Mecel USBtoCAN

CAN adapter for PC

INTRODUCTION

USBtoCAN is a CAN adapter for the USB port on a PC. It is an easy way to connect a PC to the CAN bus. With USBtoCAN you get use of all the advantages of the Universal Serial Bus such as real Plug & Play and the ability to connect several USBtoCAN adapters to the same PC.

USBtoCAN is built around the powerful Philips SJA1000 CAN-controller which gives you unique functions for vehicle diagnosis. You can make use of all the features and functions of the SJA1000 CAN-controller including transfer rates up to 1 Mbit/s. USBtoCAN supports both standard 11-bit CAN identifiers and extended 29-bit CAN identifiers. The ISO 11898-2 high speed physical interface is implemented on board with a Philips TJA1050 transceiver. (Other physical interfaces, e.g. Philips TJA1054 or AU5790 are aslo available.) It delivers improved system performance, with both BasicCAN mode and an extended mode supporting enhanced system diagnosis and optimisation functions.

Diagnostic facilities include Error Analysis Functions, with readable counters providing information about the performance of individual nodes or the entire system; and Arbitration Lost Capture facility, which allows monitoring of each lost CAN bus access in more detail.
Listen-Only mode allows the USBtoCAN to receive messages without giving an acknowledgement or generating error frames. A single-shot feature allows the USBtoCAN adapter to determine whether a message should be re-transmitted or not in case of a failed transmission. □□□

FEATURES

- □ CAN communication from a PC via the Universal Serial Bus
- □ Plug & Play makes it easy to connect to all PCs with USB ports

USBtoCAN connector view

OBD II/EOBD CAN cable

- □ Supports standard 11-bit CAN identifiers and extended 29-bit CAN identifiers
- □ Saves development time when the same software drivers can be used on all types of PC:s
- □ Automatic Bit Rate detection up to 1 Mbit/s transfer rate
- □ Listen only mode acts like a true "spy" on the CAN-bus
- □ Multiple USBtoCAN adapters can be connected
- □ Time stamp with 1 μs resolution
- □ RAM-based frimware downloaded during plug & play start-up
- □ USB type A-B 1,8 meter cable included

SOFTWARE SUPPORT

USBtoCAN is supported with device driver for:

- □ Windows XP
- □ Windows 2000
- □ Windows 98

Application examples:

- □ Microsoft Visual C++
- □ Microsoft Visual Basic

All device drivers and application examples are available for download from www.mecel.se

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P100-040331

TECHNICAL SPECIFICATION

Housing:	80 x 55 x 28 mm aluminum box (3.1 x 2.2 x 2.2 Inch)
Power supply:	Powered by the PC (1.8 meter USB Type A-B cable is included)
Connectors:	USB type B - USB DSUB 9 - CAN-bus
CAN protocol:	ISO 11898-1
CAN controller:	Philips SJA1000
CAN bus interface:	ISO 11898-2 high speed physical interface with Philips TJA1050 transciever Maximum baud rate 1 Mbit/s ISO 11898-3 low speed dual/single wire fault tolerant physical interface with Philips TJA1054 transciever Maximum baud rate 125 kbit/s SAE J2411 (GM) single wire physical interface with Philips AU5790 transciever Maximum baud rate 33(83) kbit/s
Time stamp:	1 µs resolution on receive frames

Options:

OBD II/EOBD CAN Cable:	Cable for CAN according to ISO 15031-3/ SAE J1962 specifications. 4 wires connected: CAN H, CAN L, Vbat, GND

ORDER INFORMATION

Part number with description:

7906-201-100 USBtoCAN, ISO High speed with TJA1050 transciever

7906-201-101 USBtoCAN, ISO Low speed dual/single wire fault tolerant TJA1054 transciever

7906-201-102 USBtoCAN, SAE (GM) single wire CAN

7901-108-001 OBD II/EOBD CAN cable, 2.5 meter

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