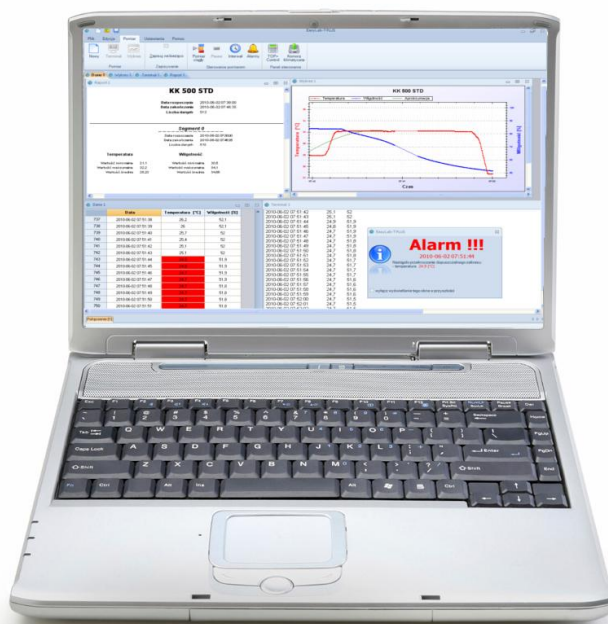


# ***INSTRUCTION MANUAL***

## ***EasyLab Professional***



**Manufacturer:**  
**POL-EKO-APARATURA sp.j.**

**Ver. 1.91**  
**Data 16.04.2015**



## Contents

<b>1. PROGRAM DESCRIPTION</b> .....	<b>5</b>
<b>2. SYSTEM REQUIREMENTS</b> .....	<b>5</b>
<b>3. PROGRAM INSTALLATION</b> .....	<b>6</b>
<b>4. PROGRAM OPERATION</b> .....	<b>9</b>
4.1. Preparation for – thermostatic devices .....	9
4.2. Preparation for use – RT2014 .....	10
4.3. Device selection and connection configuration .....	10
4.4. Menu description.....	11
4.5. Work with graph .....	15
4.6. Navigate the graph.....	17
4.7. Key shortcuts .....	18
4.8. Alarms (does not apply to RT2014).....	18



Thanks for choosing our product. We hope it will fulfil your expectations. In case of any problems, please do not hesitate our company. We also encourage you to send any comments and proposals on improving the programme or adding additional options.



This symbol indicates helpful tips.

### 1. PROGRAM DESCRIPTION

EasyLab Professional program enables to register the temperature and humidity in thermostatic devices manufactured by POL-EKO-APARATURA.

By this program the User is able to register test results (continuous, single) as well as store this data and browse in tabelar or graphic form. Registering is made through RS 232 or USB cable (cables to be ordered separately). In case ordering device with additional temperature Pt 100, in EasyLab Professional you can parallelly register data from both sensors. Additionally, EasyLab Professional allows to program devices in TOP+ version, thanks to integrated application TOP+ Control. The software is free of charge.

EasyLab Professional is equipped with quality tools for creation of charts and approximation. By the program User is able to:

- generate raports,
- import of data stored on external memory,
- 12 languages as option

### 2. SYSTEM REQUIREMENTS

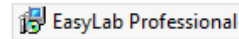
Below is a minimum specification of a computer where you can install EasyLab:

- Windows Vista / 7 / 8 operating system,
- at least 50 MB of available disk space on HDD,
- minimum screen resolution 1024x768 16-bit, recommended 1280x1024 32-bit,
- LAN network card,
- NET Framework 3.5 installed (available to download from [www.microsoft.com](http://www.microsoft.com)).
- Report Viewer 2008 installed (available to download from [www.microsoft.com](http://www.microsoft.com)).

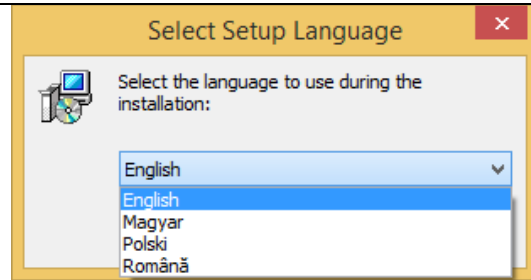
### 3. PROGRAM INSTALLATION

To start using the program you have to install it first. Installation has to be done by the following procedures:

