



## Series XC610

Digital displays for work safety

Operating instructions

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## 1 Safety instructions

### Important information

Read these operating instructions before starting the unit. They provide you with important information on the use, safety and maintenance of the units. This helps you to protect yourself and prevent damage to the unit.

During the lifetime of the unit keep the operating instructions in an accessible place at all times. Hand over the operating instructions to any future owner of the unit. It is to be considered as part of the product.

The manufacturer is not liable if the information in these operating instructions are not complied with.

### Warning notice

Information intended to help you to avoid death, bodily harm or considerable damage to property is highlighted by the warning triangle shown here; it is imperative that this information be properly heeded.



#### DANGER!

Disregarding this warning notice leads to death or serious bodily harm.



#### WARNING!

Disregarding the warning notice can lead to death or serious bodily harm.



#### CAUTION!

Disregarding the warning notice can lead to minor physical injuries or property damage.

### Intended use

The device may only be operated within the limit values stipulated by the technical data.

During configuring, installing, testing, commissioning and maintenance of the unit, the applicable standards and safety regulations have to be observed.

Trouble-free, safety operation of the unit requires proper transport, storage, installation, mounting and careful operation and maintenance of the unit.

### Special safety precautions for installation



#### CAUTION!

Carefully seal the electrical equipment for safety reasons after commissioning.

The key to seal the unit is included in the mounting kit.

### Qualified staff

These operating instructions are intended for trained professional electricians familiar with the safety standards of electrical technology and industrial electronics.

Components inside the unit are voltage-carrying during operation. For this reason maintenance work may only be performed by professionally trained personnel while observing the corresponding safety regulations.

For safety reasons and due to the required compliance with the documented unit properties the repair and replacement of components and modules may only be carried out by the manufacturer or an authorized specialized company.

### Protective low voltage

The unit is powered by an included wall wart with 12 V.

The unit has no power switch. It is in operation immediately after applying operating voltage.

### Mounting and installation

The attachment options for the units were conceived in such a way as to ensure safe, reliable mounting. The user must ensure that the used fixing material guarantees, under the given surrounding conditions, a secure mounting.

When installing and commissioning please note the appropriate national and regional regulations.

### Transport

The unit must be transported clean and dry in the original packing. The transport temperature must be between -40 °C and +70 °C. Temperature fluctuations of more than 20 °C per hour are non-permissible.

### Disposal

The unit is made of low-emission materials and is therefore recyclable. For an environmentally safe recycling contact a certified waste management enterprise. Units or parts which are no longer needed are to be disposed of in accordance with the regulations in effect in your country.

### Batteries and rechargeable batteries



As an end user you are legally obliged (battery regulation) to return all used batteries and rechargeable batteries! Disposal with household waste is prohibited.

Batteries containing harmful substances are marked with the following symbols, which indicate that disposal with household waste is prohibited. The designations for the decisive heavy metal are: Cd = cadmium, Hg = quicksilver, Pb = lead (the name appears on the battery/rechargeable battery, e.g. under the garbage can symbols shown on the left).



You can return your used batteries/rechargeable batteries to the collection points in your municipality or wherever batteries/rechargeable batteries are sold.

In doing so, you fulfil your legal obligations and make your contribution environmental protection.

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## **2 Important information**

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### **Copyright**

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### **Disclaimer**

This documentation has been prepared with utmost care. For any mistakes we can not accept any liability. Corrections, improvement suggestions, criticism and suggestions are welcome. Please write to: [editing@siebert-group.com](mailto:editing@siebert-group.com)

### **Liability**

Availability and technical specifications of the product are subject to change. The data specified is indicated solely for product description. They are not intended to be guaranteed in a legal sense.

### **Cleaning**

For the care of the front panel use a scratch-free cloth. Do not push in the front pane during cleaning.

The unit must not be cleaned with a steam cleaner.

### **Display accuracy**

Fields to which you have given the "automatic increment" property during configuration with the 'SafetyDisplayConfigurator' are incremented by one at around midnight every day. Typically, this is the counter for accident-free days.

This function requires that the display is operated all around the clock. In the event of a power failure, the time of automatic counting will be postponed by this downtime.

Each time you make a change with the 'SafetyDisplayConfigurator', the time will be reset to midnight.

### 3 Installation

#### Requirements to the installation site

The display is designed for wall mounting. The wall surface has to be plane and free of irregularities. The wall must have a sufficient capacity.

**CAUTION!**

If the wall surface is uneven the housing can be distorted and damaged when mounting

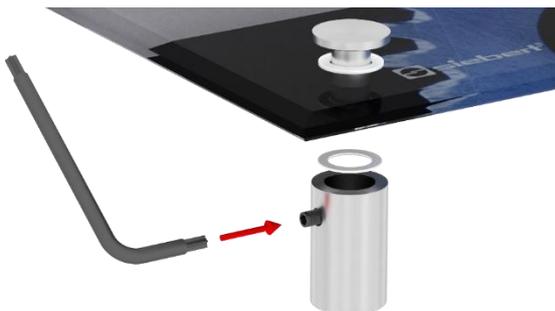
#### Installation material

A parts kit with screws and dowels is included in delivery.

#### Opening the display



The display must be opened for installation and connection of the power supply.



On delivery the fastening elements are mounted on the front glass.

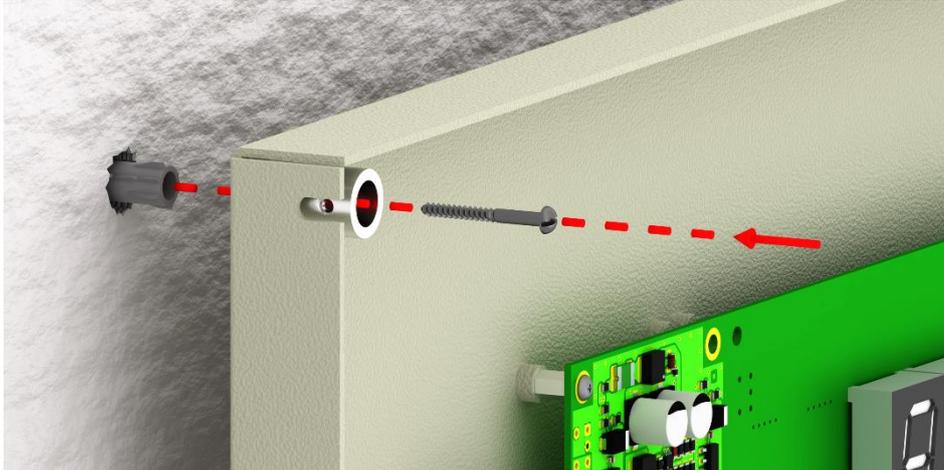
Loosen the setscrews with the supplied Allen key and remove the fastening elements. Pay particular attention to the plastic panes which serve to protect the glass panels.

**CAUTION!**

Make sure that the glass pane is not damaged or, if the device is already mounted on the wall, falls down.

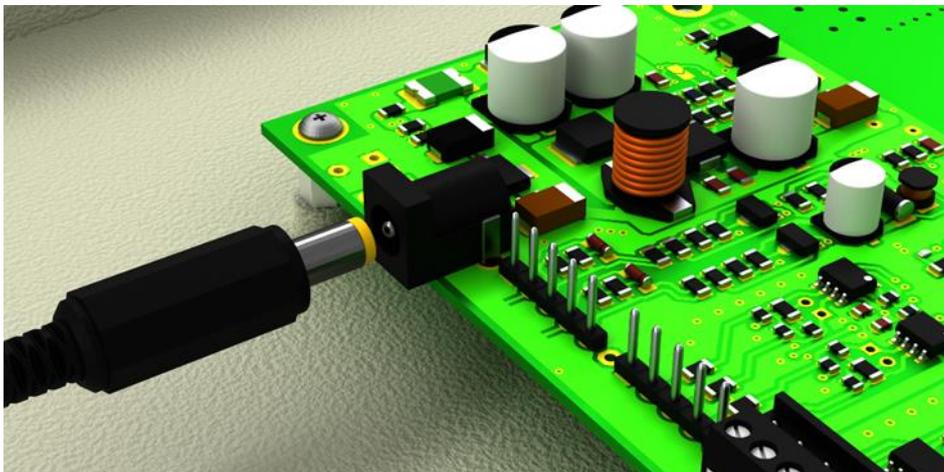
## Mounting the unit

The lines for data and power supply (and the Ethernet cable for displays with Ethernet interface) are fed through the guide holes in the back of the housing or at the bottom edge of the device.



Mount the unit using the mounting holes with suitable screws and dowels on the wall. Thereby the mounts for the front panel are screwed as shown above. Make sure that the setscrews face outward because otherwise the subsequent fixing of the glass panel is no longer possible.

## Power supply connection



After mounting the device on the wall you connect the line for the power supply. Therefore there is a jack on the printed circuit board. Once the power supply unit is plugged into the 230 V outlet, the display lights up.

After switching on, a red LED flashes on the circuit board for about 30 seconds.

When first powered on numbers appear on all digits. Depending on the unit version, during later power-up – after implementing of the configuration – the decimal points light up.

### **Connection of the Ethernet cable**

Only valid for displays with Ethernet interface (XC6xx-xxx-x-05).

Displays with Ethernet interface are connected with an Ethernet cable cat. 5 or higher. Modern PCs or laptops recognize the cable type automatically.

If your display is operated with older network components, the following cables are required:

- a crosses Ethernet cable cat. 5 or higher for a direct connection to the PC or laptop with the display
- an Ethernet patch cable cat. 5 for the connection of the PC or laptop via a network switch or hub with the display

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## 4 Important notes on commissioning

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The work safety displays of the series XC610 can be configured and operated via various interfaces. In addition to a PC or laptop, depending on the interface of the display, you will also need further tools for configuration/operation.

