

Software Capture

Capture is a software for the automation of calibrations with Leyro equipment, ensuring fluid communication with your standard equipment, including calibration baths, dry block ovens, precision thermometers and precision multiplexers. The tool guarantees real-time data transfer and provides detailed graphics to visualize temperature readings. Optimize your calibration processes by configuring custom standards and applying correction factors to obtain accurate and reliable results. Manage your calibration instruments efficiently, from identification to certificate generation, ensuring precise control of the entire process.

Simplify the programming of your calibration points with our intuitive interface, allowing you to set nominal temperatures, stability values and sampling times in a graphical and simple way.

Automate data collection and generate calibration certificates in PDF and CSV format with just a few clicks. Say goodbye to tedious manual processes and ensure to meet accuracy standards.



APPLICATIONS

Calibration laboratories
Quality Departments
Equipment maintenance

HIGHLIGHTS

Validated software
Automatic generation of certificates
Generation of historical
Exportable CSV data acquisition
Pattern management
Simple and intuitive interface

General information

Communication with Teams Pattern and data visualization

Setting the Patterns and Factors of Correction

Identification of Instruments to be Calibrated

Programming Calibration Points

Data Collection from Instruments

Integration and communication with the standard equipment used in the calibration process, such as the dry block bath or oven, the standard thermometer and the multiplexer. The system will ensure the correct connection and real-time data transfer with these devices, ensuring the stability and reliability of the measurement environment. This proposal considers the communication of the following devices:

- Calibration bath: LCB 30 or LCB 50
- Horno de bloque seco: LHC 40, LHC75, LHC 400 o LHC650
- LDT 450 Precision Thermometer
- Multiplexor for connection of standard probes: LSS670, LTS300 or LTS500

With the communication protocols, (RS232, RS485 and MODBUS

The tool displays a graph showing the reference temperature reading versus time. The reading of the isothermal medium and the standard temperature are also presented in numerical values, adding values

statisticians as average, standard deviation of the readings

Configuration of the Standards and Correction Factors within the system, including the loading of the values of the last calibration and its correction factors for the case of the standard thermometer. For the isothermal medium, bath or dry block oven, it must allow to assign at least the stability criterion that must be met to consider the standard temperature measurement correct. This information is crucial for the proper determination of temperatures of reference during the calibration process, optimizing the accuracy of the results. By so much, has to allow to apply the correction of the patterns so that in the certificate of calibration please submit the corrected data.

Identification of Instruments to be Calibrated

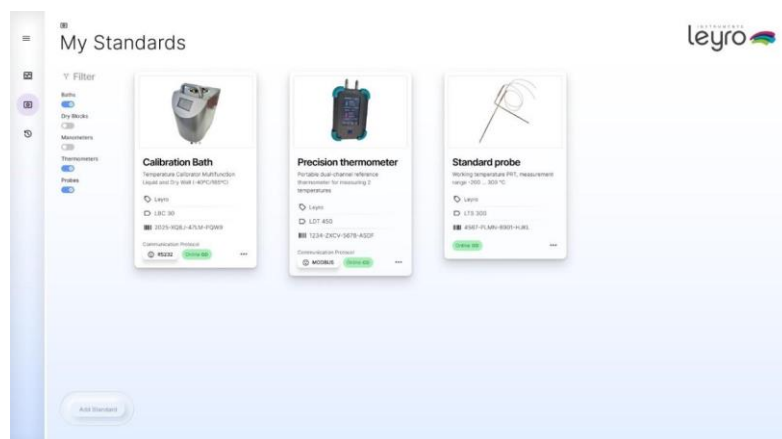
As a first step, the number of instruments to be calibrated and the person performing the calibration will be indicated. Once the quantity has been indicated, the basic information of the instruments will be entered one by one.

Tools to be calibrated, including:

- Customer Item
- Serial number
- Model
- Manufacturer
- Equipment Description

This identification will ensure accurate process control and the correct assignment of calibration results to each instrument. The identification of the equipment will select whether data collection is manual or automatic and allows communication with the system.

A template will be generated for each of the instruments to be calibrated to record the readings of each piece of equipment. The points to be filled in will be those programmed in the following block for each of the pieces of equipment, based on the configured nominal values.



Programming Calibration Points

It will include the definition of the calibration points to be used in the process, through bidirectional communication with the bath or oven. The tool will allow:

Programming of the nominal calibration temperatures. A graph will be displayed with the programmed plateaus based on temperature versus time. The temperature to be selected in the isothermal medium and a plateau time will be indicated. It will allow the selection of temperature measurement units between: Celsius or Fahrenheit and the sampling time.

