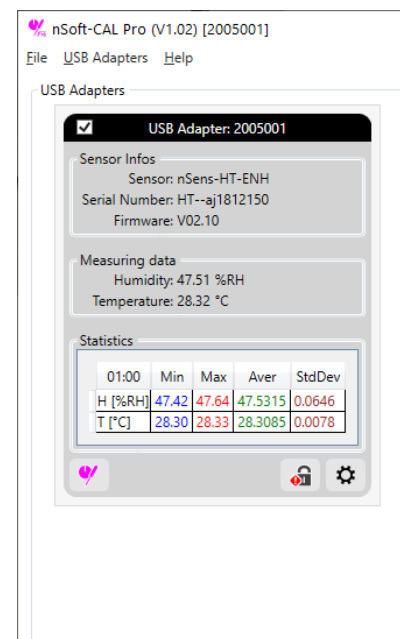


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Calibration software nSoft-Cal Pro

Multi sensor calibration with as found / as left certificates

Data logging on PC with MS Excel export



Important:

nlink-USB-Pro (USB A connection) or nlink-USB-Smart (USB-C connection) is required for each nSens connection.

Support >12 connections simultaneously.

No additional power supply required.

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Scope of use:

This user guide applies to the nLink-USB Pro and nSens probes with firmware version V2.10 and nSoft-Cal Pro V1.03 or higher

Capabilities:

Data logging for >12nSens probes each with link-USB Pro.
 Logging duration only limited by Excel (>1Mio lines) and computer hardware .
 Logging interval from 1 sec to 12hours

Calibrate multiple nSens with individual humidity and temperature points simultaneously
 Novasins SAL-SC humidity points pre-defined for high accuracy humidity calibration or
 Any humidity and temperature reference point can be used.

1. Installation nSoft Cal Pro

Start Installer by double clicking the "InstallSoftwarePack" file and follow the instructions.

Operating systems and software requirements

- Windows 7 and higher Windows releases (64bit only)
- Requires Microsoft Word 2010 or higher (for certificates only)
- Requires Microsoft Excel 2010 or higher (for data logger only)

Hardware requirements:

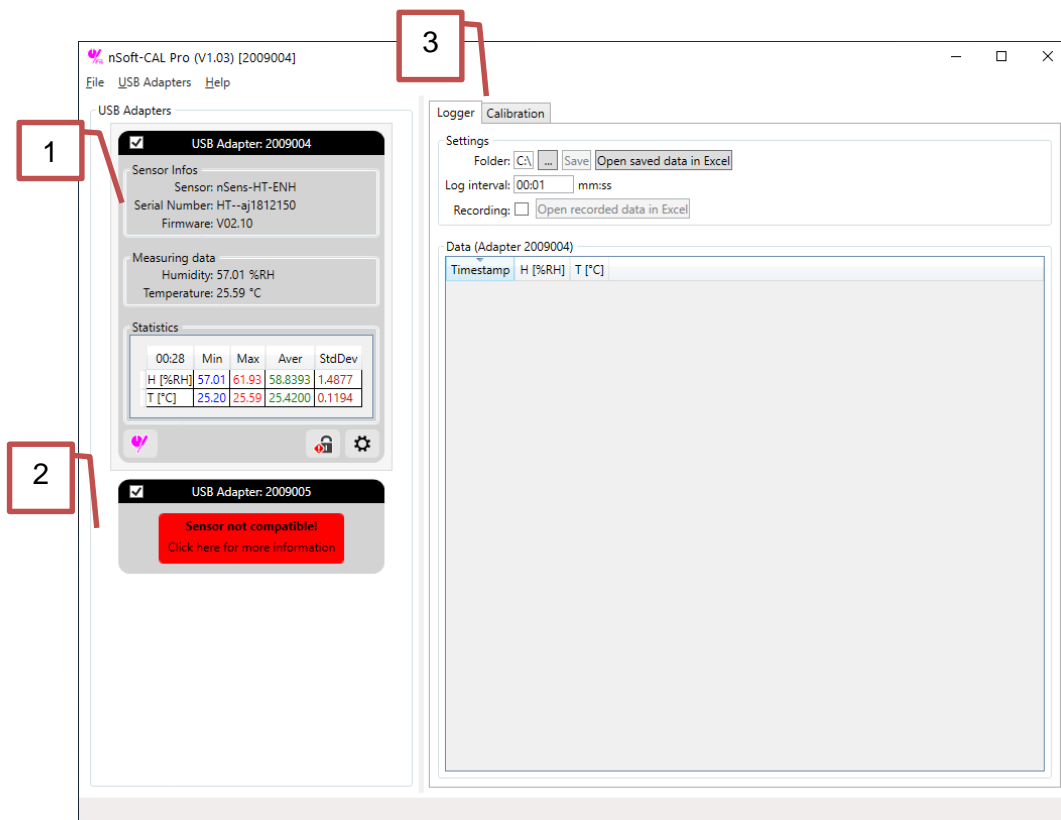
- Processor speed: at least 1 GHz
- USB-A or C connections
- at least 512 MB of operating memory
- at least 4 GB of free disc space
- Admin rights on the PC