### Interfaces

The following interface variants are distinguished for the devices of the series XC610:

Order number	Interface
XC610-xxx-x-02	Infrared remote control
XC610-xxx-x-03	USB (socket type C)
XC610-xxx-x-05	Ethernet (RJ45)

The configuration and changing of values is carried out via the Windows program 'SafetyDisplayConfigurator' included in delivery (Exception: display with infrared remote control)

### Displays with infrared remote control (XC6xx-xxx-x-02)

No PC software is required for displays with infrared remote control. The operation is carried out with the remote control included in delivery.

### Displays with USB interface (XC6xx-xxx-x-03)

The configuration and the changing of values is carried out via the USB interface. A matching USB cable is included in delivery.

The USB socket type C is located on the lower left side of the display.

### Displays with Ethernet interface (XC6-xx-xxx-x-05)

The configuration and the changing of values is carried out via an Ethernet cable. All settings (network addresses, protocols, etc.) are set with the 'SafetyDisplayConfigurator'.

See chapter 'Connection of the Ethernet cable'

## 5 Product description

The following figure shows the display in operational condition.



The scope of information consists of the following characteristic values, which you assign to the various fields corresponding to your front foil during the initial commissioning of your display.

- Accident- free days
- Number of accidents
- Record accident-free days
- Lost workdays
- User-defined fields 1 to 6

You can enter a fixed number for each parameter. Alternatively, you can activate the automatic function which ensures that the respective field is incremented by one always at midnight. For this, the display must be on at midnight.

Furthermore, the following information can be displayed as required:

- Current time in HH:MM format
- Current date in DD.MM, DD.MM.YY or DD.MM.YYYY
- Air temperature and humidity with additional sensor

### Brightness control

The brightness of the LEDs can be manually adjusted to the ambient brightness.

Alternatively, the automatic brightness control can be activated with the 'SafetyDisplayConfigurator' (does not apply for displays with infrared control (XC6xx-xxx-x-02)). The display automatically adjusts its luminosity to the ambient brightness. If the ambient brightness is lower, for example in cloudy sky or at night, the display dim down automatically to avoid glare effects e.g.. At high ambient brightness the display increases its brightness for better readability.

### Energy saving mode

With the configuration program 'SafetyDisplayConfigurator' the energy-saving mode can be switched on (does not apply for displays with infrared control (XC6xx-xxx-x-02)).

In this mode, all LEDs are automatically dimmed at a user-defined point of time and re-activated at another point of time. During the darkening mode only a decimal dot flashes briefly every 30 seconds.

Energy consumption can thus be significantly reduced during the time in which the display is not read, for example at night.

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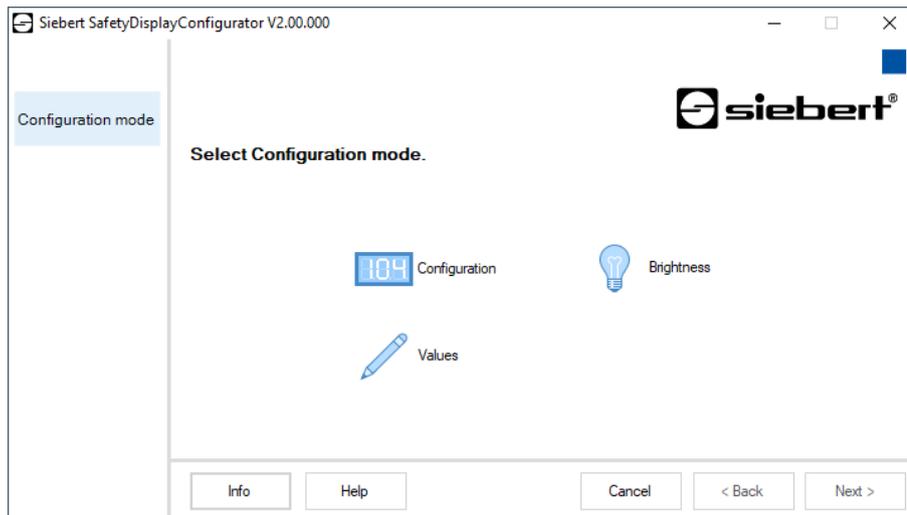
## 6 Start-up and configuration

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### Configuration of the display

Not valid for displays with infrared remote control (XC6xx-xxx-x-02).

The configuration is only done with the Windows software 'Siebert SafetyDisplayConfigurator'.



The steps required for configuration are described in detail in the documentation of the 'SafetyDisplayConfigurator' program.

After you have successfully completed the configuration, the software is only needed to reset the accident-free days in case of an accident.

### Start-up and test

Expediently perform a functional test before you close the device permanently.

## 7 Configuration of the display with infrared remote control

This manual describes how to operate displays of the XC600 series with infrared remote control.

Note: For displays with more than just number fields (e.g. additional text display, date/time or temperature) only the numeric number fields can be set with the remote control.

Instructions for mounting, power connection and safe operation can be found in the operating instructions of the XC600 series and on the product disc supplied on delivery. They can also be downloaded from [www.siebert-group.com](http://www.siebert-group.com).

The following settings can be made with the remote control:

- 1) Selection of a field for input
- 2) Change the number displayed on the selected field.  
The number can be entered directly via the numeric keypad or it can be increased or decreased by 1 using the **VOL +/-** keys. It is not possible to enter decimal numbers or negative numbers.
- 3) Adjusting the brightness of the entire display.

### Meaning of the buttons



Button **TV**  
Set the correct operating mode

Button **INF**  
Show the actual field number

Button **OK**  
Start and stop operation

Buttons **VOL +/-**  
- Increase or decrease numbers by one  
- Increase or decrease the brightness

Buttons **CH +/-**  
Go to the next input field

Buttons NUM (**1**, **9**)  
Direct entry of numbers via the numerical keypad

Button **SEL**  
Selection of number input

Button **DIM**  
Setting and changing the brightness of the display

All other buttons are without function.

### Change batteries

The remote control requires 2 1.5 V batteries type CR2032 for operation. A set of batteries is included on delivery. To use the remote control remove the protection film from the battery compartment.

To change the battery open the battery compartment on the bottom side of the housing. Make sure the polarity of the batteries is correct.

## Change the shown numbers

- Press button **TV** to activate the remote control.
- After press the button **OK** to start operation of the remote control.
- Press the button **SEL** to activate the input mode. The current input field starts flashing slowly.
- In case of several input fields use the **CH +/-** buttons to move between the fields.
- Enter the new number using the keys **1...9** on the numeric keypad. As soon as the content of a field has been changed, the flashing frequency changes. Alternatively you can increase or decrease the displayed number by one using the **VOL +/-** buttons.
- Finish operation by pressing the button **OK**. The entered values are now saved and the display restarts.



During input, the internal channel number of the corresponding field can be displayed by pressing the button **INF**. This is indicated by a left-aligned digit with varying brightness. By pressing the info button **INF** again, the display changes back to input mode.

## Setting the brightness

- Press the button **TV** to activate the remote control.
- After press the button **OK** to start operation of the display.
- Press the button **DIM** for setting the brightness.
- The brightness of the display is set to the standard value. If the existing luminosity corresponds with the standard value there is no visible change in brightness.
- Increase or decrease the brightness with the button **VOL +/-**
- Finish operation by pressing the button **OK**. The set brightness is now saved and the display restarts.



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## 8 Troubleshooting notes

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### The display does not answer

The display is turned off.

Check the power supply. Directly after turning on the power supply a red LED flashes on the control computer. After a few seconds it goes out.

### No remote control receipt

- The distance between display and remote control is too big. Reduce the distance to the display. The maximum range depends on various environmental circumstances, e.g. the ambient brightness. The minimum distance is approximately two meters.
- There are objects between the display and the remote control.
- The sensor in the display is dazzled by direct sunlight. In this case switch off the display for test purposes and then repeat the function test.

### The remote control does not work

The batteries of the remote control are either empty, wrong or inserted incorrectly.

Control: When pressing a button no LED of the remote control lights up.

### The remote control does not respond to all buttons

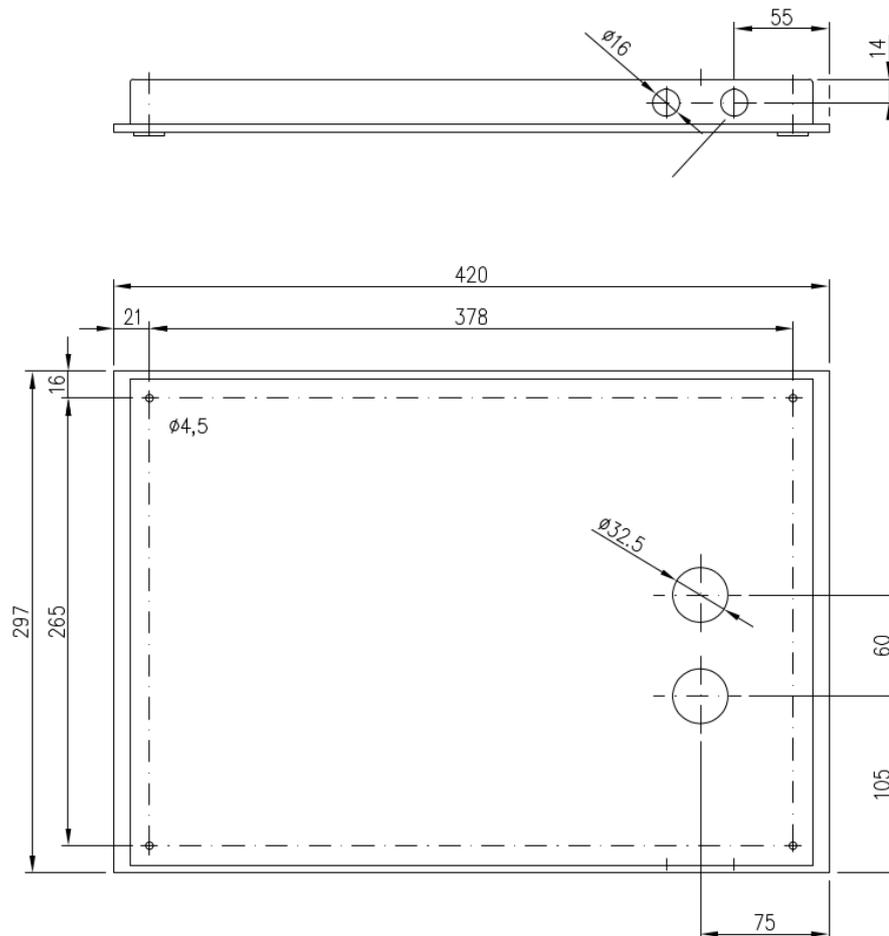
Wrong mode of the remote control selected. The remote control must be in TV mode. Whenever a button is pressed the red LED next to the button  must light up.

