

# Clarity Hardware

## *Opt-USB Converter*


HW

ENG

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To facilitate the orientation in the **Opt-USB Converter** manual and **Clarity** chromatography station, different fonts are used throughout the manual. Meanings of these fonts are:

**Instrument** (blue text) marks the name of the window, to which the text refers.

*Open File* (italics) describes the commands and names of fields in **Clarity**, parameters that can be entered into them or a window or dialog name (when you already are in the topic describing the window).

WORK1 (capitals) indicates the name of the file and/or directory.

*ACTIVE* (capital italics) marks the state of the station or its part.

The bold text is sometimes also used for important parts of the text and the name of the **Clarity** station. Moreover, there are text sections written in format other than normal text. These sections are formatted as follows:

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**Note:** Notifies the reader of possibly interesting information.

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**Caution:** Warns the user of possibly dangerous or very important information.

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**I Marks the problem statement or trouble question.**

**Description:** Presents any closer information on the problem, describes its causes etc.

**Solution:** Marks the response to the question, presents a procedure how to remove it.

# 1 Opt-USB

This manual describes the use of the **Optical to USB Adapter**. **Opt-USB** is the device which connects to the PC via the **USB** slot. The converter software can also emulate a COM port in the PC, so it can be used as an **Optical to RS232 converter**.

## 1.1 Optical to USB Adapter

The **Opt-USB** adapter can be used to control devices using the optical link communication. When connected to a standard PC, the **Opt-USB** needs no power supply (it is powered from the **USB**).

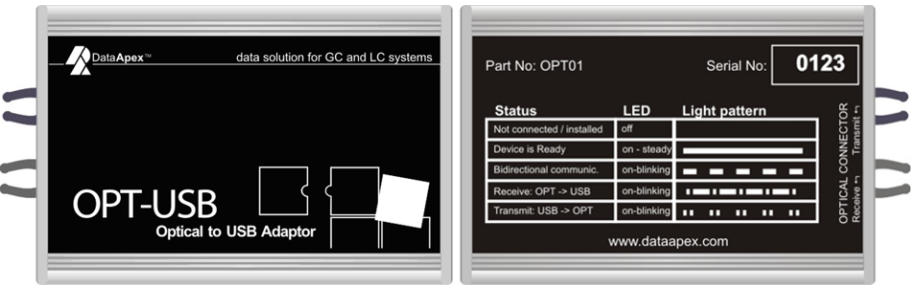


Fig 1: Opt-USB front and rear

### Green LED status

**Opt-USB** indicates current state of communication using the green LED situated next to the **USB** connector on the right side of the box. The patterns corresponding to individual states are indicated on the back side. The side panel contains the LED communication state indicator. Description of states is as follows:

- **No light** – “not connected to USB”, the driver is not installed or is in suspend mode.
- **Continual light** – idle state, no communication.
- **Blinking** - - - - two-way communication, both sides are receiving and sending data.
- **Blinking** • - - - - receiving data only.
- **Blinking** • • • • sending data only.

**Package**

Each **Opt-USB** Adapter serves as an interface for one device, so multiple adapters are needed to control more than one device. The **Opt-USB** adapter package (p/n Opt01) consists of:

- **Opt-USB** adapter.
- 50 cm optical cable (p/n SK15).
- **USB** A-A cable (p/n SK10).

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*Note:* These cables are part of the package, but can also be ordered separately.

- Either **Clarity** installation CD (if ordered with the **Clarity**) or **Opt-USB** installation CD (standalone converter).

**Brief technical overview**

- 1 USB port for connection to the PC via the USB A-A cable (DataApex SK10, part of the package).
- Powered from **USB** or external power supply
- **USB** port has USB-A connector and is fully compliant with USB Spec Rev 1.1

## 2 Requirements

- The **Opt-USB** adapter can be used on any PC with the following operating systems: **MS Windows 7/Vista/XP/2000** (incl. the **64-bit** versions of Windows **7** or **Vista**).
- The PC must have a free **USB** slot (either USB 1 or USB-2 slot will do).

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**Caution:** It is highly recommended to connect the **Opt-USB** adapter directly to the PC (not via USB hubs etc.)

## 3 Installation

Ensure that you have *Administrator* access rights in your Windows OS before you proceed with the installation.