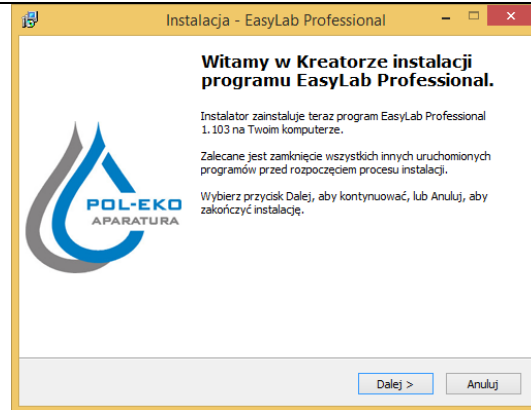
Insert the CD into the drive, from the autorun choose EasyLab installation (if the window does not start automatically, open the following file located on the CD POL-EKO-APARATURA.exe or EasyLabProfessional).



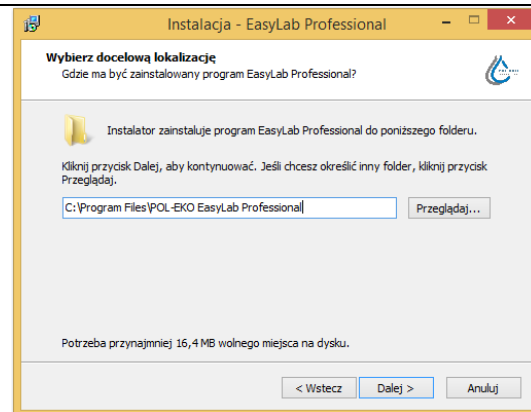
Choose the language from the list and approve by clicking 'OK'.



Installation creator will appear. Click 'Next'.



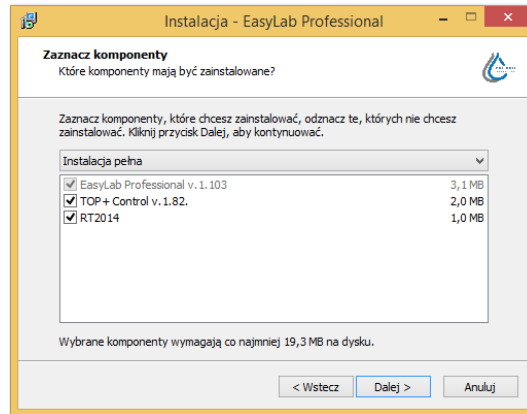
Choose the correct folder and click 'Next'.



Choose the proper components from the list:

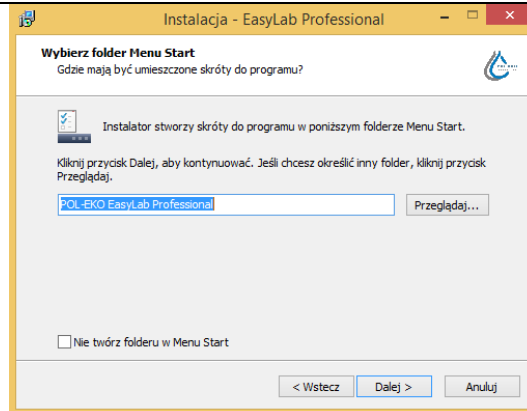
- EasyLab Professional – is used to browse data registered by logger and to create charts,
- RT2014 – application for RT2014 data logger,
- TOP+ Control – programming of devices in TOP+ version),

Then click 'Next'.



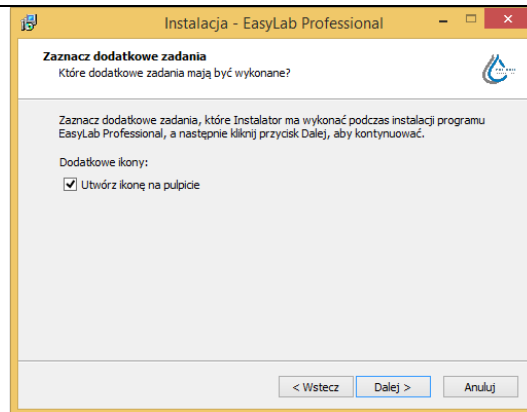
Leave the shortcut in folder Menu Start. You can also choose (not recommended) 'Don't create folder in Menu Start'.

Click 'Next'.