### Start-up and test

Expediently perform a functional test before you close the device permanently.

## 9 Technical data

The following figures show the housing dimensions and the holes for wall mounting.  
Depending on version USB socket or bore 16.



### Series XC610

Dimensions (W x H x D)	420 x 297 x 33 mm
Dimensions (W x H x D) displays with Ethernet connection	420 x 297 x 41 mm
LED display digit height	25 mm
Power supply	100...240 V AC, 50/60 Hz
Power consumption	25 W max.
Protection type	IP40
Weight	approx. 4 kg
Operating temperature	0...40 °C
Storage temperature	-25...85 °C

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## 10 SafetyDisplayConfigurator

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### Installation

#### System requirements

With the Siebert 'SafetyDisplayCofigurator' Siebert displays are parameterized for industrial safety with the help of a PC. The PC must have the following minimum system requirements:

Operating system Windows 10

Processor 1GHz or higher

RAM 2 GB or higher

Display resolution VGA (800 x 600 pixels) or higher

Others .NET Framework 4

Administrator rights during installation

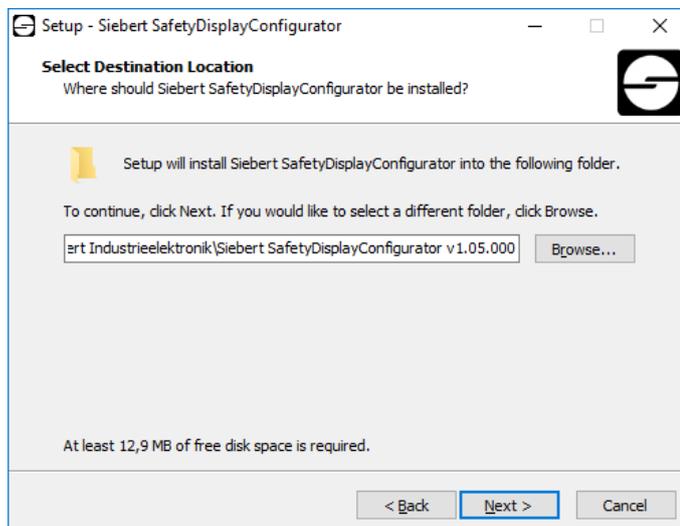
Network access (depending on type of display)

Serial interface RS232 or corresponding converter (depending on type of display)

Bluetooth (optional, depending on type of display)

#### Starting the installation

Start the installation program 'SafetyDisplayConfiguratorSetup-x\_xx\_xxx.exe' from the data carrier included.



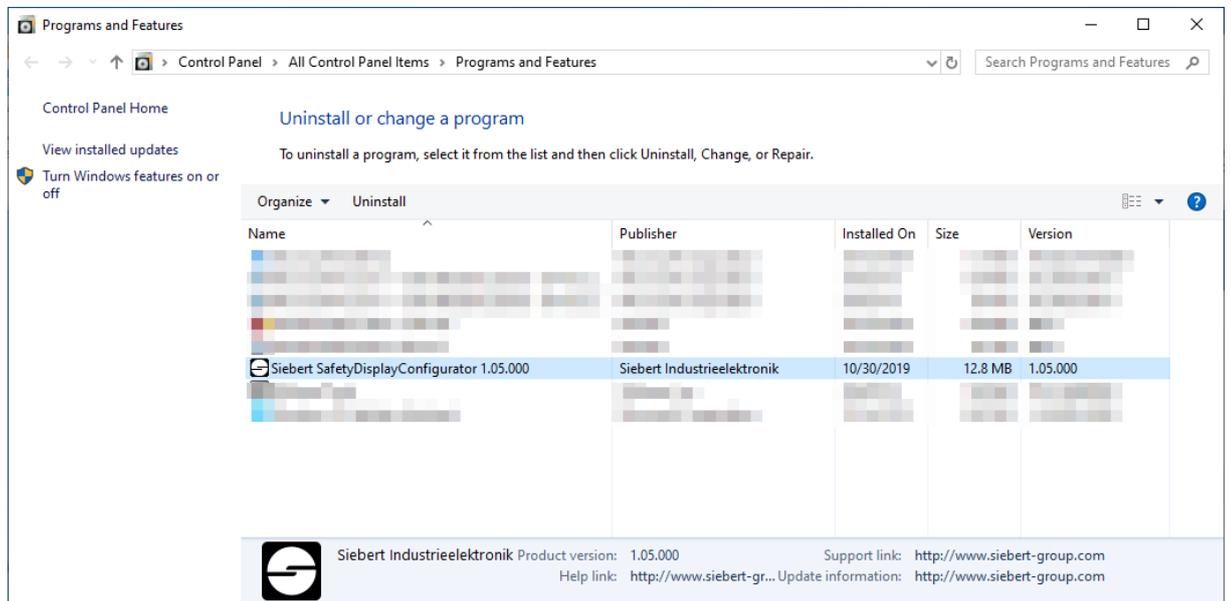
The installation of the 'Siebert SafetyDisplayConfigurator' is started.

A user input from you is only required, if you do not want to install the software in the therefor provided directory file. In this case please modify the target directory accordingly.

After successful installation, the software can be called up via the Start Menu. Click Start > Siebert > SafetyDisplayConfigurator x\_xx\_xxx.

## Deinstallation

To uninstall the 'Siebert SafetyDisplayConfigurator' open 'Programmes and Features' via the Windows settings.



Choose the 'Siebert SafetyDisplayConfigurator' from the list and click 'Uninstall'.

## Configuration of the display

### Connecting the display

With displays of type ...-03 the configuration is done via the USB interface. A matching cable is included in delivery.

With displays of type ...-04 the configuration can also be carried out via Bluetooth.

For configuration via Bluetooth, you need a Bluetooth-enabled PC. If your PC does not have a Bluetooth interface, you need a USB-to-Bluetooth converter. Siebert offers these optionally. Before the configuration via Bluetooth can be carried out via Bluetooth, the Bluetooth coupling between the PC and the display must be initialized (see chapter Bluetooth connection).

With displays of type ...-05 with Ethernet interface the configuration is done via the Ethernet connection.

Please note that for direct connection between display and PC a crossed Ethernet cable is required.

### Control concept

The configuration of the display is done in several steps, which you are guided through by the 'Siebert SafetyDisplayConfigurator'. Here each step has an own dialog box. As the next step will not be called up before all previous entries are correct a faulty operation is almost impossible.

In the left column of the dialog box the steps required for configuration are listed. The current step is highlighted in color.

The buttons which let you navigate through the various steps are in the bottom line:



With the buttons 'Next and Back' you go forward to the next step or backward to the last step.



With the button 'Cancel' you can stop the configuration at any time.



With the button 'Help' you open this operating instructions.

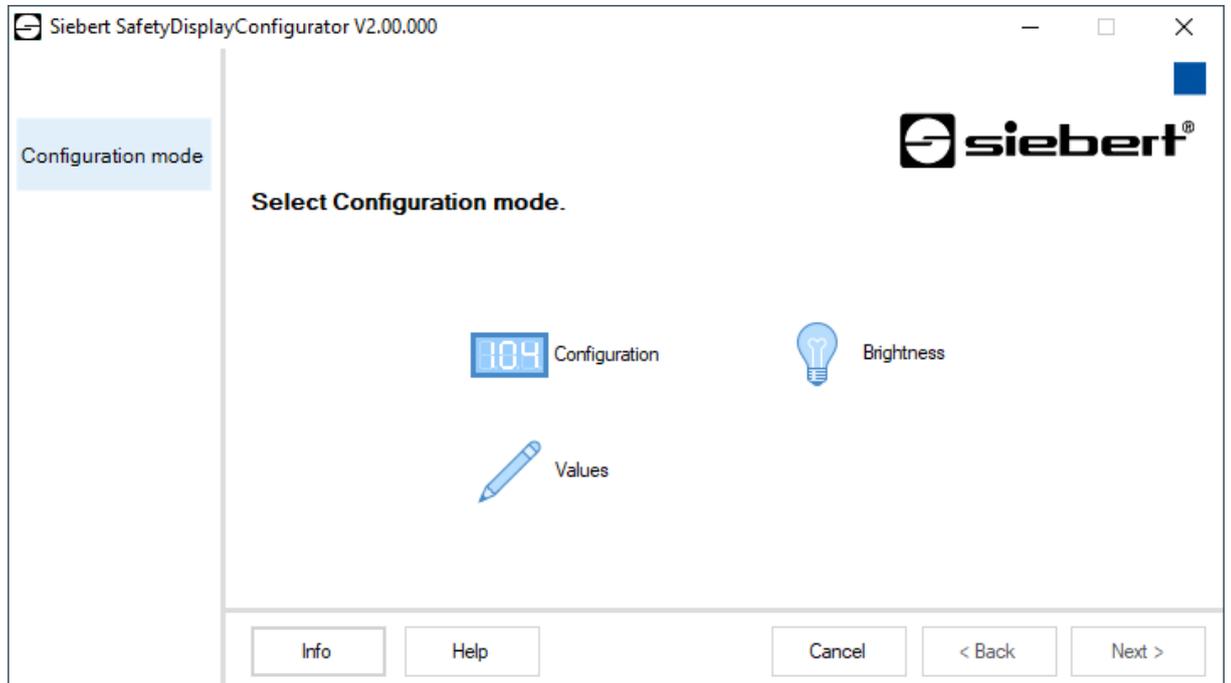


The button 'Info' indicates the version of the software.

In the following the dialog boxes of the single steps are described. The sequence of steps can vary thereby.

## Configuration mode

After starting the software at first select the configuration mode.



The complete configuration of the display is set in the 'Configuration' mode. Here all required parameters are set.

With the mode 'Brightness' the luminosity of the display can be modified, all other parameters remain unchanged. The brightness can be set at a later point of time (see chapter Brightness).

With the mode 'Values' you change the values of the working safety statistics. The configuration of the display remains unchanged (see. Chapter Set values).

## Interface

Here you set via which interface the display is connected to the PC.



If your display is connected to the PC via a network choose 'Ethernet'.

For displays which are connected to the PC via the serial interface or via Bluetooth choose 'USB/Serial/Bluetooth'.

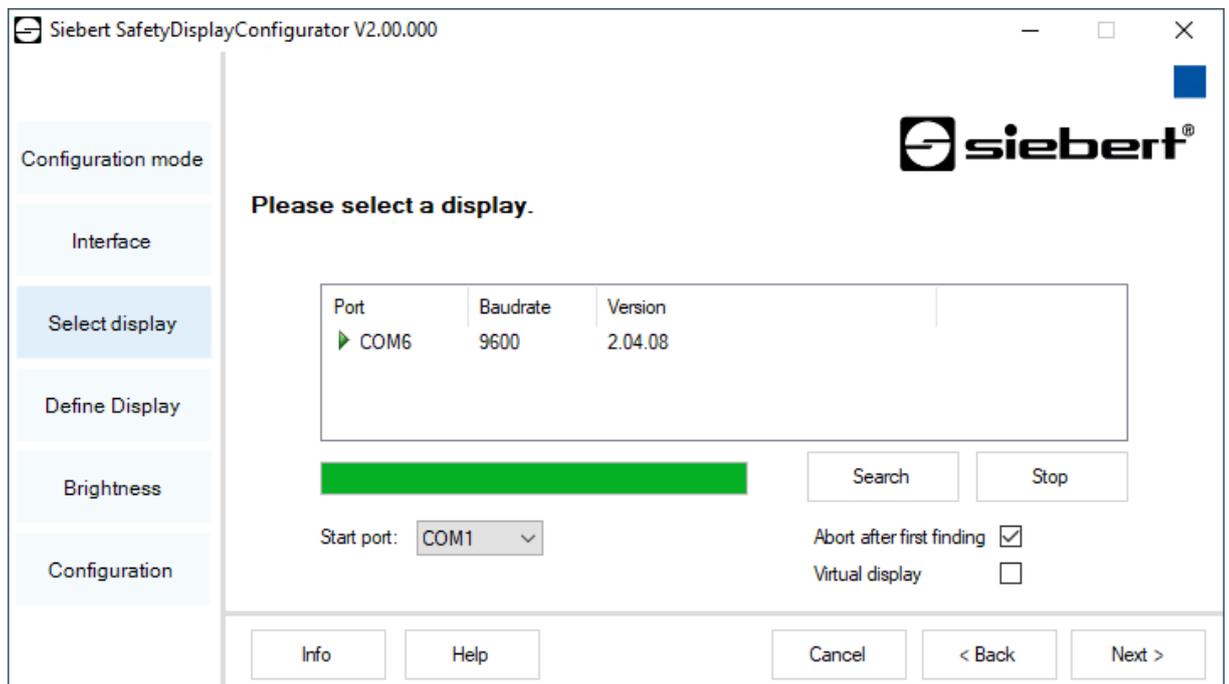
### Selection of display

In the next step all connected displays are automatically recognized via the selected interface.

To select the display double-click the desired line in the display list. The selected display is marked by a green arrow.

If only one display is recognized this display is automatically selected.

#### Selection of the display with serial connection



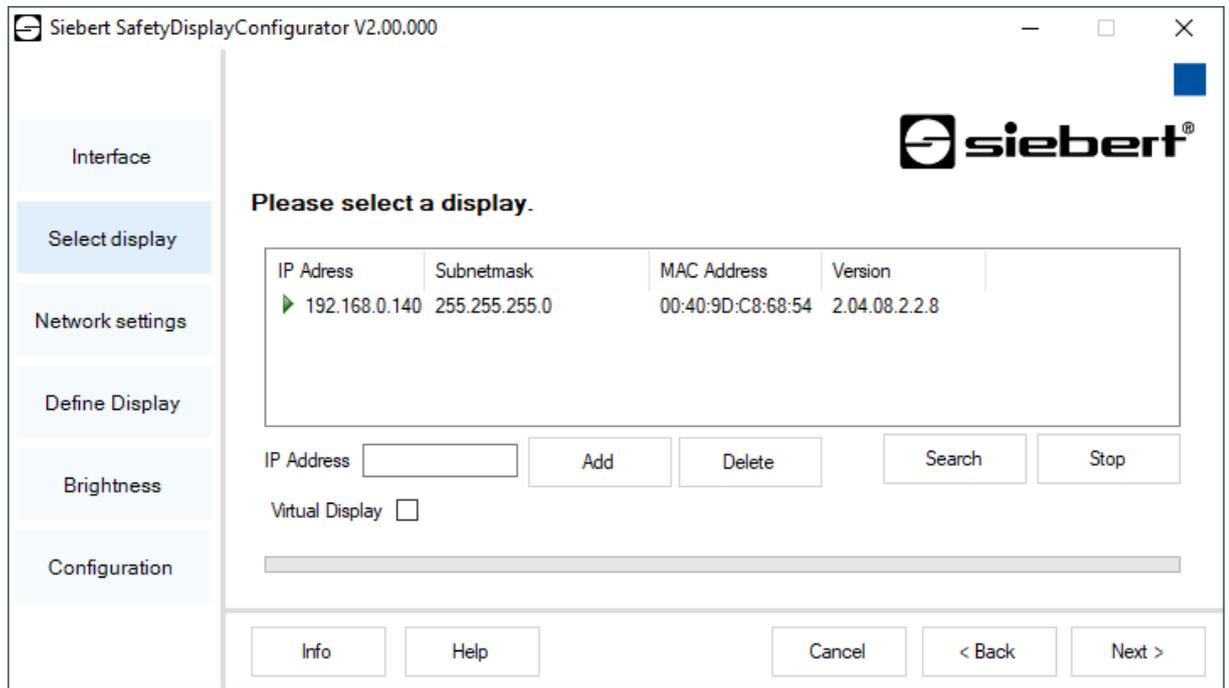
Clicking the 'Search' button the recognition of the display can be restarted at any point of time. Clicking the 'Cancel' button an already started recognition is stopped.

The list box 'Start-Port' shows all serial interfaces available on your PC. Among those you will also find virtual interfaces which are created p. e. by USB-serial adapters or Bluetooth interface. The display recognition starts with the interface selected here. If the option 'Abort after first find' is activated, the display recognition is stopped, when the first display is recognized. Displays connected to serial interfaces, on which a recognition was not performed yet, do not appear on the display list. Deactivate this option if you have connected various displays and wish to enter all displays.

By activating the option 'Virtual display' one more display is added to the display list. If you perform the configuration of this virtual display the parameterization is saved in a file.

Clicking the 'Next' button, the parameters of the selected display are read out.

### Selection of the display with Ethernet connection



Clicking the 'Search' button, the recognition of the display can be started new at any time.

In the field 'IP address' you can enter the IP address of the display manually. Then click the 'Add' button, so that the display is added to the display list.

By activating the option 'Virtual display' one more display is added to the display list. If you perform the configuration of this virtual display the parameterization is saved in a file.

By clicking the 'Next' button, the parameters of the selected display are read out.

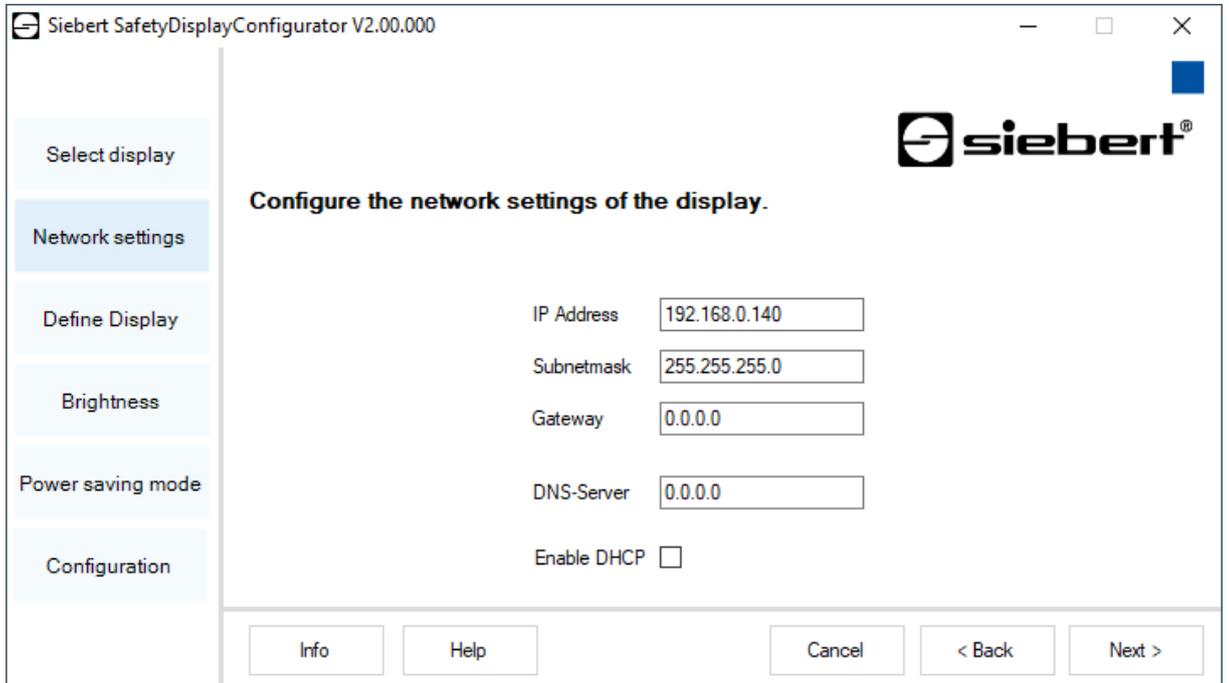


#### IP address

Make sure that your PC and the display are in the same network segment. Displays outside the network segment of your PC are recognized, but a connection is not possible. If necessary adjust the IP address of your PC to the IP address of the display.

## Network settings

If the display is connected to the PC via a network, the network parameters have to be set under which the display has to be contacted in the network.



The screenshot shows the Siebert SafetyDisplayConfigurator V2.00.000 window. The title bar includes the Siebert logo and the text 'Siebert SafetyDisplayConfigurator V2.00.000'. The window has a sidebar on the left with the following menu items: 'Select display', 'Network settings' (highlighted), 'Define Display', 'Brightness', 'Power saving mode', and 'Configuration'. The main area is titled 'Configure the network settings of the display.' and contains the following fields:

IP Address	<input type="text" value="192.168.0.140"/>
Subnetmask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="0.0.0.0"/>
DNS-Server	<input type="text" value="0.0.0.0"/>
Enable DHCP	<input type="checkbox"/>

At the bottom of the window, there are five buttons: 'Info', 'Help', 'Cancel', '< Back', and 'Next >'.

Choosing the option 'DHCP' (Dynamic Host Configuration Protocol) the display is integrated automatically to the existing network. A DHCP server, transmitting IP address, subnet mask and gateway of the display, has to be available in the network.

Alternatively you can set the network parameters of the display manually.

In the field 'IP address' you enter the desired network address of the display. Make sure that the address is not used by another network participant already. If you are in doubt, please contact your network administrator.

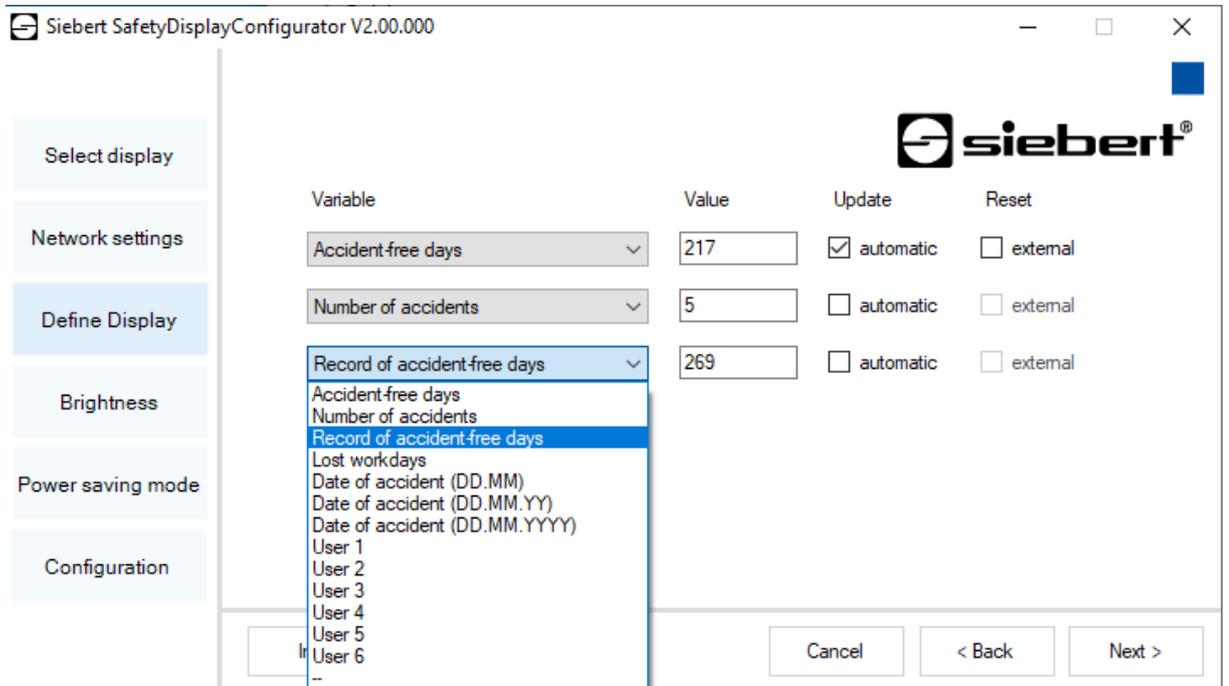
In the field 'Subnet mask' you enter the Subnet mask number. This number, together with the IP address, specifies to which network segment the display belongs. Usually values 0 and 25 are used for standard Subnet masks, p. e. 255.255.255.0.

In the field 'Gateway' you enter the IP address of the IP router, which is located in the same network segment. This entry is only necessary if there is such a gateway and the display is to communicate outside the limits of the network segment in which it is located.

## Define the display

In this step the illustration of information of the display is defined.

It is defined which line shows which value and how the update of the value should be done.



Variable	Value	Update	Reset
Accident-free days	217	<input checked="" type="checkbox"/> automatic	<input type="checkbox"/> external
Number of accidents	5	<input type="checkbox"/> automatic	<input type="checkbox"/> external
Record of accident-free days	269	<input type="checkbox"/> automatic	<input type="checkbox"/> external

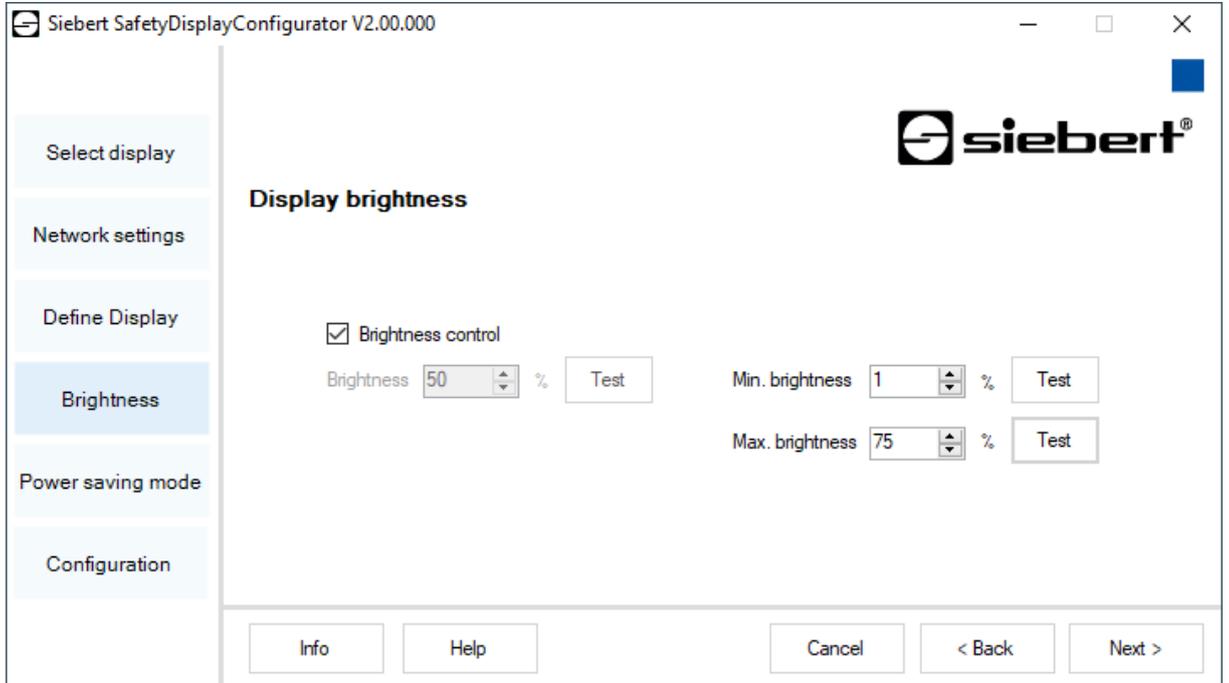
In the field 'Size' you set which value of the work safety statistics is shown in the corresponding line of the display. If none of the terms applies to your application select 'User 1' or 'User 2'.

In the field 'Values' you define the numeric values which are shown in the corresponding lines of the display.

In the field 'Update' by selecting the option 'automatically', you select an automatic addition of + 1 day at 0.00 o'clock, i.e. the value is incremented by 1. If the value is to be changed manually to option 'automatically' must not be activated. Values set manually remain unchanged until a change is made with the 'SafetyDisplayConfigurator'.

## Brightness

In this step you set the brightness of the display.



The static brightness of the display can be set with the entry field 'Brightness'.

The display then shines constantly with the set value.

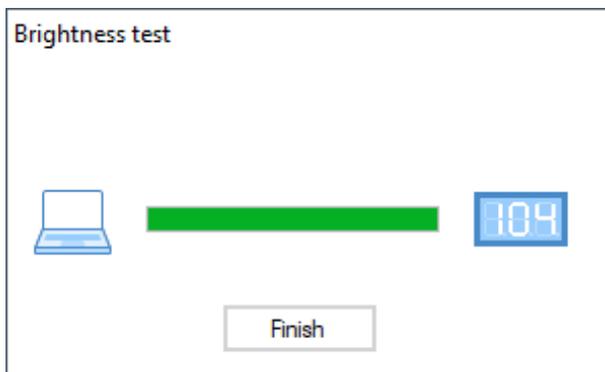
If the display has a light sensor, you can activate this sensor via the 'Brightness control'. The brightness of the display varies, depending on the ambient brightness, between the values given in the entry fields 'Min. brightness' and 'Max. brightness'. Since the LEDs of the display shine even brighter the brighter the ambient conditions are, the optimum readability of the display is guaranteed.



### Automatic brightness control

If the display has no light sensor this function is not supported.

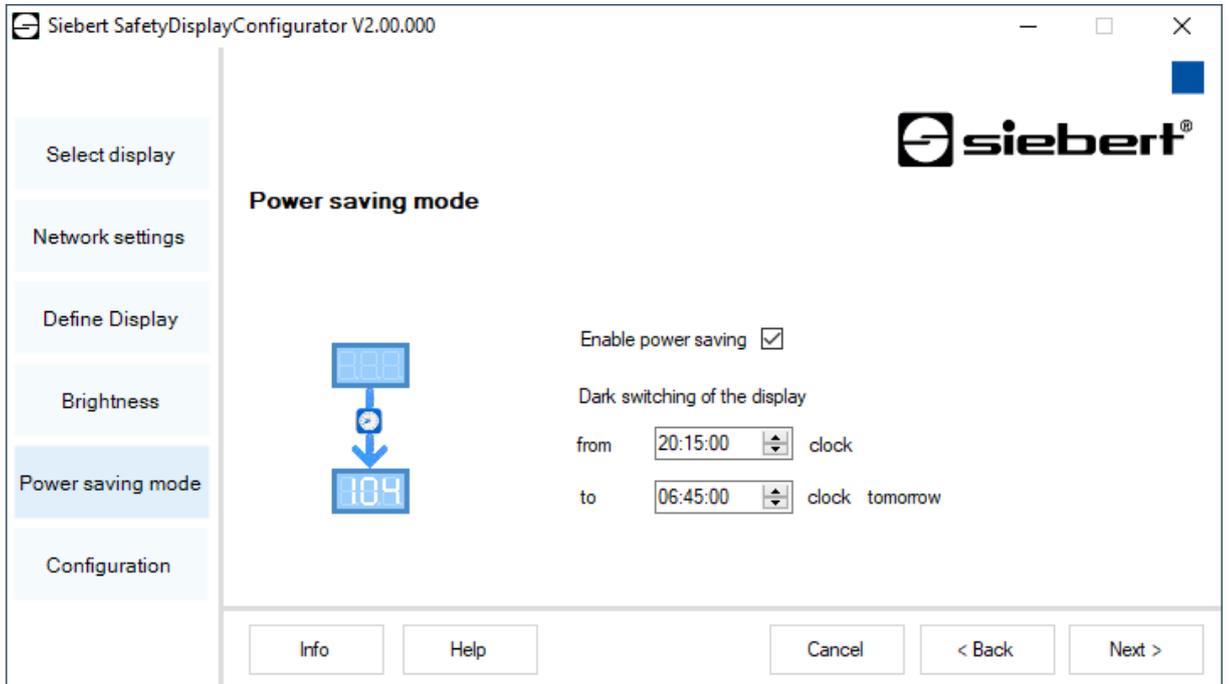
Click 'Test' button to check the set brightness values of the display.



The dialog box 'Brightness test' appears and the luminosity of the display is set to the defined values.

Then click the 'Finish' button to complete the test. The original settings are transmitted back to the display.

## Power saving mode

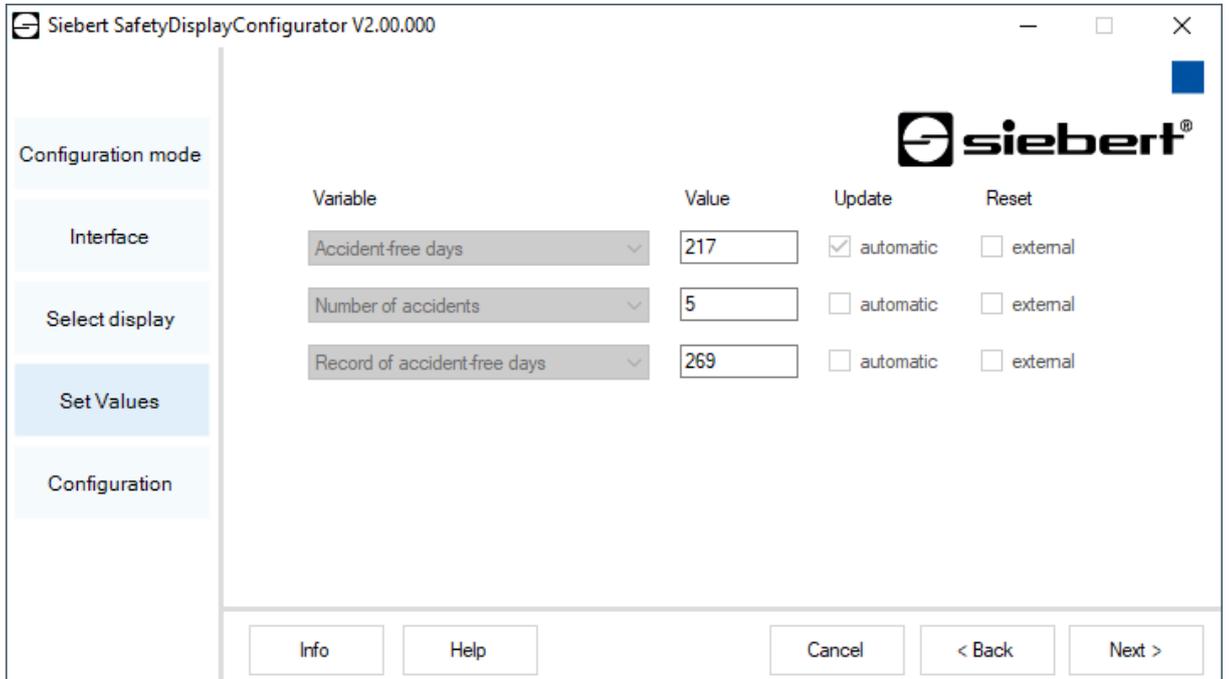


The screenshot shows the 'Power saving mode' configuration window. On the left, a sidebar contains menu items: 'Select display', 'Network settings', 'Define Display', 'Brightness', 'Power saving mode' (highlighted), and 'Configuration'. The main area features the Siebert logo and the title 'Power saving mode'. Below the title is a diagram of a display showing '488' and '104' with a downward arrow and a clock icon. To the right, there are settings: 'Enable power saving' with a checked checkbox, and 'Dark switching of the display' with 'from' set to '20:15:00 clock' and 'to' set to '06:45:00 clock tomorrow'. At the bottom, there are buttons for 'Info', 'Help', 'Cancel', '< Back', and 'Next >'.

At this point the energy saving mode can be switched on and off. When the power save mode is activated, the display is darkened for the defined period of time. This means that the LED display of the device is switched off after a certain time and switched on again after a certain time.

## Set values

In this step you can change the values of the display without altering the configuration.



The screenshot shows the 'Set Values' configuration window. On the left, a sidebar contains menu items: 'Configuration mode', 'Interface', 'Select display', 'Set Values' (highlighted), and 'Configuration'. The main area features the Siebert logo and a table with the following data:

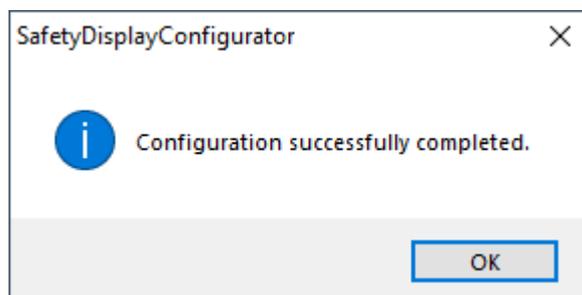
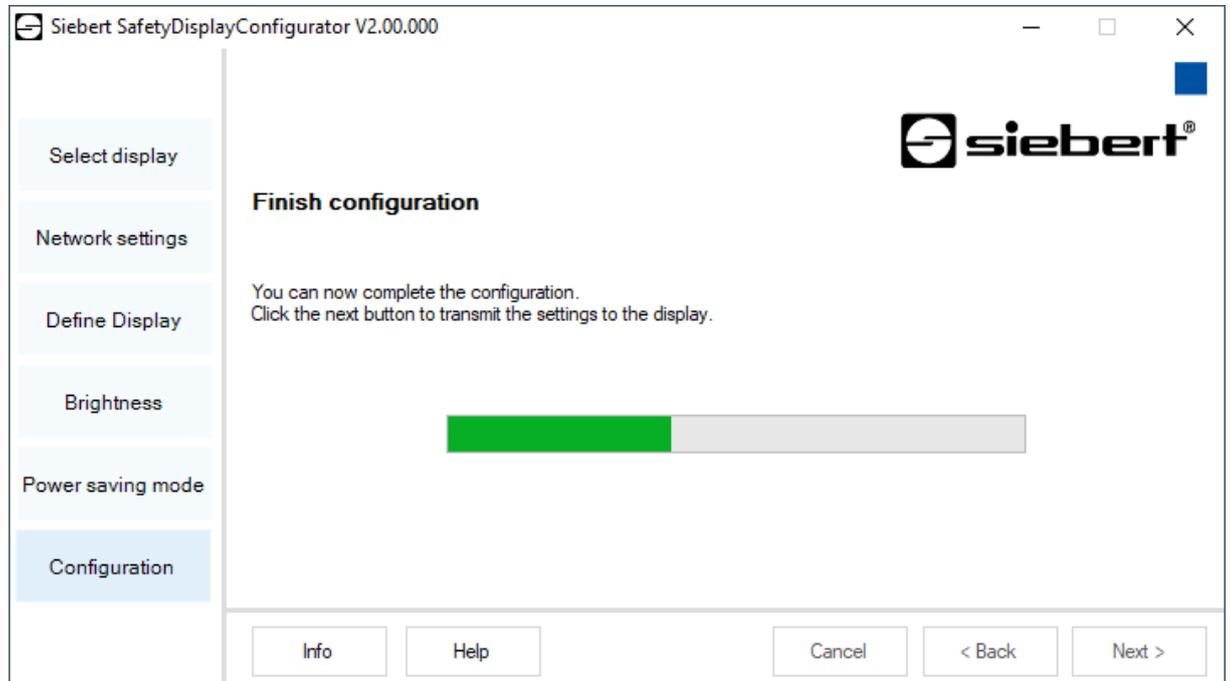
Variable	Value	Update	Reset
Accident-free days	217	<input checked="" type="checkbox"/> automatic	<input type="checkbox"/> external
Number of accidents	5	<input type="checkbox"/> automatic	<input type="checkbox"/> external
Record of accident-free days	269	<input type="checkbox"/> automatic	<input type="checkbox"/> external

At the bottom, there are buttons for 'Info', 'Help', 'Cancel', '< Back', and 'Next >'.

In the fields 'Size' and 'Update' the displayed information and their behavior (automatic incrementing) is shown.

## Complete configuration

In this step you transfer the previously made settings to the display.



Click 'Next' to start the transfer of the configuration. After successful configuration of the display the shown dialog box appears.

Then click 'OK', this ends the 'SafetyDisplayConfigurator' and the display is successfully configured.

If you have configured a virtual display the settings are saved in a configuration file and the memory location is shown in a display box.

## Bluetooth connection

For displays of type ...-04 the configuration can additionally be done via Bluetooth.

This exemplarily describes the Bluetooth installation and the connection with a Siebert display for a Bluetooth USB adapter.

This requires that the Bluetooth USB adapter is used with the standard Windows drivers and no additional driver software is required. If your Bluetooth USB adapter requires special drivers observe the documentation of your adapter.

### Installation

Plug the Bluetooth USB adapter into an available USB port of your PCs and wait for the automatic hardware recognition from Windows. After the message 'The device was installed and is ready to use' the Bluetooth symbol appears in the taskbar.

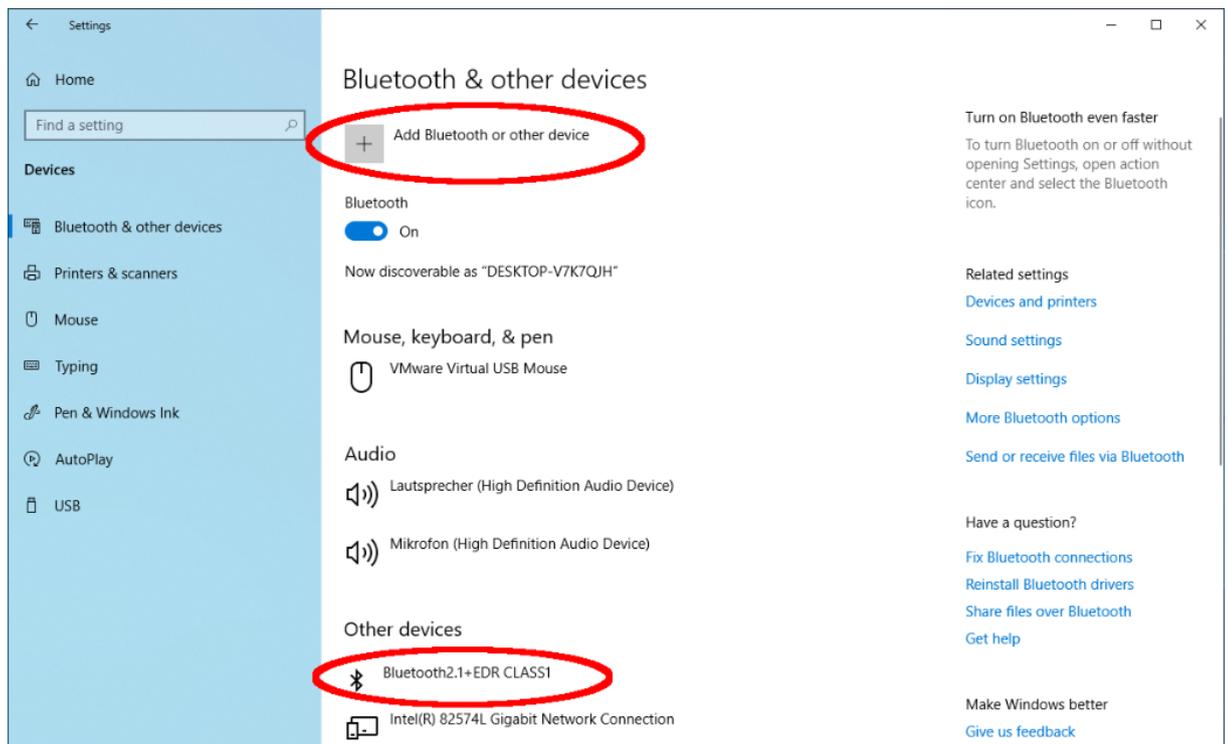
Once the Bluetooth USB adapter is successfully installed the coupling (pairing) between the Bluetooth module of the display and the Bluetooth USB adapter has to be established.

The coupling is absolutely necessary so that the 'SafetyDisplayConfigurator' is connected via a virtual COM port.

### Coupling via Windows 10

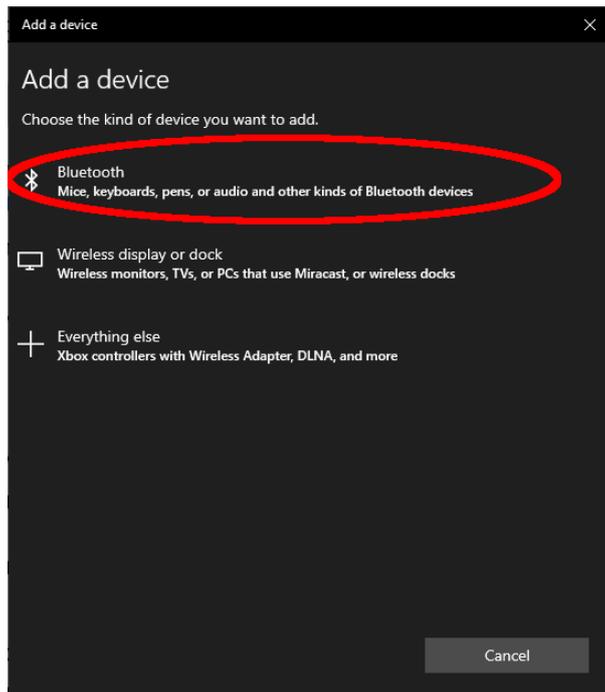
#### Establish the coupling

Open the Windows settings (p.e.: Windows-button + i) and after select the point 'devices'.

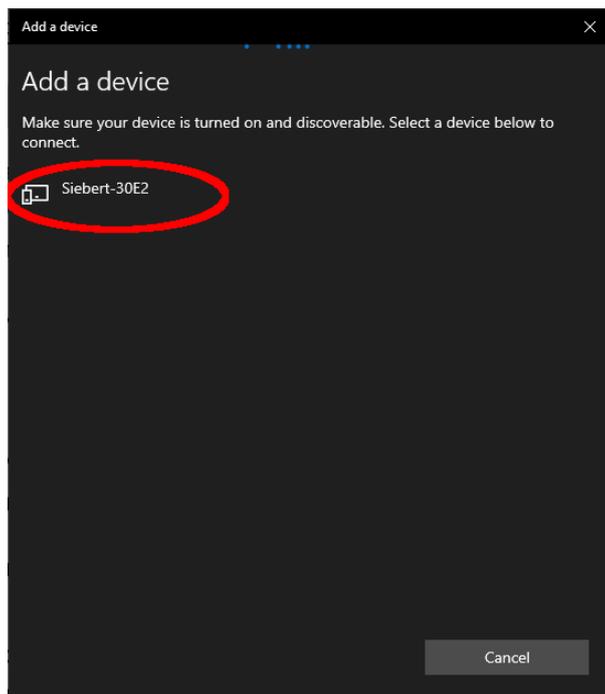


Find your Bluetooth adapter under 'Other devices'.

To connect the Bluetooth adapter to the display, click on 'Add Bluetooth or other device'.



