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Bus system cable - SAC-5P-MS/20,0-923/FS CAN SCO - 1419056

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Bus system cable, CANopen[®], DeviceNet[™], 5-position, PUR halogen-free, gray RAL 7001, shielded, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, Cable length: 20 m, Connector, unshielded



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 543002

Technical data

Dimensions

Length of cable	20 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	60 V
Number of positions	5
Coding	A - standard
Signal type/category	CANopen [®] DeviceNet [™]
Status display	No
Overvoltage category	II
Degree of pollution	3
Torque	0.4 Nm (M12 connector)

Material

Bus system cable - SAC-5P-MS/20,0-923/FS CAN SCO - 1419056

Technical data

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
Sealing material	NBR

Pin assignment

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

Standards and Regulations

Flammability rating according to UL 94	HB
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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 ² (Data cable)
	2x 0.34 mm ² (Power supply)
	1x 0.34 mm ² (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 %
External sheath, color	Silver-gray RAL 7001
External cable diameter D	6.7 mm ±0,3 mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	5000000

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Technical data

Cable

Bending radius	70 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s ²
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	≤ 181.8 Ω (Data cable)
	≤ 114.8 Ω (Power supply)
Working capacitance	nom. 40 nF (Data cable)
Wave impedance	120 Ω ±12 Ω (f = 1 MHz)
Shield attenuation	≤ 0.95 dB (f = 125 kHz)
	≤ 1.64 dB (f = 500 kHz)
	≤ 2.29 dB (f = 1 MHz)
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.)
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)
	-20 °C ... 70 °C (cable, flexible installation)

Classifications

eCl@ss

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	27279218
eCl@ss 8.0	27279218

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC001855

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Classifications

ETIM

ETIM 5.0	EC001855
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UNSPSC

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

Approvals

Approvals

Approvals

EAC

Ex Approvals

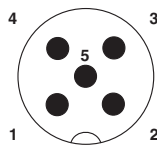
Approvals submitted

Approval details

EAC

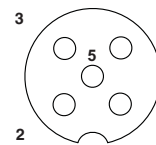
Drawings

Schematic diagram



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

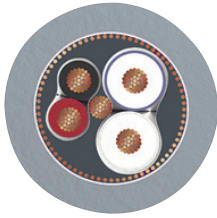
Schematic diagram



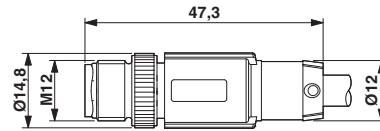
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Bus system cable - SAC-5P-MS/20,0-923/FS CAN SCO - 1419056

Cable cross section



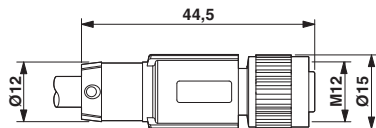
Dimensional drawing



CAN Bus/DeviceNet [923]

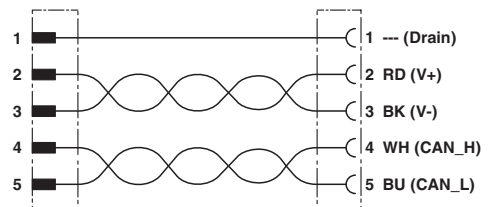
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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