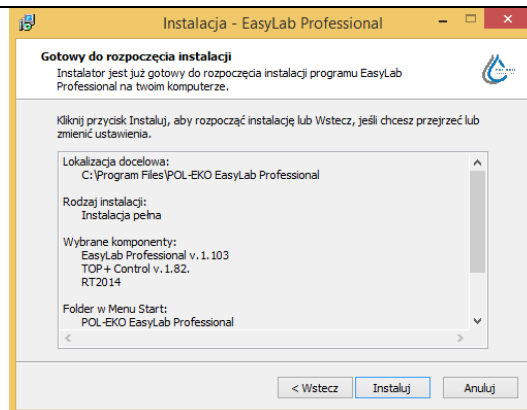


Additionally, you can create shortcut on the desktop 'Create desktop icon'.

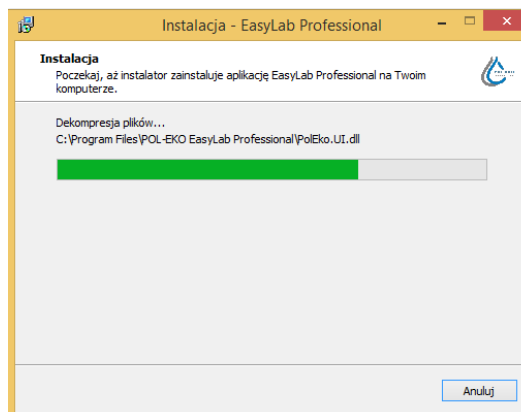
Click next.



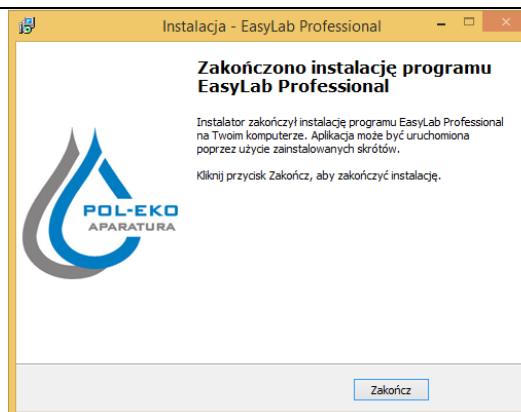
In the next window you can see all parameters that have been chosen. Parameters can be changed (click 'Back' and change the parameters). If the parameters are correct click 'Install'.



The graphic bar will show the progress of installation. You can cancel the installation by clicking 'Cancel'.



Next click 'Finish' to end the installation .



Start-up of program:

- If the parameter 'Create desktop icon' was selected, on the desktop the following shortcut will appear:



By clicking on this shortcut you will launch the program.

- If you selected to create the shortcut in the 'Menu Start', you can launch the program by clicking: Start→All programs→POL-EKO EasyLab Professional.
- You can also launch the program by clicking: Default directory: "C:\Program Files\ POL-EKO EasyLab Professional.



## 4. PROGRAM OPERATION

### 4.1. Preparation for – thermostatic devices

To enable recording data from the device, it needs to be connected to a computer using the factory-installed RS-232 or USB interface and RSK or USBK cable.

If you use a program to control the devices in the TOP version, connect all the devices and the computer to Ethernet

In this second case, the computer will ask for the USB driver, if it wasn't previously installed. The driver is on the CD along with the described program and on [www.pol-eko.com.pl](http://www.pol-eko.com.pl) in the "Downloads", "Drivers FTDI (cable USB-USB)".

The program runs using the shortcut created during installation on the desktop or Start menu.

In the upper of the window shows the quick-choice menu.

The drop down menu includes basic buttons to run the application. They are:



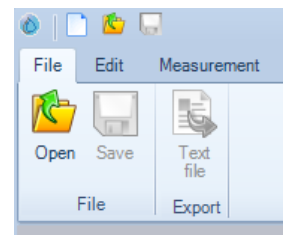
- **New** – opens the configuration window where you can select the device and adjust transmission parameters,



- **Open** – opens the window where you can select a file with previously saved data,



- **Save** – saves the selected table with measurements into a file,



## 4.2. Preparation for use – RT2014

For RT2014 devices the EasyLab Professional software is used to browse of data only. First step is to connect the RT2014 to the PC by micro USB–USB. Data logger with microSD card inside will show in the system as flash drive in which in folder RT2014 the data is stored. The data can be opened by EasyLab Professional software or directly on flash drive. Files in .txt contain data in text file, files in .plk can be opened by EasyLab Professional program.



Simultaneous use of the software RT2014 and EasyLab Professional is not recommended!

The program starts by using the shortcut formed during installation on the desktop or in the Start menu (see section 3).