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**Caution:** It is necessary to run the pre-installer before the installation (at the time of the first connection of the **Opt-USB** device) to the computer.

There are three possibilities how to install the **Opt-USB** pre-installer into the PC:

- As a part of the **Clarity** installation.
- Separately as a standalone product, with **Opt-USB** driver CD.
- Separately as a standalone product, with drivers downloaded from the **DataApex** website [www.dataapex.com](http://www.dataapex.com).



## 3.1 The Opt-USB Adapter with Clarity

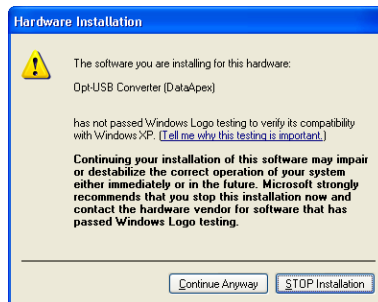
- Install Clarity from the **Clarity Installation CD-ROM**.

**If you have Clarity version 2.6 and older:**

- When selecting the type of installation, choose Custom.
- On the next screen, the **Utils** section (on the bottom of the list) is checked and grayed. Select it and click the *Details...* button.
- In the available selection, check the checkbox next to the **Opt-USB drivers** item and press the **OK** button. Follow the installation process to its end.

**If you have Clarity version 2.7 and newer:**

- When selecting components of the installation, check the **Opt-USB Driver** checkbox in the grayed **Utils** section. Follow the installation process to its end.
- Connect the **Opt-USB** device to the PC via the supplied **USB** cable. “Found New Hardware” message will appear on the Windows taskbar and the LED diode on the **Opt-USB** will slowly start to glow. Wait until the taskbar displays the message “New hardware is installed and ready to use”.
- During the installation process, the **Hardware Installation** dialog with information that the software for **Opt-USB** has not passed the Windows Logo testing may appear.



*Fig 2: Windows Logo Testing Message*

- In such case, click the *Continue Anyway* button.

## 3.2 The Opt-USB Adapter without Clarity

- Install the pre-installer found on the **Opt-USB** Adapter installation CD or downloaded from the DataApex website:
  - Either insert the CD and wait for the autorun function, which will install the software for you. If the autorun doesn't start, locate the DPINST.EXE file (found in the DRIVER directory) and run it.
  - Or unpack the .ZIP file downloaded, locate the DPINST.EXE file there (in the DRIVER directory) and run it.

**Caution:** Install the pre-installer before plugging in the **Opt-USB** device.

**Note:** The **Opt-USB** pre-installer on the **Clarity installation CD** can only be used during the installation of the **Clarity** software. If new installation/re-installation is needed, the **Opt-USB installation CD** should be used instead or the driver should be downloaded from the **DataApex** web pages [www.dataapex.com](http://www.dataapex.com).

- Connect the **Opt-USB** device to the PC via the supplied **USB** cable. "Found New Hardware" message will appear on the Windows taskbar and the LED diode on the **Opt-USB** will slowly start to glow. Wait until the taskbar displays the message "New hardware is installed and ready to use".
- During the installation process, the **Hardware Installation** dialog with information that the software for **Opt-USB** has not passed the Windows Logo testing may appear.

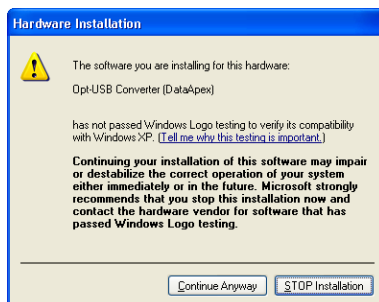


Fig 3: Windows Logo Testing Message

- In such case, click the *Continue Anyway* button.

## 4 Troubleshooting

■ While using the Opt-USB under the Windows 2000 operating system with the Service Pack installed, unplugging the Opt-USB device from the PC while the PC runs may cause the computer to crash.

*Solution:* Unplug the **Opt-USB** from the **USB** only after the PC has been turned off.

# 5 Tables and specifications

Tab 1: Technical data:

Parameter	Value
Converter type:	USB to optical
USB port connectors:	USB-A
Dimensions:	55 x 40 x 15 mm
Weight:	45 g
Power supply:	from the PC via the USB cable