

## 1 Requirements

<i>System requirements</i>	<b>Operating system</b>	<b>64-bit version of:</b> <ul style="list-style-type: none"><li>Windows 10 Pro / Enterprise</li><li>Windows 11 Pro / Enterprise</li></ul>
	<b>Screen</b>	Resolution: 1024 x 768 minimum and 1280 x 1024 advised
	<b>Hardware</b>	<ul style="list-style-type: none"><li>USB cable (6.02108.000, included)</li><li>USB flash drive containing the installer for the Portable VA Analyzer Software (6.06002.000, included).</li><li>946 Portable VA Analyzer instrument (included)</li></ul>
<i>User requirements</i>	<b>User rights</b>	<ul style="list-style-type: none"><li>The Windows user must have administrator rights in order to be able to install the <b>Portable VA Analyzer Software</b>.</li></ul>

## 2 Installing the software



### CAUTION

Install the software to the computer **before** connecting the instrument!

### Installing the software

- 1 Switch on the computer.
- 2 Connect the USB flash drive containing the Portable VA Analyzer Software (6.06002.000) to the computer.
- 3 Open the folder of the USB flash drive.  
Right-click on the file "portable\_VA\_Analyzer\_installer.exe" and select **run as administrator**.

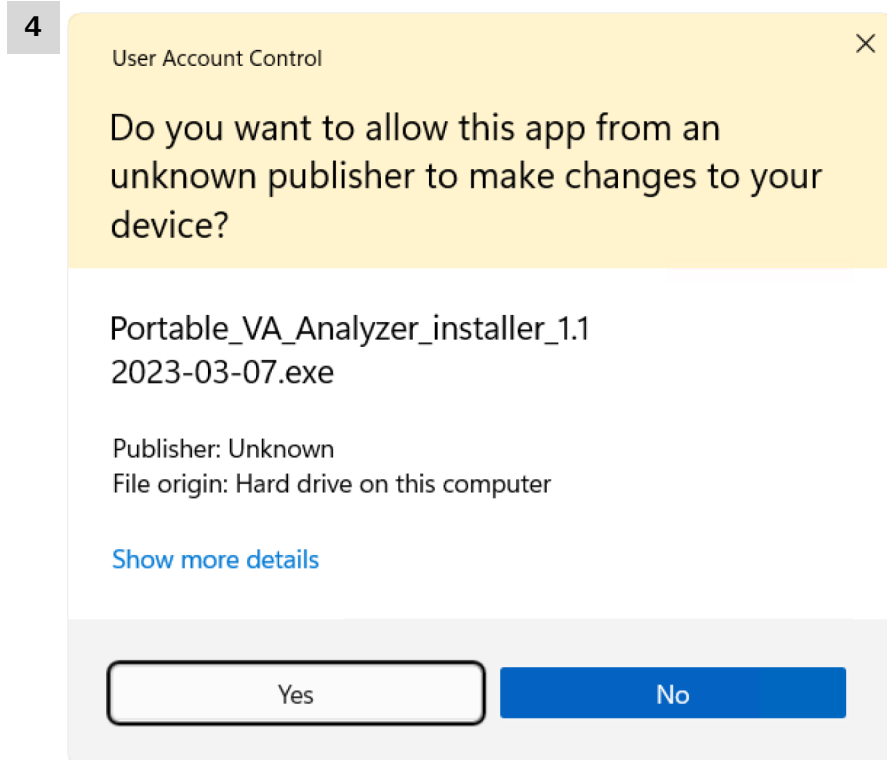


Figure 1 Software installation confirmation dialog  
Click **[Yes]** to confirm the installation of the software.

