RESISTRON
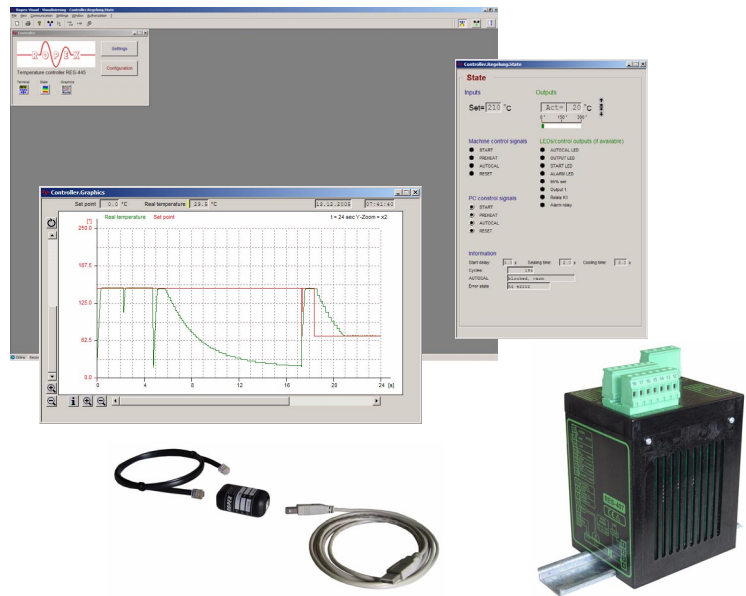

CI-USB-1

Operating Instructions

Important features

- PC software
  (runs under Windows 2000, Windows XP and - as of software version 3.1.0 - Windows Vista)

- Setting and configuration data is displayed

- Set and actual temperatures are displayed in real time

- Data can be saved on a data carrier (e.g. on the hard disk)

- Suitable for RESISTRON/CIRUS temperature controllers with a diagnostic interface (DIAG) and RES-430 (as of SW revision 007) with MOD 33 modification

Contents

1 Principle of operation

The ROPEX visualization software can be used to change the configuration of the connected RESISTRON/CIRUS temperature controller and document the actual heatsealing parameters. The software communicates in different ways, depending on the controller:

• RES-430 (as of SW revision 007):
The visualization software communicates with the RES-430 via a serial interface on the PC (COM port). The serial piggyback module (MOD 33 modification) must be installed on the RES-430 for this purpose. It is connected to the PC by means of a serial data cable.

RES-430 with piggyback module (MOD 33) and T-430 terminal

Serial cable (RS-232)

PC / notebook (with COM port)
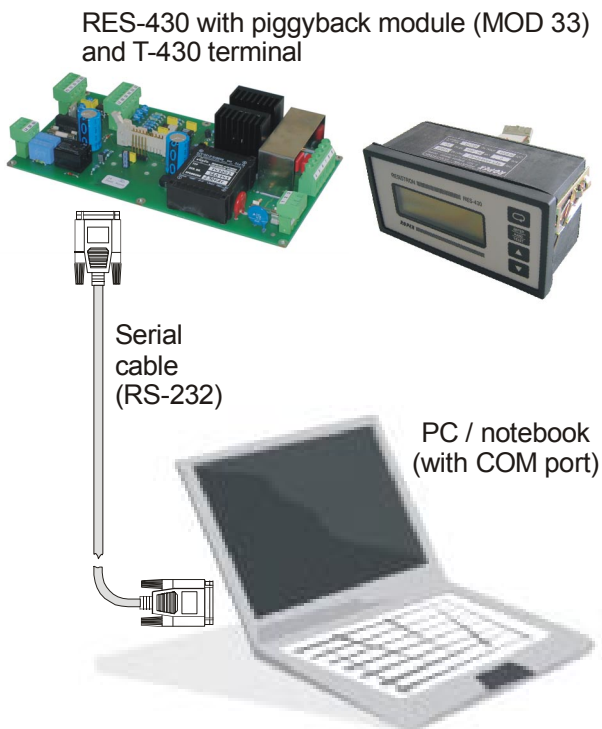
• All other RESISTRON/CIRUS controllers (with diagnostic interface):
The CI-USB-1 communication interface is required for communication. It connects the diagnostic interface on the controller (DIAG) to a USB port on the PC.

RESISTRON/CIRUS controller with DIAG interface (e.g. RES-407 as of April 2005)

CI-USB-1 with connecting cables

PC / notebook (with USB port)
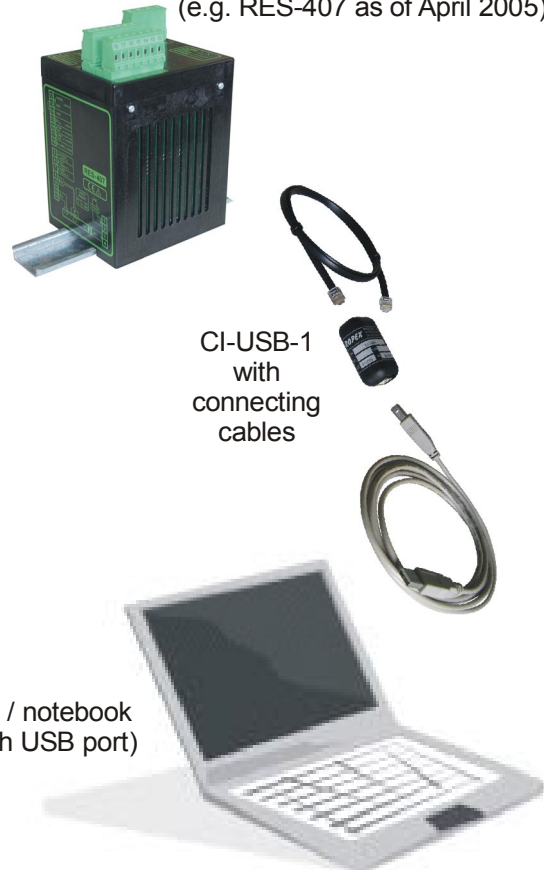
The functionality of the visualization software depends on the connected controller. Please refer to the latest version of the controller documentation for the possible functions and configurations.

⚠ **The visualization software can only be used either with the RES-430 controller (as of SW revision 007) with MOD 33 or with a controller with a diagnostic interface (6-pole Western socket). The date of manufacture and/or the serial number as of which this interface is compatible are indicated in the controller documentation.**

2 Installing the software and driver

⚠️ **The visualization software is designed to run under Microsoft Windows XP and Windows Vista (as of software bersion 3.1.0). If you work with a different operating system, no functional guarantee can be provided by ROPEX.**

2.1 Installation under Windows XP

⚠️ **The visualization software must be installed on the PC before you connect the CI-USB-1 communication interface. If not, you will not be able to install the correct driver for the CI-USB-1 and malfunctions can occur.**

The visualization software is supplied as an executable Setup file. It is installed on your PC by this file. Proceed as follows to install the software:

1. Switch on the PC and boot up the operating system.

⚠️ **You need administrator rights to install the software. You may need to log in as the administrator.**

2. Start the Setup file with the name Ropex_Vis_setup.exe (e.g. in Explorer or by selecting START --> RUN).
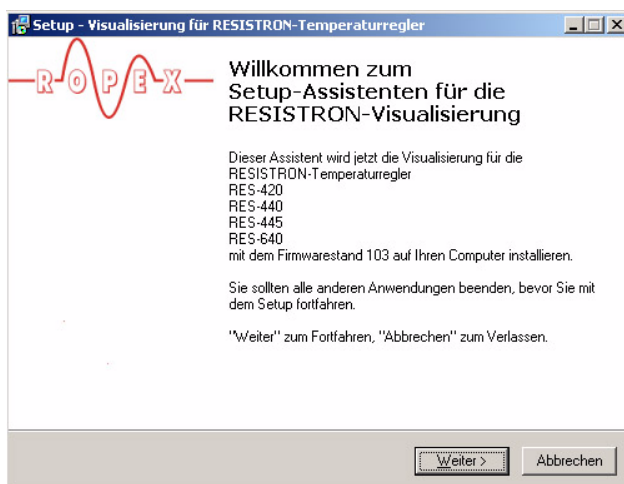
During the installation procedure, the Setup routine prompts you to choose a language, confirm the license agreement, select an installation folder and create a desktop icon.