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2. First Steps

Connect nlink-USB Pro (or Smart with USB-C) with nSens to your PC. Use USB Hub to connect multiple nlink-USB Pro.

Select in the Menu “USB Adapters” “Refresh Adapters” to display all information.



- 1: Connected nlink-USB Pro with nSens probe with detailed information and real time values.
- 2: Connected nlink-USB Pro with nSens probe and old firmware. Click on “more Information” and follow the instructions for sensor update (see chapter 7)
- 3: Select function logger or calibration. Detailed explanation below.

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3. USB Adapter and nSens Settings

Deactivate unused adapters. Adapter is identified by USB serial number.

Sensor Infos: Description, s/n and firmware version from the connected nSens probe.

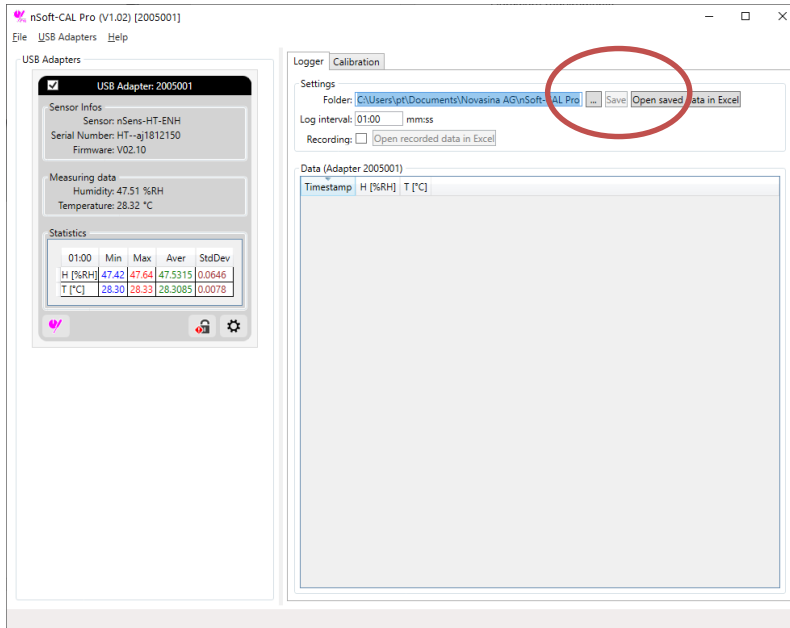
Opens nSoft-Cal for individual details or Upgrades

Red symbol indicates a password protected nSens. Enter correct password for calibration.