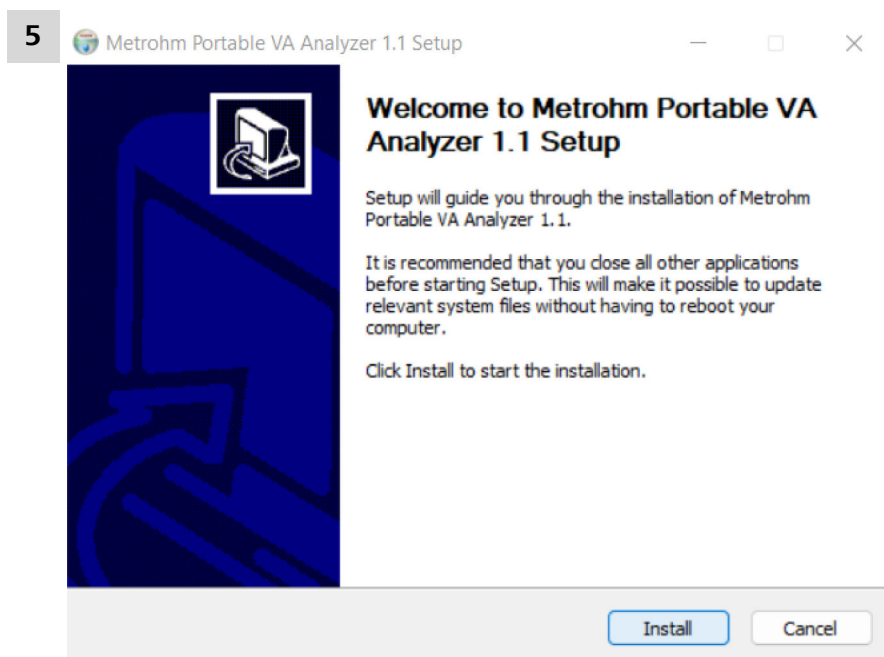


Figure 2 Portable VA Analyzer Software installation wizard  
Click **[Install]** to start the installation of the software.

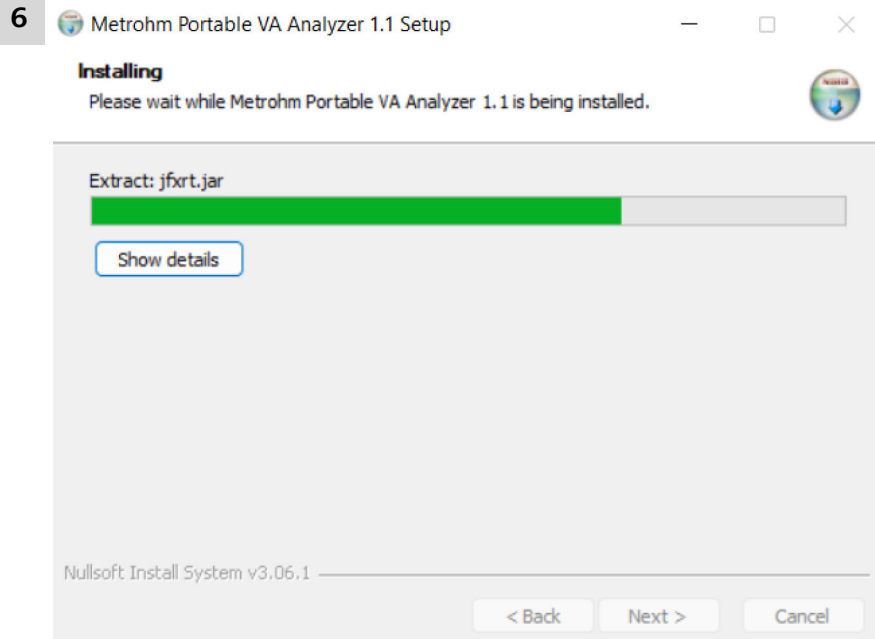


Figure 3 Software Installation

Wait for the software to be installed.

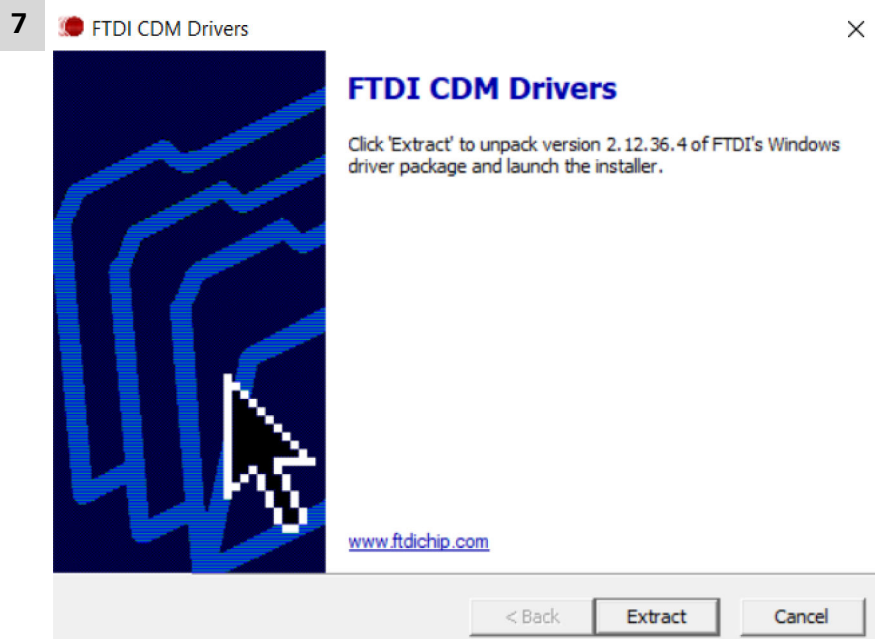


Figure 4 Drivers installation

Click **[Extract]** to start the installation of the FTDI CDM Drivers.