To open click:



**Open** – opens the window in which you can open the file with previously saved data.

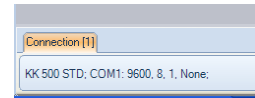
## 4.3. Device selection and connection configuration

Pressing the **New** button (both in the Measurement tab and in the main window drop down menu) opens the Configuration window with devices handled by the application.

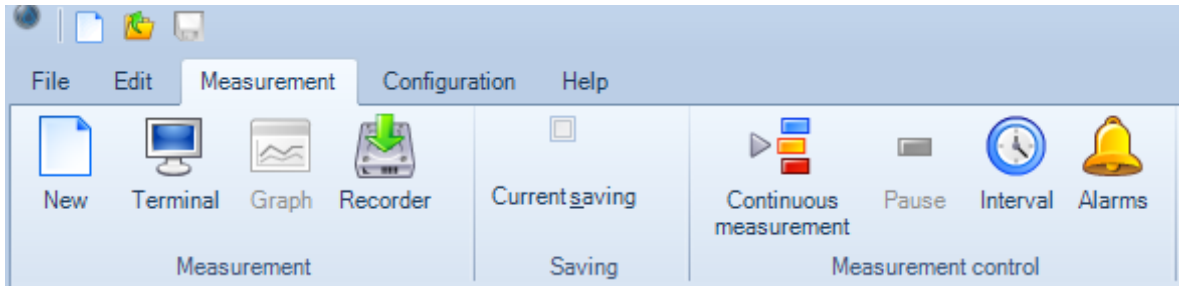
To set up a connection:

- select the correct device Type (if temperature is recorded from a thermostatic device, if it is recorded from a device with an addition PT 100 temperature sensor connected, *Thermomat*)
- select the Port into which the device is connected
- if needed, select desired transmission parameters in the Port Settings
- **Choose** button opens the saving settings window for particular devices as well as enables to choose previously saved settings.
- Field **Name** is used to give the name of device

Having selected the device and other parameters, click OK to confirm you selection. The newly configured connection is at the bottom of the main window.



**Continuous measurement** button in **Measurement** tab starts the measurement.

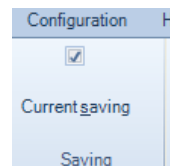


**Interval** button is used to define the interval of collecting data from the device ( the data from the device will be collected from time to time).

During the sampling you can observe the data, which is sent by device --**Terminal** button in **Measurement** tab. It is possible to observe temperature (and humidity) course - **Graph** ( function described later in this operating manual)


To prevent data loss in the case of shutdown of the computer which records data, please set option **Current saving** in **Measurement** tab.

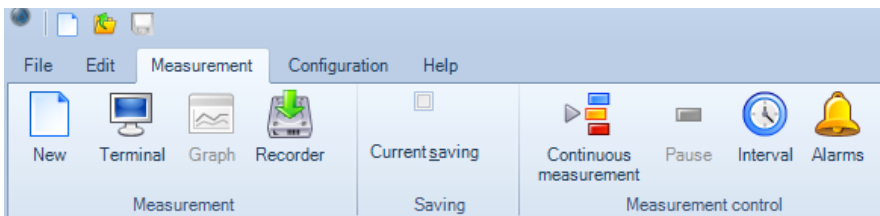
After choosing this option the window enabling to select the file (to which information will be saved) is opened.



#### 4.4. Menu description

Menu (In upper left corner) is divided on 2 main pieces:

 Quick choice menu – contains **New**, **Open** and **Save**.



Ribbon (this menu contains all function to using this program). Is divided on 5 pieces:

**- File:**



- **Open** – opens previously saved file containing data read from the device (e.g from thermo-static cabinet).



- **Save** – saves data on the disk in the form of a file. The button is active only when recording new measurements.



- **Text file Export** – saves data in the form of a text file. The file can be edited e.g in MS Excel spread sheet or in OpenOffice.org Calc

**- Edit:**



- **Graph** – creates a chart from the data previously saved in a file. The button is active when the file is read with the use of **Open** button.



- **Statistical report** – opens the window which summarizes the results. Information about the time of the record, the number of samples, minimal, maximal and average recorded value of temperature and humidity (in Climatic Chamber) will be included. Before the report is created, select the window containing a table (open it) from which the report will be read. The statistical report is divided into segments. These are segments of a program running on the device. Segment 0 contains data on the operation, which was not running any program or with the data recorded before or after the program.

