

CAN 300, Communication Module, DNV



Technical Data		
Order number		700-600-CAN81
Dimensions in mm (LxWxH)		116 x 40 x 125
Weight		approx. 280g
Power Supply		
Voltage		+5 V DC via backplane bus
Current consumption		typ. 160 mA max. 190 mA
CAN interface		
Type		ISO/DIN 11898, CAN High Speed physical Layer
Transmission rate		10 Kbps to 1 Mbps
Protocol		CAN 2.0A (11 bit) CAN 2.0B (29 bit) CANopen Master CANopen Slave LENZE system bus SAE J1939
Connection		Connector, SUB-D, 9-way
Status display		3 LEDs
Configuration interface		
Type		RS232, serial asynchronous
Transmission rate		9.6 Kbps
Format		8/N/1
Connection		Connection, SUB-D, 9-way
Electromagnetic compatibility		
Noise immunity	IEC 61000-4-3	80 MHz – 2000 MHz, 10V/m
	IEC 61000-4-6	150 KHz – 80 MHz, 3V
	IEC 61000-4-2	8 kV air discharge
	IEC 61000-4-4	+/- 1 kV (clamp), +/- 2 kV (int. coup.)
	IEC 61000-4-5	+/- 1 kV (CM), +/- 0.5 kV (DM)
	IEC 60533	50 Hz – 10 KHz, 10% Unom
Interference emission	CIS PR 16-1	10 KHz - 150 KHz (96 dBµV – 50 dBµV)
	CIS PR 16-2	150 KHz – 350 KHz (60 dBµV – 50 dBµV)
		350 KHz – 30 MHz (50 dBµV)
		10 KHz – 150 KHz (120 dBµV – 69 dBµV)
		150 KHz – 500 KHz (79 dBµV)
		500 KHz – 30 MHz (73 dBµV)
		150 KHz - 300 KHz (80 dBµV – 52 dBµV)
		300 KHz – 30 MHz (52 dBµV – 34 dBµV)
		30 MHz – 2 GHz (54 dBµV)
		156 MHz – 165 MHz (24 dBµV)
		150 KHz - 30 MHz (80 dBµV – 50 dBµV)
		30 MHz – 100 MHz (60 dBµV – 54 dBµV)

Power supply fluctuation		
Voltage deviation		24V +30% test run > 15 min. 24V -25% test run > 15 min.
Mechanical environmental conditions		
Vibrations	IEC 60068-2-6	Rate of change: 1 oct/min. Frequency range: 5 Hz – 100 Hz Vibration duration: 1 sweep number of axes: 3 acceleration: 4 g Amplitude: 1.6 mm
Climatic environmental conditions		
Dry heat change	IEC 60068-2-2	Lower temperature: AT Upper temperature: 70°C Dwell time: 2 hours Test duration: 1 cycle Temperature gradient: 0.5K/min
Low temperature test	IEC 60068-2-1	Starting temperature: AT Temperature gradient: 0.5K/min Test temperature: -25°C Dwell time: 2 hours Final temperature: AT
Cyclic air humidity	IEC 60068-2-30	Temperature: 55°C Rel. air humidity: 95% Test duration: 2 days
Transport- and storage temperature		-25°C ... 75°C
Horizontal installation		-25°C ... 60°C
Vertical installation		-25°C ... 40°C



DET NORSKE VERITAS
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-9943
 This Certificate consists of 3 pages

This is to certify that the
Peripheral Equipment
 with type designation
CAN 300 communication module
 Manufactured by
Systeme Helmholz GmbH
 Weisendorf, Germany
 is found to comply with
 Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and
 Det Norske Veritas' Offshore Standards

Application
 Location classes:

Temperature	D
Humidity	B
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules to be provided upon installation on board

Place and date
 Harvi, 2006-07-03
 for DET NORSKE VERITAS AS
 In Kert Svends Orling
 Head of Section

Local Office
 DNV Essen

This Certificate is valid until
 2010-12-31
 State Secret
 Supervisor

Notes: This Certificate is subject to terms and conditions thereof. Any significant change in design or construction may render this Certificate invalid.
 The validity does not extend to the Type Approval Certificate and not to the approval of equipment systems installed.
 The approval does not constitute a warranty or a guarantee of the product or its performance. The product is not covered by the approval. The approval is not a recommendation or a guarantee of the product or its performance. The product is not covered by the approval. The approval is not a recommendation or a guarantee of the product or its performance.

DET NORSKE VERITAS AS
 From No. 30.000 Issue January 00

The CAN 300 is certificated to DNV (DET Norske Veritas) "Peripheral of equipment" for extended operating conditions.