8 Device Driver Installation Wizard

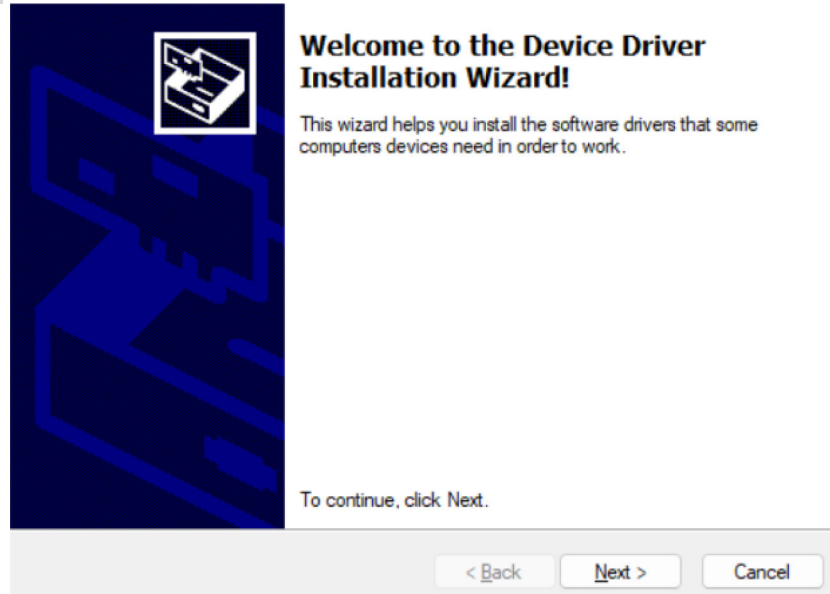


Figure 5 Device Drivers installation wizard

Click **[Next >]** to start the installation of the device drivers.

Follow the instructions of the **Device Driver Installation Wizard**.

9 Device Driver Installation Wizard

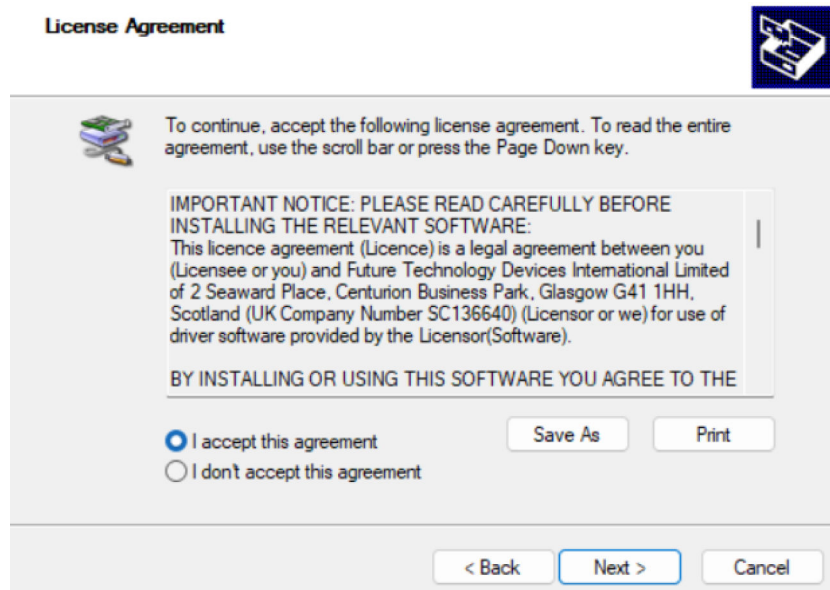


Figure 6 Drivers installation wizard agreement

To continue the installation:

- Activate **I accept this agreement**.
- Click **[Next >]**.

