

CELLAVIEW_{v2}

**SOFTWARE TO DISPLAY, EVALUATE AND STORE
THE TEMPERATURE READINGS OF YOUR PYROMETER**



OPERATING MANUAL

1. System requirements

Windows 10 and higher
Pentium 4 processor, at least 2.4 GHz or higher,
graphics board with resolution 1200 x 1980 pixels
1 GB RAM
USB 2 interface

2. Application

The CellaView software displays, evaluates and stores the temperature readings of your pyrometer. The data are transferred via USB port or RS485 interface. RS485 allows the connection of up to 31 pyrometers all in one bus. Parameters can be uploaded, stored and configured. The data are stored in a database.

3. Installation

Please visit the following website:

<http://www.keller-msr.com/temperature-pyrometers-downloads/download-cellaview.php>

IMPORTANT! If you connect your pyrometer via USB, make sure to install the PL2303 Prolific driver before starting the installation. Find the link to the driver on the website's installation level below the button "Install".

Enter you data and click on the button "Install CellaView". On the following page, click on the button "Install". Follow the instructions on the screen.

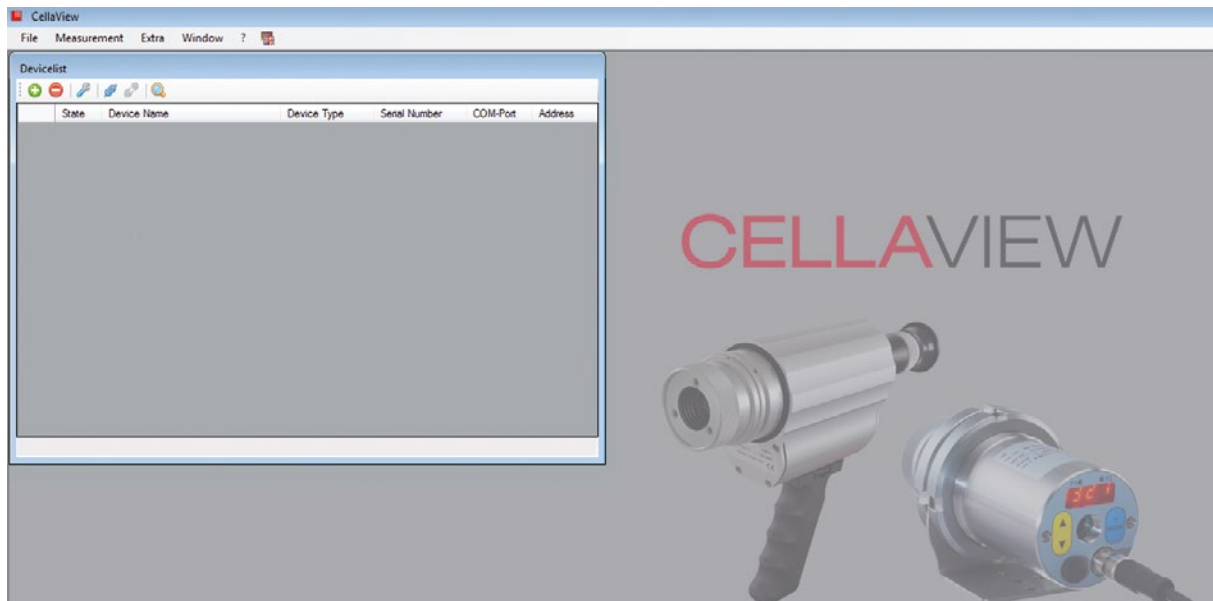
4. Database

A separate database is created for each measurement. The maximum size of each database is 1 GB. If a series of measurements is started in which a measured value is recorded every second, the database will have a size of approx. 5 MB after one day.

5. Program start

The software starts automatically when the installation is complete. A desktop shortcut is created during installation to start the software manually. You can also activate the software in the Windows start menu.

The following screen will appear after successful installation:



Now select your display language by clicking on the flag symbol.