As of software version 3.1.0:
A message according the installation of the certified driver is displayed during the installation. Please accept this driver by clicking on "Continue".
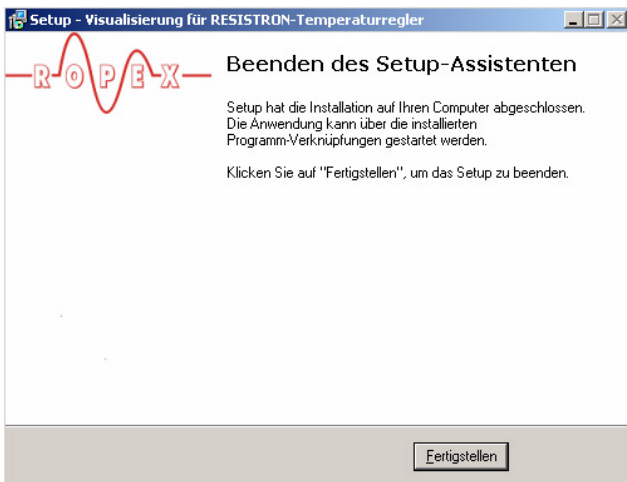
Up to software version 3.0.5:
A warning concerning the Windows XP certification of a (not certified) driver is displayed during the installation. Please accept this driver by clicking on "Continue Installation".

After you have entered or confirmed all the required data, the setup of the software is complete.

3. After installing the visualization software, connect the CI-USB-1 communication interface to the PC with the USB cable.

4. The Windows Hardware Wizard opens automatically. When you are asked to specify "Connection to Windows Update", click on "No, not yet".
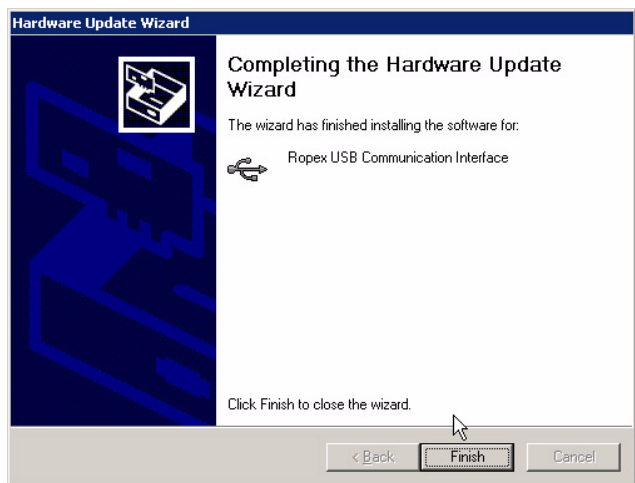

Up to software version 3.0.5:
Once again, a warning concerning the Windows XP certification of a driver is displayed. Please accept this driver by clicking on "Continue Installation".

After you have entered or confirmed all the required data, the installation of the CI-USB-1 driver is complete.

5. A Windows message is displayed if the driver installation was successful.

⚠️ **If you are using an RES-430 controller, you do not need to install the CI-USB-1 driver (steps 3 to 5). The visualization software communicates with this controller via a serial interface on the PC (COM port).**

6. You can now start the visualization software either by double clicking on the desktop icon (if one has been created) or by selecting START --> PROGRAMS --> ROPEX --> VISUALIZATION (⤷ section 3.3 "Starting the software" on page 8).

3 Functions of the visualization software

3.1 Software revision management

3.1.1 Controller software revisions

The settings and functions available in the visualization software vary according to the software revision of the connected RESISTRON/CIRUS controller. Please refer to the latest version of the controller documentation for detailed information about these settings and functions.

Version information about all currently available controller software revisions is saved on the PC when you install the visualization software.

⚠️ **You should always use the latest version of the visualization software. This is necessary to ensure that all available controller software revisions are supported.**

The last software revision used is saved by the visualization software and activated again next time you start up the system.

If the connected controller has a different software revision from the one that is loaded in the visualization software, a message is displayed. Confirm this message to exit the visualization software. The new software revision is activated when you restart the visualization software, and you can use it with the connected controller.
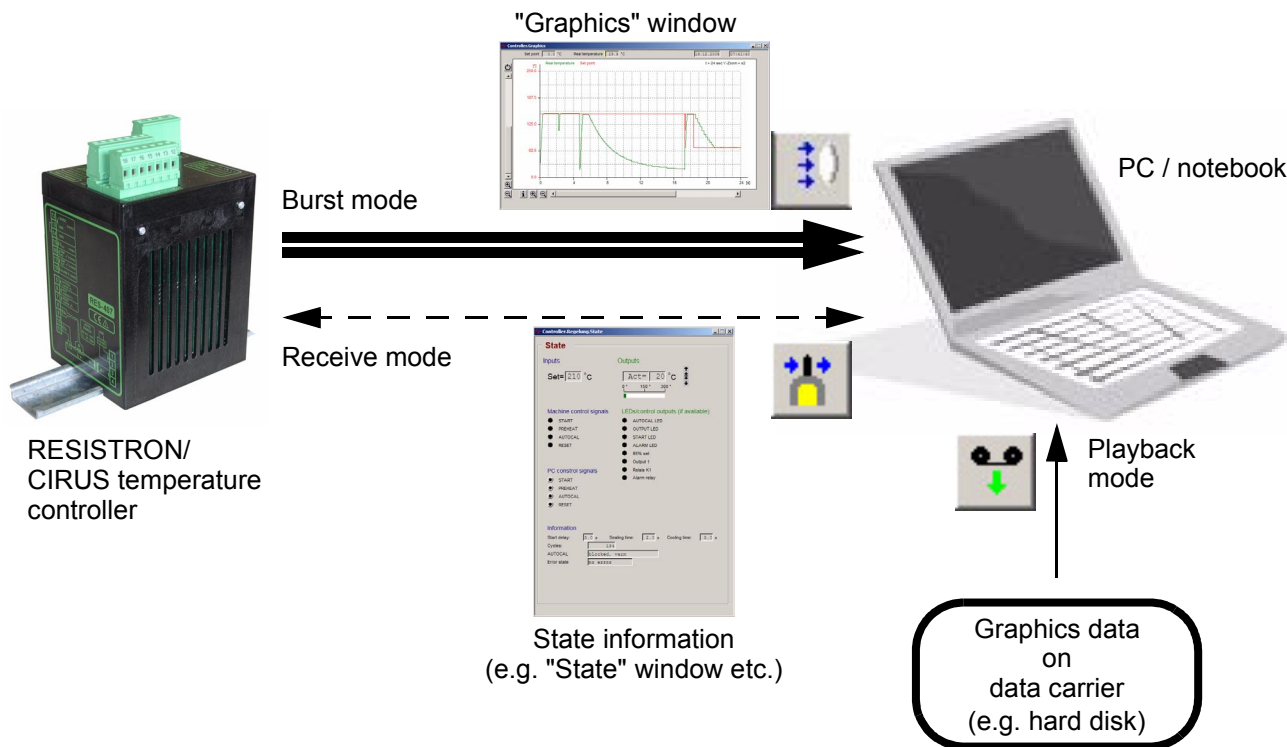
3.1.2 Graphics data version

Each time you save graphics data (⤷ section 3.7.1 ""File" menu" on page 14), the current software revision of the connected controller is saved as well. This data can only be subsequently reloaded using the same revision of the visualization software. If the software revision is not identical, a message is displayed. In this case, you must restart the visualization software in order to load and display the graphics data.