10 Device Driver Installation Wizard

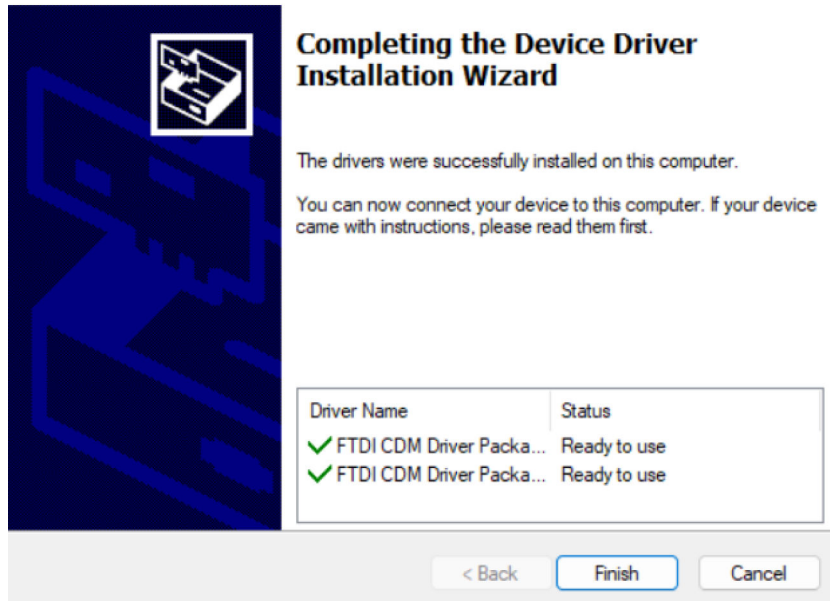


Figure 7 Success device driver installation dialog



**NOTE**

If a red cross is shown instead of a green tick, the device drivers must be installed manually (see chapter 3, page 7).

Click **[Finish]** to finish the installation of the device drivers.

11 Metrohm Portable VA Analyzer 1.1 Setup

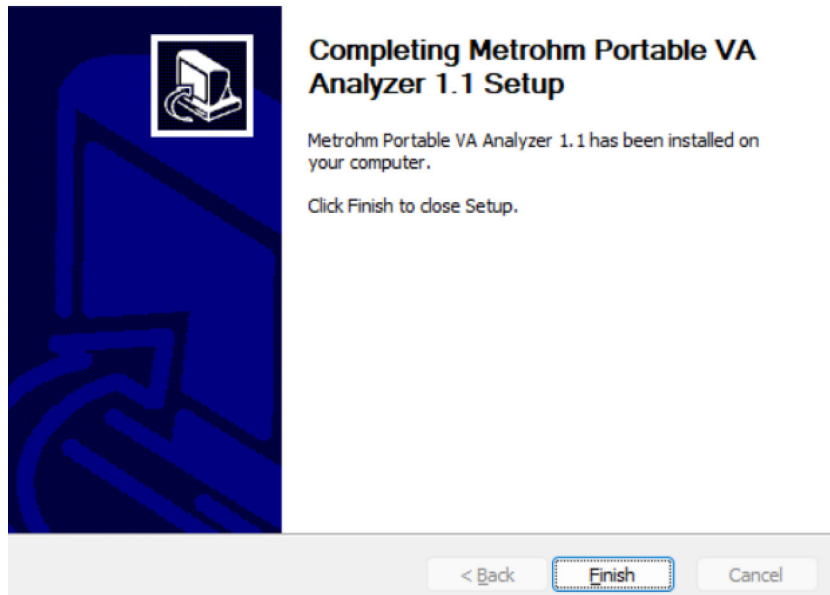


Figure 8 Success software installation dialog

Click **[Finish]** to finish the installation of the software.

A desktop icon  is created and the software is installed.

The software package will be installed in the following directories (directories cannot be changed):

*Program folder*

For 64-bit versions of Windows:

**C:\Program Files (x86)\Metrohm\Portable VA Analyzer**

*Data folder*

As soon as the Portable VA Analyzer Software is started for the first time the following folders will be created in the directory:

**%USERPROFILE%\Documents\Metrohm\Portable VA Analyzer**

<b>Determination</b>	Default directory for automatic saving of the determination file at the end of the determination.
<b>Examples</b>	<b>Determinations</b> Library of example determinations carried out with the Portable VA Analyzer. The files are read-only. <b>Methods</b> Library of example methods to be used with the 946 Portable VA Analyzer. The files are read-only.
<b>Method</b>	Default directory for saving of method files.
<b>Report</b>	Default directory for automatic saving of the PDF report at the end of the determination.
<b>Service</b>	Service related documents and files.



