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# CANusb

## Hardware User Manual

Part number: CANUSB

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V1.01.01

# 1 Installation

To properly install the CANusb on your PC, please follow the instructions detailed in the next sections.

## 1.1 System requirements

To run the CANusb on a PC, the PC must meet the following requirements:

- Free USB port
- Windows7 (32 or 64 bit version), Windows Vista or Windows XP installed

## 1.2 Software installation

The CANusb software is part of the “CAN Drivers and API” CD which is also available from the download section at [www.softing.com](http://www.softing.com).

- Insert the CD in your PC's CD/DVD drive.
- Run *CANDriversAndSoftware32.exe* for 32 bit systems or *CANDriversAndSoftware64.exe* for 64 bit systems. This will start the Setup procedure.
- Please follow the instructions given by the setup software.



**NOTE:**

**Make sure to install the software before you plug in your CANusb hardware for the first time.**

## 1.3 Hardware and driver installation

Once the software setup is finished please connect the CANusb to a free USB port of your PC. The computer will recognize the new hardware.

- If the “New Hardware Wizard” asks if Windows Update should be connected select *No*.
- In the next step select *automatic software installation* All required drivers will then be installed.

## 1.4 Driver configuration

CANusb is recognized by the driver automatically. Nothing more is usually required. However, advanced configuration – like changing the name of a CAN channel or setting a default baudrate - is possible with the Softing CAN Interface Manager.

- Click *Start – All Programs – Softing CAN – Runtime System Configuration – Softing CAN Interface Manager (SCIM)*
- For more details on the driver configuration click *Start – All Programs – Softing CAN – Runtime System Configuration – SCIM\_Manual*

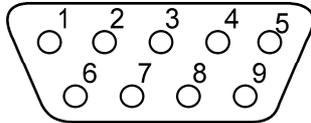
## 1.5 Application Software

How to use CANusb and how to write application software, is described in the Software Manual.

- To open this manual click *Start – All Programs – Softing CAN – CAN\_API - DOC – Softing Layer2*

## 2 CAN Connector Pin Assignment

Connector pinning complies to CiA standard DS 102.



Pinning of the 9 pin D-Sub connector

Pin	Signal
1	N.C.
2	CAN_L
3	Isolated GND
4	N.C.
5	Drain connected to connector shield (1M/10n to isolated GND)
6	Isolated GND
7	CAN_H
8	N.C.
9	N.C.



**NOTE:**

Softing also offers a CAN Low-speed variant CANusb-CAR that connects to CAN networks compliant to CAN Low Speed specification. Please contact Softing Automotive sales for more details.

## 3 CE Information

This device complies with the requirements of the EC directive 2004/108/EC "Electromagnetic Compatibility" (EMC directive).



The product meets the following requirements:

- Emission: EN61000-6-4 Generic emission Standard (industrial environments)  
EN55022 Class A (ITE Product Standard)  
EN55011 Group1 Class A (ISM Product Standard)
- Immunity: EN61000-6-2 Generic Immunity Standard (industrial environments)

A "Declaration of Conformity" in accordance with the above standards has been made and is filed at Softing Industrial Automation GmbH, Germany.

**NOTE:**

- To satisfy the EMC requirements, the equipment used (PC, monitor, CAN stations, etc.) also has to meet the EMC requirements. A shielded cable must be used. In addition, the cable shield must be grounded properly.

**Warning!** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## 4 RoHS Information

CANusb is RoHS compliant.



## 5 Technical data

- Unit: USB interface
- CPU: SAB-C165
- Memory: 256 kbytes SRAM
- Supported USB rate: full speed (12 Mbit/s)
- USB connection: connector type USB-B, incl. USB cable (A-B, 1m)
- CAN controller: SJA1000
- CAN interface: galvanically isolated (500V) CAN high speed according to ISO 11898-2
- CAN connector: Sub-D 9 pin male, pin assignment acc. to CiA DS102
- Baud rate: 10 kbit/s up to 1 Mbit/s
- Power supply: via USB: +5V ( $\pm 5\%$ ); typ. 300mA
- Temperature range: Operation: 0°C ... 55°C  
Storage: -20°C ... 70°C
- Relative humidity < 90% (non-condensing)