⚠️ **If the graphics data requires a different software revision from the connected controller, you should not confirm the message concerning the controller software revision after you restart the visualization software. If you do, you will restart again with the software revision of the connected controller.**

3.2 Transfer modes

The visualization software provides various modes (transfer modes) for displaying and entering data that is transferred between the controller and the PC. These modes are described below.

"Graphics" window

PC / notebook

Burst mode

Receive mode

RESISTRON/
CIRUS temperature
controller

State information
(e.g. "State" window etc.)

Playback
mode

Graphics data
on
data carrier
(e.g. "hard disk)

3.2.1 Receive mode

This is the normal mode of the visualization software (used to transfer state information). It allows the controller parameters (setting and configuration data) to be transferred to/from the PC. This data is only transferred if the parameters have been changed in the visualization software or if the controller is switched on/off (online/offline mode).

If parameters are changed on the controller (in the menus of a front panel device, e.g. RES-440), the new parameters must be manually loaded from the controller into the visualization software (with *Communication --> Parameters from device*, ↳ section 3.7.3 ""Communication" menu" on page 15).

⚠ **Data for the "Graphics" window cannot be transferred in receive mode (↳ section 3.6.4 ""Graphics" window" on page 12). This is only possible in burst mode (↳ section 3.2.2 "Burst mode" on page 7).**

3.2.2 Burst mode

This mode is used to transfer data for the "Graphics" window (↳ section 3.6.4 ""Graphics" window" on page 12). Enormous amounts of data are transferred here in real time (50x or 60x per second). It is not possible to transfer other data simultaneously for this reason (e.g. like the configuration data in receive mode).

⚠ **The contents of all windows that are transferred in receive mode ("State" window, "Settings" window etc.) are not valid in burst mode.**

When you open the "Graphics" window, burst mode is automatically activated by the visualization software. If you switch between the two transfer modes without closing the "Graphics" window, you must activate burst mode again manually by clicking on the "Burst mode" icon (↳ section 3.8.7 ""Burst mode" icon" on page 18) .

3.2.3 Playback mode

Graphics data that has been saved in a file on a data carrier (e.g. on the hard disk) can be displayed in this mode in the "Graphics" window (✎ section 3.6.4 ""Graphics" window" on page 12). To do this, you must activate playback mode by clicking on the "Playback mode" icon (✎ section 3.8.6 ""Playback mode" icon" on page 18).

You can then load the saved graphics data by selecting *File --> Open*.

⚠ **The contents of all windows that are transferred in receive mode ("State" window, "Settings" window etc.) are not valid in playback mode.**

3.3 Starting the software

You start the visualization software either by double clicking on the desktop icon (if one has been created) or by selecting START --> PROGRAMS --> ROPEX --> VISUALIZATION.

3.3.1 Selecting the CI-USB-1 communication interface

A selection menu is only displayed when you start the visualization software if more than one CI-USB-1 interface is connected to the PC.

Once the software has started, you can check or change the selected CI-USB-1 interface or COM port in the *Settings --> Port selection* menu (✎ section 3.7.4 ""Settings" menu" on page 16).

3.3.2 Selecting the controller software revision

The system checks software revision of the connected controller when you start the visualization software (✎ section 3.1.1 "Controller software revisions" on page 6).

If the connected controller has a different software revision from the one that is loaded in the visualization software, a message is displayed. Confirm this message to exit the visualization software automatically. The new software revision is activated for the connected controller when you manually restart the visualization software.

3.4   Screen layout

The screen below is displayed when you start the visualization software:

Menus

Toolbar

"Controller" window
(cannot be
 closed)

Status bar
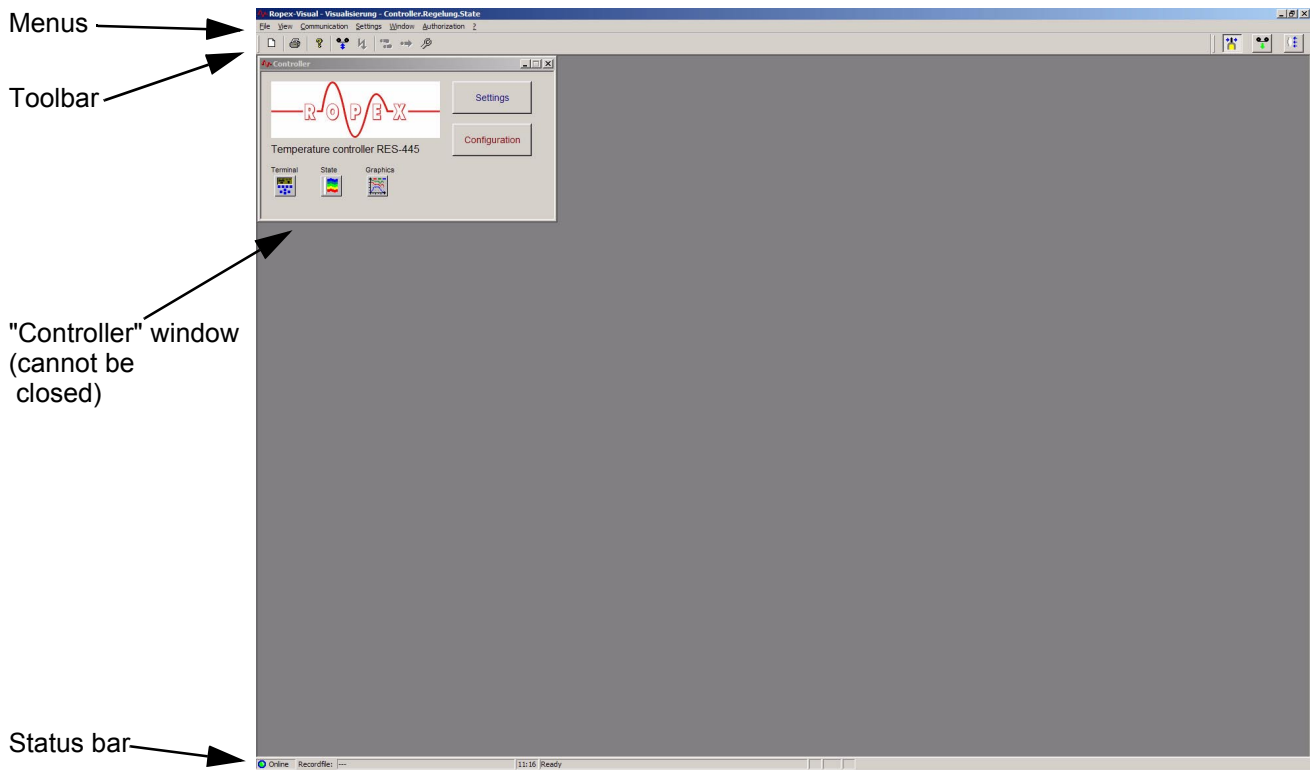
Example: RES-445 controller

3.5   Displaying/changing data

You can display and/or change the parameters (setting and configuration data) of the connected controller in the various windows of the visualization software (⬥ section 3.6 "Windows" on page 10).