#### NOTE

Individual directories **Determination**, **Examples**, **Method** and **Report** are created for each user as soon, as the user starts the software for the first time.

- PDF files of the software manual (8.0105.8002EN) as well as the hardware manual (8.946.8003EN) are copied onto the hard disk. The software manual can be opened from within the software via **Menu bar ► Help ► Manual**. Determination reports are also saved as PDF files.
- Chinese version of the software manual (8.946.8002CN) and the hardware manual (8.946.8003CN) are available for download from <https://www.metrohm.com>.

#### Sleep mode



#### CAUTION

Data loss may occur if the computer switches to sleep mode during a determination!

Therefore **sleep mode** should be **disabled**.

## Disable sleep mode



### NOTE

Procedure shows instructions for Windows 11.

For Windows 10 the process is similar, although some directories or menus may be labeled differently.

- 1 Open the computer settings.
- 2 Navigate to **System ► Power**.
- 3 Make sure that all the values are set to **Never**.

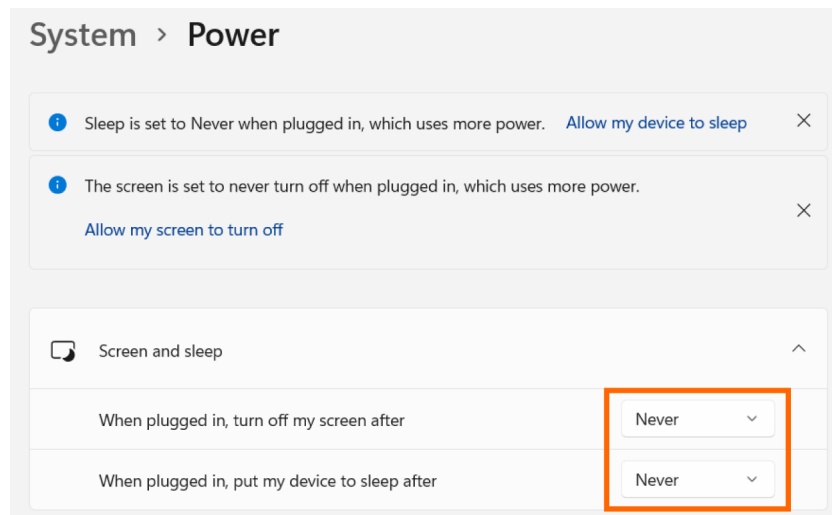


Figure 9 System settings – Power

Sleep mode is now disabled and the system settings can be closed.

## Connecting the instrument

- 1 Connect the 946 Portable VA Analyzer to the computer using the USB cable (6.02108.000).  
The Windows operating system will automatically recognize the device and configure it.

## 3 Installation of drivers

In normal cases, the software installation routine automatically installs all the drivers necessary for controlling the supported device.

If the **Success device driver installation** dialog window (see figure 7, page 5) shows an error and/or if the operating system displays a message when connecting a device to the computer, e.g. **Device driver software was not installed. No driver found**, proceed as follows to install the driver manually:

## Installing the bus layer of the driver

- 1 Open the Windows Device Manager.
  - **On Windows 10:** Click **Windows logo** ► **Device Manager**

