

## Bus system cable - SAC-5P-M12MS/2,5-923/M12FS CAN - 1073558

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Bus system cable, CANopen<sup>®</sup>, 5-position, PUR halogen-free, silver-gray RAL 7001, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 2.5 m, Connector unshielded

As illustrated, but without SPEEDCON



### Key Commercial Data

Packing unit	1
GTIN	 4 055626 770383
GTIN	4055626770383
Custom tariff number	85444290

### Technical data

#### Dimensions

Length of cable	2.5 m
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#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
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#### General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	5
Insulation resistance	≥ 100 MΩ
Coding	A - standard

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## Technical data

### General

Signal type/category	CANopen®
Status display	No
Overvoltage category	II
Degree of pollution	3
Halogen-free	complying with IEC 60754-1/2

### 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
Sealing material	NBR

### Standards and Regulations

Halogen-free	complying with IEC 60754-1/2
Flammability rating according to UL 94	HB

### Cable

Cable type	CANopen®/DeviceNet™, PUR, gray
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> (Data cable)
	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 (Data cable)
	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
Optical shield covering	80 %

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### Technical data

#### Cable

External sheath, color	silver-gray RAL 7001
External cable diameter D	6.7 mm ±0.3 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	5000000
Bending radius	70 mm
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>
Cable weight	90 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE (Data cable) PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km (Data cable) ≥ 5 GΩ*km (Power supply)
Loop resistance	≤ 181.80 Ω/km (Data cable) ≤ 114.80 Ω/km (Power supply)
Cable capacity	nom. 40 nF/km (Data cable)
Wave impedance	120 Ω ±10 % (with 1 MHz)
Attenuation	≤ 22.9 dB/km (with 1 MHz) ≤ 16.4 dB/km (At 500 kHz) ≤ 9.5 dB/km (At 125 kHz)
Nominal voltage, cable	≤ 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.)
Other resistance	Low adhesion
Flame resistance	UL 1581, Sec. 1060 (FT-1) IEC 60332-1
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) -20 °C ... 80 °C (cable, flexible installation)

#### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
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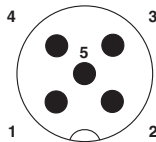
## Technical data

### Environmental Product Compliance

	No hazardous substances above threshold values
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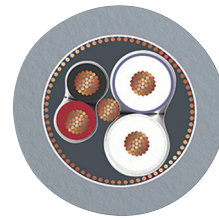
## Drawings

Schematic diagram



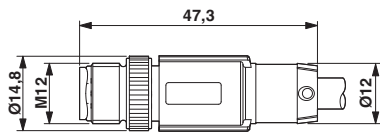
Pin assignment M12 male connector, 5-pos., A-coded, male side

Cable cross section



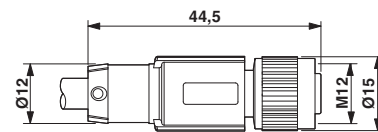
CANopen<sup>®</sup>/DeviceNet<sup>™</sup>, PUR, gray [923]

Dimensional drawing



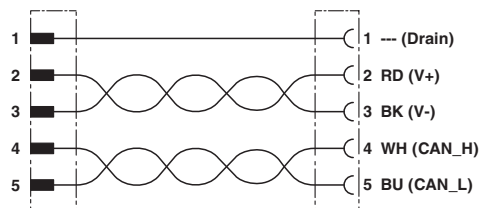
Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

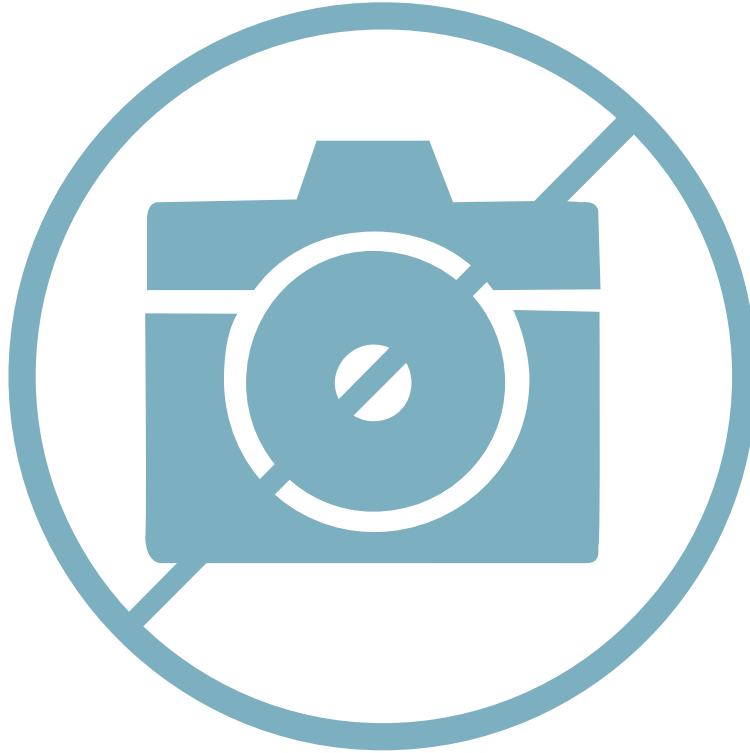
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

### Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 11.0	27060308
eCl@ss 4.0	27060307
eCl@ss 4.1	27060307
eCl@ss 5.0	27061801
eCl@ss 5.1	27060307
eCl@ss 6.0	27279218
eCl@ss 7.0	27060308
eCl@ss 9.0	27060308

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830

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### Classifications

#### ETIM

ETIM 4.0	EC001855
ETIM 6.0	EC001262
ETIM 7.0	EC001262

#### UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	31251501
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

### Approvals

#### Approvals

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Approvals

EAC-RoHS

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Ex Approvals

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#### Approval details

EAC-RoHS		RU D- DE.HB35.B.00385
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