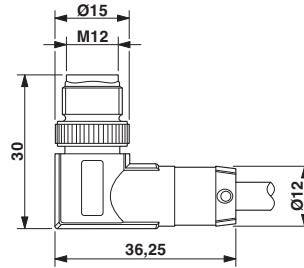
# Bus system cable - SAC-2P-MRB/0,5-910/FRB SCO - 1403633

Cable cross section



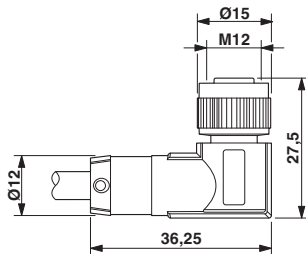
PROFIBUS [910]

Dimensioned drawing



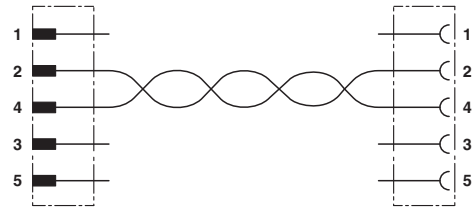
Plug M12 SPEEDCON, angled, shielded

Dimensioned drawing



Socket M12-SPEEDCON, angled, shielded

Circuit diagram



Contact assignment of the M12 plug and the M12 socket