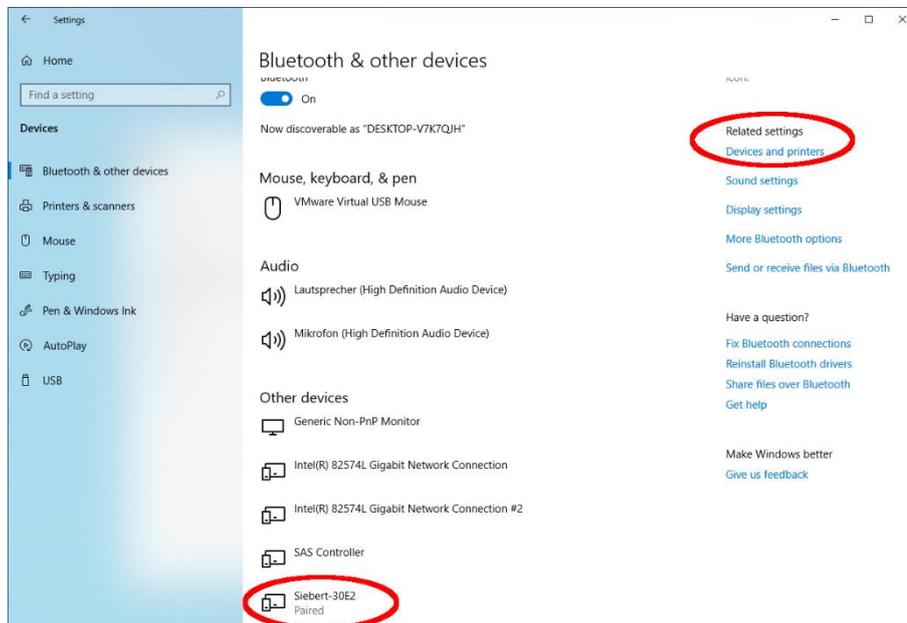
Under 'Add Device', select 'Bluetooth'. Windows will search and display Bluetooth devices.



Select the Siebert-xxxx device. Several displays are distinguished by the last four digits of the Bluetooth ID (xxxx).

## Testing the coupling

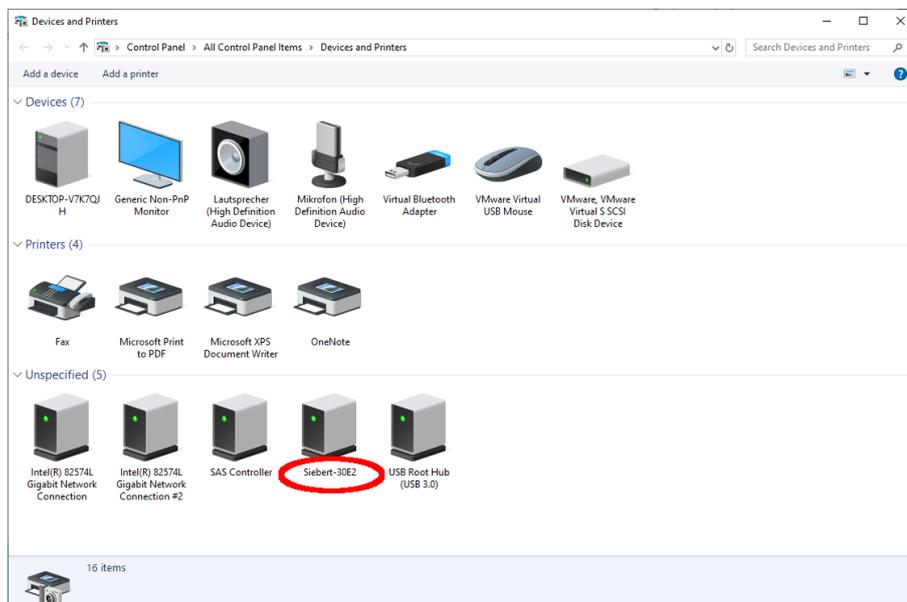
Open the Windows settings (p.e.: Windows-button + i) and after select the point 'devices'.



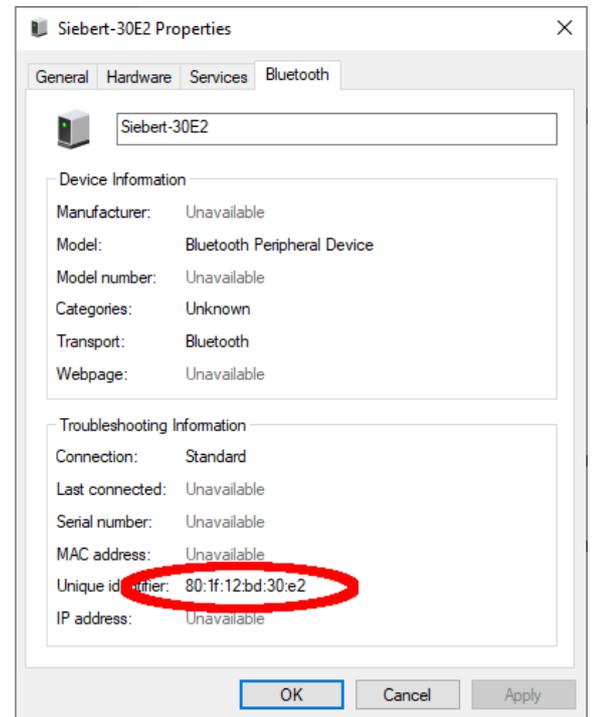
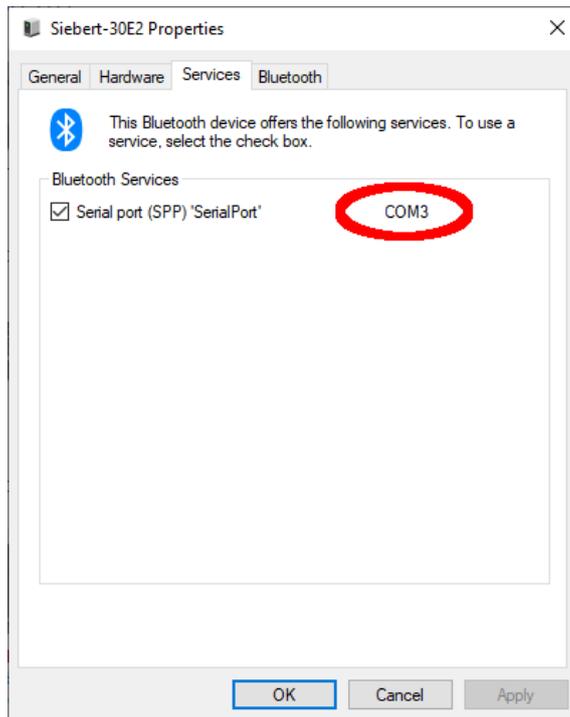
The connected display appears under 'Other devices'.

For communication, the display uses the Bluetooth profile 'Serial Port Device'.  
For this purpose a virtual COM port is created.

To get detailed information about Bluetooth communication, select 'Devices and Printers' under 'Related Settings'.



Select the display by double-clicking on it.



Open the tab 'Services' of the properties dialogue box. The Bluetooth feature 'serial connection (SPP)' has to be activated for the display. The virtual COM port that is used for communication is specified thereafter.

Open the 'Bluetooth tab' of the Properties dialog box. In the line 'Unique ID' you can identify the display.

## Bug fixing

Error description	Solution
The software can not be installed.	<ul style="list-style-type: none"> <li>▪ Make sure that you have admin rights on your PC.</li> <li>▪ Make sure that .NET Framework 4 is installed on your PC.</li> </ul>
The display is not recognized over the network interface.	<ul style="list-style-type: none"> <li>▪ The display is turned off. Turn on the power supply of your display.</li> <li>▪ The network connector is plugged in incorrectly. Check all network connectors. One of the two build in LEDs in each network connector must light permanently.</li> <li>▪ An unsuitable network cable is used. Check if your display needs a cross patch cable or a straight patch cable.</li> <li>▪ The required network ports are blocked by a firewall. Deactivate or configure the firewall.</li> </ul>
The display is not recognized via USB (with displays of type ...-03) or Bluetooth (with displays of type ...-04)	<ul style="list-style-type: none"> <li>▪ The display is off. Turn on the power supply of the display.</li> <li>▪ Check if the Bluetooth coupling between the PC and the display is initialized correctly. Please note the limited range of Bluetooth.</li> </ul>
Error message 'Connection with the display can not be established' (displays with network interface).	<ul style="list-style-type: none"> <li>▪ The TCP-connection is blocked by a firewall. Deactivate or configure the firewall. Ports 8000 and 8100 must be unlocked.</li> <li>▪ Your PC is in a different network segment than the display. Modify the IP-adress of your PC for configuration.</li> </ul>
Error message 'The display does not answer' (displays with serial interface and Bluetooth).	<ul style="list-style-type: none"> <li>▪ Check the serial connection between PC and display.</li> <li>▪ Install the Bluetooth coupling between PC and display.</li> </ul>

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## 11 Service and Support

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If you have any questions or want to take advantages of our services, please contact one of the following addresses:

Germany	Siebert Industrieelektronik GmbH Siebertstrasse, D-66571 Eppelborn Phone +49 (0)6806 980-0 Fax +49 (0)6806 980-999 info.de@siebert-group.com
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Other countries	Please find the addresses as follows: <a href="http://www.siebert-group.com">www.siebert-group.com</a>

So that we can help you quickly and efficiently please have the following information ready on demand:

1. Information on the type plate, in particular type and serial number
2. Detailed description of the problem and the circumstances
3. Telephone and fax number and email address under which you can be contracted for queries