

## Bus system cable - SAC-5P-MR/15,0-923 CAN SCO - 1419047

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, Gray RAL 7001, shielded, Plug angled M12 SPEEDCON, A-coded, on Free cable end, Cable length: 15 m, Connector, unshielded



### Key commercial data

Packing unit	1 PCE
Custom tariff number	85444290
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	15 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

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Contact resistance	< 5 mΩ
Coding	A - standard
Signal type/category	CANopen®
	DeviceNet™
Status display	No

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## Technical data

### General

Surge voltage category	II
Pollution degree	3
Torque	0.4 Nm (M12 connector)

### Material

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

### Pin assignment

Position = wire color (signal) = position (optional)	1 (Plug) = SR (shield)
	2 (Plug) = RD (V+)
	3 (Plug) = BK (V-)
	4 (Plug) = WH (CAN_H)
	5 (Plug) = BU (CAN_L)

### Cable

Cable type	CAN Bus/DeviceNet drop cable
Cable type (abbreviation)	923
UL AWM style	21198 (80°C/300 V)
Cable structure	2xAWG24/19+2xAWG22/19
Conductor cross section	2x 0.25 mm <sup>2</sup> (signal line)
	2x 0.34 mm <sup>2</sup> (Power supply)
	1x 0.34 mm <sup>2</sup> (Drain wire)
AWG signal line	24
AWG power supply	22
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	19x 0.15 mm
Core diameter including insulation	1.95 mm ±0.05 mm (signal line)
	1.4 mm ±0.05 mm (Power supply)
Wire colors	Red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Plastic-coated aluminum foil, aluminum side outside
Overall twist	2 pairs around a drain wire in the center to the core
Shielding	Tinned copper braided shield

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## Technical data

### Cable

Optical shield covering	80 %
External sheath, color	Silver-gray RAL 7001
External cable diameter D	6.7 mm $\pm 0.3$ mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D
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 (Data pair)
	PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$ (signal line)
	$\geq 5 \text{ G}\Omega \cdot \text{km}$ (Power supply)
Working capacitance	nom. 40 nF (per kilometer)
Wave impedance	120 $\Omega \pm 12$ $\Omega$ (with 1 MHz)
Shield attenuation	$\leq 2.29$ dB (with 1 MHz)
	$\leq 1.64$ dB (At 500 kHz)
	$\leq 0.95$ dB (At 125 kHz)
Coupling resistance	$\leq 181.80 \text{ }\Omega \cdot \text{km}$ (Data pair)
	$\leq 114.80 \text{ }\Omega \cdot \text{km}$ (Power supply)
Nominal voltage, cable	$\leq 300$ V (Peak value, not for high-power applications)
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	UL 1581, Sec. 1060 (FT-1)
	IEC 60332-1
Halogen-free	Yes
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 75 °C (cable, flexible installation)

## Classifications

### eCl@ss

eCl@ss 4.0	27060307
eCl@ss 4.1	27060307

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### Classifications

#### eCl@ss

eCl@ss 5.0	27061801
eCl@ss 5.1	27060307
eCl@ss 6.0	27279218
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218

#### ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC001855
ETIM 5.0	EC001855

#### UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	26121616

### Approvals

#### Approvals

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#### Approvals

#### GOST

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#### Ex Approvals

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#### Approvals submitted

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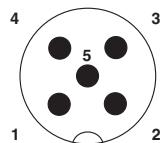
#### Approval details

GOST 
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### Drawings

Schematic diagram



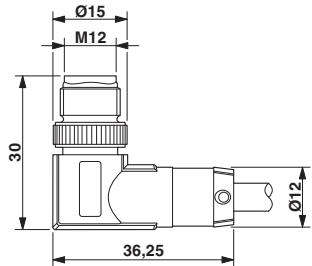
Pin assignment M12 male connector, 5-pos., A-coded, male side

Cable cross section



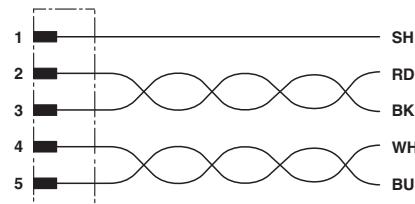
CAN Bus/DeviceNet [923]

Dimensioned drawing



M12 x 1 male plug, angled

Circuit diagram



Contact assignment of the M12 plug