Nokeval Oy

User Manual

DCS772

USB-POL converter

1 Introduction

With DCS772 you can add a POL interface to your PC. POL interface is used to setup Nokeval devices supporting POL interface.

DCS772 is connected to PCs USB port. Drivers of DCS772 will create a virtual serial port, which can be used as common serial port. Baud rates and amount of bits are selected in Windows *Control Panel* or directly from your application. DCS772 is used only for configuration.

For trouble shooting there is three LEDs on DCS772.

2 Technical data

2.1 USB-interface

Interface: USB 1.1 or 2.0
USB circuit: FTDI FT232BM
Current :   < 100 mA
Connector: USB-B
                    (USB-A-B cable included).

2.2 POL-interface

Baudrates: 300…9600 bit/s
Bus length: max. 1 m
Connector: 3.5mm mono jack
                    (cable included)

2.3 Miscellaneous

Size: 56x31x25 mm
Ambient tempereture: 0...60 °C
Galvanic isolation: No

2.4 EMC

2.4.1 EMC immunity

EN 61326

2.4.2 EMC emissions

EN 61326   class B

3 Installation

USB circuit of the DCS772 needs two drivers to be installed to PC. First driver is used to create USB connection between PC and converter. Second driver is used to create Virtual Serial Port.

Drivers can be installed from Nokeval Software CD or download the latest drivers from manufacturer of the interface circuit www.ftdichip.com (Drivers, FT232BM). Instructions below show how to install drivers from CD. But you can adapt instructions also for downloaded drivers.

Put Nokeval Software CD to your CD-drive and connect DCS772 to USB port. Windows should recognice a new device and start driver installation automaticly.
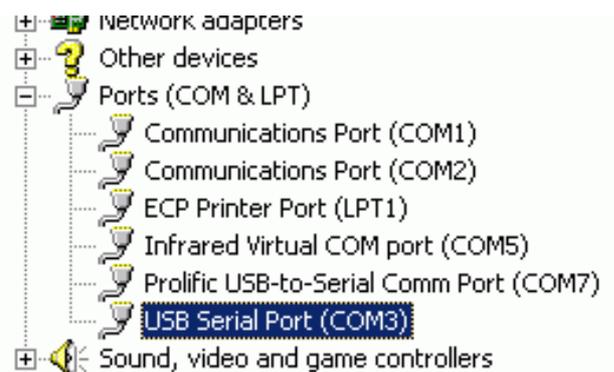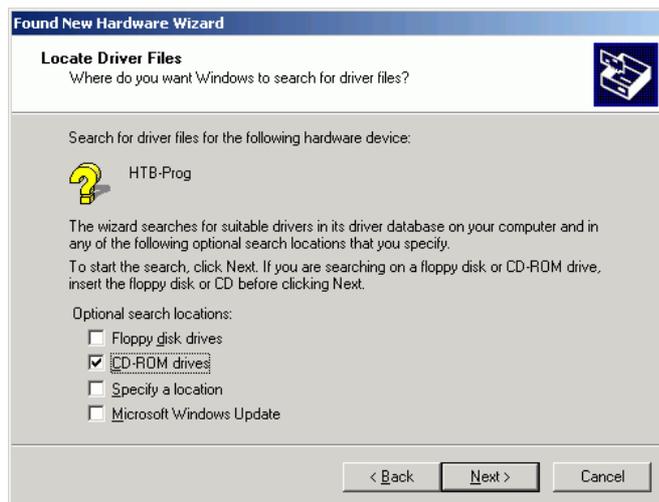
Found New Hardware Wizard

Welcome to the Found New Hardware Wizard

This wizard helps you install a device driver for a hardware device.

To continue, click Next.

< Back   Next >   Cancel

Found New Hardware Wizard

Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.

This wizard will complete the installation for this device:

HTB-Prog

A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.

What do you want the wizard to do?

○ Search for a suitable driver for my device (recommended)

○ Display a list of the known drivers for this device so that I can choose a specific driver

< Back   Next >   Cancel

Found New Hardware Wizard

Locate Driver Files
Where do you want Windows to search for driver files?

Search for driver files for the following hardware device:

HTB-Prog

The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional locations that you specify.

To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.

Optional search locations:
☐ Floppy disk drives
☑ CD-ROM drives
☐ Specify a location
☐ Microsoft Windows Update

< Back   Next >   Cancel

Found New Hardware Wizard

Driver Files Search Results
The wizard has finished searching for driver files for your hardware device.

The wizard found a driver for the following device:

HTB-Prog

Windows found a driver for this device. To install the driver Windows found, click Next.

d:\drivers\ftdi\vcp drivers nonpnp\ftdibus.inf

< Back   Next >   Cancel

When USB-Driver (ftdibus.inf) is installed, Windows will install VirtualSerialPort-Driver.

Found New Hardware

USB Serial Port

Installing ...

Install VirtualSerialPort-Driver same way as USB-driver. OK-LED of converter should turn ON.

Now you have to find out which COM port is assosiated for the converter. Open *Control Panel / System / Hardware / Device Manager*. From Device tree open Ports. There should be a line for each converter. For example **USB Serial Port (COM3)**.

🖳 Network adapters
❓ Other devices
 Ports (COM & LPT)
  Communications Port (COM1)
  Communications Port (COM2)
  ECP Printer Port (LPT1)
  Infrared Virtual COM port (COM5)
  Prolific USB-to-Serial Comm Port (COM7)
  USB Serial Port (COM3)
 Sound, video and game controllers

3

4   Troubleshooting

LEDs of DCS772 are very useful in troubleshooting

4.1   Step 1: Drivers

If OK-LED id OFF, install drivers.

4.2   Step 2: Transmission

Start your application on PC and check if Tx-LED if blinking. If not there is something wrong in your application setup. Probably wrong serial port.

4.3   Step 3: Receiving

If Rx-LED if blinking simultaneously with Tx-LED, but not alone. This means your POL device is not responding. Check your device is powered up and serial communication settings are correct.