6. Menu navigation

6.1 File

Backup data	Create a backup of the current database
Load data	Restore a previously saved data base
Load parameters from file	Load a stored set of parameters offline. The parameters cannot be changed.
End	

6.2 Measurement

New series of measurements Start a new series of measurements

Import series of measurements Load a previously stored series of measurements

Archive Management of the stored measurements. The filter allows you to filter the series of measurements by start time and end time.

The measurement menu and the bottom of the program window list the last 10 series of measurement under "Load measurements". The series of measurements can directly be opened with a click. Open older series of measurements from the archive.

Please note: If a series of measurements was not terminated with stop, recording of the measurement values will be automatically continued when accessing the series of measurement again.

6.3 CellaCast

For more detailed information about the CellaCast function, refer to chapter 9.

Please note: This menu option is only available under → Extras → Settings → when the CellaCast function is activated.

New series of measurements Start a new CellaCast series of measurements

The required device parameters are selected from a configuration table and the selection parameters are entered before starting the measurement.


Imported measurement Load a previously stored CellaCast series of measurements

Archive Management of the stored series of measurements. The filters allow for filtering the series of measurements by starting and end time and by selection parameters.

The last 10 CellaCast series of measurement are listed in the selection menu and at the bottom of the program window. The series of measurement can directly be opened with a click.

6.4 Extras Settings

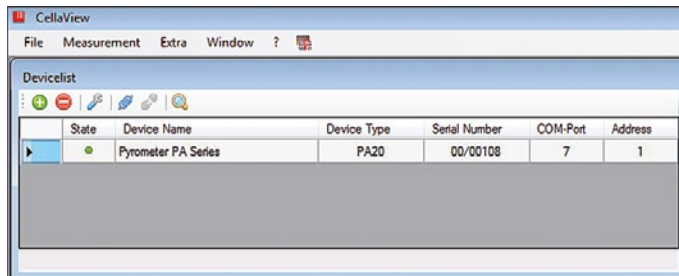
Additional settings can be made in the menu “Extras”


Backup	Enter the interval for automatic storage, the time the backup is kept and the location of the backup.
Communication	Enter how often and how long the software shall try to re-establish the communication after an interruption. Specify also the maximum time allowed for automatically searching for connected devices
Logging	All changes in the configuration of the software are recorded in a log file. Enter the number of stored log files and the maximum size of the stored files. Select also the location of the log files. View the current log file by clicking on the button  .
Expert mode	Activate “calibration editable” to modify in addition the values for user-defined calibration and a user defined measuring range. We urgently advise to activate a calibration release only with sufficient expert knowledge.
CellaCast	see chapter 9


The menu “Window” lists all open windows. These can be directly accessed.

Click on the menu item “?” to open this operating manual, to check if a software update is available for download, and to view the software licence agreement.

7. Connecting the pyrometer

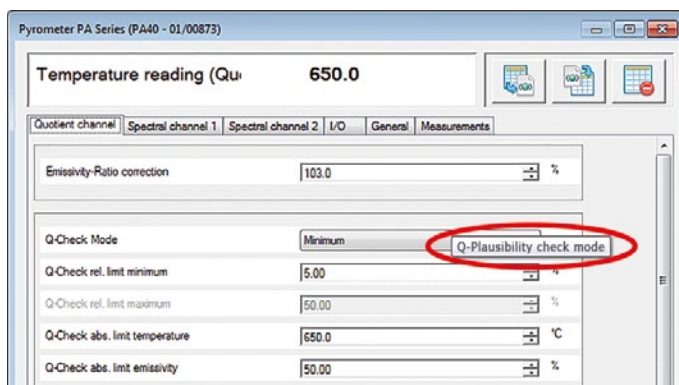



Connect the pyrometer to the PC as described in the operating manual. After starting CellaView, it automatically looks for connected devices and shows them in the device list. If the search does not start automatically, click on the magnifying glass for manual search .