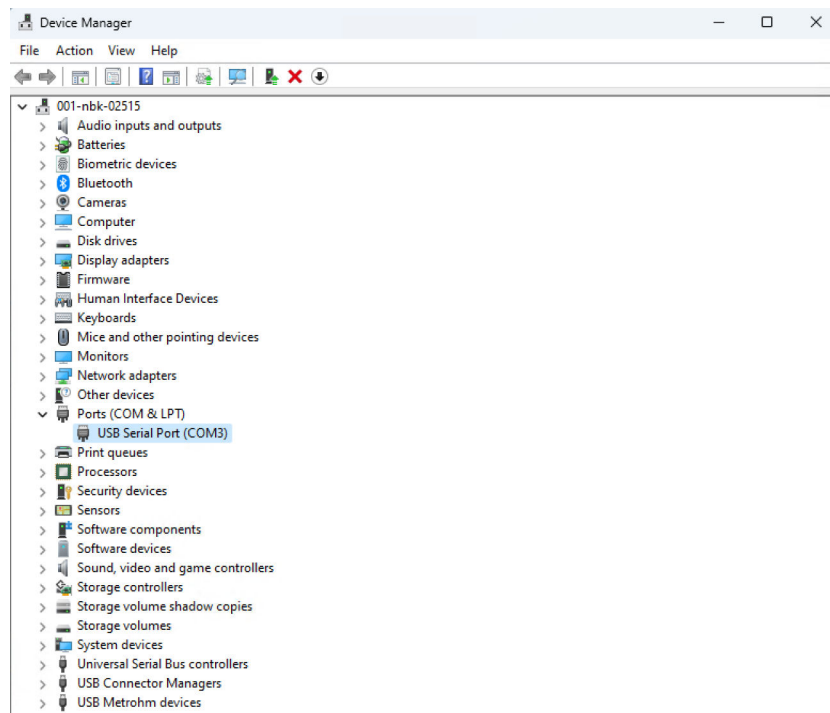
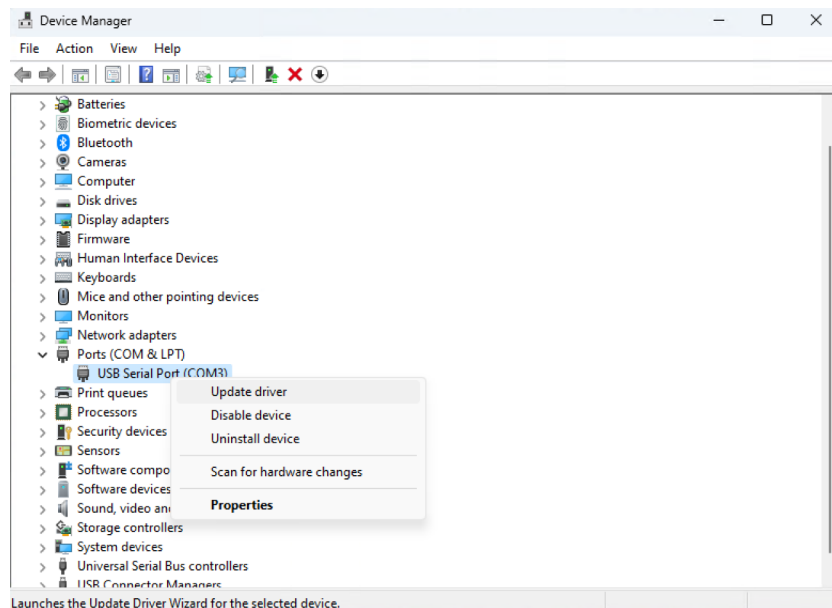


Figure 10 Device Manager View with no driver installed

The device can be found under **Other devices**. It is marked with a yellow warning symbol which indicates a problem, for example that no driver is installed.

- 2 Right-click on the device.

The context menu opens:



Launches the Update Driver Wizard for the selected device.

Figure 11 Update Driver Software

3 In the context menu, select **Update Driver Software...**

A dialog window opens:

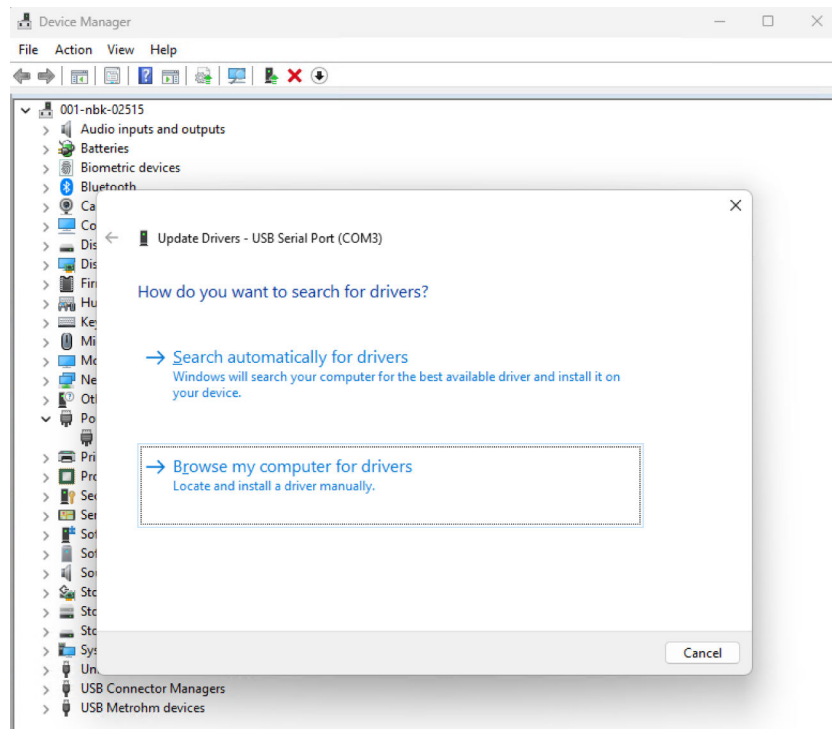


Figure 12 Browse my computer for Driver Software

4 Click **Browse my computer for driver software.**

The file selection dialog opens.

