

# SPECIFICATION GUIDE

# NI CAN Demo Box

This document lists the hardware specifications of the NI CAN Demo Box, as well as safety and CE compliance specifications used in testing and validation for this product.

## Electrical

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### Functional Generator Gen Terminal

Maximum output current .....	12 mA
Maximum capacitive load.....	200 pF
Typical output voltage	
Square waveform .....	5 V <sub>pp</sub> , 2.5 VDC offset
Sine and Triangle	
waveforms .....	3.38 V <sub>pp</sub> , 1.9 VDC offset

### Analog In To CAN, Analog In To DAQ, and DAQ Trigger Terminals

Voltage range .....	0 to 5 V
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### Power Requirement

+9 to +12 VDC.....	100 mA typical
	200 mA maximum

## Physical

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Dimensions.....	12.95 cm × 12.95 cm × 4.83 cm (5.1 in. × 5.1 in. × 1.9 in.)
I/O connectors .....	9-pin male D-SUB for CAN port
	9-pin male D-SUB for CAN (Optional Monitor) port
	68-pin male SCSI for DAQ port

3-pin terminal block for DAQ  
Trigger connections

2-pin terminal block for Analog  
In To DAQ connections

2-pin terminal block for Analog  
In To CAN connections

2-pin terminal block for Function  
Generator connections

2 mm, center-positive radial  
connector for DC power

## Operating Environment

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Ambient temperature .....0 to 40 °C

Relative humidity .....10 to 90%, noncondensing  
(Tested in accordance with  
IEC-60068-2-1, IEC-60068-2-2,  
IEC-60068-2-56.)

Indoor use only.

Measurement Category .....I

Pollution Degree .....2

Altitude .....2,000 m

## Storage Environment

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Ambient temperature .....-20 to 70 °C

Relative humidity .....5 to 95%, noncondensing  
(Tested in accordance with  
IEC-60068-2-1, IEC-60068-2-2,  
IEC-60068-2-56.)

## High-Speed CAN

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Transceiver .....Philips TJA1041

Maximum baud rate ..... 1 Mbps

CAN\_H, CAN\_L bus lines ..... -27 to +40 VDC

## Safety

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This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1
- CAN/CSA-C22.2 No. 61010-1



**Note** For UL and other safety certifications, refer to the product label or to [ni.com/certification](http://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

## Electromagnetic Compatibility

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Emissions ..... EN 55011 Class A at 10 m  
FCC Part 15A above 1 GHz

Immunity ..... EN 61326:1997 + A2:2001,  
Table 1

EMC ..... CE, C-Tick, and FCC Part 15  
(Class A) compliant



**Note** For EMC compliance, operate this device with shielded cabling.

## CE Compliance

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This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

Low-Voltage Directive (safety) ..... 73/23/EEC

Electromagnetic Compatibility  
Directive (EMC) ..... 89/336/EEC



**Note** Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit [ni.com/certification](http://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

# Where to Go for Support

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The National Instruments Web site is your complete resource for technical support. At [ni.com/support](http://ni.com/support) you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

A Declaration of Conformity (DoC) is our claim of compliance with the Council of the European Communities using the manufacturer's declaration of conformity. This system affords the user protection for electronic compatibility (EMC) and product safety. You can obtain the DoC for your product by visiting [ni.com/certification](http://ni.com/certification). If your product supports calibration, you can obtain the calibration certificate for your product at [ni.com/calibration](http://ni.com/calibration).

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