Another possibility is the manual integration of the connected devices. When clicking on the button , a window opens asking you to enter the interface and the required pyrometer address. Then click on OK. By now, CellaView should have found your device and will show it in the device list (see illustration). Repeat this procedure for each connected pyrometer.

To delete a device from the device list select the device and click on the button .


8. Pyrometer configuration



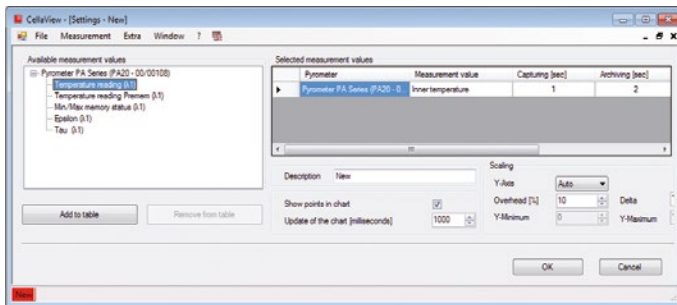
Clicking on the button  or double-clicking on a respective entry in the device list opens a window where you can enter the specific device settings in accordance with the functionality range of your pyrometer. A short explanation pops up (see illustration) when moving the mouse pointer over the parameter or selection windows of the individual menu items. (see illustration).

When activating individual menu items, additional setting options are available. These cannot be selected when deactivated (greyed-out).

The current temperature is always displayed in the upper part of the window. Press one of the two buttons on the right next to the temperature display to either export or to import your set parameters, e.g. to make backups or to adopt them for other connected pyrometers. A specific device name can be assigned to each connected pyrometer in the field "General", e.g. to denominate the measuring point.

Pressing the button  resets the pyrometer to factory settings.

9. Taking measurements



By clicking “Measurement → New Measurement” a window opens to select the measuring values and status information requested for the series of measurement. The measuring temperature already appears as a default (standard). To add new values, double-click on the measuring or status value in the left column or mark

the value and push the button “add to table”. To remove values, mark the values that are not required and push the button “remove from table”

After selecting the configuration parameters of a measured value you can change the interval for detection and archiving, the hysteresis and the form and colour of the curve in the chart. Click on an entry in the table to do this.

Selected measurement values							
	Pyrometer	Measurement value	Capturing [sec]	Archiving [sec]	Hysteresis	Chart-Type	Color
▶	PA40 - 00/00155	Temperature reading (Quotie...	1	2	0.01	StepLine	Red
	PA40 - 00/00155	Temperature reading (A1)	1	2	0.01	StepLine	Green
	PA40 - 00/00155	Temperature reading (A2)	1	2	0.01	StepLine	Yellow

Recording interval

Defines the interval for recording the measurement values in the online graphics.

Archiving

Defines the interval for saving the measurement values in the file.

Hysteresis

Allows only saving those data where at least the hysteresis differs from the previous value. This significantly reduces the data volume for long-time data recording.

Chart type

Defines the form of the measuring curve in the online graphics.

Colour

Defines the colour of the measuring curve in the online graphics.

Designation

Defines the name of the graphics and the file name.

Show points in the chart

When this function is activated, a point is set in the continuous measurement chart in accordance with the selected measuring interval.

Updating the chart

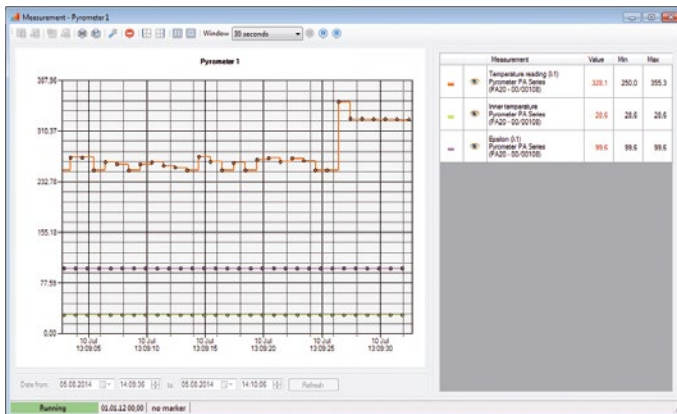
Specify the interval for updating the display of the measurement chart.