The parameters are always displayed. Individual parameters can also be changed, depending on the selected password level (⬥ section 3.7.6 ""Authorization" menu" on page 16). Parameters which can only be displayed appear on a gray background. Editable parameters have a white background.

Double click
opens input window
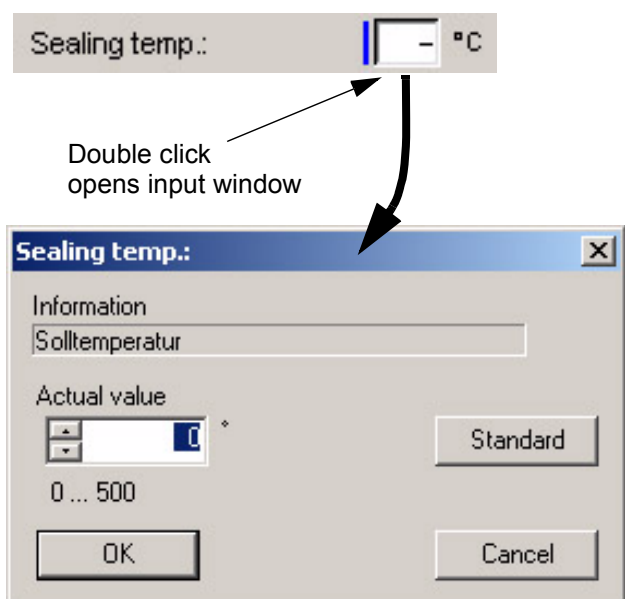
By double clicking in the parameter display, you open the corresponding input window. Each parameter can be changed within the permissible range (e.g. heatsealing temperature: 0…500°C in the 500°C-range). Dropdown menus are provided for parameters with only a few possible selections (e.g. hold mode on the RES-440: "ON", "OFF", "2 s").

By clicking the "Default" button, you select the default value (factory setting) for a parameter.

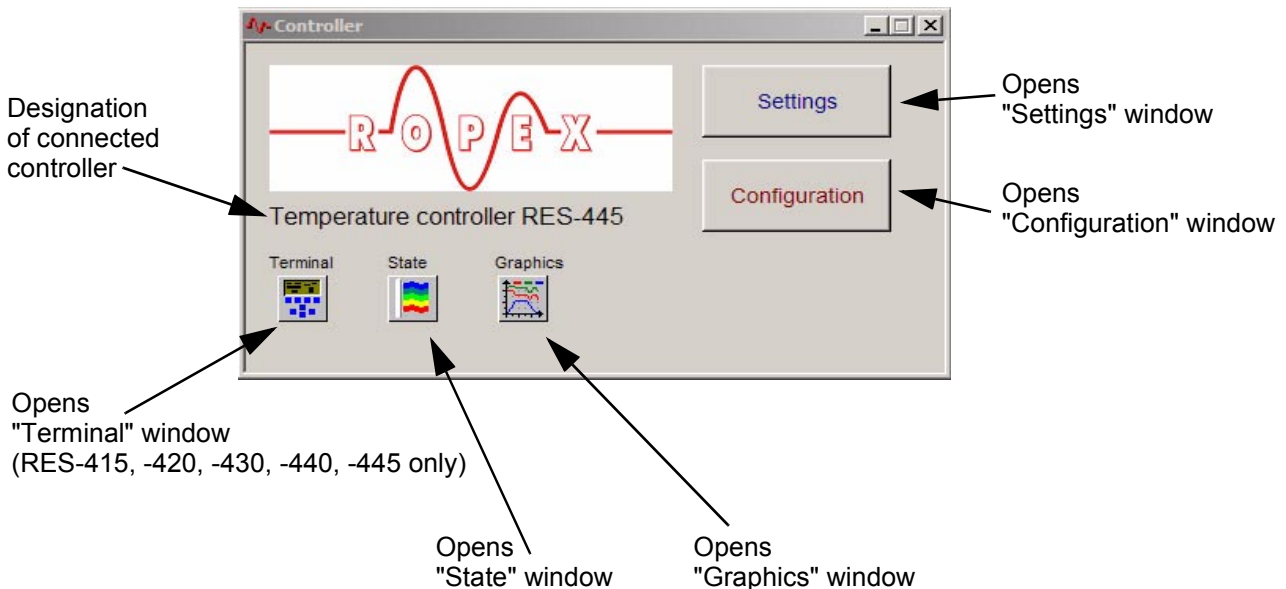Either confirm your input by clicking the "OK" button or cancel it again with "Cancel".

3.6 Windows

3.6.1 "Controller" window

All other windows can be opened from the main ("Controller") window. It is possible to open several windows simultaneously.

The "Controller" window is always open, i.e. it cannot be manually closed.
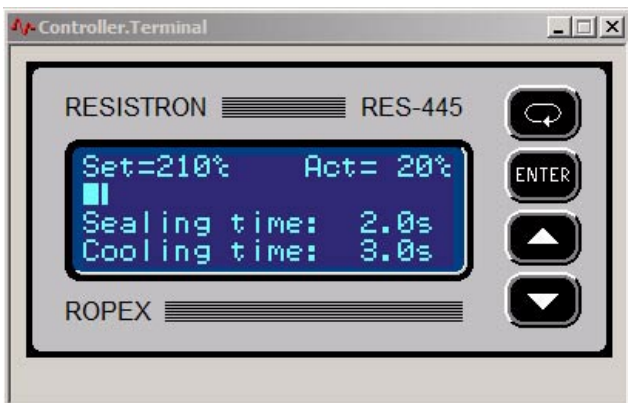

Example: "Controller" window on RES-445 controller

3.6.2 "Terminal" window

The "Terminal" window allows a connected controller with a display and keyboard (RES-415, -420, -430, -440, -445) to be remote controlled.

By clicking on the icons with the mouse, you activate the corresponding buttons on the controller. The contents of the controller display are also shown in this window. If no controller is connected (offline mode), the message "-- Offline --" is displayed instead of the screen contents. If data for the "Graphics" window is transferred in burst or playback mode, the message

"-- Burst --" or "-- Playback --" is displayed instead of the screen contents.

Example: "Terminal" window on
RES-445 controller

3.6.3 "State" window

This window shows information about various states, depending on the functionality of the connected controller. This information is subdivided into the following groups:

- **Inputs**
  Example: Value of the analog input for set point selection

- **Machine control signals**
  States of the digital control signals (e.g. START, AUTOCAL etc.). An active signal is represented by a colored dot next to the signal name.
  These states allow you to check the functions of the external control signals (e.g. at the PLC outputs).

- **PC control signals**
  Function varies according to the selected password level (⬦ section 3.7.6 ""Authorization" menu" on page 16).
  By clicking the buttons next to the signal names, you activate the corresponding signals from the visualization software. A signal remains active as long as its button is clicked.
  This is useful if the external control signals are not yet connected when you start up the system.

