# CAN Cables and Accessories



CAN Wiring for Industrial Environment

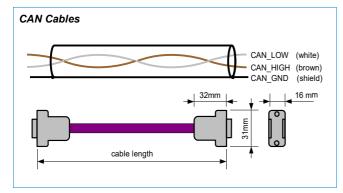
# **CAN** Cables

- Factory built Cable Assembly
- Complies with CANopen® CiA® Recommendation 303 Part 1
- Easy Wiring without Tools

# Cables

The cables are designed for application in CAN systems. They are compatible with all esd CAN devices.

The cable's shield is connected to CAN\_GND and protects the differential CAN data signal against electromagnetic influences.



# Technical Cable Specifications:

General:	
Standards	ISO 11898-2, CiA 303 Part 1
Cables:	
Standards	DIN 47100, UL approved
Туре	Shielded fieldbus cable, 2x 0.22 mm², stranded bare conductors, twisted pair
Shield	Tinned copper shield
Impedance	100-120 Ω
Dimensions	Outer diameter: 6 mm, bending radius: 80 mm
Colour	Violet (according to DESINA® standard)
Ambient temperature	-40 °C +80 °C (fix installations) -5 °C +70 °C (flexible installations)
Flammability	Flame retardant and self-extinguishing, UL approved, acc. to IEC 60332-1-2, VDE 0482-332-1-2,
Cable connectors	9-pin DSUB (male/female, see order information) Quality grade: 3, bolts: UNC 4-40, Metallised plastic housing (is not connected to wire or cable shield), UL94 1/16" HB flame retardant

#### Order Information Cables: Cables (Examples) order no. CAN-Cable-SB, 0.3 m 9-pin male - 9-pin female C.1322.03 CAN-Cable-SB, 1.0 m 9-pin male - 9-pin female C.1322.10 CAN-Cable-SB, 3.0 m C.1322.30 9-pin male - 9-pin female CAN-Cable-SB, 10.0 m C.1322.99 9-pin male - 9-pin female CAN-Cable-SS, 1.0 m 9-pin male - 9-pin male C.1320.10 CAN-Cable-BB, 2.0 m 9-pin female - 9-pin female C.1321.20 CAN-Cable-SB, customized length, 9-pin male/female C.1322.00 CAN-Cable-S, 0.3 m 9-pin male - wire end sleeve C.1323.03

# Accessories

- Connectors with Termination
- T-Connector
- Repeaters to improve Participant Capacity

### Connectors

To connect CAN nodes to the main bus cable T-connectors and stub cables are available. The recommended max. length for stub lines is 0.3 m. Both ends of the CAN network have to be terminated with a 120 Ω termination.

For external termination several terminating plugs with or without grounding contact for CAN\_GND are available.



120  $\Omega$  CAN termination, with 4.8 mm tab connector for grounding with 4.8 mm tab connector for grounding

# Order Information Connectors:

Connectors		order no.		
CAN-Termination- DSUB9	1x DSUB9 male to 1x DSUB9 female, 120 $\Omega$ CAN termination integrated,	C.1303.01		
CAN-Termination female	1x DSUB9 female, 120 $\Omega$ termination, PVC housing, quality grade: 3	C.1301.01		
CAN-Termination male	1x DSUB9 male; 120 Ω termination, PVC housing, quality grade: 3	C.1302.01		
T-Connector	2x DSUB9 female, 1x DSUB9 male, PVC housing, quality grade: 3	C.1311.03		
Please read the connector's data sheet or manual for technical specifications.				

Repeaters

esd offers CAN-Repeaters with two or three ports and electrical isolation as an option to fit all needs of installation.

Please take a look in the product directory at www.esd.eu for more information.



# Order Information Repeaters:

Repeater		order no.		
CAN-Repeater-I	2x CAN	C.1330.02		
CAN-Repeater-I-Opto	2x CAN, electrical isolation	C.1330.06		
CAN-Repeater-Y	3x CAN	C.1330.03		
CAN-Repeater-Y-Opto	3x CAN, electrical isolation	C.1330.07		
Please read the repeaters' data sheet for technical specifications.				

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CAN-Cable-B, 0.3 m

All data are subject to change without prior notice. Rev.: 1.6 • Date: 2018-06-05

9-pin female - wire end sleeve C.1323.04

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# EG-KONFORMITÄTSERKLÄRUNG EC DECLARATION OF CONFORMITY



Adresseesd electronic system design gmbhAddressVahrenwalder Str. 20730165 HannoverGermany

esd erklärt, dass das Produkt esd declares, that the product

CAN-Cable-SS CAN-Cable-BB CAN-Cable-SB

CAN-Termination CAN-Termination CAN-T-Connector Typ, Modell, Artikel-Nr. *Type, Model, Article No.* 

C.1320.xx C.1322.xx C.1323.xx

C.1301.01 C.1302.01 C.1311.03

Das Produkt entspricht der EG-Richtlinie "RoHS" The product corresponds to the EC-Directive 'RoHS' 2011/65/EU

Diese Erklärung verliert ihre Gültigkeit, wenn das Produkt nicht den Herstellerunterlagen entsprechend eingesetzt und betrieben wird, oder das Produkt abweichend modifiziert wird. *This declaration loses its validity if the product is not used or run according to the manufacturer's documentation or if non-compliant modifications are made.* 

Name / *Name* Funktion / *Title* Datum / *Date*  T. Ramm CE-Koordinator / *CE Coordinator* Hannover, 2013-06-26

Thorster Ran

Rechtsgültige Unterschrift / authorized signature