Scaling

Specify whether the displayed range is automatically adapted or whether a fixed temperature span is given (“Auto” or “Fixed”). When selecting “Auto” specify in “Overhead” the increased display in per cent of the scale in relation to the maximum measurement value. “Delta” here signifies the minimum extended display. When selecting “Fixed”, enter a fixed range for the display of the Y-axis of the measurement curve.





Once you have made the required settings click on OK to close the window.


Please note: The measured values for the series of measurements “Analogue input current value” are displayed from 0 – 100 %. This corresponds to 0 – 10 V at the analogue input of the pyrometer.



Click on  in the menu bar to start recording. The button is now greyed-out. You can interrupt the recording by clicking on , e.g. to further analyse a certain temperature span (the recording continues in the background) or stop the recording completely by clicking on .

Select the time range that is to be shown on the X-axis in the drop-down menu “Window”. On the left you may

choose further options (ordinate left or right ( / ), legend as table or text ( / )).

With the tool symbol  the configuration menu of the chart can be accessed online anytime to make changes.

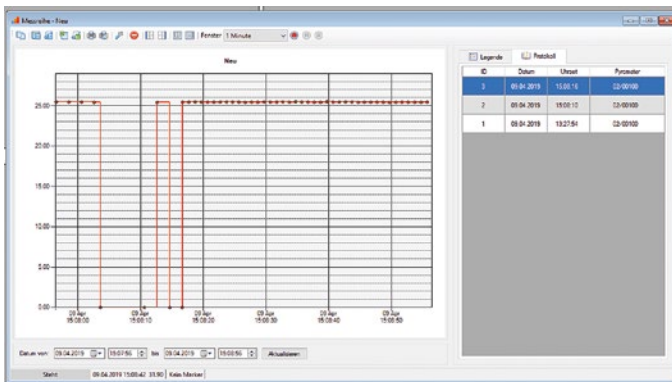
In pause mode you can increase certain chart areas by clicking on them and dragging them with the left mouse button from top left to bottom right to select the required area. Return to the original size by dragging a frame within the chart towards the left top corner while keeping the left mouse button pressed. The selected area can be defined below the curve (“Date of:”) alternatively.

Further options are available in the left menu bar when you pause or stop the recording.

- You can either store the complete series of measurement or only a selected area.
- You can also export the complete series of measurement or a selected area as XLS or CSV file and open it, for example, in Excel.

colCol	colVisil	Measurement	Value	Min	Max
		Temperature reading (λ1) Pyrometer PA Series (PA10 - 00/00409)	33.4	33.4	33.4
		Inner temperature Pyrometer PA Series (PA10 - 00/00409)	23.4	23.1	23.4
		Epsilon (λ1) Pyrometer PA Series (PA10 - 00/00409)	99.0	99.0	99.0

- The left side shows the list of the selected measured values. Click on the eye symbol to hide series of measurements. Recording and storing of measuring values continues in the background.



When starting or continuing a measurement, a log file is automatically generated in which the parameters are stored by the pyrometer.


Note: If there are several pyrometers in a measurement series, there are several lines with the different serial numbers of the respective pyrometers for the same protocol ID. Double-click on one of these lines to open the parameter dialog.

How to open the CSV file with Excel 2010

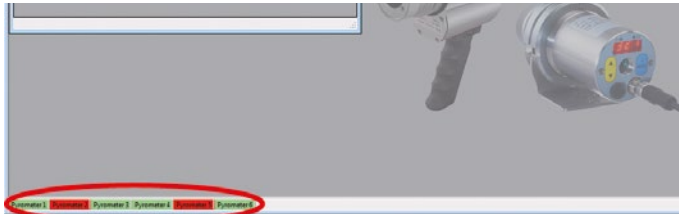
Import the file with the Excel import function as otherwise the special characters will not be correctly imported.

- First open an empty Excel spreadsheet.
- Click on the tab "Data", where you find "get external data from text". Click on that button and a window opens.
- Navigate to the storage location. Double-click to open the CSV file or open it with "Import". You do not have to look for the correct file format as it shows CSV as a default.
- Now the "convert text to columns wizard" opens. Select "delimited" and click on "next".
- Use semicolon as a delimiter and click on next.
- Define in the "Data import" where to enter the files.

The procedure might be slightly different in other Excel versions.

The series of measurement including the relevant recordings is deleted by clicking on the button  and by confirming the selection.

Stored measurements can be opened under “Measurement” and “Import measurement”. Active measurements are also listed with their name under this menu item. They can be selected directly.



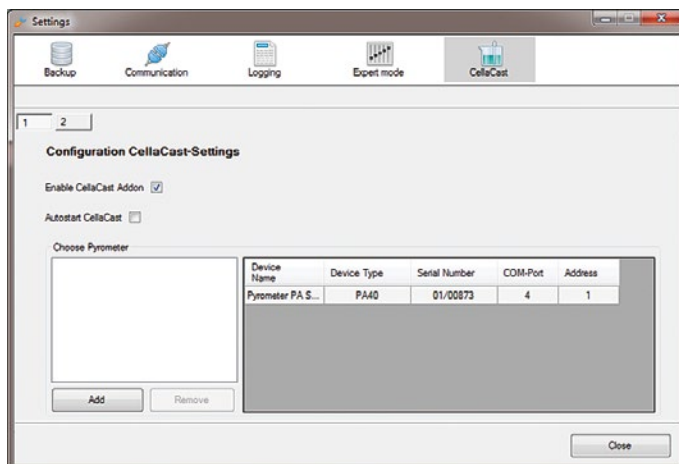
An overview of the currently running / interrupted series of measurement is given in the bottom status bar (see illustration). A double click on the name opens the corresponding series of measurement.

Copy the current measurement series under a new name via the menu item “Copy series of measurement”. The configuration of the chart with the current series of measurement is adopted. This feature is very useful if you want to record several series of measurements with the same configuration parameters.

10. CellaCast function

The Cellacast function is another way of recording, analyzing and logging measurement series of the pyrometer. This assumes that the connected pyrometer is provided with ATD function (Automatic Temperature Detection) and that the Min/Max memory of the pyrometer is adjusted to the ATD function (details included in the instructions of the pyrometer). The ATD function automatically determines the temperature of discontinuous processes and transfers a temperature value via interface to the software at the end of the measuring time. Depending on the limit values you entered via the parameter set, the measurement values will be considered either as good or as bad.

10.1 Cellacast configuration



Activation and configuration is made in the settings dialogue under the menu item “CellaCast”.

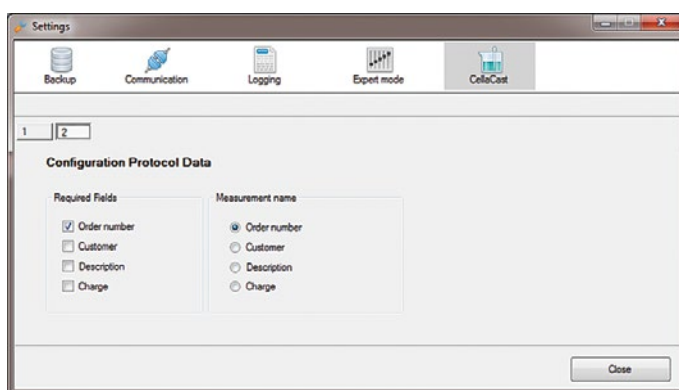
In order to use this function, select first the item “Activate CallCast addon”.

Activate at first “Start automatically in CellaCast” to start the addon during the program start of CellaView.

Before using this CellaCast function you have to define in the “pyrometer selection” list which one of the connected pyrometers is used for recording. Select the pyrometer and press the button “add”. The pyrometer now appears in the table.

If you want to remove a pyrometer from the table, select it and press the button “remove”. The pyrometer then reappears in the pyrometer selection list.

It is also possible to select several pyrometers for the parallel recording of the measurements of the selected pyrometers. A prerequisite is, however, that these are device types of the same series.



When clicking on Tab “2” the item “configuration of log file data” appears.

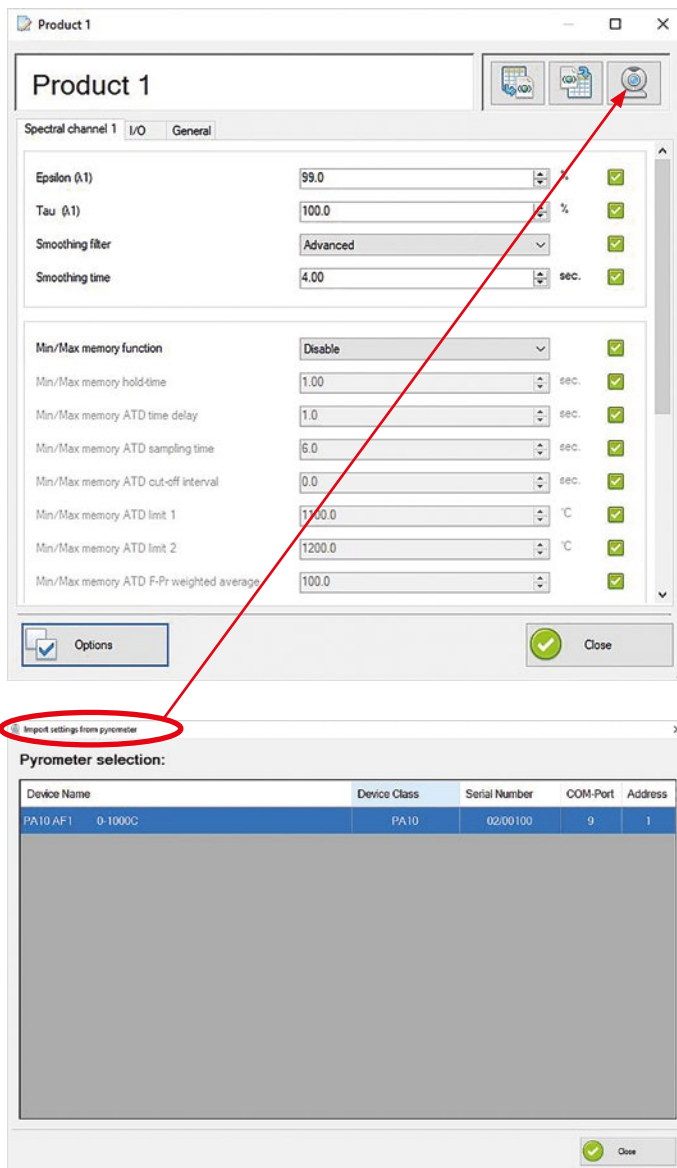
Under “mandatory fields” select which fields have to be filled in when starting a series of measurements. The designation for the series of measurement can be defined under “define series of measurement”. The file name for external storage also uses this designation.

10.2 Perform Cellacast measurement




After activation of the CellaCast function, “CellaCast → new series of measurements” configures and starts a new series of measurement.

If products without parameter values are present when opening the CellaCast product selection (for example, during the initial setup), these are automatically imported from a connected CellaCast pyrometer. All configured CellaCast pyrometers are checked until the first of these pyrometers, which is online, is found. From this, the values are transferred to the unparameterized product.



In addition, there is a button in the edit dialog of the CellaCast product with which you can import the values directly from a pyrometer.