Establish the value of Stability of the isothermal medium as a measurement criterion to consider that the reading of the instruments can be carried out. To warn that the point is already stable to take the values, it can be identified by a change in color in the reference temperature, for example: red for unstable values and green when the value already meets the established criterio. It is required that at least

ten readings have been taken based on the established sampling time. The Stability value will be taken from that assigned when registering the isothermal medium(s).

In calibrations where instrument readings are made from mode manual, once the registration of these is finished, the button will be pressed button of the next calibration point. The system will automatically program the nominal temperature of the next plateau in the isothermal environment and will begin the process described in the previous point for the new temperature value.

SHUTDOWN OF THE ISOTHERMAL ENVIRONMENT.

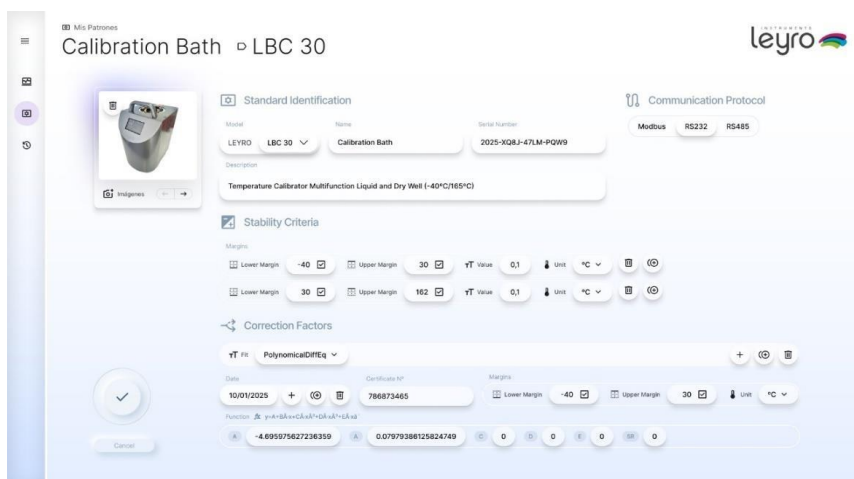
The tool, regardless of the programmed plateaus will introduce a last point that will take the nominal temperature of the isothermal medium to a temperature close to ambient conditions, generally 23 °C and 40 °C. So when we have programmed the plateaus we indicate to save the programming and it will automatically add a last point with the indicated nominal temperature, with the possibility of modifying it.

before confirmation, and a time duration of 5 minutes to proceed to the shutdown of the isothermal medium. This last point is mandatory for the protection of the bath or oven and to ensure that the cooling has complied with the minimum required times.

In cases where the reading of the instruments in calibration is automatic, the reading process of these will be: reference temperature of the standard in the stable isothermal medium (confirmed by compliance with the established criterion in the isothermal medium), taking readings of the reference standard and the instrument, with a minimum of ten readings based on the sampling times established in the configuration.

Completion of calibration will be able to:

Data collection of instruments under manual calibration: by pressing the button indicating save/finish calibration. This may be independent of the isothermal medium shutdown process configured in the last plateau.



Generation Results and Calibration Certificate

Take of data of the instruments under automatic calibration: when the last measurement has been made, a notice will be displayed indicating a message of the guy: finished calibration. Likewise, the end will be at the end of the last value before the final plateau necessary for the protection of the bath or oven.

Take of Data of the Instruments

The system will offer two modes of data collection. For instruments that do not communicate directly with the system, tables will be enabled to manually enter values when the pattern is stable.

For teams with communication capabilities automatic, the system will automatically collect readings once the thermometer pattern confirms the stability of the isothermal medium, progressing automatically through the scheduled calibration points.

The system will generate a basic calibration report that will include the details of the standards used (manufacturer, model, serial number), as well as a table with the following information:

Temperature reference

Reading the instrument

Correction (Reference temperature – Instrument reading)

The tool will have the functionality of: "Generate

Certificate", for this purpose

It will display the calibrated instruments and each of them will be selected individually.

This will allow you to add questions to a text field that are

consider necessary add in the certificate of calibration.

We will have the functionality of generate a file CSV with the data calibration numbers where the following are shown: identification data of the instrument, date, time, reference temperature, instrument reading.

There will be the functionality to download certificate for obtain the pdf file with the basic data indicated.

Leyro Instruments S.L

C/ Lanzarote 13- San Sebastian de los Reyes (Madrid)

Telf: 91283502

Mail: info@leyro.net

Web: www.leyroinstruments.com