



# **USB – RS485 Modbus Converter**

**P/N 242411/02**

## **Installation Manual**

### **Important Notice**

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Rev.	Revision Date	Change Description
00	May 2010	Initial version
01	July 2010	New converter-type

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# 1 Overview

## 1.1 Introduction

The ARC Sensor Configurator is a PC application for calibration and configuration of ARC Sensors and VISIFERM DO Sensors.

For PC-to-sensor communication, an RS485 interface for Modbus is needed. HAMILTON recommends to use the USB-RS485 Modbus converter (P/N: 242411).

This document guides you through the installation of the USB-RS485 Modbus converter recommended by HAMILTON.

## 1.2 Operating System Requirements

The USB-RS485 Modbus converter driver is tested with Windows XP, Windows Vista and Windows 7.

# 2 Installation of the USB-RS485 Modbus Converter



### Attention:

**Do not plug the converter into the computer's USB port until the tasks described in chapter 2.1 are completed.**

## 2.1 Download the USB-RS485 Modbus Converter Driver

1. Go to URL <http://www.hamiltoncompany.com> and select “**Lab & Process Sensors**” – “**Downloads**”.
2. Download “**PN242411-02\_USB-RS485-Converter-Driver.zip**”.
3. In the window “**File Download**” click “**Save**” and select a directory on your computer where you want to download and save the file. After the download is completed, click “**Close**”.
4. Unpack the downloaded ZIP-file into an empty directory. If you are using Windows Explorer, double-click on the ZIP-file, select “**File**” – “**Extract All...**” and follow the “**Extraction Wizard**” to extract and save all included files into the desired directory.

## 2.2 Windows XP



### **Attention:**

Do not plug the converter into the computer's USB port until the tasks described in chapter 2.2.1 are completed.

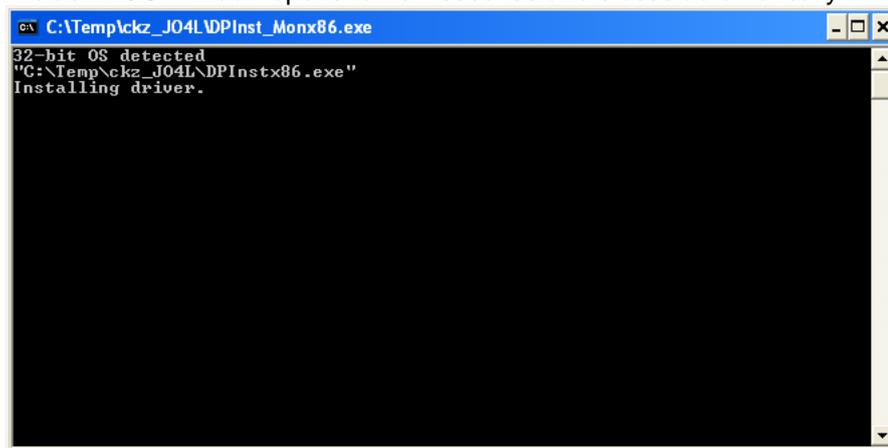
For the installation, administrator rights are needed on your computer.

### 2.2.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, witch you will find in the unzipped directory.



2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

### 2.2.2 Installation of the USB-RS485 Converter



### **Attention:**

**Make sure the tasks described in chapter 2.2.1 are completed.**

1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.



3. After a view seconds the finish message is shown.



4. Now check the COM-port that has been assigned to the converter. Right click "**My Computer**". In the context menu displayed, select "**Properties**". In the window "**System Properties**", on the tab "**Hardware**", click "**Device Manager**".
5. The entry "**Ports**" shows the new item "**USB Serial Port (COMx)**". x indicates the COM-port assigned, in this case COM3. The entry "**Universal Serial Bus controllers**" shows the new item "**USB Serial Converter**", indicating that the installation was completed successfully.



6. The USB-RS485 Modbus converter will now operate on COM3 (in this example).
7. If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
8. If you plug in another converter, the automatic recognition starts again.

### 2.2.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port



**Attention:**

**To uninstall, administrator rights are needed on your computer.**

1. The USB-RS485 Modbus converter is plugged into the computer's USB port.
2. Right click "**My Computer**". In the context menu displayed, select "**Properties**". In the window "**System Properties**", on the tab "**Hardware**", click "**Device Manager**".

- Open the tree “**Ports (COM & LPT)**” and right click “**USB Serial Port (COMx)**”. x = Number of the port you want to uninstall.



- In the context menu displayed, select “**Uninstall**”.
- Confirm with “**OK**”.



- The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



- Plug off the USB-RS485 Modbus converter.

## 2.3 Windows Vista



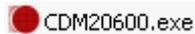
### **Attention:**

**Do not plug the converter into the computer's USB port until the tasks described in chapter 2.3.1 are completed.**

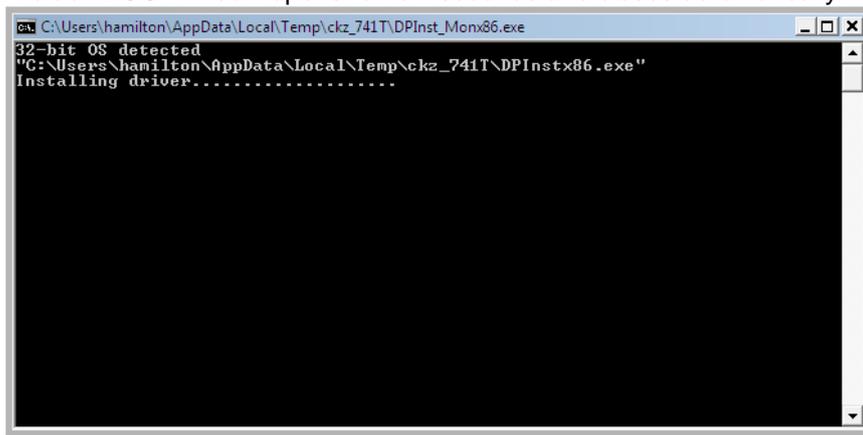
**For the installation, administrator rights are needed on your computer.**

### 2.3.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, witch you will find in the unzipped directory.



2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

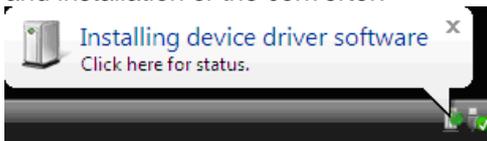
### 2.3.2 Installation of the USB-RS485 Converter



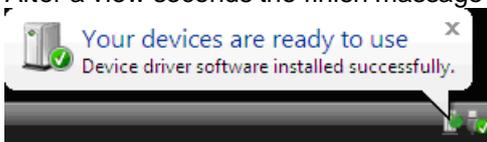
### **Attention:**

**Make sure the tasks described in chapter 2.3.1 are completed.**

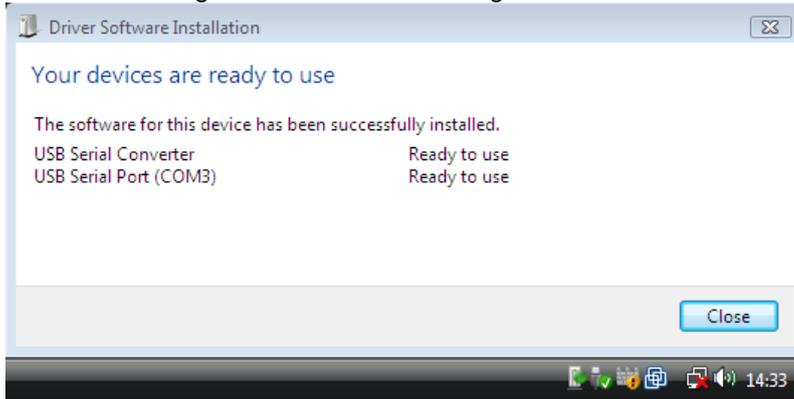
1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.



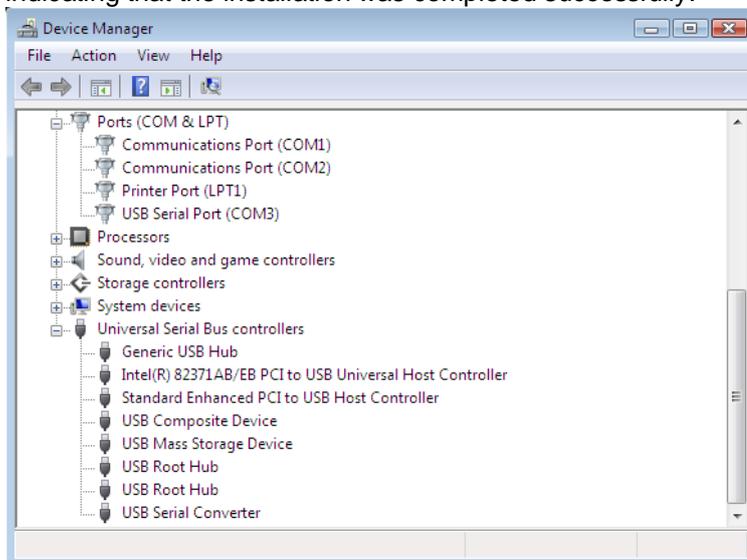
3. After a view seconds the finish message is shown.



- Click the message. COM3 has been assigned to the converter in this example.



- If you have missed the message by point 3, check the COM-port that has been assigned to the converter by clicking “**Start**” – “**Control Panel**” – “**Device Manager**”.
- The entry “**Ports**” shows the new item “**USB Serial Port (COMx)**”. x indicates the COM-port assigned, in this case COM3.  
The entry “**Universal Serial Bus controllers**” shows the new item “**USB Serial Converter**”, indicating that the installation was completed successfully.



- The USB-RS485 Modbus converter will now operate on COM3 (in this example).
- If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
- If you plug in another converter, the automatic recognition starts again.

### 2.3.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port

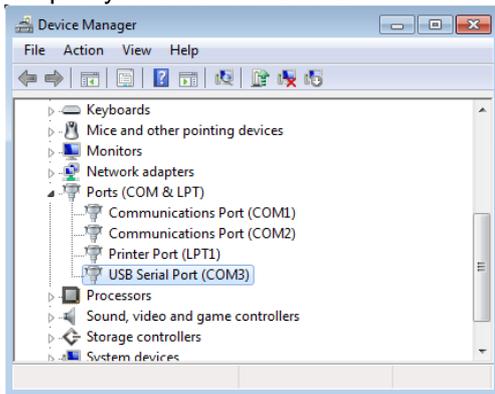


**Attention:**

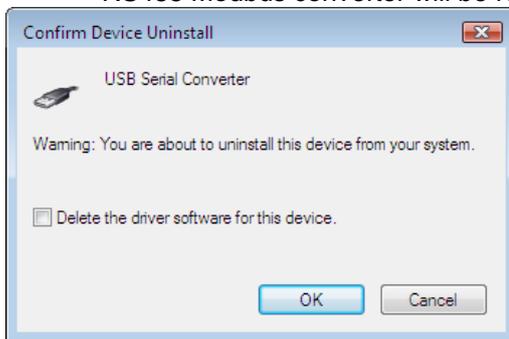
**To uninstall, administrator rights are needed on your computer.**

- The USB-RS485 Modbus converter is plugged into the computer's USB port.
- Click “**Start**” – “**Control Panel**” – “**Device Manager**”.

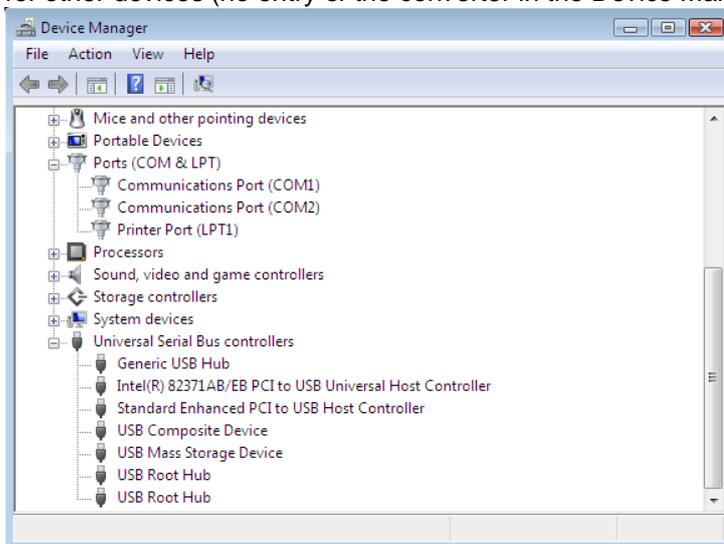
3. Open the tree **“Ports (COM & LPT)”** and right click **“USB Serial Port (COMx)”**. x = Number of the port you want to uninstall.



4. In the context menu displayed, select **“Uninstall”**.
5. Confirm with **“OK”**.
  - a. If you want to remove the driver completely as well, select the field **“Delete the driver software for this device”**.
  - b. If you want to keep the driver installed and unblock the COM-port do not select the field **“Delete the driver software for this device”**. The advantage here is that a new USB-RS485 Modbus converter will be recognised automatically if plugged in.



6. The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



7. Plug off the USB-RS485 Modbus converter.

## 2.4 Windows 7



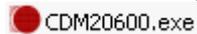
### **Attention:**

Do not plug the converter into the computer's USB port until the tasks described in chapter 2.4.1 are completed.

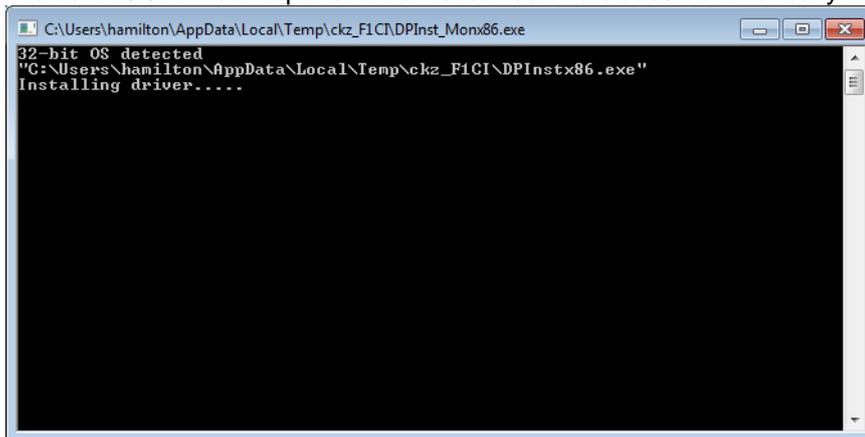
For the installation, administrator rights are needed on your computer.

### 2.4.1 Pre-Installation of the USB-RS485 Converter Driver

1. Double click on „CDM20600.exe“, witch you will find in the unzipped directory.



2. A black DOS-Window opens for few seconds and closes automatically.



3. Finish, no further message.

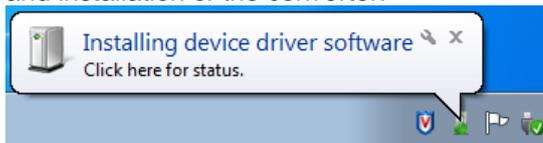
### 2.4.2 Installation of the USB-RS485 Converter



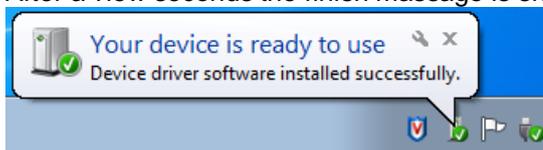
### **Attention:**

Make sure the tasks described in chapter 2.4.1 are completed.

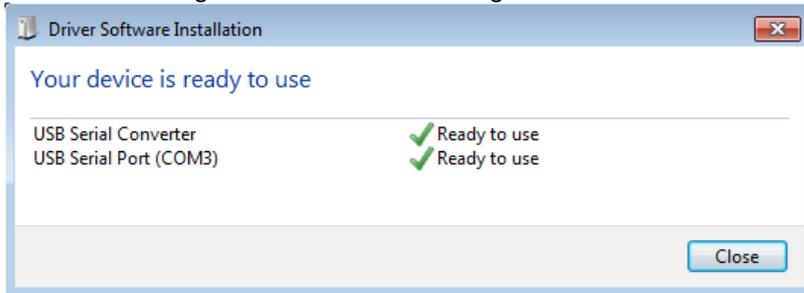
1. Plug the converter into the computer's USB port.
2. On the right bottom area of the screen a message pops up to show the automatic recognition and installation of the converter.



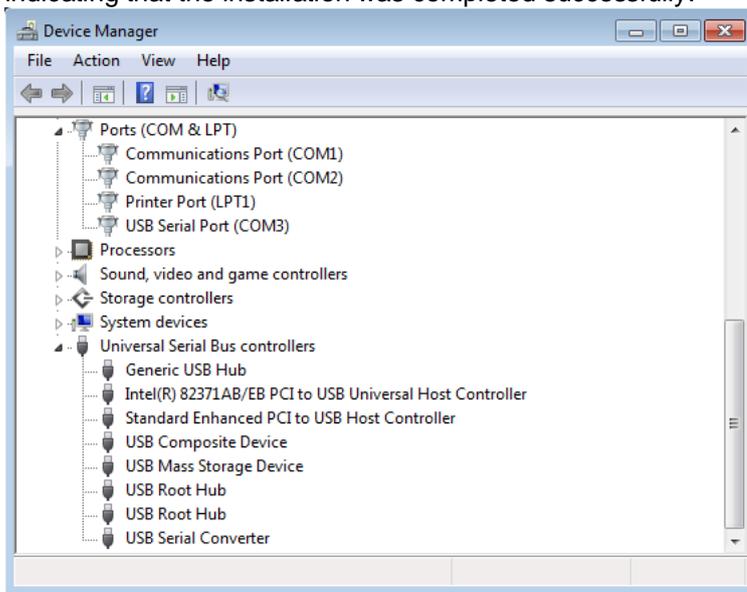
3. After a view seconds the finish message is shown.



- Click the message. COM3 has been assigned to the converter in this example.



- If you have missed the message by point 3, check the COM-port that has been assigned to the converter by clicking **"Start" – "Control Panel" – "Device Manager"**.
- The entry **"Ports"** shows the new item **"USB Serial Port (COMx)"**. x indicates the COM-port assigned, in this case COM3. The entry **"Universal Serial Bus controllers"** shows the new item **"USB Serial Converter"**, indicating that the installation was completed successfully.



- The USB-RS485 Modbus converter will now operate on COM3 (in this example).
- If you plug the converter into another USB port on the same computer the assigned COM-port will be kept for that device.
- If you plug in another converter, the automatic recognition starts again.

### 2.4.3 Uninstall USB-RS485 Modbus Converter and unblock COM-Port

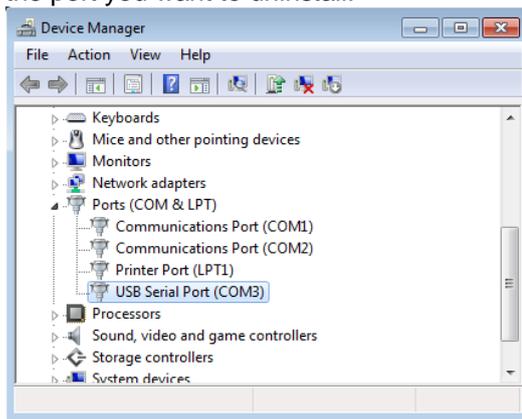


**Attention:**

**To uninstall, administrator rights are needed on your computer.**

- The USB-RS485 Modbus converter is plugged into the computer's USB port.
- Click **"Start" – "Control Panel" – "Device Manager"**.

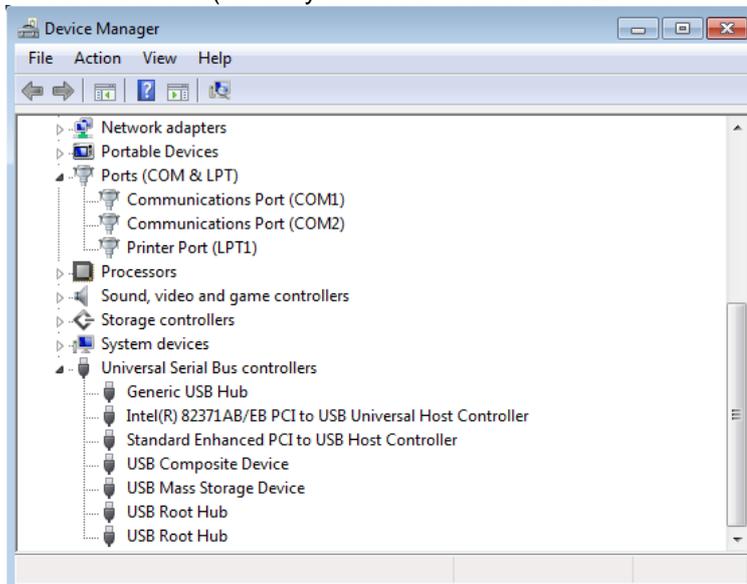
3. Open the tree “**Ports (COM & LPT)**” and right click “**USB Serial Port (COMx)**”. x = Number of the port you want to uninstall.



4. In the context menu displayed, select “**Uninstall**”.
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6. The USB-RS485 Modbus converter is removed and the corresponding COM-port is now free for other devices (no entry of the converter in the Device Manager).



7. Plug off the USB-RS485 Modbus converter.

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July 2010  
Manual P/N: 624325/01