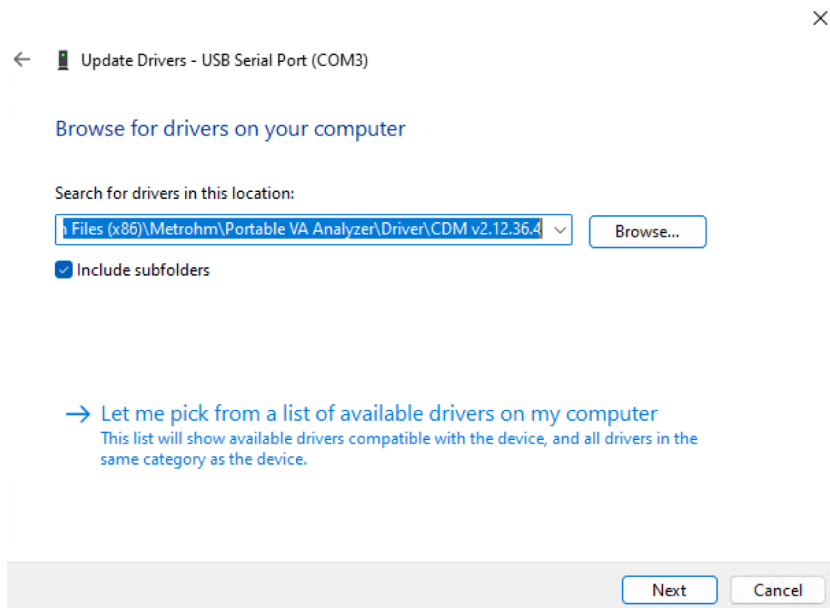


Figure 13 Search Location

- 5 Navigate to the installation folder of the software.
  - C:\Program Files (x86)\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.36.4

Click **[Next]** to start the installation.

When the installation has finished, a completion screen is displayed.



Figure 14 Successful Driver Software Update

Click **[Close]** to return to the Device Manager.

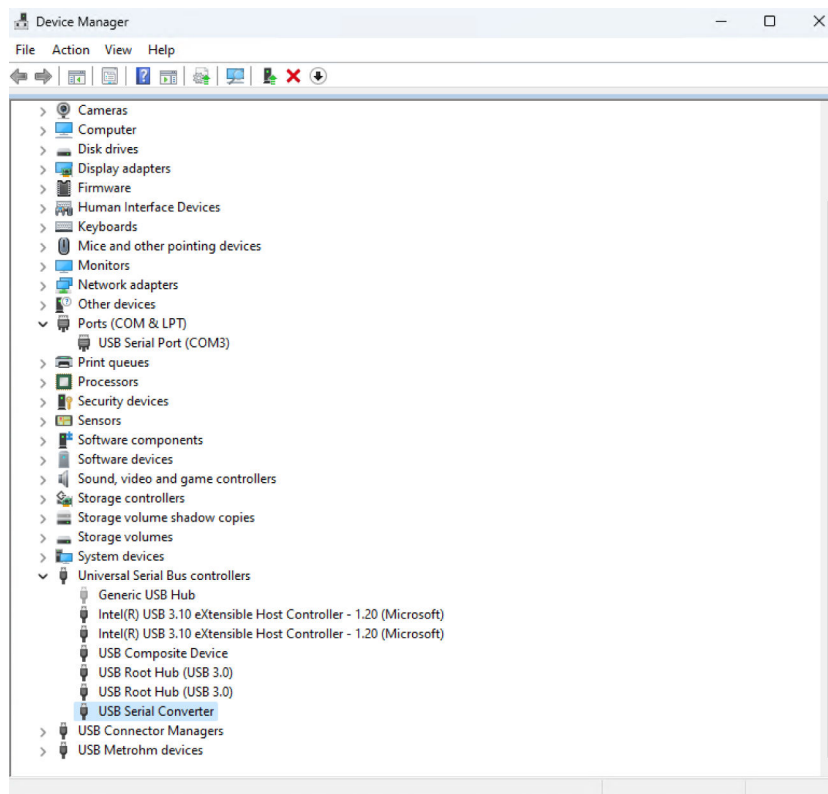


Figure 15 Successful USB Serial Converter Driver installation

If the Virtual Com Port option has been selected, then the Device Manager will still show a device under Other Devices. But in addition, a new entry **USB Serial Converter** can be found under **Universal Serial Bus Controllers**. This indicates that the bus layer of the driver is installed.