- **Outputs**
  Example: Value of the analog output for actual value output.

- **LEDs/control outputs (if available)**
  Shows the LEDs on the controller (if any), e.g. Output, START Signal, AUTOCAL etc.
  The states of optional output signals are also indicated (e.g. MOD 46 "Temperature OK").

- **Information**
  Shows controller error messages (if any exist on the connected controller) as well as information about the states of the AUTOCAL and AUTOCOMP functions.
  In the case of controllers with time control (e.g. RES-430, -440, -445), you also see information about the time controlled heatsealing and cooling phases (assuming they are activated in the controller) as well as the cycle counter.
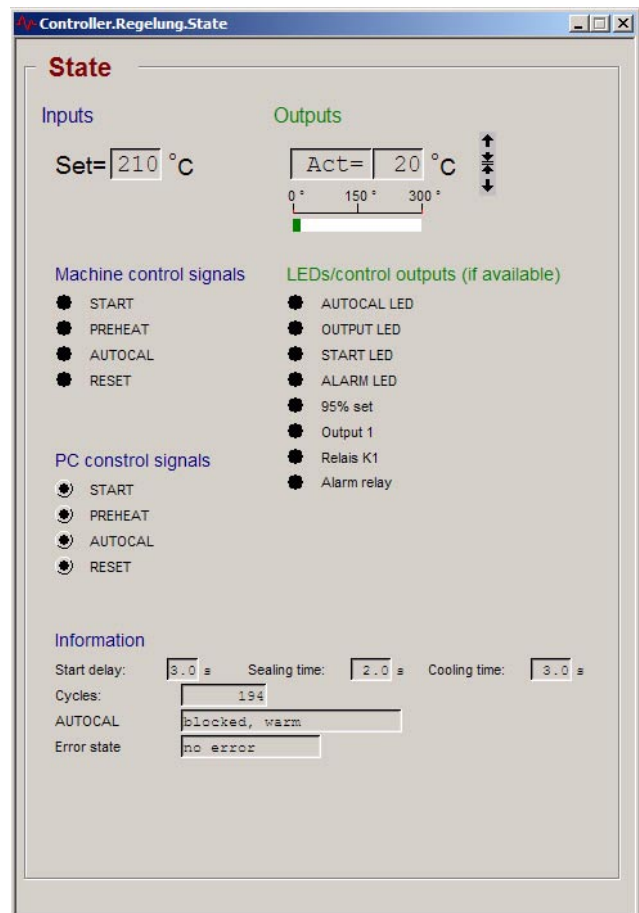
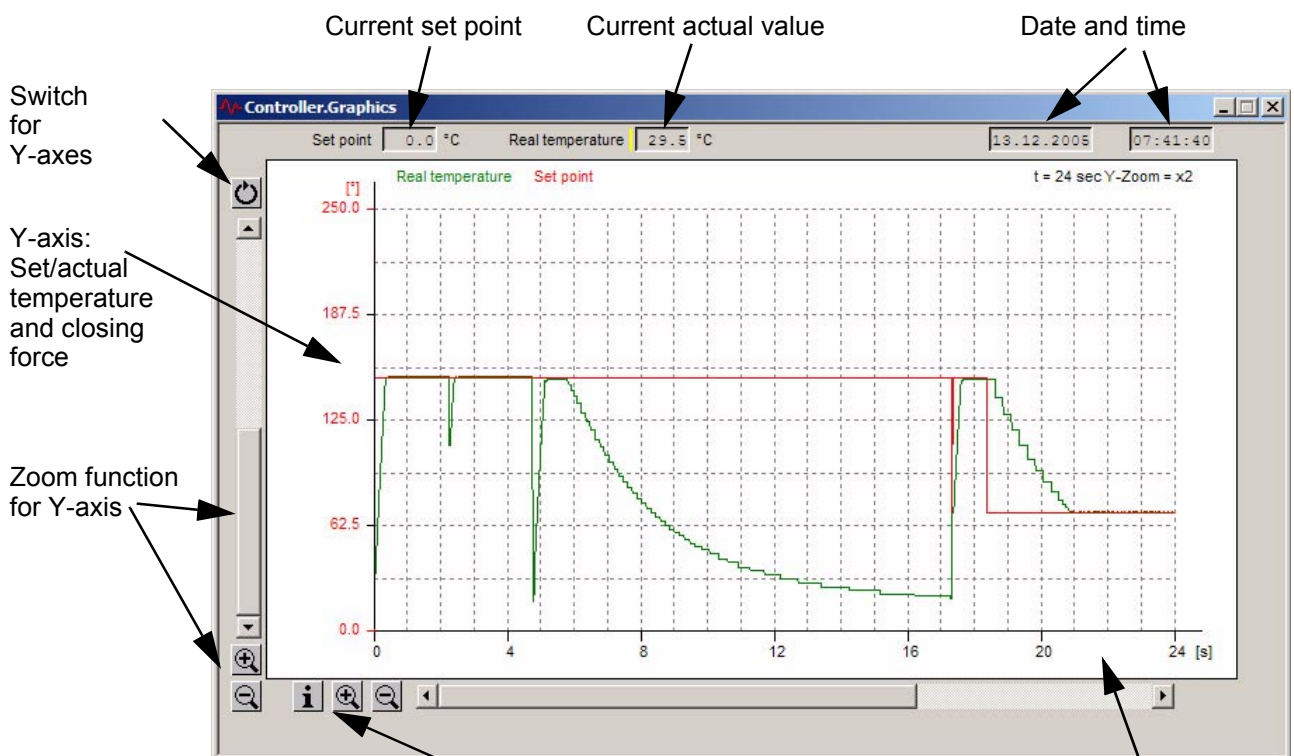Example: "State" window on
RES-445 controller, SW revision 101

3.6.4 "Graphics" window

⚠️ **Data in the "Graphics" window can only be output in burst mode (↳ section 3.2.2 "Burst mode" on page 7).**

When you open the "Graphics" window, burst mode is automatically activated by the visualization software. If you switch between the two transfer modes without closing the "Graphics" window, you must activate burst mode again manually by clicking on the "Burst mode" icon (↳ section 3.8.7 ""Burst mode" icon" on page 18) .

The set and actual temperatures of the controller are represented in this window as a function of a time axis. Data is only recorded if the START signal is active. In the case of controllers with time control (timer function), it is recorded for the complete duration of the timeout. Various other data can also be recorded in this window, depending on the functionality of the connected controller (RES-430: closing force).

