

# **CAN-bus-USBnp interface**

## **2 CAN channels**

## **User Guide**

### **Version 4.0**

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## Basic features

The CAN-bus-USBnp interface is utilized with the IBM PC compatible computer as CAN fieldbus controller for distributed data acquisition and control systems. The device is especially convenient for mobile applications with portable computer and Marathon Ltd CANwise program. It is designed for CAN networking in the field and industrial applications, being an alternative to CAN PCMCIA controllers.

## Technical Specifications

<b>PC interface</b>	USB 2.0 High Speed
<b>CAN controller</b>	CAN 2.0B, 2 channel
<b>CAN frames processing</b>	ARM based 32 bit microcontroller
<b>CAN physical layer</b>	CiA DS 102 1000V galvanic isolation, over-voltage and pulse interference protected
<b>Power supply</b>	From USB port, max. 200 mA
<b>Operating temperature</b>	0..+70°C
<b>Dimensions (WxHxD)</b>	107x28x53 mm

## Software drivers and tools

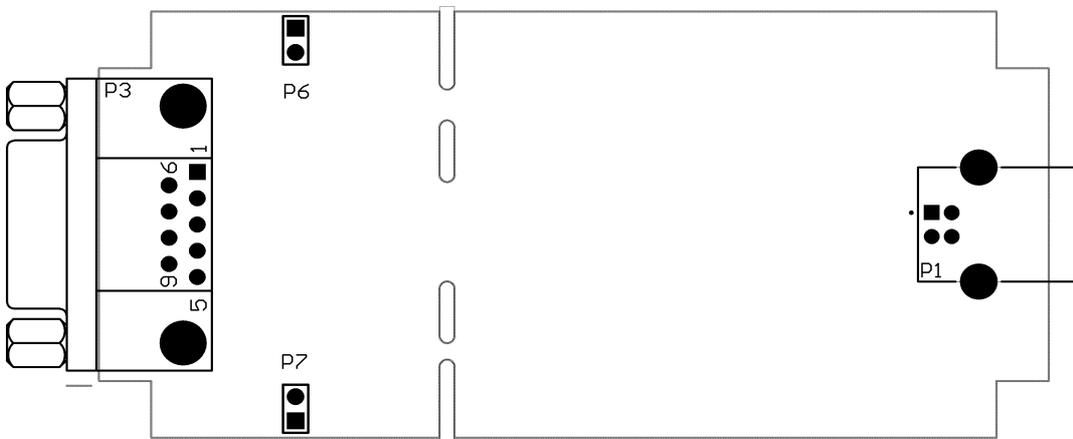
- CHAI driver for Windows XP/Vista/7;
- CANwise datalink layer monitor for Windows XP/Vista/7;
- CANwise plugins: J1939 and CANopen analyzers, interactive and DCF CANopen configurators, CANopen OPC server.

## Installation

Connect the device to the USB port of a personal computer or notebook with the supplied cable.

### Bus line terminators

**The CAN bus lines have to be terminated by 120  $\Omega$  resistors at both ends.** The CAN-bus-USBnp interface is supplied without terminators and can be connected to the CAN line at any bus point. Two jumpers may be installed at the device PCB: P6 for the first CAN channel and P7 for the second one. If the jumper is shorted, the CAN bus line is 120  $\Omega$  terminated.



## CAN-bus connectors

Pinning of the 9-pin D-sub female connector, installed in the device case.

Pin	Signal	Description
1	-	Reserved
2	CAN1_LOW	CAN_L bus line (dominant low), 1-st channel
3	CAN1_GND	CAN ground, 1-st channel
4	CAN2_LOW	CAN_L bus line (dominant low), 2-nd channel
5	CAN2_GND	CAN ground, 2-nd channel
6	CAN1_GND	CAN ground, 1-st channel
7	CAN1_HIGH	CAN_H bus line (dominant high), 1-st channel
8	CAN2_HIGH	CAN_H bus line (dominant high), 2-nd channel
9	CAN2_SHLD	CAN shield, 2-nd channel
chassis	CAN1_SHLD	CAN shield, 1-st channel

The supplied branch cable can be used to arrange two can channels with standard pinning (CiA DS 102 / CiA 303 part 1).

Pin	Signal	Description
1	-	Reserved
2	CAN_LOW	CAN_L bus line (dominant low)
3	CAN_GND	CAN ground
4	-	Reserved
5	CAN_SHLD	Optional CAN shield
6	CAN_GND	CAN ground
7	CAN_HIGH	CAN_H bus line (dominant high)
8	-	Reserved
9	-	Reserved
chassis	-	-

## Complete set

1. CAN-bus-USBnp interface device – 1 pcs.
2. USB cable – 1 pcs.
3. Branch CAN cable – 1 pcs.
4. 9-pin D-sub connector with case – 2 pcs.
5. User guides, software drivers and tools CD-ROM – 1 pcs.
6. Warranty card – 1 pcs.