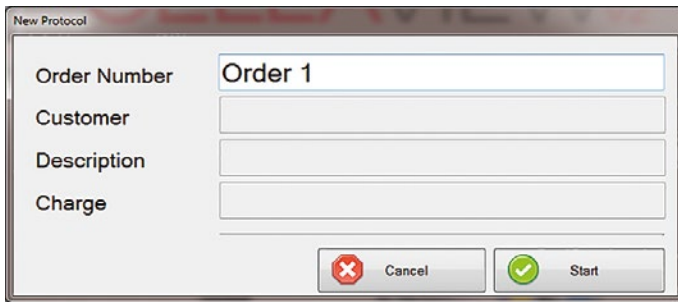
With buttons  you can export the parameters or import a previously saved data set.

You can directly select and change the parameters in the summary table.

You can deactivate parameters, which are not required to avoid any misconfiguration. Unselected parameters are not transferred to the pyrometer. Press the button Options for this purpose. Now mark the pyrometer you want to use.

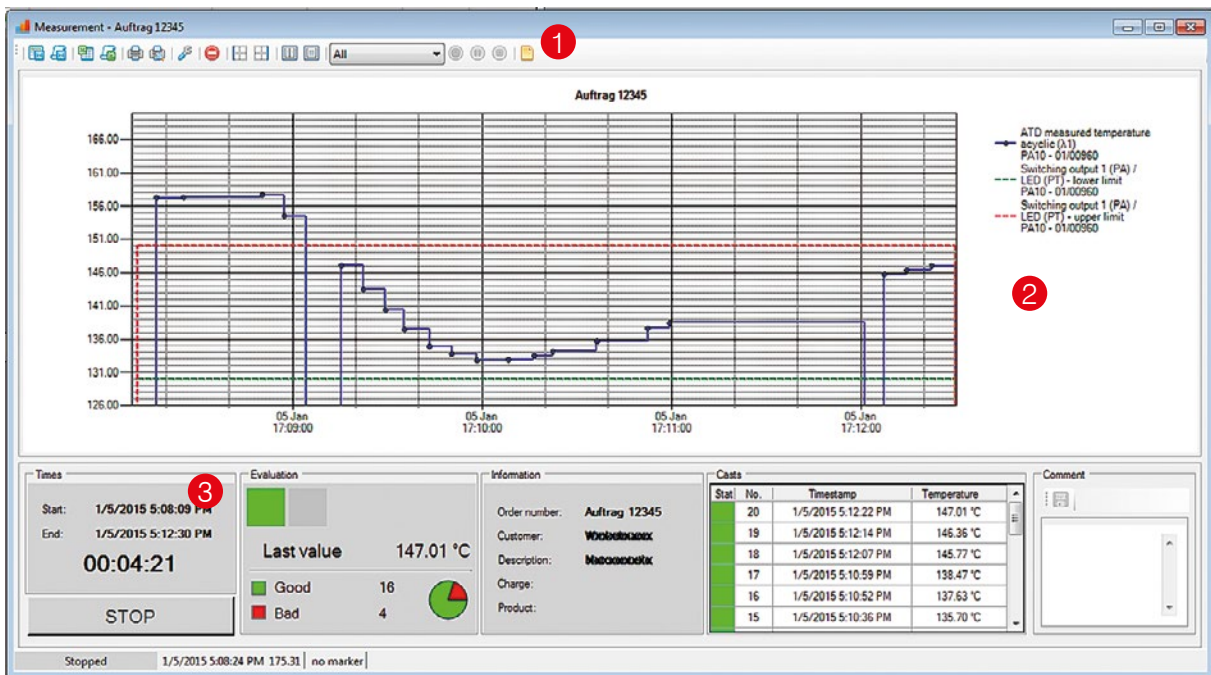
Please note: When unselecting parameters the pyrometer works with the default setting or the previously used value.

- Copy** Makes a copy of the selected set of parameters. After copying, the parameters can be set individually for a new product.
- Delete** Deletes the selected set of parameters.
- Edit** Opens the complete configuration menu and allows you to set individual parameters.
- Start** Starts the measurement.



Before recording of the series of measurement starts you have to fill in the mandatory fields.

Please note! Only the fields previously defined as mandatory fields are active.

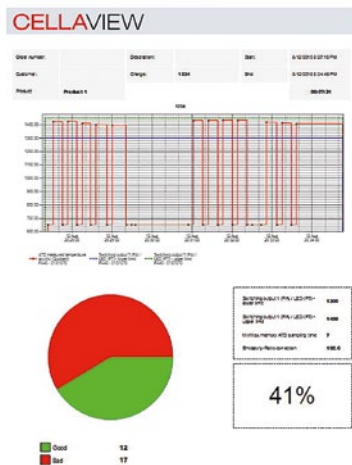


The window for the series of measurements is divided into three areas.

The top area **1** contains the menu with the following functions:

- Print, print preview and save the visible section or the entire series of measurements
- Access to the configuration menu of the series of measurements
- Delete a series of measurements
- Position of the temperature axis either on the left or right side of the chart
- Type of legend
- Display period of measurement readings
- Start - stop - recording pause

A detailed description of functions is given in the chapter “Carry out measurements”.



The print function allows generating an informative log file with all parameters and with a chart and table presentation of the measurement value.

The centre area **2** contains the online presentation of the measurement values with their limit values.

The bottom area **3** contains statistic values and analyses of the production batch:

Times

- Start time, end time and duration of the measurement
- Stop button to end the measurement

Evaluation

Last measurement reading and the number of measurement readings within limits and out of limits.

Information

Information on the series of measurements (if defined as mandatory fields)

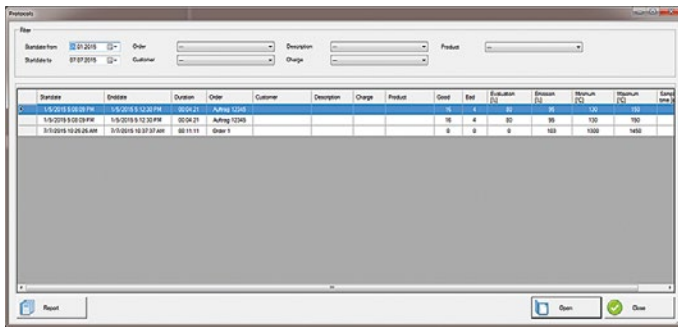
- Order number
- Customer
- Description
- Batch

Casts

Measurement values as a table

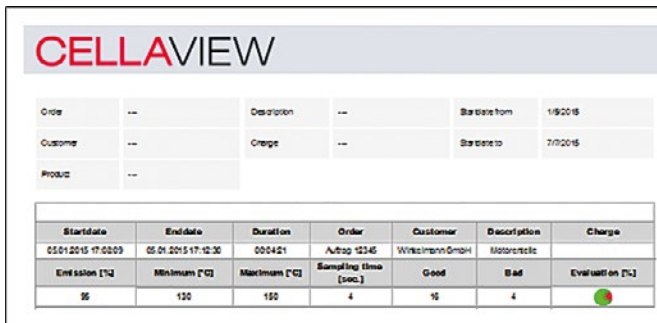
Comments

Enter a comment on the series of measurement. Press the disk symbol to store.



A series of measurements is stored as soon as it is stopped. The series of measurements can be opened at any time with the menu option CellaCast → Archive.

Use the filter to facilitate finding an existing series of measurement.



The following filters are available

- Start date from
- Start date until
- Order
- Customer
- Designation
- Batch

A log file is created automatically for each series of measurement. You can open this with the “Report” button. Select several series of measurements by pressing the Ctrl key. The values will be displayed in a table in the log file.

In addition to the log file, the button “Open” allows also access to the corresponding series of measurements.

A printout of the log file is made with the buttons .

The last 10 CellaCast series of measurement are listed at the bottom of the program window. They can directly be opened with a double-click.

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