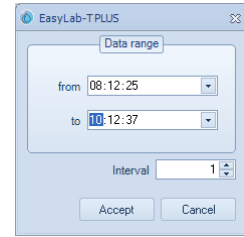
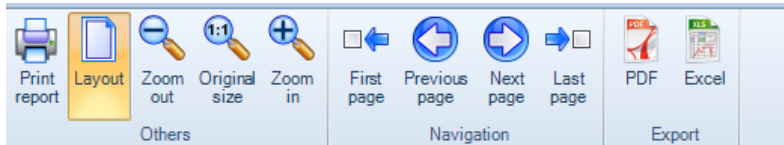
Temperature		Humidity	
Minimum value	24,6	Minimum value	43,7
Maximum value	39	Maximum value	45,7
Average value	33,24	Average value	44,64



- **Recorder report** – opens the window which enables printing of the data previously collected from the device recorder (it is similar to the one shown beside).

Date	Temperature	Humidity
2010-06-07 09:55:01	24,6	44,7
2010-06-07 09:55:02	24,6	44,7
2010-06-07 09:55:03	24,6	44,7
2010-06-07 09:55:04	24,6	44,7
2010-06-07 09:55:05	24,6	44,7
2010-06-07 09:55:06	24,6	44,7
2010-06-07 09:55:07	24,6	44,7
2010-06-07 09:55:08	24,6	44,7
2010-06-07 09:55:09	24,6	44,7
2010-06-07 09:55:10	24,6	44,7
2010-06-07 09:55:11	24,6	44,7

The report is created for a specified time period with a specified interval determined in seconds.



Toolbar of the report window and statistical report is shown above:

- **Print report** – enables to print the report from selected printer
- **Layout** – enables to change the mode of the print preview
- **Zoom out, Original size, Zoom in** – buttons used to adjust the print preview
- **First page, Previous page, Next page, Last page** – navigation buttons to switch between the report pages
- **Export to PDF / Excel** – enables to export the report to the PDF or Excel file

Change the current page in the print preview report (if the report contains more than one page) is possible by pressing the Page Up, Page Down, located on your keyboard.

**- Measurement:**



- **New** – opens a window with new connection configuration (see point. 5.2).



- **Terminal** – opens the terminal window.



- **Graph** – opens the graph window.



- **Recorder** – enables to read the data from the recorder saved in the climatic chamber memory, which is connected to the computer with the use of RS-232 or USB interface. The button is active only when the unit connected to a PC is equipped with data logging memory.

**Current saving** – when checked, continuously saves recorded data to a previously selected file.



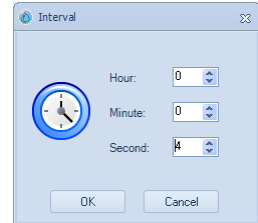
- **Continuous measurement** – launches continuous data collection (temperature and humidity).



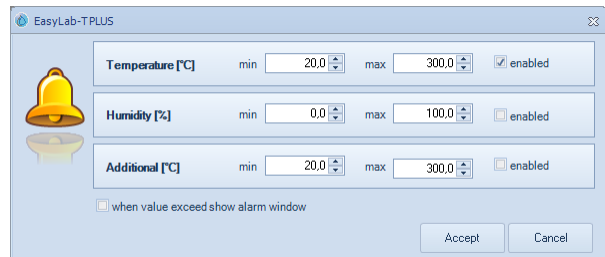
- **Pause** – pauses continuous data collection.



- **Interval** – opens a window, where you can set up the interval at which data should be collected



- **Alarms** – opens the settings for notifications exceeded the allowed range of the measured parameters. More information can be found in section 5.7. Alarms.



**- Configuration:**



**Settings** – programme language change. After changing the language, press *Save settings button*.



- **Window** – defining the way in which most of the currently opened windows in the programme will be displayed ( e.g. Chart window, terminal window)

-**Graph** – this tab is only active when the chart is being generated real time (by pressing the Graph button in the Measurement tab). For more info, see point 5.4.

**- Help:**



- **Help** – opens the help window.



- **Website** – opens the window with website of manufacturer.



- **Log** – saves current data to notepad



- **Activation application** – opens an active window . After recording, enter obtained key to the active window .

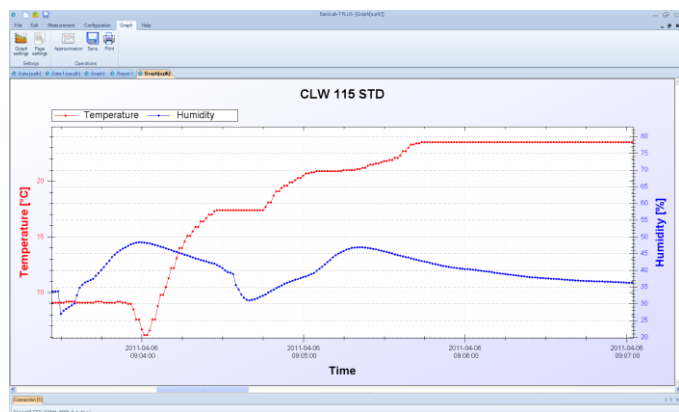


- **About** – opens the window with information about version of program.