⚠️ **If burst mode is active, new data is recorded every 20 ms.**

Current set point   Current actual value   Date and time

Switch for Y-axes

Y-axis: Set/actual temperature and closing force

Zoom function for Y-axis

Example: "Graphics" window on RES-445 controller, SW revision 101

Info button   X-axis: Time scale

The integrated zoom function for the Y-axis allows recorded data to be displayed in greater detail.
Individual data records in the "Graphics" window can additionally be displayed as numerical values in the

"Record panel" window (↳ section 3.6.7 ""Record panel" window" on page 13).
You can delete the window contents by selecting *File --> New*. All displayed data is then lost.
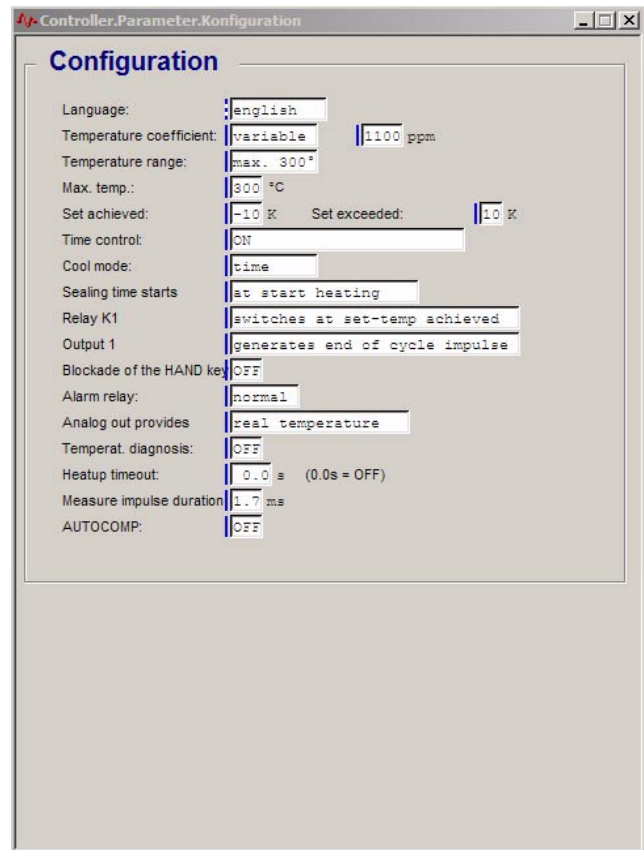
3.6.5 "Settings" window

The setting data of the connected controller is shown in this window. In the case of controllers for front panel mounting (RES-415, -420, -430, -440, -445), this is the data in the Settings menus.
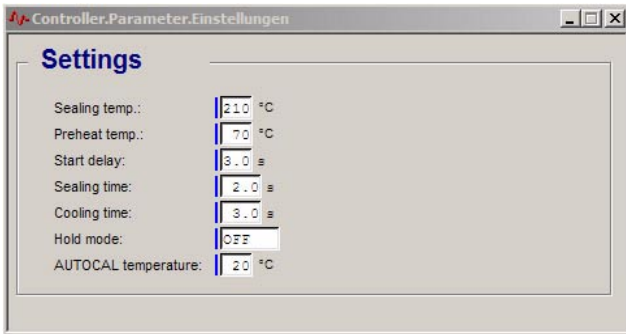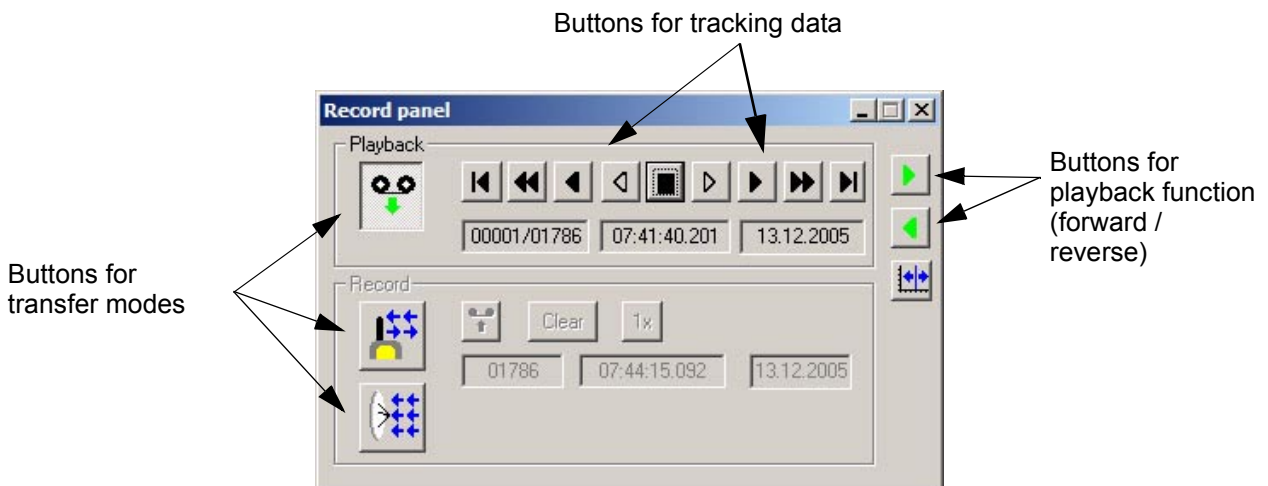

Example: "Settings" window on
RES-445 controller, SW revision 101

3.6.6 "Configuration" window

The configuration data of the connected controller is shown in this window. In the case of controllers for front panel mounting (RES-415, -420, -430, -440, -445), this is the data in the Configuration menus.

Example: "Configuration" window on
RES-445 controller, SW revision 101

3.6.7 "Record panel" window

This window allows the data records in the "Graphics" window () to be displayed in greater detail.

Buttons for tracking data

Buttons for playback function (forward / reverse)

Buttons for transfer modes

The buttons for the playback function allow you to simulate the (forward or reverse) sequence of the recorded data.

The tracking buttons allow you to select and display individual data records. These buttons have the following functions:

Button	Function
⏮	Jump to the first data record (start)
⏪	Jump back 100 data records (2 s)
◀	Jump back 10 data records (200 ms)
◁	Jump back 1 data record (20 ms)
⏹	Stop the playback function
▷	Jump forward 1 data record (20 ms)
▶	Jump forward 10 data records (200 ms)
⏩	Jump forward 100 data records (2 s)
⏭	Jump to the last data record (end)

By clicking the appropriate buttons, you can also switch between the different transfer modes (↳ section 3.2 "Transfer modes" on page 7).

3.7 Menus

3.7.1 "File" menu

"New"
The contents of the "Graphics" window are deleted (↳ section 3.6.4 ""Graphics" window" on page 12). All displayed data is lost.
This command has the same effect as selecting *File --> Close*.

"*Open*"
Only active in playback mode (↳ section 3.2.3 "Playback mode" on page 8).
Opens a selection menu in which you can load data for the "Graphics" window (↳ section 3.6.4 ""Graphics"

window" on page 12). Data that was previously saved in the "Graphics" window can be reloaded and displayed with this command.

⚠ **If the software revision of the saved data does not match the active revision of the visualization software, a message is displayed and the software is exited. When you restart the software, the correct revision is automatically activated and you can load the required data (↳ section 3.1.2 "Graphics data version" on page 6) .**

⚠ **You can only load files that have previously been saved with *File --> Save* or *File --> Save as*.**

"Save"
Only active in burst mode (↳ section 3.2.2 "Burst mode" on page 7) and if data records are displayed in the "Graphics" window.
Opens a menu in which you can save the data in the "Graphics" window (e.g. for documentation purposes). The data is saved in ROPEX RDF format.
The path you specified the last time you saved data on the data carrier (e.g. on the hard disk) is remembered for the next save.
You can reload the saved data with *File --> Open*.

"Save as"
Saves the data in the "Graphics" window in a new file on the data carrier (e.g. as a copy). This command is available in any transfer mode (↳ section 3.2 "Transfer modes" on page 7), even if no data records are displayed in the "Graphics" window.
You can reload the saved data with *File --> Open*.

"Close"
This command has the same effect as selecting *File --> New* (↳ section 3.7.1 ""File" menu" on page 14).