### Installing the Virtual Com Port of the driver

- 1 Repeat steps 2 to 4 of the procedure of installing the bus layer of the driver (see "Installing the bus layer of the driver", page 8).
- 2 Navigate to the following folders:
  - C:\Program Files (x86)\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.36.4

Click **[Next]** to start the installation.

When the installation has finished, a completion screen is displayed.

3

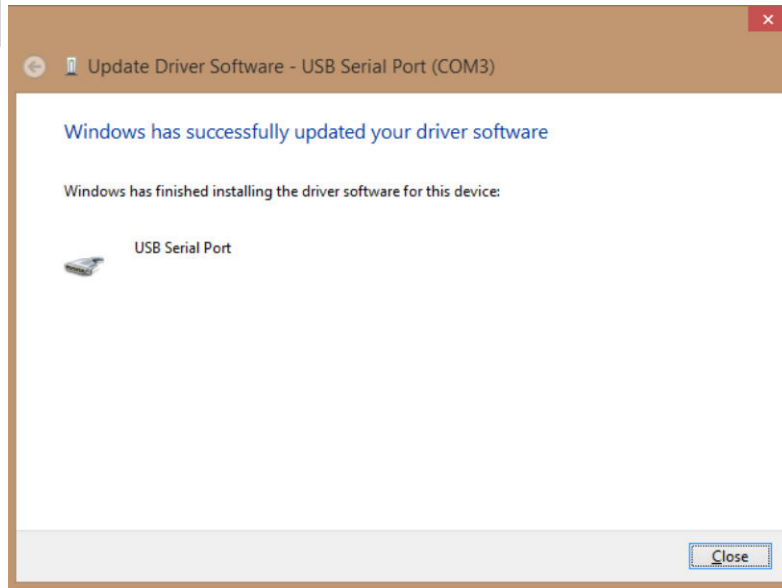


Figure 16 Successful Virtual Com Port Driver Software Update

Click **[Close]** to return to the Device Manager.

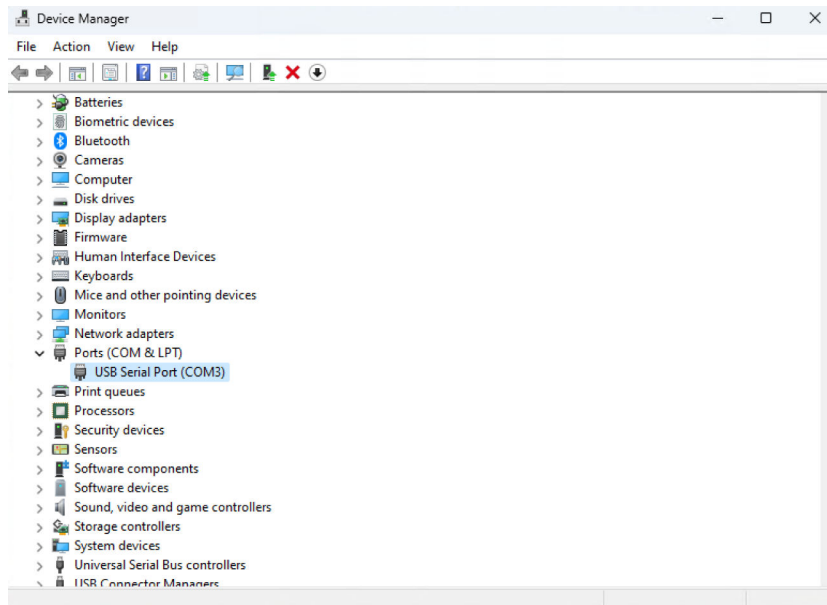


Figure 17 Final view of Device Manager with drivers installed

The Device Manager has no further entry under Other Devices. New entries can be found under Universal Serial Bus Controllers and Ports (COM & LPT).

The device is now ready to use on COM3.



#### NOTE

Not all devices will install to COM3. The COM port allocation is determined by the installation wizard on the basis of the next free com port as designated in the PC registry.