#### 4.5. Work with graph

The window of a sample chart is shown beside.

With the use of a red colour the chart presenting temperature values is shown. A blue-coloured chart presents humidity value. On the right -handside of the chart on the vertical axis there are temperature values.



The following options are available while working with the chart:



**Graph settings** – opens the window with graph settings

There are 4 tabs available in this window:

##### General

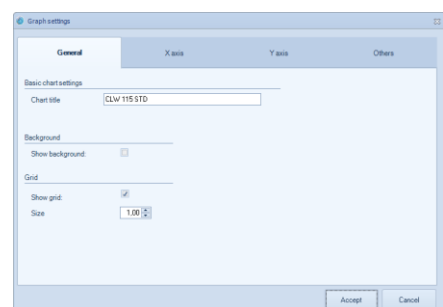
**Chart title** – allows changing the title of the chart

**Show background** – turns on/off the background of the chart

**Show points** – turns on/off points concerning measurement.

**Size** – determines the size of the test points on the screen and printout

**Events** – show events IDs on the chart



X Axis, Y Axis

Minimum – determines the minimal value on X-axis or Y-axis – e.g in order to print a relevant fragment of the chart

Maximum – determines the maximal value on X-axis or Y-axis

Automatic – minimal and maximal value are automatically selected (the whole chart will be displayed on the screen)

Others – allows to customize each course. The view of the course can be customized by the following options:

*Show* – turns on/off the drawing of the course

*Show points* – turns on/off the visibility of the points on the course

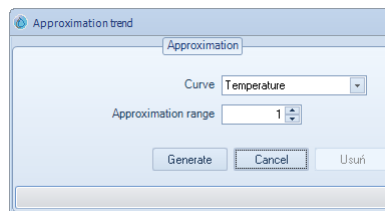
*Size* – determines the size of the points on the course



- **Page settings** – printed page settings (orientation and paper sheet ).



- **Approximation** – opens the trend Line approximation window. It's possible to show the temperature, humidity chart or additional sensor trend line. Determine the approximation range and press **Generate**. The parameters of the approximation line can be edited using the Graph settings window described above.



To delete the approximation line, press the delete button.



- **Load events** – If a TOP+ unit registers an event using the ID recorder, the event can be transferred onto a chart. The events are saved in a separate .dat file with the \_Events name, e.g. Test\_Events.dat.



- **Save** – saves the generated chart to a graphic file



- **Print** – prints out the chart after setting the parameters in *Page settings*.

An additional course in orange means the reading from the optional additional temperature sensor



## 4.6. Navigate the graph

To navigate the graph you need a computer mouse which enables you to:

### The left button of mouse (the main button)

Pressing and holding the left button of mouse you can mark any chart area which is to be enlarged.

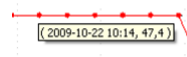
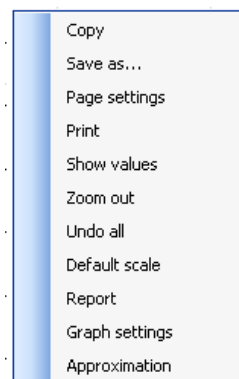
### The middle button of mouse (a scroll wheel)

Pressing and holding the middle button of mouse you can „catch” the chart. Moving the mouse you can shift the position of the chart in order to set it to desired fragment.

### The right button of mouse

After clicking the right button of the mouse in the chart window **Context menus** is displayed. It includes the following functions:

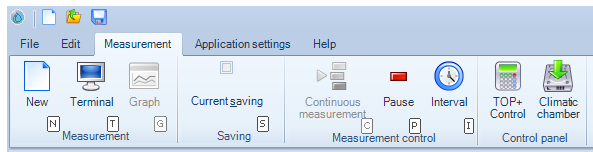
- *Copy* – copies the graph to the clipboard
- *Save as...* – saves the graph in any graphic format (eg. jpg, .bmp, .tif, .emf, .png. format)
- *Page settings* – printed page settings (orientation and paper sheet ).
- *Print* – print command
- *Show values* – shows values in a given point of the graph
- *Zoom out* – returns to the previous view of the chart
- *Undo all* – view of the chart returns to the original size
- *Default scale* – graph axes take default values
- *Report* – shows the visible area report
- *Graph settings* – opens the window with graph settings (see 5.4)



