

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


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



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 pc
GTIN	 4 046356 543002
Weight per Piece (excluding packing)	1177.4 g
Custom tariff number	85444290
Country of origin	Germany

Technical data

Dimensions

Length of cable	20 m
-----------------	------

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
Surge voltage category	II
Pollution degree	3

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

Technical data

General

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) = 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)

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 (signal line)
	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 (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
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	2000000

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

Technical data

Cable

Minimum bending radius, drag chain applications	10 x D
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 pair)
	PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km (signal line)
	≥ 5 GΩ*km (Power supply)
Working capacitance	nom. 40 nF (per kilometer)
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)
Coupling resistance	≤ 181800000.00 Ω/km (Data pair)
	≤ 114800000.00 Ω/km (Power supply)
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
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
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

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

Classifications

ETIM

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

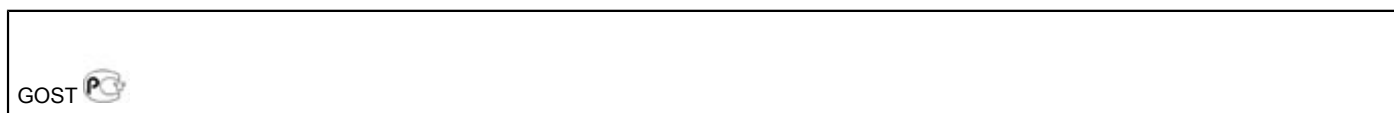
Approvals

GOST

Ex Approvals

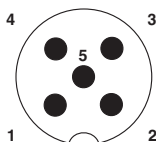
Approvals submitted

Approval details



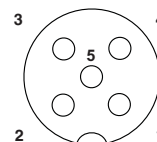
Drawings

Schematic diagram



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

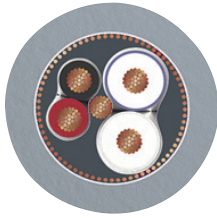
Schematic diagram



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

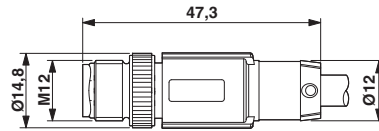
Bus system cable - SAC-5P-MS/20,0-923/FS CAN SCO - 1419056

Cable cross section



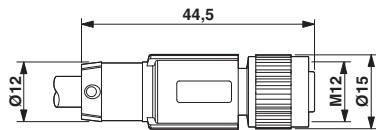
CAN Bus/DeviceNet [923]

Dimensioned drawing



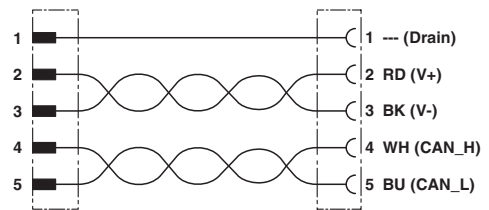
M12 x 1 plug, straight

Dimensioned drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket