

## Original installation and operation manual

### Software Integrator

> V1.0

## ■ Table of contents

- 1. Notes about the documentation .....3**
  - 1.1 Contact ..... 3
  - 1.2 Information regarding installation and operation manual ..... 3
  - 1.3 Other applicable documents ..... 3
- 2. Safety .....4**
  - 2.1 Use ..... 4
    - 2.1.1 Intended use ..... 4
    - 2.1.2 Reasonably foreseeable inappropriate use ..... 4
  - 2.2 Responsibility of the operating company ..... 4
  - 2.3 Target group and personnel ..... 5
  - 2.4 Explanation of the safety symbols used ..... 5
  - 2.5 Safety instructions and warning notices ..... 6
    - 2.5.1 Safe operation ..... 6
    - 2.5.2 Electric voltage ..... 6
    - 2.5.3 Installation ..... 6
    - 2.5.4 Use of spare parts, accessories or materials ..... 7
  - 2.6 Warning notices ..... 7
- 3. Product information ..... 8**
  - 3.1 Product description ..... 8
  - 3.2 Displays, input fields and buttons ..... 8
    - 3.2.1 Start menu ..... 8
    - 3.2.2 SOFTWARE CONFIGURATION menu ..... 9
    - 3.2.3 DEVICE CONFIGURATION menu ..... 10
  - 3.3 System requirements ..... 12
  - 3.4 Necessary accessories ..... 12
- 4. Installation ..... 13**
  - 4.1 Installing the USB-RS485 serial converter ..... 13
  - 4.2 Installing the Software Integrator ..... 14
  - 4.3 Connecting the Integrator hardware kit ..... 16
    - 4.3.1 Warning notices ..... 16
  - 4.4 Connection work ..... 17
- 5. Changing RS485 interface parameters ..... 18**
- 6. Deinstallation ..... 22**
- 7. Troubleshooting ..... 23e**

# 1. Notes about the documentation

This documentation contains all the necessary steps for use of the product and the accessories.

## 1.1 Contact

Manufacturer	Customer service and tools
BEKO TECHNOLOGIES GmbH  Im Taubental 7   41468 Neuss Tel. + 49 2131 988 - 1000 info@beko-technologies.com www.beko-technologies.com	BEKO TECHNOLOGIES GmbH  Im Taubental 7   41468 Neuss Tel. + 49 2131 988 - 1000 service-eu@beko-technologies.com www.beko-technologies.com

INFORMATION	Country-specific manufacturer representation
	You can contact the country-specific manufacturer's representative via the address listed in the address section on the rear cover or by using the contact form on the manufacturer's website.

## 1.2 Information regarding installation and operation manual

INFORMATION	Copyright protection!
	The contents of the installation and operation manual in the form of text, figures, illustrations, photographs, technical drawings, diagrams and other representations are protected by the copyright of the manufacturer. This applies especially to duplication, reproduction, microfilming and storage as well as processing in electronic systems.

Publication date	Revision	Version	Reason for amendment	Scope of amendment
10. May 2021	00	00	Initial issue	Initial issue
05. July 2021	01	00	Change of technical data	Change of technical data
10. August 2021	02	00	Change to accessories	Change to accessories

The installation and operation manual, hereinafter referred to as the manual, must always be kept close to the product and be in a permanently legible condition.

The manual must be handed over along with the product if it is sold or passed on.

NOTE	Follow the instructions given in the manual!
	This manual contains all the basic information required for safe operation of the product and must be read before any actions are performed. Otherwise personal and material hazards as well as malfunction and device failure are possible.

## 1.3 Other applicable documents

More detailed information can be obtained from the following documents:

- Original installation and operation manual for the RS485 Modbus device to be configured.

## 2. Safety

### 2.1 Use

#### 2.1.1 Intended use

The **Software Integrator**, also termed product or software below, is a software for changing the interface parameters of an RS485 Modbus device using **BEKO-Advanced-Modbus**.

Any use of this system other than the use described in this manual is hereby deemed to be non-intended and can cause a hazard for the safety of people and the environment.

The following must be noted for intended use:

- Read and follow the manual.
- Only use the product and accessories within the operating parameters given in the technical data and the agreed delivery conditions.
- Only combine the product and accessories with the products and components named and recommended by **BEKO TECHNOLOGIES** in the manual.

Before using the product and the accessories, the operating company must make sure that all conditions and prerequisites for intended use are given.

The product and the accessories have been exclusively designed for stationary use in a commercial or industrial area. All the work described may only be carried out by qualified skilled technical personnel.

#### 2.1.2 Reasonably foreseeable inappropriate use

Reasonably foreseeable inappropriate use is deemed to have occurred if the product or the accessories are used in any other way than that described in the chapter "Intended use". Reasonably foreseeable inappropriate use includes the use of the product or the accessories in a manner not intended by the manufacturer or supplier but which may result from foreseeable human behaviour.

Reasonably foreseeable inappropriate use includes:

- The execution of any kind of modification, in particular constructive and process-technology related interventions.
- The suspension, bridging or non-application of existing or recommended safety equipment.

This list is not exhaustive as not all possible inappropriate use can be foreseen in advance. If the operating company is aware of any inappropriate use of the product or accessories which are not listed here, the manufacturer must be informed immediately.

### 2.2 Responsibility of the operating company

The responsible operating company must ensure the following to prevent accidents, incidents and adverse effects on the environment:

- Before all actions, check to ensure that the manual available does in fact belong to the product.
- The product and the accessories are used as intended.
- All work is carried out by qualified skilled technical personnel only.
- Personnel have the necessary personal protective equipment available and also use this equipment.

## 2.3 Target group and personnel

This manual addresses the personnel listed below who are involved with work on the product or the accessories.

INFORMATION	Personnel requirements!
	The personnel may not execute any actions on the product or the accessories when they are under the influence of drugs, medications, alcohol or other substances that may impair their consciousness.

### Skilled technical personnel - electrical engineering

Skilled technical personnel - electrical engineering are people who, due to their training, professional experience and qualification, have all the necessary capabilities to safely execute all actions related to electricity, to instruct and to independently foresee potential hazardous situations and take appropriate measures to avoid any danger.

The capabilities include, in particular, experience in handling electric voltage plants, measurement and control technology as well as knowledge of the regionally applicable laws, standards and regulations (e.g. VDE 0100 / IEC 60364 / ATEX) applicable for handling electrical technology.

## 2.4 Explanation of the safety symbols used

The symbols used below indicate safety-relevant and important information which must be adhered to when handling the product and to ensure safe and optimum operation.

Symbol	Description / explanation
	General warning symbol (danger, warning, caution)
	Warning: electric voltage
	Observe the installation and operation manual
	Wear safety goggles with side shields
	General note
	General information

## 2.5 Safety instructions and warning notices

This chapter provides an overview of all the important safety aspects for personal protection as well as for the safe and problem-free operation of the product and accessories.

The following chapters list the dangers posed by this product and the accessories even with intended use. To minimise the risk of personal injury and damage to property and to avoid dangerous situations, observe the safety instructions listed and adhere to the warning notices in the other chapters of this manual.

Basic warning notices and the necessary qualifications of skilled technical personnel are always listed at the beginning of the chapter in the “Warning notices” section.

Warning notices related to specific actions are printed directly before potentially hazardous procedures or sequences of actions.

### 2.5.1 Safe operation

Commissioning and operating the product and accessories outside the permissible limits and operating parameters may result in serious personal injuries or death. Unauthorised interference and unauthorised modifications of the product and accessories may lead to serious personal injuries or death.

To guarantee safe operation of the product and accessories, observe the following points:

- Use suitable protective equipment during all work on the product or accessories.
- Adhere to the limits and operating parameters specified on the type plate and in the manual.
- Check whether the permissible operating parameters have been amended or restricted by the use of accessories.

### 2.5.2 Electric voltage

Contact with live components may result in serious personal injuries or death.

To ensure the safe handling of live components, observe the following points:

- Set up a safety area around the working area during all installation and repair work.
- Before starting work, de-energise the product and accessories and secure them against being switched back on.
- Only connect the product and the accessories to the voltage supply if they are undamaged.
- Adhere to all applicable regulations (e.g. VDE 0100 / IEC 60364 / ATEX) during installation.
- Connect the protective conductor (earth connection) according to regulations.
- Only operate the product and accessories with the cover complete and closed or the housing closed.

### 2.5.3 Installation

Inappropriate assembly or electrical installation of the product and accessories may result in personal injury and damage to property as well as impair operation.

For safe assembly and electrical installation, observe the following points:

- Install the product, the accessories, and all parts and materials used so that they are not subject to mechanical tension.
- Check all plug-type connections for a correct fit.
- Avoid stumbling hazard through appropriate cable routing.
- Avoid mechanical strain on the cables.

## 2.5.4 Use of spare parts, accessories or materials

The use of incorrect spare parts, accessories or materials, as well as auxiliary and operating materials, may result in death or serious injury. Malfunction and device failure as well as material damage can occur.

- Only use undamaged original parts, auxiliary and operating materials which are specified by the manufacturer to complete all work.
- Only use electric components and materials that comply with regionally applicable specifications and regulations (standards, directives etc.) for electrical safety.

## 2.6 Warning notices

Warning notices warn against dangers when handling the product and accessories.

In order to prevent accidents, personal injury and damage to property as well as impairments during operation, it is essential to adhere to the warning notices.

### Structural set up:

SIGNAL WORD	Type and source of danger!
 Symbol	Possible consequences if the danger is ignored
	<ul style="list-style-type: none"> <li>• Measure to prevent the danger</li> </ul>

### Signal words:

<b>DANGER</b>	<b>Imminent hazard</b> Consequences of non-compliance: Death or serious personal injury
<b>WARNING</b>	<b>Imminent hazard</b> Consequences of non-compliance: Death or serious personal injury are possible
<b>CAUTION</b>	<b>Potential hazard</b> Consequences of non-compliance: Personal injury or damage to property are possible
<b>NOTE</b>	<b>Additional notes</b> Consequences of non-compliance: Damage to property, malfunction and device failure are possible. No hazard to people or endangerment of safe operation.

## 3. Product information

### 3.1 Product description

For Modbus devices to be able to be used in a client-server system, the interface parameters of the server devices have to be changed.

Using the **Software Integrator**, the interface parameters of RS485 Modbus devices which are equipped with the **BEKO-Advanced-Modbus** can be changed.

Data exchange between the software and the Modbus device takes place via a serial interface.

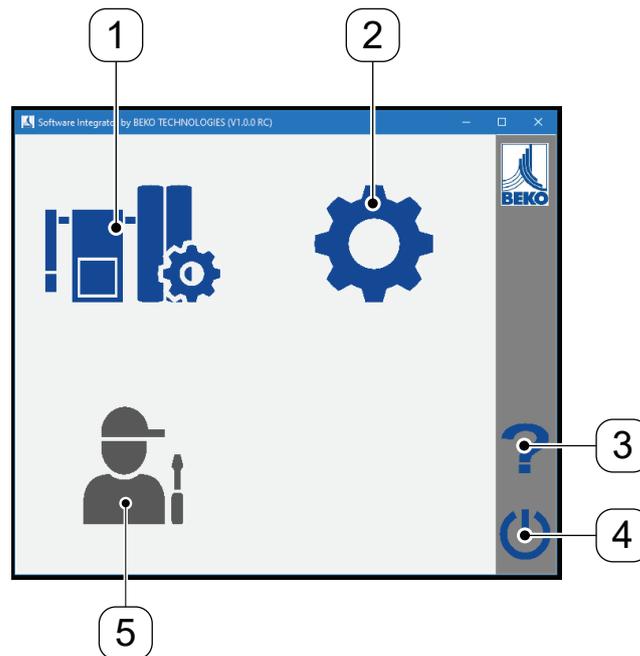
This serial interface is emulated via a USB-RS485 serial converter which is installed between computer and Modbus device.

The following interface parameters can be changed using the software:

- Baud rate
- Modbus ID (Client Address)
- Data format (data bits, parity, stop bits)

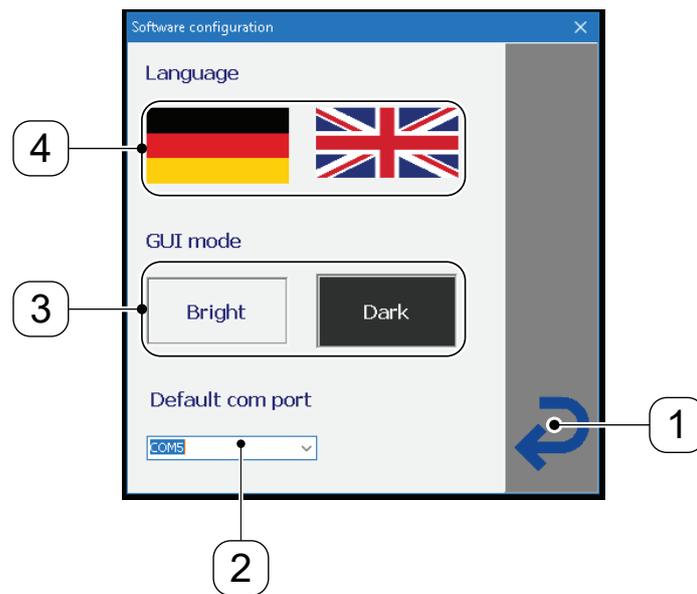
### 3.2 Displays, input fields and buttons

#### 3.2.1 Start menu



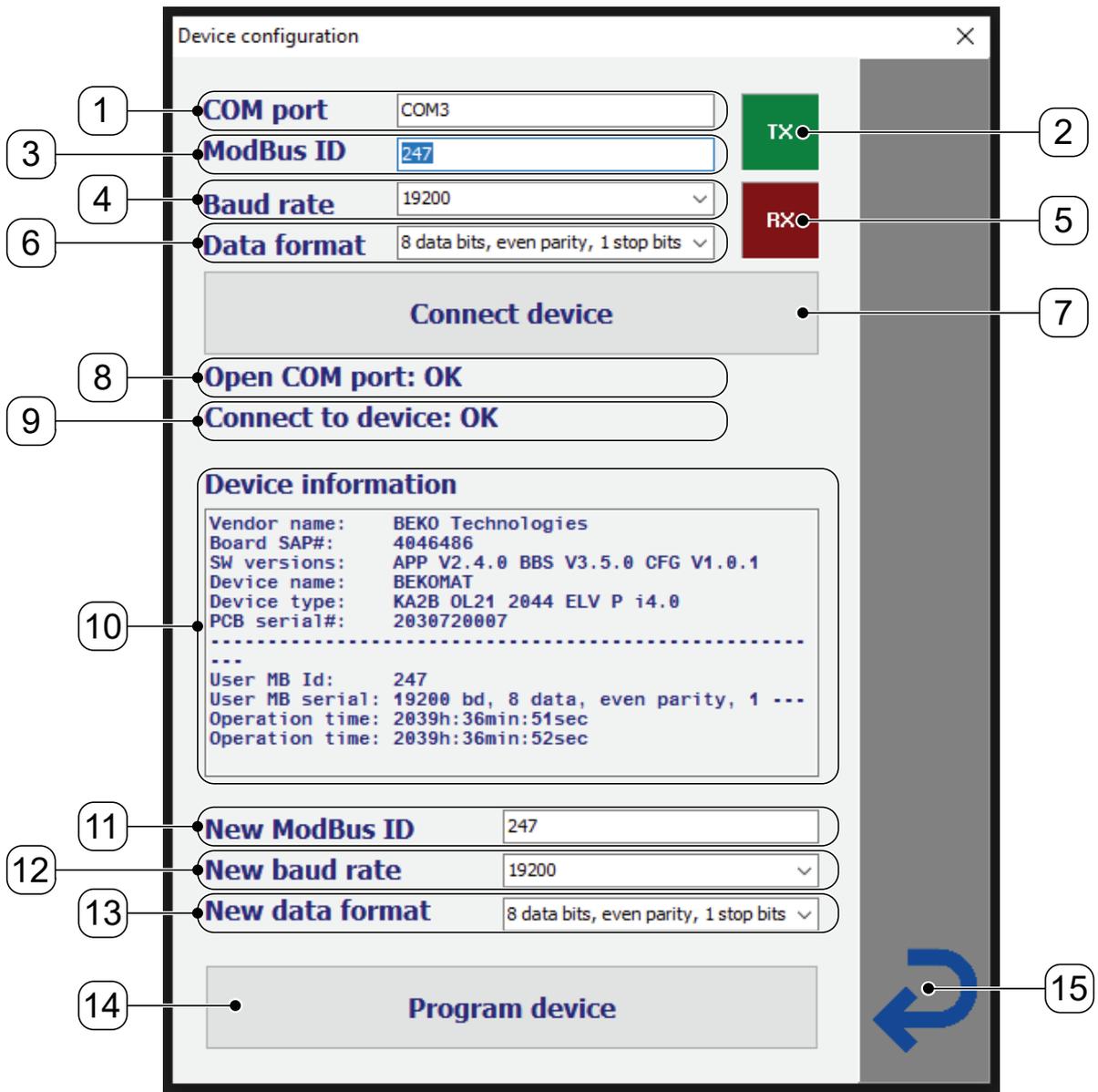
Item	Description / explanation
[1]	<b>DEVICE CONFIGURATION</b> button → The <b>DEVICE CONFIGURATION</b> menu is opened in a separate window.
[2]	<b>SOFTWARE CONFIGURATION</b> button → The <b>SOFTWARE CONFIGURATION</b> menu is opened in a separate window.
[3]	<b>HELP</b> button → The <b>HELP</b> menu is opened in a separate window.
[4]	<b>EXIT PROGRAM</b> button → The program is exited and the program window is closed.
[5]	<b>SERVICE</b> button → This button is reserved for the service function.

### 3.2.2 SOFTWARE CONFIGURATION menu



Item	Description / explanation
[1]	<b>EXIT MENU</b> button → Return to the start menu
[2]	<b>COM PORT</b> drop-down list → Selection of the port for the <b>USB SERIAL PORT</b>
[3]	<b>GUI MODE</b> buttons → Change the display appearance
[4]	<b>LANGUAGE</b> buttons → Change the display language

### 3.2.3 DEVICE CONFIGURATION menu



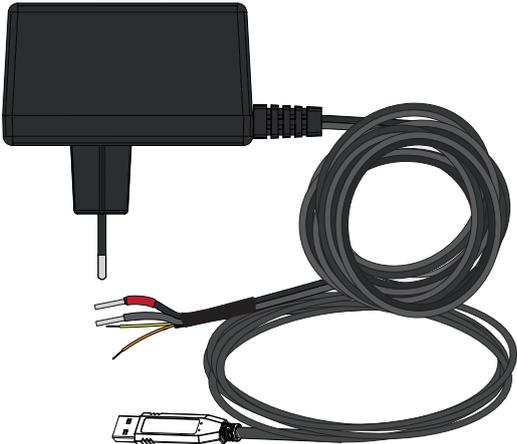
Item	Description / explanation
[1]	<b>COM PORT</b> display → The <b>USB SERIAL PORT</b> connected selected in the <b>SOFTWARE CONFIGURATION</b> menu is shown
[2]	<b>TX</b> display → The display flashes during data transmission from the software to the Modbus device.
[3]	<b>MODBUS ID</b> input field → Enter the preset Modbus ID (Client Address) for the Modbus device.
[4]	<b>BAUD RATE</b> selection field → Select the preset baud rate of the Modbus device.
[5]	<b>RX</b> display → The display flashes during data transmission from the Modbus device to the software.
[6]	<b>DATA FORMAT</b> selection field → Select the preset data format for the Modbus device. <ul style="list-style-type: none"> <li>• Data bits</li> <li>• Parity</li> <li>• Stop bits</li> </ul>
[7]	<b>CONNECT DEVICE / CANCEL CONNECTION</b> button → Set up or cancel the connection to the Modbus device
[8]	<b>OPEN COM PORT</b> display → <b>OK</b> - The connection with the USB-RS485 serial converter has been set up. → <b>Failed</b> - The connection with the USB-RS485 serial converter cannot be set up.
[9]	<b>CONNECT TO DEVICE</b> display → <b>OK</b> - The connection with the device has been set up. → <b>Failed</b> - The connection with the device cannot be set up.
[10]	<b>DEVICE INFORMATION</b> display → The display lists the data transmitted by the Modbus device.
[11]	<b>NEW MODBUS ID</b> input field → Enter the new Modbus ID (Client Address) for the Modbus device.
[12]	<b>NEW BAUD RATE</b> selection field → Select the new baud rate of the Modbus device.
[13]	<b>NEW DATA FORMAT</b> selection field → Select the new data format for the Modbus device. <ul style="list-style-type: none"> <li>• Data bits</li> <li>• Parity</li> <li>• Stop bits</li> </ul>
[14]	<b>PROGRAM DEVICE</b> button → Start transmission of the new interface parameter to the Modbus device.
[15]	<b>EXIT MENU</b> button → Leave the menu and return to the start menu.

### 3.3 System requirements

Parameter	Description / explanation
Operating system	Microsoft Windows 10
Free disk space required	10 MB
USB port	USB type A, 2.0 or higher
Serial interface	Emulated by USB-RS485 serial converter

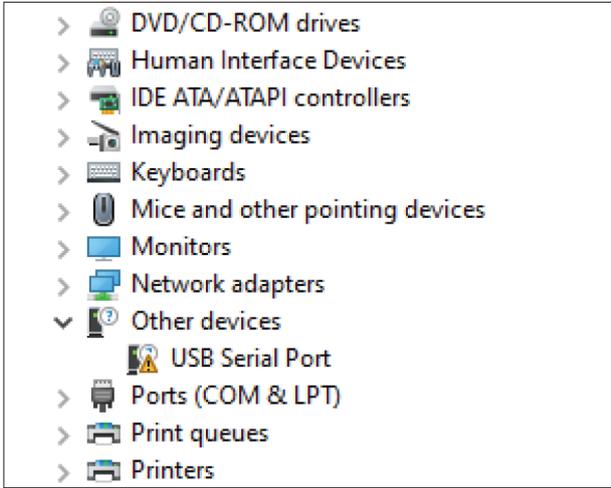
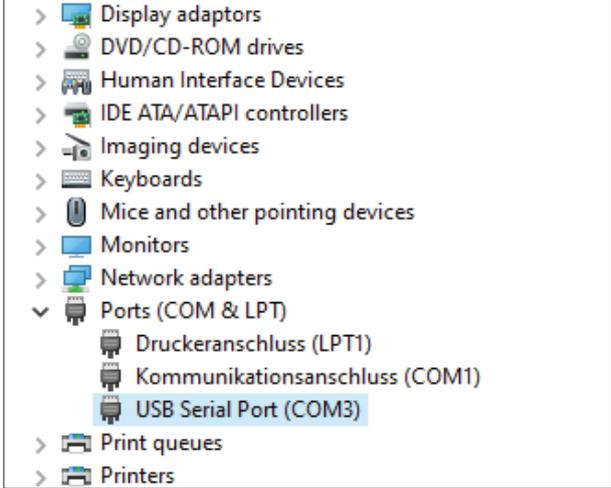
### 3.4 Necessary accessories

INFORMATION	Necessary accessories!
	<p>For connection to a computer, BEKO TECHNOLOGIES recommends using the Integrator hardware kit.</p> <p>However, products from other suppliers which fulfil the following conditions can also be used:</p> <ul style="list-style-type: none"> <li>• The USB-RS485 serial converter emulates a virtual <b>COM PORT</b> in Windows</li> <li>• The power supply unit provides 24 VDC</li> </ul>

Illustration	Description / explanation	Material no.
	<p><b>Integrator hardware kit</b></p> <ul style="list-style-type: none"> <li>• Power supply unit, 26W 24V/1.1A, 1 m cable</li> <li>• USB-RS485 serial converter, FTDI chip, 1.8 m cable</li> </ul>	4052710

## 4. Installation

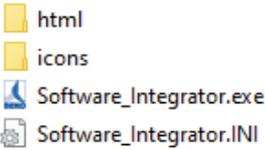
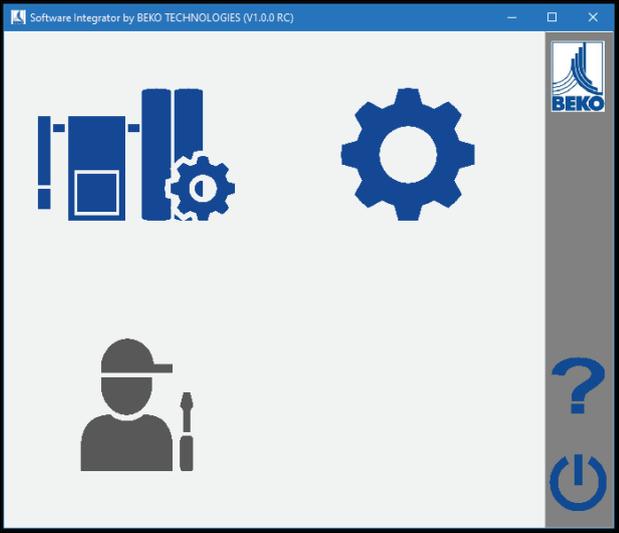
### 4.1 Installing the USB-RS485 serial converter

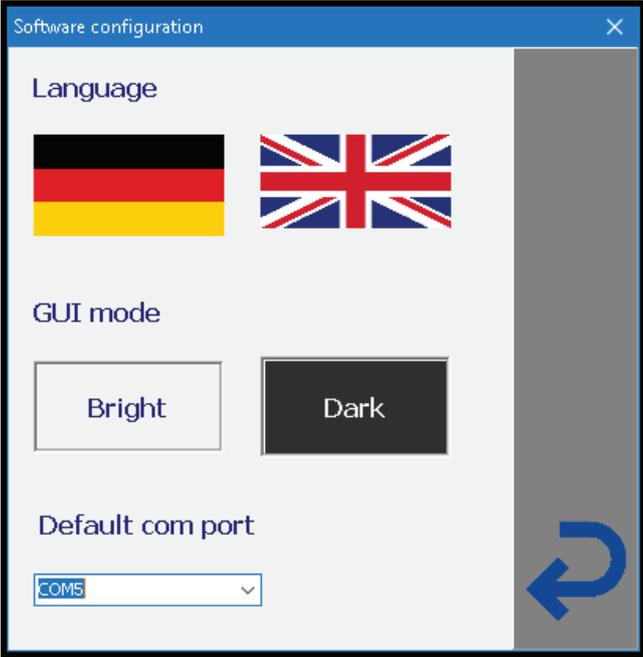
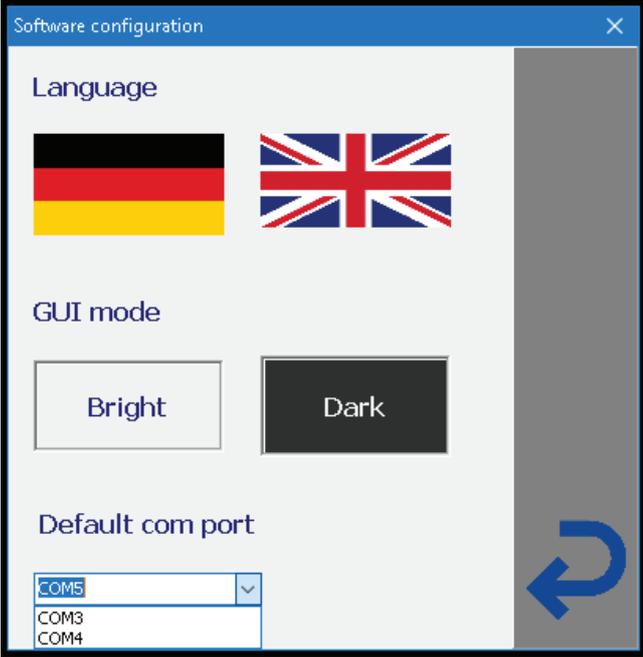
Installation of the USB-RS485 serial converter	
Illustration	Description / explanation
 <ul style="list-style-type: none"> <li>&gt; DVD/CD-ROM drives</li> <li>&gt; Human Interface Devices</li> <li>&gt; IDE ATA/ATAPI controllers</li> <li>&gt; Imaging devices</li> <li>&gt; Keyboards</li> <li>&gt; Mice and other pointing devices</li> <li>&gt; Monitors</li> <li>&gt; Network adapters</li> <li>▼ Other devices             <ul style="list-style-type: none"> <li>⚠ USB Serial Port</li> </ul> </li> <li>&gt; Ports (COM &amp; LPT)</li> <li>&gt; Print queues</li> <li>&gt; Printers</li> </ul>	<ol style="list-style-type: none"> <li>1. Connect the USB-RS485 serial converter to a free USB port.</li> <li>2. Open the Windows <b>DEVICE MANAGER</b>.</li> <li>3. Under <b>OTHER DEVICES</b> and <b>PORTS (COM &amp; LPT)</b> look for the entry <b>USB SERIAL PORT</b>.</li> <li>4. If the entry <b>USB SERIAL PORT</b> is marked by a yellow triangle, update the device driver.             <ul style="list-style-type: none"> <li>→ If the automatic Windows driver search does not find a driver, download a suitable driver from the website of the manufacturer of the USB-RS485 serial converter.</li> </ul> </li> </ol>
 <ul style="list-style-type: none"> <li>&gt; Display adaptors</li> <li>&gt; DVD/CD-ROM drives</li> <li>&gt; Human Interface Devices</li> <li>&gt; IDE ATA/ATAPI controllers</li> <li>&gt; Imaging devices</li> <li>&gt; Keyboards</li> <li>&gt; Mice and other pointing devices</li> <li>&gt; Monitors</li> <li>&gt; Network adapters</li> <li>▼ Ports (COM &amp; LPT)             <ul style="list-style-type: none"> <li>Druckeranschluss (LPT1)</li> <li>Kommunikationsanschluss (COM1)</li> <li>USB Serial Port (COM3)</li> </ul> </li> <li>&gt; Print queues</li> <li>&gt; Printers</li> </ul>	<ol style="list-style-type: none"> <li>5. Note the <b>COM PORT</b> name (e.g. COM3) in brackets after <b>USB SERIAL PORT</b>.</li> <li>6. Close the <b>DEVICE MANAGER</b>.</li> </ol>

<b>INFORMATION</b>	<b>Driver for USB-RS485 serial converter</b>
	<p>The driver for the USB-RS485 serial converter contained in the Integrator hardware kit can be downloaded free of charge from the manufacturer's website.  <a href="https://ftdichip.com/drivers/vcp-drivers/">https://ftdichip.com/drivers/vcp-drivers/</a></p>

## 4.2 Installing the Software Integrator

Preparatory tasks	
1.	The USB-RS485 converter is connected to the computer and ready for operation.
2.	Download the <b>Software Integrator</b> zip file from the <b>BEKO TECHNOLOGIES</b> website.

Installation of the Software Integrator	
Illustration	Description /explanation
	<ol style="list-style-type: none"> <li>1. Unpack the zip file to the folder of your choice on the computer.</li> <li>2. Optionally, a shortcut can be generated for the <b>EXE file</b> and saved on the desktop.</li> </ol>
<p><b>NOTE</b></p> 	<p><b>Software malfunction!</b></p> <p>Saving software components in different folders leads to software malfunction.</p> <ul style="list-style-type: none"> <li>• Always save the contents of the software zip file in one folder.</li> </ul>
	<ol style="list-style-type: none"> <li>3. Execute the <b>EXE file</b>.</li> <li>4. Press the <b>SOFTWARE CONFIGURATION</b> button.                     <ul style="list-style-type: none"> <li>→ The <b>SOFTWARE CONFIGURATION</b> menu opens in a separate window.</li> </ul> </li> </ol>

Installation of the Software Integrator	
Illustration	Description /explanation
 <p>The screenshot shows a window titled "Software configuration" with a close button (X) in the top right corner. It contains three sections: "Language" with two flags (German and British), "GUI mode" with two buttons labeled "Bright" and "Dark", and "Default com port" with a dropdown menu currently showing "COM5". A blue circular arrow icon is located in the bottom right corner of the window.</p>	<p>5. Select the required language and GUI mode.</p>
 <p>This screenshot is identical to the one above, but the "Default com port" dropdown menu is open, displaying a list of options: "COM5", "COM3", and "COM4".</p>	<p>6. Select the port name for the USB-RS485 serial converter in the <b>COM PORT</b> drop-down list.          → COM3 in the example</p> <p>7. Press the <b>EXIT MENU</b> button.          → The <b>SOFTWARE CONFIGURATION</b> menu is closed.</p>

## 4.3 Connecting the Integrator hardware kit

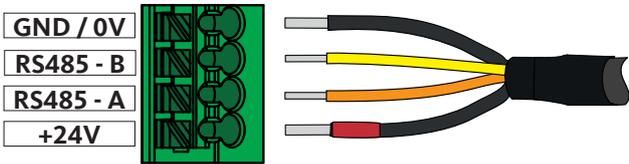
### 4.3.1 Warning notices

<b>DANGER</b>	<b>Electric voltage!</b>
	<p>There is a danger of death or serious injuries as well as malfunction and device failure following contact with components which are in contact with electric voltage.</p> <ul style="list-style-type: none"> <li>• Only carry out installation on the Modbus devices and accessories when they have been disconnected and secured against being switched back on again.</li> <li>• For installation of the device, adhere to all applicable regulations (e.g. VDE 0100 / IEC 60364/ ATEX).</li> <li>• Connect the protective conductor (earth connection) according to regulations.</li> </ul>
<b>WARNING</b>	<b>Insufficient qualification!</b>
	<p>Insufficient qualification of the personnel carrying out work on the product and accessories can lead to accidents, personal injury and damage to property as well as impair operation.</p> <ul style="list-style-type: none"> <li>• All work on the product and the accessories may only be carried out by skilled technical personnel - electrical engineering.</li> </ul>
<b>CAUTION</b>	<b>Inappropriate electrical installation!</b>
	<p>Inappropriate electrical installation of the product and the accessories can lead to personal injury and damage to property as well as impair operation.</p> <ul style="list-style-type: none"> <li>• Check all plug-type connections for a correct fit.</li> <li>• Avoid stumbling hazard through appropriate cable routing.</li> <li>• Avoid mechanical strain on the cables.</li> </ul>

## 4.4 Connection work

For connection work to be carried out, the following prerequisites must be fulfilled and the preparatory tasks must have been completed.

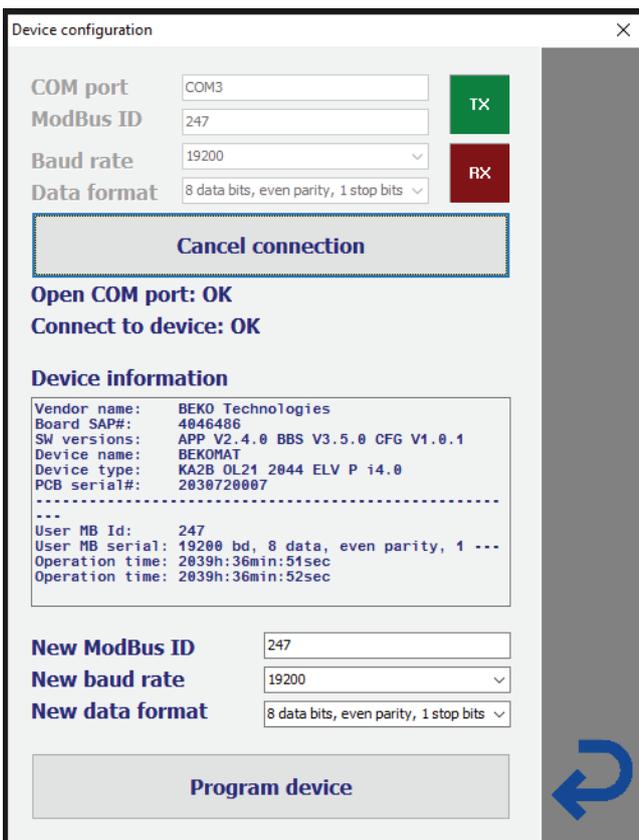
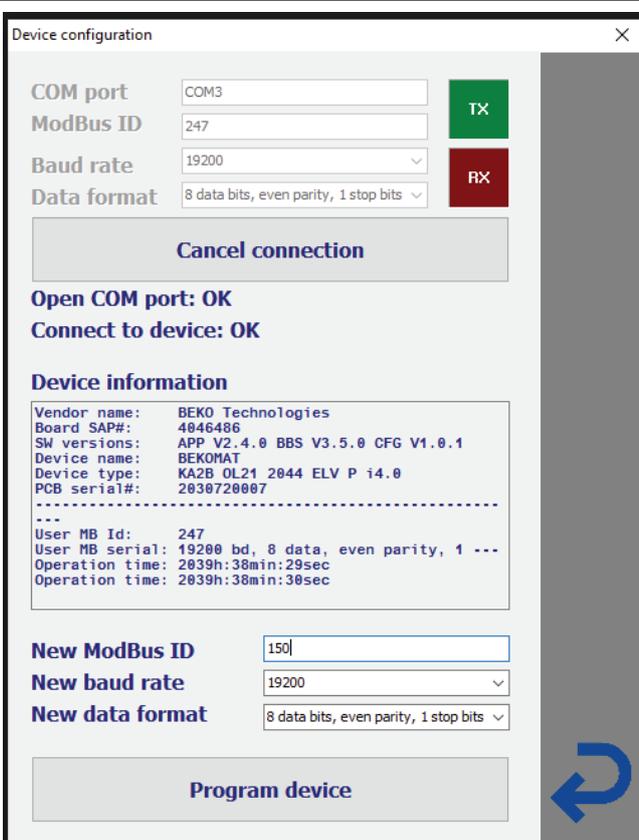
Prerequisites		
Tools	Material	Protective equipment
<ul style="list-style-type: none"> <li>Screwdriver – flat-head size 2.5 mm (0.09")</li> <li>Tool for opening the Modbus device</li> </ul>	<ul style="list-style-type: none"> <li>No material necessary</li> </ul>	<p><b>Always to be worn:</b></p> 

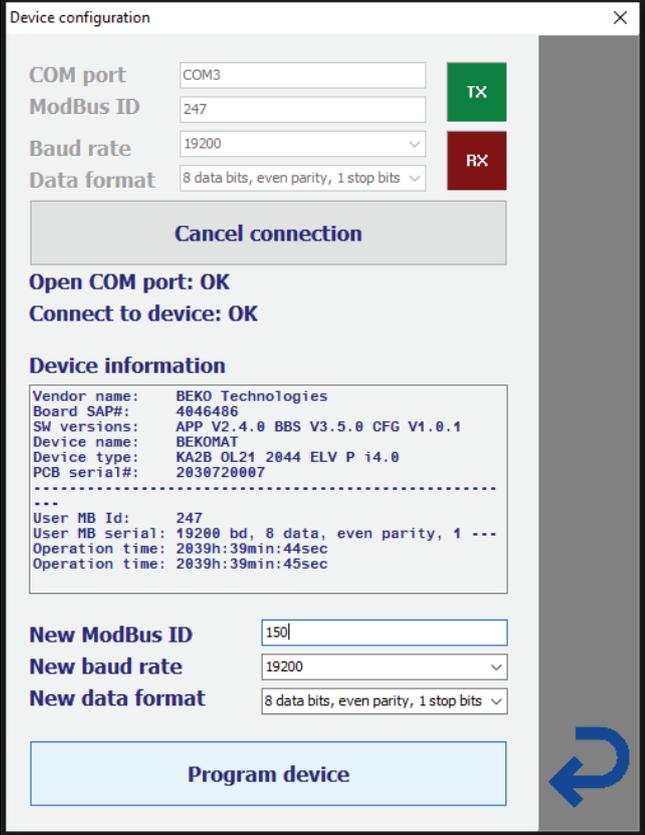
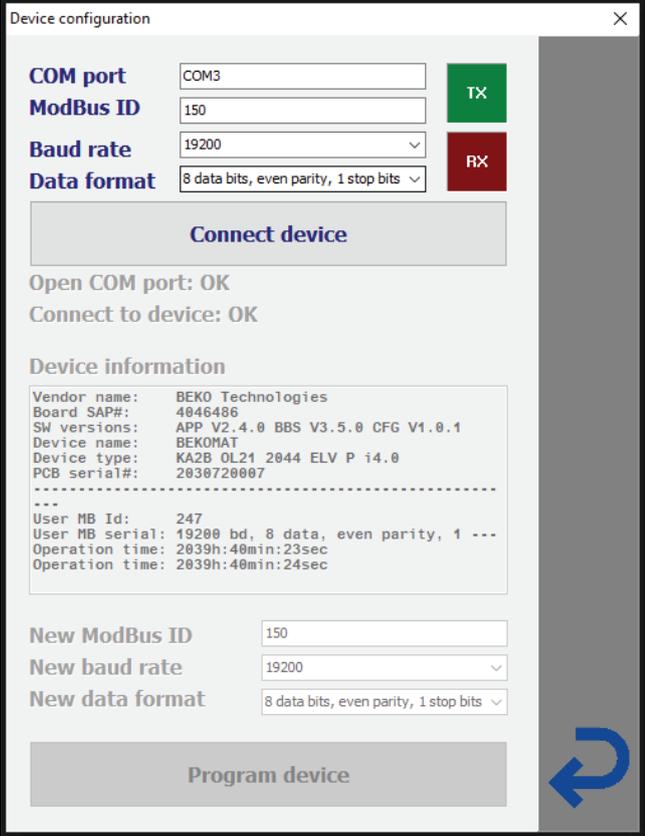
Connection work											
Illustration	Description / explanation										
	1. Expose the connection terminals of the Modbus device.										
<p><b>NOTE</b></p>  <p><b>Follow the instructions given in the manual!</b></p> <p>This Modbus device manual contains all the basic information required for safe operation of the product and must be read before any actions are performed. Otherwise personal and material hazards as well as malfunction and device failure are possible.</p>											
 <p>Example illustration</p>	<p>2. Connect the cable wires of the <b>Integrator hardware kit</b> to the connection terminals of the Modbus device.</p> <table border="1"> <thead> <tr> <th>Cable wire</th> <th>Modbus device</th> </tr> </thead> <tbody> <tr> <td>Black</td> <td>0V / GND</td> </tr> <tr> <td>Red</td> <td>+24 V</td> </tr> <tr> <td>Orange</td> <td>RS485 - A positive signal</td> </tr> <tr> <td>Yellow</td> <td>RS485 - B negative signal</td> </tr> </tbody> </table>	Cable wire	Modbus device	Black	0V / GND	Red	+24 V	Orange	RS485 - A positive signal	Yellow	RS485 - B negative signal
Cable wire	Modbus device										
Black	0V / GND										
Red	+24 V										
Orange	RS485 - A positive signal										
Yellow	RS485 - B negative signal										

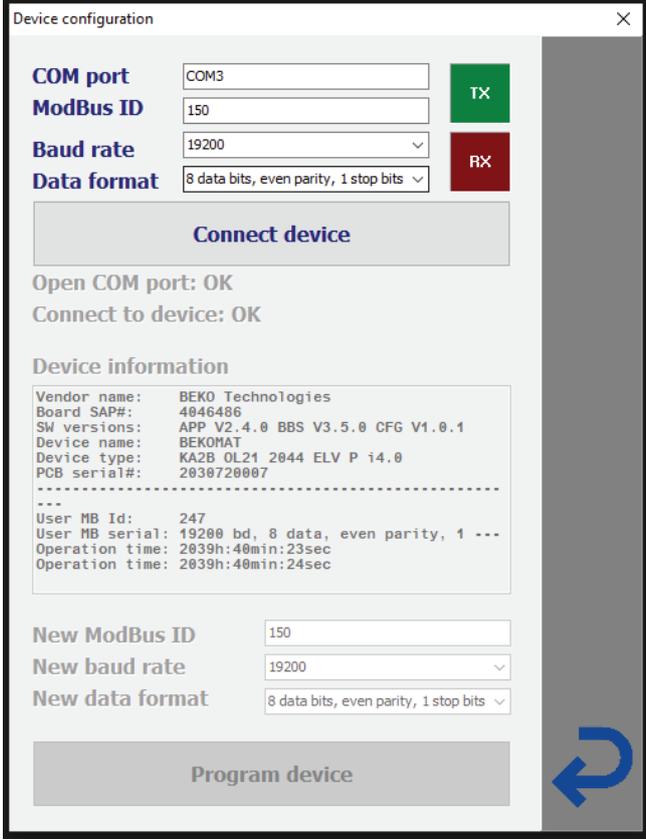
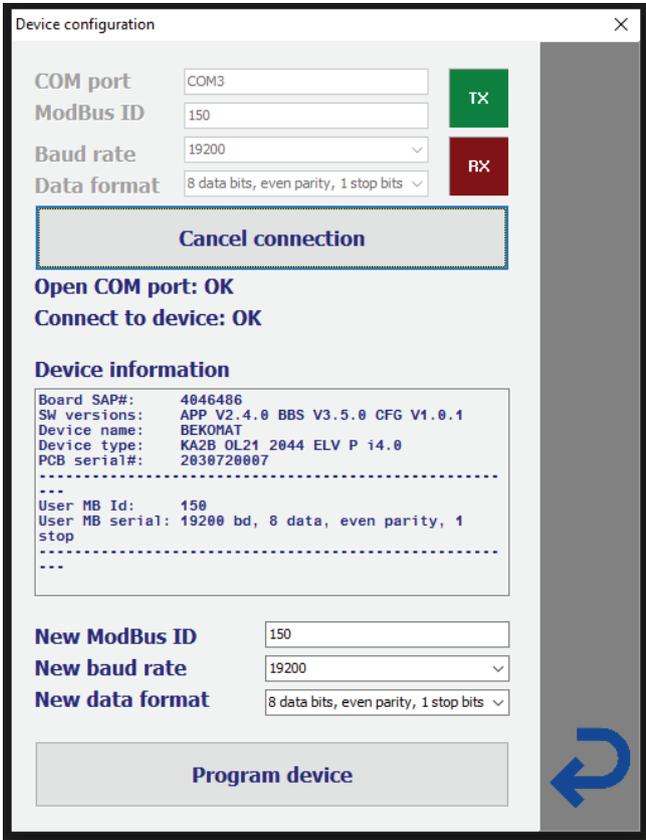
## 5. Changing RS485 interface parameters

Preparatory tasks	
1.	The USB-RS485 converter is connected to the computer and ready for operation.
2.	The Modbus device is connected to the USB-RS485 serial converter.
3.	The Modbus device is connected to the voltage supply.

Changing interface parameters	
Illustration	Description /explanation
<p>The screenshot shows the main interface of the Software Integrator application. It features a top navigation bar with icons for a device, a gear (representing configuration), a person with a tool, and a power button. The 'DEVICE CONFIGURATION' button is highlighted.</p>	<ol style="list-style-type: none"> <li>Press the <b>DEVICE CONFIGURATION</b> button.                     <ul style="list-style-type: none"> <li>→ The <b>DEVICE CONFIGURATION</b> opens in a separate window.</li> </ul> </li> </ol>
<p>The screenshot shows the 'Device configuration' dialog box. It contains the following fields and buttons:</p> <ul style="list-style-type: none"> <li><b>COM port:</b> Input field with 'COM3' selected.</li> <li><b>ModBus ID:</b> Input field with '247' selected.</li> <li><b>Baud rate:</b> Drop-down menu with '19200' selected.</li> <li><b>Data format:</b> Drop-down menu with '8 data bits, even parity, 1 stop bits' selected.</li> <li><b>Buttons:</b> 'TX' (green), 'RX' (red), 'Connect device' (grey), and 'Program device' (grey).</li> <li><b>Device information:</b> A text area displaying:                     <pre>Vendor name: BEKO Technologies Board SAP#: 4846486 SW versions: APP V2.4.0 BBS V3.5.0 CFG V1.0.1 Device name: BEKOMAT Device type: KA2B_0L21_2044_ELV_P i4.0 PCB serial#: 2030720007 ----- User MB Id: 41 User MB serial: 19200 bd, 8 data, even parity, 1 --- Operation time: 2039h:32min:54sec Operation time: 2039h:32min:55sec</pre> </li> <li><b>Status:</b> 'Open COM port: OK' and 'Connect to device: OK'.</li> </ul>	<ol style="list-style-type: none"> <li>Switch the Modbus device on.</li> <li>See the installation and operation manual for the preset interface parameters of the Modbus device and enter these in the corresponding fields.                     <ul style="list-style-type: none"> <li>→ Enter the Modbus ID (Client Address) in the <b>MODBUS ID</b> input field.</li> <li>→ Select the baud rate from the <b>BAUD RATE</b> drop-down list.</li> <li>→ Select the entry with the correct data formats from the <b>DATA FORMAT</b> drop-down list.                             <ul style="list-style-type: none"> <li>• Data bits</li> <li>• Parity</li> <li>• Stop bits</li> </ul> </li> </ul> </li> <li>Press the <b>CONNECT DEVICE</b> button.                     <ul style="list-style-type: none"> <li>→ The display fields <b>TX</b> and <b>RX</b> flash</li> <li>→ The connection to the Modbus device connected is set up in 10 seconds at maximum</li> <li>→ If the connection is successful, the data readout are listed on the <b>DEVICE INFORMATION</b> display</li> </ul> </li> </ol>

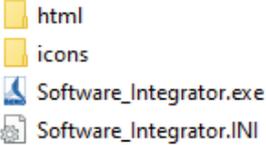
Changing interface parameters	
Illustration	Description /explanation
 <p>The screenshot shows the 'Device configuration' dialog box. At the top, there are fields for 'COM port' (COM3), 'ModBus ID' (247), 'Baud rate' (19200), and 'Data format' (8 data bits, even parity, 1 stop bits). There are 'TX' and 'RX' buttons. Below these is a 'Cancel connection' button. The status shows 'Open COM port: OK' and 'Connect to device: OK'. Under 'Device information', there is a list of device details including Vendor name (BEKO Technologies), Board SAP#, SW versions, Device name (BEKOMAT), Device type (KA2B 0L21 2044 ELV P i4.0), and PCB serial#. Below this, there are fields for 'New ModBus ID' (247), 'New baud rate' (19200), and 'New data format' (8 data bits, even parity, 1 stop bits). At the bottom is a 'Program device' button with a blue arrow pointing to it.</p>	<p>5. When data transmission has been completed, the following fields are enabled for entry of the new interface parameters.</p> <ul style="list-style-type: none"> <li>• <b>NEW MODBUS ID</b> input field</li> <li>• <b>NEW BAUD RATE</b> selection field</li> <li>• <b>New data format</b> selection field</li> </ul>
 <p>The screenshot shows the 'Device configuration' dialog box. The fields for 'COM port', 'ModBus ID', 'Baud rate', and 'Data format' are the same as in the previous screenshot. However, the 'New ModBus ID' field now contains the value 150. The 'New baud rate' and 'New data format' fields remain the same. The 'Program device' button is still at the bottom with a blue arrow pointing to it.</p>	<p>6. Enter the new interface parameters for the Modbus device in the corresponding fields.</p> <ul style="list-style-type: none"> <li>→ Enter the Modbus ID (Client Address) in the <b>NEW MODBUS ID</b> input field.</li> <li>→ Select the baud rate from the <b>NEW BAUD RATE</b> drop-down list.</li> <li>→ Select the entry with the correct data formats from the <b>NEW DATA FORMAT</b> drop-down list. <ul style="list-style-type: none"> <li>• Data bits</li> <li>• Parity</li> <li>• Stop bits</li> </ul> </li> </ul>

Changing interface parameters	
Illustration	Description /explanation
	<p>7. Press the <b>PROGRAM DEVICE</b> button.</p> <ul style="list-style-type: none"> <li>→ The display fields <b>TX</b> and <b>RX</b> flash</li> <li>→ The new interface parameters are transmitted to the Modbus device</li> </ul>
	<p>8. When the data transmission has been completed, the connection to the Modbus device is interrupted.</p> <ul style="list-style-type: none"> <li>→ The new interface parameters are applied by the Modbus device</li> <li>→ The new interface parameters appear in the following fields                     <ul style="list-style-type: none"> <li>• <b>MODBUS ID</b> input field</li> <li>• <b>BAUD RATE</b> selection field</li> <li>• <b>DATA FORMAT</b> selection field</li> </ul> </li> <li>→ The input fields for new interface parameters are disabled</li> </ul>

Changing interface parameters	
Illustration	Description /explanation
 <p>The screenshot shows the 'Device configuration' window with the 'Connect device' button highlighted in blue. The window contains the following information:</p> <ul style="list-style-type: none"> <li><b>COM port:</b> COM3</li> <li><b>ModBus ID:</b> 150</li> <li><b>Baud rate:</b> 19200</li> <li><b>Data format:</b> 8 data bits, even parity, 1 stop bits</li> <li><b>Buttons:</b> TX (green), RX (red), and Connect device (blue highlight).</li> <li><b>Status:</b> Open COM port: OK, Connect to device: OK</li> <li><b>Device information:</b> Vendor name: BEKO Technologies, Board SAP#: 4046486, SW versions: APP V2.4.0 BBS V3.5.0 CFG V1.0.1, Device name: BEKOMAT, Device type: KA2B_0L21_2044_ELV_P_i4.0, PCB serial#: 2030720007.</li> <li><b>User MB Id:</b> 247</li> <li><b>User MB serial:</b> 19200 bd, 8 data, even parity, 1 stop</li> <li><b>Operation time:</b> 2039h:40min:23sec</li> <li><b>Fields for new parameters:</b> New ModBus ID (150), New baud rate (19200), New data format (8 data bits, even parity, 1 stop bits).</li> <li><b>Buttons:</b> Program device (grey), TX (green), RX (red).</li> </ul>	<p>9. Switch the Modbus device off and switch it back on again.</p> <ul style="list-style-type: none"> <li>→ The Modbus device can be addressed for approx. 10 seconds with the interface parameters preset in the factory</li> <li>→ The Modbus device switches to the new interface parameters after approx. 10 seconds</li> </ul> <p>10. To check the change in interface parameters, press the <b>CONNECT DEVICE</b> button.</p> <ul style="list-style-type: none"> <li>→ The connection to the Modbus device connected is set up</li> <li>→ The display fields <b>TX</b> and <b>RX</b> flash</li> <li>→ If the connection is successful, the data readout are listed on the <b>DEVICE INFORMATION</b> display</li> </ul>
 <p>The screenshot shows the 'Device configuration' window with the 'Cancel connection' button highlighted in blue. The window contains the following information:</p> <ul style="list-style-type: none"> <li><b>COM port:</b> COM3</li> <li><b>ModBus ID:</b> 150</li> <li><b>Baud rate:</b> 19200</li> <li><b>Data format:</b> 8 data bits, even parity, 1 stop bits</li> <li><b>Buttons:</b> TX (green), RX (red), and Cancel connection (blue highlight).</li> <li><b>Status:</b> Open COM port: OK, Connect to device: OK</li> <li><b>Device information:</b> Board SAP#: 4046486, SW versions: APP V2.4.0 BBS V3.5.0 CFG V1.0.1, Device name: BEKOMAT, Device type: KA2B_0L21_2044_ELV_P_i4.0, PCB serial#: 2030720007.</li> <li><b>User MB Id:</b> 150</li> <li><b>User MB serial:</b> 19200 bd, 8 data, even parity, 1 stop</li> <li><b>Fields for new parameters:</b> New ModBus ID (150), New baud rate (19200), New data format (8 data bits, even parity, 1 stop bits).</li> <li><b>Buttons:</b> Program device (grey), TX (green), RX (red).</li> </ul>	<p>11. Press the <b>CANCEL DEVICE</b> button.</p> <p>12. Disconnect the USB-RS485 serial converter from the computer.</p> <p>13. Disconnect the Modbus device from the USB-RS485 serial converter.</p>

## 6. Deinstallation

Deinstallation can be carried out without additional software.

Deinstallation of the Software Integrator	
Illustration	Description /explanation
	<ol style="list-style-type: none"><li>1. Remove the complete software folder.</li><li>2. Remove any existing shortcuts.</li></ol>

## 7. Troubleshooting

Error or fault pattern	Possible causes	Troubleshooting
<ul style="list-style-type: none"> <li>No connection is set up to the Modbus device</li> </ul>	<ul style="list-style-type: none"> <li>The interface parameters are not correct</li> </ul>	<ul style="list-style-type: none"> <li>Check the interface parameters</li> </ul>
	<ul style="list-style-type: none"> <li>The interface parameters are not known</li> </ul>	<ul style="list-style-type: none"> <li>Switch the Modbus device off, switch it back on and press the <b>CONNECT DEVICE</b> button within 10 seconds               <ul style="list-style-type: none"> <li>→ The Modbus device can be addressed for approx. 10 seconds with the interface parameters preset in the factory</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>The connection of the Modbus device to the USB-RS485 serial converter is faulty</li> </ul>	<ul style="list-style-type: none"> <li>Ports RS485 - A and RS485 - B have been mixed up</li> <li>Check the voltage supply to the Modbus device</li> <li>Check that the connection cables are firmly fitted in the connection terminals of the Modbus device</li> </ul>
	<ul style="list-style-type: none"> <li>The Modbus device is not switched on</li> </ul>	<ul style="list-style-type: none"> <li>Switch the Modbus device on</li> </ul>
<ul style="list-style-type: none"> <li>Error message "Error / Fehler 2"</li> </ul>	<ul style="list-style-type: none"> <li>The software cannot set up a connection to the USB-RS485 serial converter</li> </ul>	<ul style="list-style-type: none"> <li>Connect the USB-RS485 serial converter to the computer.</li> <li>Update the driver of the USB-RS485 serial converter (see "4.1 Installing the USB-RS485 serial converter" on Page 13)</li> </ul>
<ul style="list-style-type: none"> <li>Error message "Error / Fehler 5"</li> </ul>	<ul style="list-style-type: none"> <li>The <b>COM PORT</b> name is not correct.</li> </ul>	<ul style="list-style-type: none"> <li>Check the <b>COM PORT</b> name of the USB-RS485 serial converter in the Device Manager (see "4.1 Installing the USB-RS485 serial converter" on Page 13)</li> </ul>
<ul style="list-style-type: none"> <li>The software does not start</li> </ul>	<ul style="list-style-type: none"> <li>The <b>ICONS</b> folder cannot be found</li> </ul>	<ul style="list-style-type: none"> <li>Save the <b>ICONS</b> folder and the <b>EXE file</b> in the same folder (see "4.2 Installing the Software Integrator" on Page 14)</li> </ul>
<ul style="list-style-type: none"> <li>No HELP is displayed</li> </ul>	<ul style="list-style-type: none"> <li>The <b>HTML</b> folder cannot be found</li> </ul>	<ul style="list-style-type: none"> <li>Save the <b>HTML</b> folder and the <b>EXE file</b> in the same folder (see "4.2 Installing the Software Integrator" on Page 14)</li> </ul>

**BEKO TECHNOLOGIES GmbH**

Im Taubental 7  
 D - 41468 Neuss  
 Tel. +49 2131 988 0  
 Fax +49 2131 988 900  
 info@beko-technologies.com  
 service-eu@beko-technologies.com

**DE****BEKO TECHNOLOGIES LTD.**

Unit 11-12 Moons Park  
 Burnt Meadow Road  
 North Moons Moat  
 Redditch, Worcs, B98 9PA  
 Tel. +44 1527 575 778  
 info@beko-technologies.co.uk

**GB****BEKO TECHNOLOGIES S.à.r.l.**

Zone Industrielle  
 1 Rue des Frères Rémy  
 F - 57200 Sarreguemines  
 Tél. +33 387 283 800  
 info@beko-technologies.fr  
 service@beko-technologies.fr

**FR****BEKO TECHNOLOGIES B.V.**

Veenen 12  
 NL - 4703 RB Roosendaal  
 Tel. +31 165 320 300  
 benelux@beko-technologies.com  
 service-bnl@beko-technologies.com

**NL****BEKO TECHNOLOGIES  
(Shanghai) Co. Ltd.**

Rm.715 Building C, VANTONE Center  
 No.333 Suhong Rd.Minhang District  
 201106 Shanghai  
 Tel. +86 (21) 50815885  
 info.cn@beko-technologies.cn  
 service1@beko.cn

**CN****BEKO TECHNOLOGIES s.r.o.**

Na Pankraci 58  
 CZ - 140 00 Praha 4  
 Tel. +420 24 14 14 717 /  
 +420 24 14 09 333  
 info@beko-technologies.cz

**CZ****BEKO Tecnológica España S.L.**

Torruella i Urpina 37-42, nave 6  
 E - 08758 Cervelló  
 Tel. +34 93 632 76 68  
 Mobil +34 610 780 639  
 info.es@beko-technologies.es

**ES****BEKO TECHNOLOGIES LIMITED**

Room 2608B, Skyline Tower,  
 No. 39 Wang Kwong Road  
 Kwoloon Bay Kwoloon, Hong Kong  
 Tel. +852 2321 0192  
 Raymond.Low@beko-technologies.com

**HK****BEKO TECHNOLOGIES INDIA Pvt. Ltd.**

Plot No.43/1 CIEEP Gandhi Nagar  
 Balanagar Hyderabad  
 IN - 500 037  
 Tel. +91 40 23080275 /  
 +91 40 23081107  
 Madhusudan.Masur@bekoindia.com  
 service@bekoindia.com

**IN****BEKO TECHNOLOGIES S.r.l**

Via Peano 86/88  
 I - 10040 Leinì (TO)  
 Tel. +39 011 4500 576  
 Fax +39 0114 500 578  
 info.it@beko-technologies.com  
 service.it@beko-technologies.com

**IT****BEKO TECHNOLOGIES K.K**

KEIHIN THINK Building 8 Floor  
 1-1 Minamiwatarida-machi  
 Kawasaki-ku, Kawasaki-shi  
 JP - 210-0855  
 Tel. +81 44 328 76 01  
 info@beko-technologies.jp

**JP****BEKO TECHNOLOGIES Sp. z o.o.**

ul. Pańska 73  
 PL - 00-834 Warszawa  
 Tel. +48 22 314 75 40  
 info.pl@beko-technologies.pl

**PL****BEKO TECHNOLOGIES S. de R.L. de C.**

BEKO Technologies, S de R.L. de C.V.  
 Blvd. Vito Alessio Robles 4602 Bodega 10  
 Zona Industrial  
 Saltillo, Coahuila, 25107  
 Mexico  
 Tel. +52(844) 218-1979  
 informacion@beko-technologies.com

**MX****BEKO TECHNOLOGIES CORP.**

900 Great Southwest Pkwy SW  
 US - Atlanta, GA 30336  
 Tel. +1 404 924-6900  
 Fax +1 (404) 629-6666  
 beko@bekousa.com

**US**