"Print"
This command has the same effect as clicking on the "Print" icon (↳ section 3.8.2 ""Print" icon" on page 18). The contents of the currently selected window (↳ section 3.6 "Windows" on page 10) are printed out.

⚠ **The print function is not available for all windows.**

"Print preview"

Opens a print preview of the current window.

- To zoom in:
  Click the left mouse button

- To zoom out:
  Click the right mouse button

"ASCII export"

Exports the data records in the "Graphics" window (↳ section 3.6.4 ""Graphics" window" on page 12) in ASCII format and saves them in a file (e.g. on the hard disk).

The data is saved in this file in CSV format. After selecting a file name for the save, you are prompted to specify a separator for the data export. You can choose either semicolon (";" = German format) or comma ("," = US format).

The ASCII data is exported in the following order:

- - Date

- - Time

- - Current closing force [N]

- - Sensor temperature [°C]

- - Set temperature [°C]

- - Actual temperature [°C]

Any data which is not available on the currently connected controller is output nevertheless and identified as invalid with the value "-32767".

⚠️ **The saved ASCII file cannot be reloaded in the visualization software. You can only reload files that were previously saved with *File --> Save* or *File --> Save as*.**

"Exit"

Exits the visualization software.

3.7.2   "View" menu

"Toolbar"

Switches the toolbar on or off.

"Status bar"

Switches the status bar on or off.

"Record panel"

Opens the "Record panel" window (↳ section 3.6.7 ""Record panel" window" on page 13). This window allows the data records in the "Graphics" window (↳ section 3.6.4 ""Graphics" window" on page 12) to be displayed in greater detail.

3.7.3   "Communication" menu

This menu is only active in receive or playback mode (↳ section 3.2 "Transfer modes" on page 7).

"Parameters from device"

Loads the setting and configuration data from the controller into the visualization software.

"Parameters to device"

Saves the setting and configuration data contained in the visualization software windows on the connected controller.

This is only meaningful if you previously loaded setting and configuration data into the visualization software from a data carrier.

See *Communication --> Load parameters*.

Saving data on the controller is possible as of password level „3" (oder higher) only (↳ section 3.7.6 ""Authorization" menu" on page 16). Saving data in a lower password level is not possible. A warning message is displayed on the screen then.

"Load parameters"

Loads the setting and configuration data from a file (e.g. on the hard disk) into the visualization software.

The type and quantity of the data that is loaded may differ from the setting and configuration data on the connected controller.

A message is therefore displayed during the load operation if any of this data does not match the software revision of the connected controller. There are two possible causes:

- The saved data does not exist on the controller. In this case, the data is rejected.

- Data required by the controller does not exist in the saved data. In this case, the data concerned is set to the factory settings in the visualization software.

⚠️ **You can only reload files that were previously saved with *Communication --> Save parameters*.**

"Save parameters"
Saves the setting and configuration data contained in the visualization software in a file (e.g. on the hard disk). The data is saved in a special ROPEX XML format.
You can reload the saved data into the visualization software with *Communication --> Load parameters*.

"Parameters to ASCII"
Exports the setting and configuration data in ASCII format and saves it in a file (e.g. on the hard disk). The data is saved in this file in CSV format.
Data that is saved in this way can then be further processed or printed out in a word processing program, for instance.

⚠ **The saved ASCII file cannot be reloaded in the visualization software. You can only reload files that were previously saved with *Communication --> Save parameters*.**

„Protocol from device"
Loads diagnostic data from the controller into the visualization software.

⚠ **In order to avoid malfunctions, you shall not use this function.**

"Modem"
Displays the settings required for communication with an external modem.

⚠ **In order to avoid malfunctions, you should leave these settings unchanged.**

3.7.4 "Settings" menu

"Language"
Used to select the language of the visualization software here.

"Port selection"
Used to select and display the serial numbers of the connected CI-USB-1 communication interfaces and/or serial interfaces (COM-ports).

"Timing"
Displays the settings required for communication with a connected RESISTRON/CIRUS temperature controller.

⚠ **In order to avoid malfunctions, you should leave these settings unchanged.**

3.7.5 "Window" menu

"Cascade"
The visible windows are cascaded.

"Tile horizontally"
The visible windows are tiled horizontally.

"Arrange icons"
The icons for the minimized windows are arranged at the bottom of the screen.

3.7.6 "Authorization" menu

⚠ **Password level "0" is set as the default authorization (e.g. when you install or start the visualization software).**

The following password levels are available:

Password level	Password	Options
0	-	Default setting. All setting and configuration data can be displayed.
1	ropex1	Like password level "0".
2	ropex2	Like password level "0".
3	ropex3	Like password level "0". The "PC control signals" data can be activated in the "State" window (⇨ section 3.6.3 ""State" window" on page 11). You are also allowed to change parameters (configuration data, ⇨ section 3.6.6 ""Configuration" window" on page 13).

"Authorize"
Opens a menu in which you can enter a password for a new password level.

"Lock"
Activates password level "0".

"Passwords"

Used to display or change currently valid passwords.

By double clicking on the password you want to change, you open a menu in which you can enter a new password.

⚠️ **You can display or change all passwords for the current - or lower - password levels in this menu.**

## 3.7.7   "?" menu

"About Ropex Visualization"

This command has the same effect as clicking on the "?" icon (↳ section 3.8.3 ""?" icon" on page 18).
General information is displayed about the visualization software and the connected RESISTRON/CIRUS temperature controller.
The operating hours counter integrated in the connected controller is also shown in addition to the controller software version and serial number.
The total number of cycles displayed here is independent of the cycle counter in the "Configuration" window (assuming one exists in the controller)

(↳ section 3.6.6 ""Configuration" window" on page 13).
It always refers to the total number of controller cycles since delivery by ROPEX.
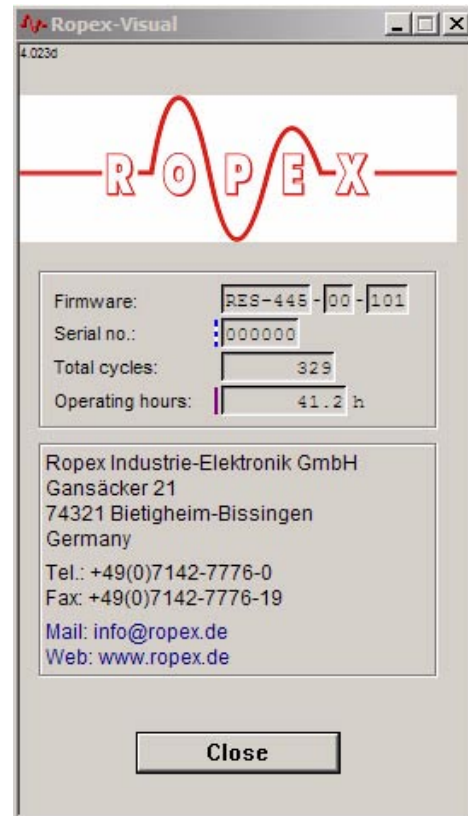
⚠️ **Regardless of your authorization (↳ section 3.7.6 ""Authorization" menu" on page 16), you are only allowed to display parameters in this menu, not change them.**

"Help"

Opens the documentation for the CI-USB-1.
You see the documentation file that was saved on the PC when you installed the visualization software. The latest version of the documentation can be downloaded from the ROPEX web site: www.ropex.de.

