

Bus system cable - SAC-5PY-F/2X 5,0-920-MS-FS - 1436055

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Bus system cable, CANopen[®], DeviceNet[™], CANopen[®]/DeviceNet[™], 5-position, PUR halogen-free, Violet, RAL 4001, shielded, Socket straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded and Plug straight M12 SPEEDCON, A-coded, Cable length: 5 m, all connectors unshielded, Shield connected to pin 1



Key commercial data

Packing unit	1 1
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	5 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
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Signal type/category	CANopen [®]
	DeviceNet [™]
Status display	No
Surge voltage category	II

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Technical data

General

Pollution degree	3
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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	Nickel-plated brass
Sealing material	NBR

Pin assignment

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

Cable

Cable type	CAN Bus/DeviceNet
Cable type (abbreviation)	920
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	Aluminum-lined polyester foil
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 ±0.3 mm
Smallest bending radius, fixed installation	67 mm

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Cable

Smallest bending radius, movable installation	67 mm
Number of bending cycles	2000000
Bending radius	67 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 (signal line)
	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 (signal line)
Wave impedance	120 Ω ± 12 Ω (with 1 MHz)
Nominal voltage, cable	max. 300 V
Test voltage, cable	2000 V (50 Hz, 1 min.)
Flame resistance	UL 1581, Sec. 1060 (FT-1)
	IEC 60332-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 70 °C (cable, flexible installation)

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	27061801

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

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Classifications

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Approvals

Approvals

GOST

Ex Approvals

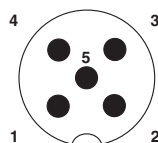
Approvals submitted

Approval details



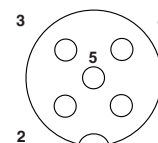
Drawings

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

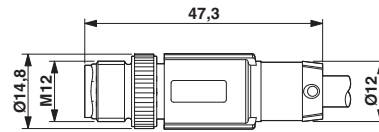
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Cable cross section



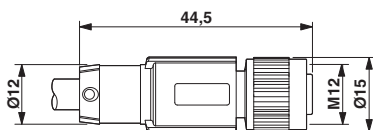
CAN Bus/DeviceNet [920]

Dimensioned drawing



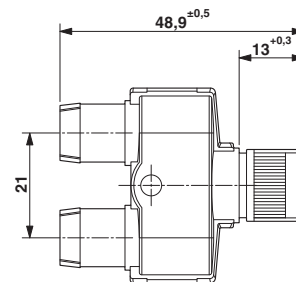
M12 SPEEDCON plug, straight

Dimensioned drawing



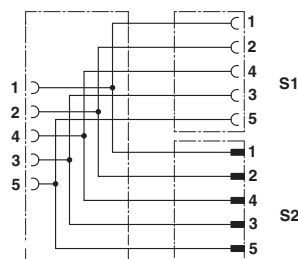
M12-SPEEDCON socket, straight

Dimensioned drawing



M12-SPEEDCON socket, Y-distributor

Circuit diagram



Contact assignment of the M12 socket and the M12 plug