

## Bus system cable - SAC-5P-MS/ 5,0-920 SCO - 1518180

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Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12 SPEEDCON, A-coded, on free cable end, Cable length: 5 m



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 968304
Weight per Piece (excluding packing)	306.0 g
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	5 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
Insulation resistance	≥ 100 MΩ
Coding	A - standard

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## Technical data

### General

Signal type/category	CANopen®
	DeviceNet™
Status display	No
Overvoltage category	II
Degree of pollution	3
Torque	0.4 Nm (M12 connector)

### Material

Flammability rating 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

### 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)

### Standards and Regulations

Flammability rating according to UL 94	HB
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### Cable

Cable type	CAN Bus/DeviceNet
Cable type (abbreviation)	920
UL AWM style	21198 (80°C/300 V)
Cable structure	2xAWG24/19+2xAWG22/19
Conductor cross section	2x 0.25 mm² (Data cable)
	2x 0.34 mm² (Power supply)
	1x 0.34 mm² (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 (Data cable)
	1.4 mm ±0.05 mm (Power supply)

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## Technical data

### Cable

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
Optical shield covering	80 %
External sheath, color	violet RAL 4001
External cable diameter D	6.7 mm $\pm$ 0,3 mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	5000000
Bending radius	70 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 (Data cable)
	PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq 5 \text{ G}\Omega\cdot\text{km}$ (Data cable)
	$\geq 5 \text{ G}\Omega\cdot\text{km}$ (Power supply)
Conductor resistance	$\leq 90.9 \text{ }\Omega/\text{km}$ (Data cable)
	$\leq 57.4 \text{ }\Omega/\text{km}$ (Power supply)
Cable capacity	nom. 40 pF/m (Data cable)
Wave impedance	120 $\Omega \pm 10 \%$ (with 1 MHz)
Wave attenuation	$\geq 0.0229 \text{ dB/m}$ (with 1 MHz)
Nominal voltage, cable	$\leq 300 \text{ V}$ (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
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
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)
	-20 °C ... 80 °C (cable, flexible installation)

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### Technical data

#### Cable

	≤ 70 °C (cable, drag chain applications)
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### 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	27279218
eCl@ss 9.0	27060311

#### 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
UNSPSC 13.2	31251501

### Approvals

#### Approvals

#### Approvals

#### EAC

#### Ex Approvals

## Bus system cable - SAC-5P-MS/ 5,0-920 SCO - 1518180

### Approvals

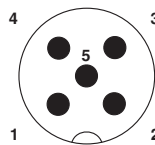
Approvals submitted

### Approval details

EAC

### Drawings

Schematic diagram



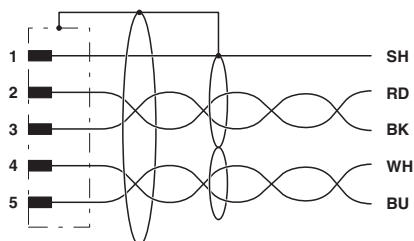
Pin assignment M12 male connector, 5-pos., A-coded, male side

Cable cross section



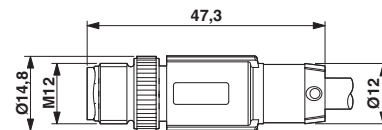
CAN Bus/DeviceNet [920]

Circuit diagram



Contact assignment of the M12 plug

Dimensional drawing



Plug, M12 x 1, straight, shielded

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