3.8 Toolbar

3.8.1 "New" icon

Clicking on this icon has the same effect as selecting *File --> New* (↻ section 3.7.1 ""File" menu" on page 14).

3.8.2 "Print" icon

Clicking on this icon has the same effect as selecting *File --> Print* (↻ section 3.8.2 ""Print" icon" on page 18).

3.8.3 "?" icon

Clicking on this icon has the same effect as selecting *? --> About ROPEX Visualization* (↻ section 3.7.7 ""?" menu" on page 17).

3.8.4 "Record panel" icon

Opens the "Record panel" window (↻ section 3.6.7 ""Record panel" window" on page 13).

3.8.5 "Receive mode" icon

Activates receive mode (↻ section 3.2.1 "Receive mode" on page 7) for transferring setting and configuration data between the visualization software and the connected RESISTRON/CIRUS temperature controller.

3.8.6 "Playback mode" icon

Activates playback mode (↻ section 3.2.3 "Playback mode" on page 8) for loading data on a data carrier (e.g. on the hard disk) into the "Graphics" window (↻ section 3.6.4 ""Graphics" window" on page 12).

3.8.7 "Burst mode" icon

Activates burst mode (↻ section 3.2.2 "Burst mode" on page 7) for transferring data between the connected RESISTRON/CIRUS temperature controller and the "Graphics" window (↻ section 3.6.4 ""Graphics" window" on page 12) in the visualization software.

3.9 Status bar

Displays state information.
The states of the transfer modes between the visualization software and the connected RESISTRON/CIRUS temperature controller are indicated by the words "Online" and "Offline":

- Online: Data transfer is active.
  The data displayed in the visualization software is valid.
- Offline: Data transfer to the RESISTRON/CIRUS temperature controller is not active
  (e.g. controller not connected).
  The data displayed in the visualization software is not valid.
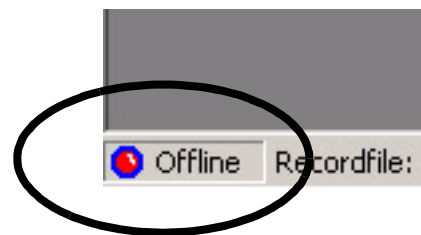
3.10 Software version number

⚠️ **In order to avoid malfunctions, you should always use the latest version of the visualization software. The software can be downloaded from the ROPEX web site: www.ropex.de.**

You can find the version of the installed visualization software in the "Software" folder of the Control Panel:

Select START --> SETTINGS
--> CONTROL PANEL

--> Open the "Software" folder
--> Select "ROPEX Visualization"

Software version number

Please always quote the software version number if you encounter any problems or require further information.

4 Uninstalling the software and driver

4.1 Uninstalling the visualization software

There are two ways to uninstall the visualization software:

• By running the Uninstall program supplied with the software. To do this, select START --> PROGRAMS --> ROPEX --> VISUALIZATION --> UNINSTALL

or:

• By removing it in the "Software" folder of the Control Panel:
  Select START --> SETTINGS
  --> CONTROL PANEL
  --> Open the "Software" folder
  --> Click on "ROPEX Visualization"
  --> Click on "Change or Remove Programs" to remove the software

⚠️ **The driver for the CI-USB-1 communication interface is not removed when you uninstall the visualization software (up to software version 3.0.5). If you want to remove the driver as well, you must do this in a separate step (**↳ **section 4.2 "Uninstalling the CI-USB-1 interface driver (up to software revision 3.0.5)" on page 19).**
As of software version 3.1.0 the driver is removed automatically when the visualization software is uninstalled.

4.2 Uninstalling the CI-USB-1 interface driver (up to software revision 3.0.5)

The driver for the CI-USB-1 communication interface can only be uninstalled in the "Software" folder of the Control Panel:

Select START --> SETTINGS
--> CONTROL PANEL
--> Open the "Software" folder
--> Click on "ROPEX USB Communication Interface Driver Set"
--> Click on "Change or Remove Programs" to remove the driver

As of software version 3.1.0 the driver for the communication interface is removed automatically when the visualization software is uninstalled (↳ section 4.1 "Uninstalling the visualization software" on page 19).

5 Copyright/trademarks

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6 CI-USB-1 communication interface

6.1 Technical data

Type of construction	Plastic enclosure W x H x D: 31 x 24 x 56mm, without cables
Supply voltage	+5VDC, via the USB port on the PC
Power loss	max. 2W
Ambient temperature	+5…+45°C
Degree of protection	IP20
Weight	Approx. 20g (without cables)
Enclosure material/ color	Plastic, ABS Color: RAL 9004 (black)
Cables	Connection to PC: USB A-B cable, length 1.8m Connection to controller:6pole cable with Western connectors, length 0.6m

6.2 Scope of supply

USB A-B cable
(connection to PC)

6pole cable
with Western connectors
(connection to controller)

CI-USB-1
communication interface
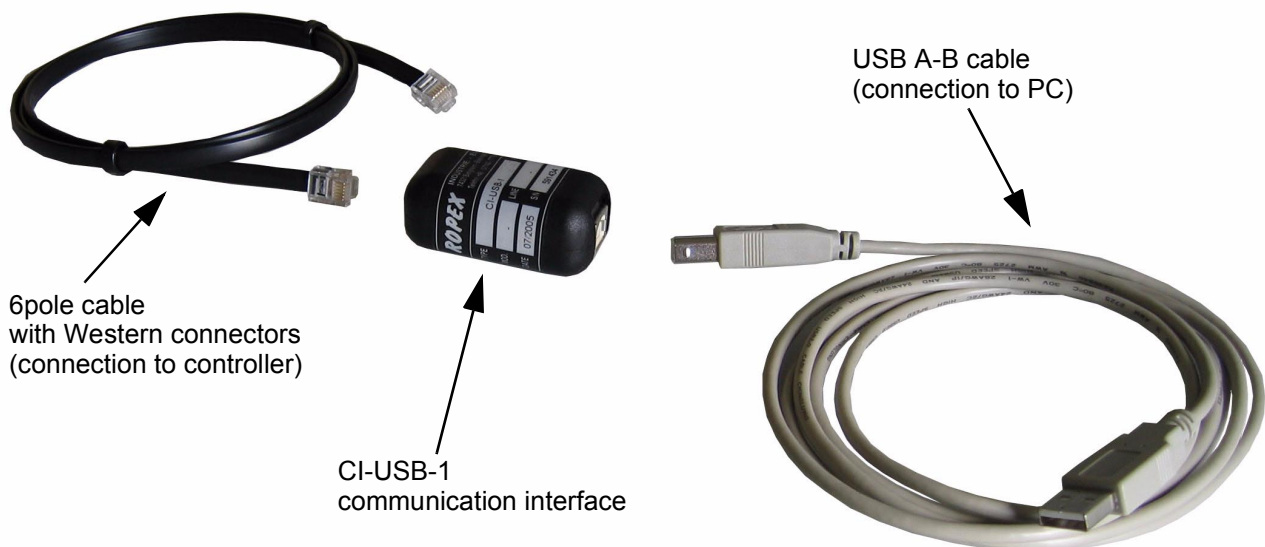
6.3 Maintenance

The CI-USB-1 communication interface requires no special maintenance. Dust deposits can be removed with dry compressed air.

7 How to order

	CI-USB-1 communication interface
	Art. No. 885650
	
	Scope of supply: CI-USB-1 communication interface
	              incl. - USB A-B cable
	                      - 6pole cable with Western connectors

8 Index