### 4.7. Key shortcuts

Each main menu button (*New, Terminal, ...*) can be accessed in two ways:

- by clicking the button with a mouse
- by pressing Alt and the corresponding letter on your keyboard. The letters will appear as soon as you press **Alt**

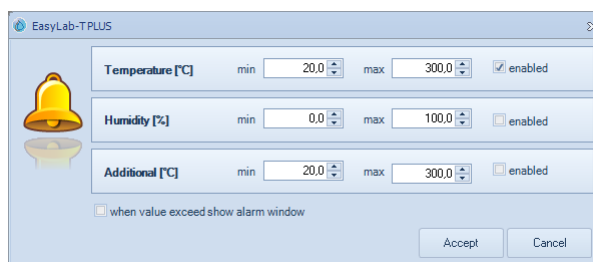


There are also direct keyboard shortcuts available:

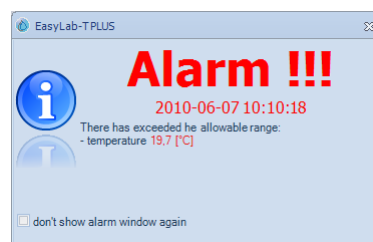
- **New:** CTRL+N
- **Open:** CTRL+O
- **Save:** CTRL+S
- **Close:** CTRL+C
- **Print:** CTRL+P
- **Export the table to a \*.txt file:** CTRL+E

### 4.8. Alarms (does not apply to RT2014)

The User can be informed about measured parameter values exceeding during the program run. For each parameter (like temperature, humidity, additional sensor temperature) the user can set acceptable value range as well as to set which of parameters will be monitored. Tick **enabled** to be informed on parameter value range exceeding.



The User is informed on value exceeding with the following window:

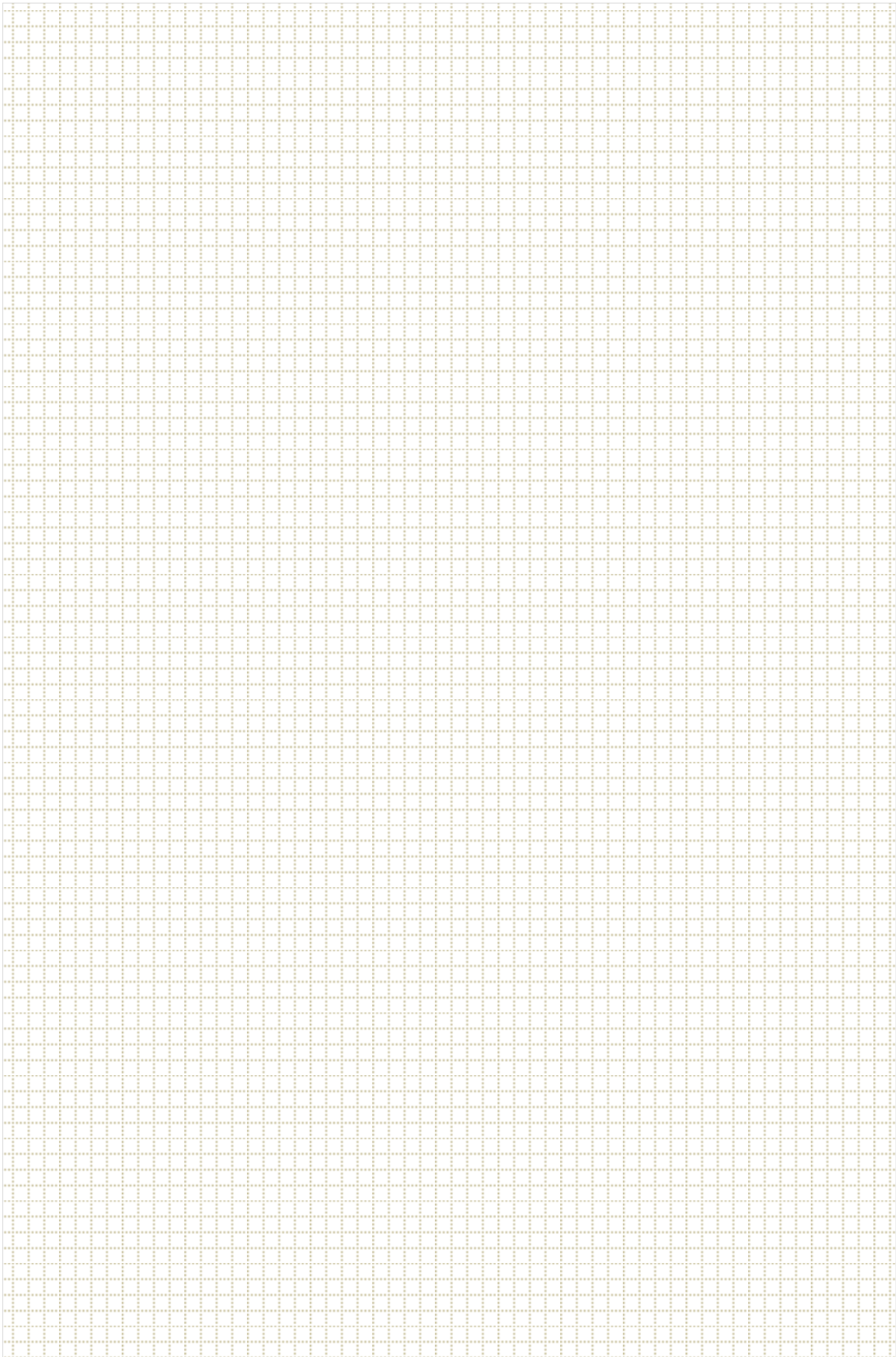


If the alarm window is closed by the User and parameter values still exceeds acceptable range, the window pop up again. In case the User doesn't wish to be informed on such alarm anymore, he/she should tick **don't show alarm window again**.

In the table the measured values of red means the value in excess of the permissible scope.

465	2010-06-07 10:10:14	20.3	46.2
466	2010-06-07 10:10:15	20.2	46.2
467	2010-06-07 10:10:16	20.2	46.2
468	2010-06-07 10:10:17	20	46.2
469	2010-06-07 10:10:18	19.7	46.2
470	2010-06-07 10:10:19	19.4	46.2
471	2010-06-07 10:10:20	19.2	46.2
472	2010-06-07 10:10:21	19.2	46.2
473	2010-06-07 10:10:22	19.2	46.2
474	2010-06-07 10:10:23	19.2	46.2
475	2010-06-07 10:10:24	19.2	46.2
476	2010-06-07 10:10:25	19.2	46.2
477	2010-06-07 10:10:26	19.2	46.2
478	2010-06-07 10:10:27	19.4	46.2
479	2010-06-07 10:10:28	19.6	46.2
480	2010-06-07 10:10:29	19.6	46.2
481	2010-06-07 10:10:30	19.9	46.2
482	2010-06-07 10:10:31	20	46.2
483	2010-06-07 10:10:32	20	46.2
484	2010-06-07 10:10:33	20	46.2

Notes:





Producer of basic and indispensable laboratory equipment  
as well as continuous measurement equipment.

Authorized dealer of:

Arctiko, Eutech, Hamilton, Istran, Knick  
Lovibond, MAXX, Nickel-Electro, Rodwell,  
Thermo Scientific, WTW



## **POL-EKO-APARATURA sp.j.**

**A. Polok-Kowalska, S. Kowalski**

ul. Kokoszycka 172 C

44-300 Wodzislaw Slaski, Poland

Tel. +48 / 32 453 91 70, Fax. +48 / 32 453 91 85

e-mail: [info@pol-eko.com.pl](mailto:info@pol-eko.com.pl)

web: <http://www.pol-eko.com.pl> \* <http://www.cieplarki.pl>

### **We produce:**

- thermostatic cabinets
- refrigerators
- laboratory freezers
- heating ovens
- cooled incubators
- drying ovens
- colony counters
- homogenizers
- stationary samplers
- specialized devices for controlled sewage  
and waste waters taking

### **We organize:**

- trainings
- seminars

### **We provide:**

- warranty service
- post-warranty service

### **We offer portable, laboratory and on-line equipment:**

- pH-meters
- ISE measuring
- dissolved oxygen meters
- conductivity meters
- photometers
- spectrophotometers
- thermo reactors
- turbidity meters
- heavy metals trace analyzers
- pH electrodes
- conductivity sensors
- D.O. sensors
- pH buffer solutions
- conductivity standards
- photometric tests
- chromatography syringes
- laboratory accessories

We advise our customers as far as the choice  
and maintenance of the equipment are concerned !