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4. Data Logger

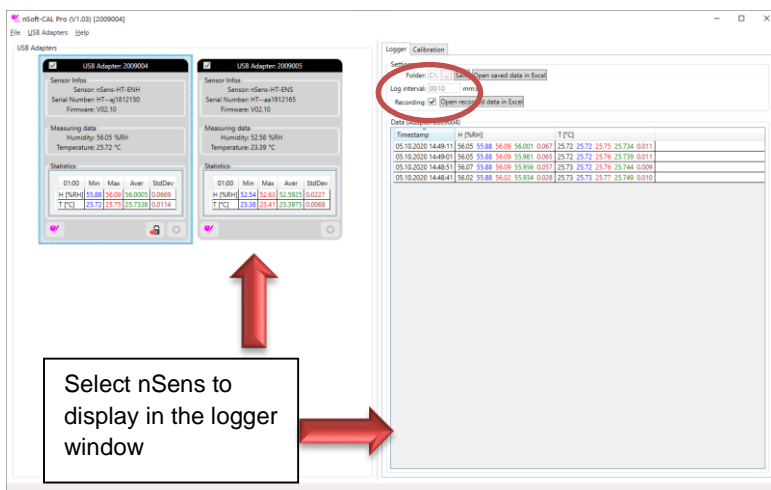
Select in the Menu “USB Adapters” “Refresh Adapters” to display all information.
Select “Activate all” or deselect not required adapters.



Click the ... to choose a folder for logger data storage.

Use “Open Saved Data in Excel” to select a previous archive.

During Data logging calibration is not accessible.



Select nSens to display in the logger window

Program your desired logger interval in the format mm:ss (e.g. 01:00 for measurement every minute)

Activate “Recording” to start logger

Only one nSens is displayed in the logger window.

Select another nSens from the left side to display the logger data

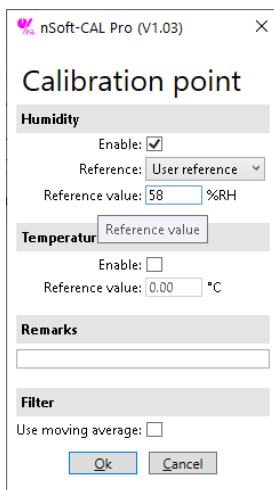
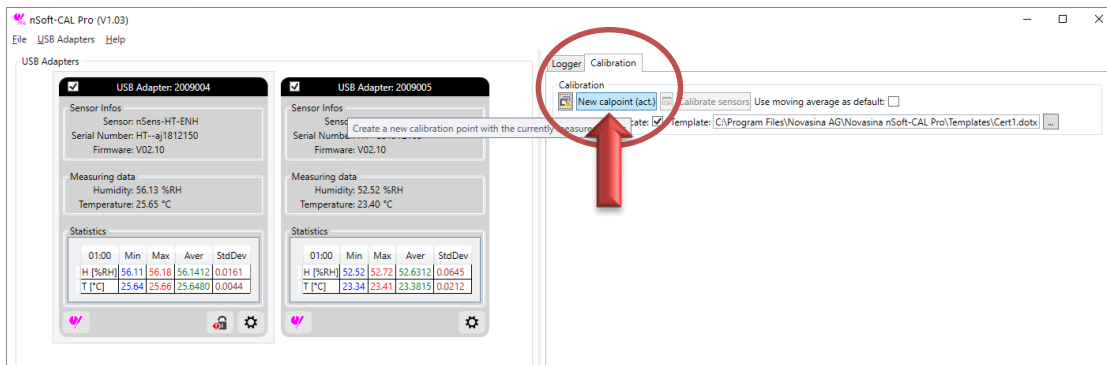
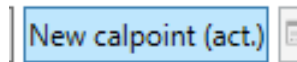
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5. Calibration

Activate Register “Calibration”

Make sure nSens response has reached stabilization. We recommend SAL-SC calibration salts for precise and reliable humidity calibration. Climate chambers can also be used, make sure to use a high-accuracy reference probe and follow the manufacturer instructions for best results.

Once the nSens have reached stable values (humidity and temperature) click on

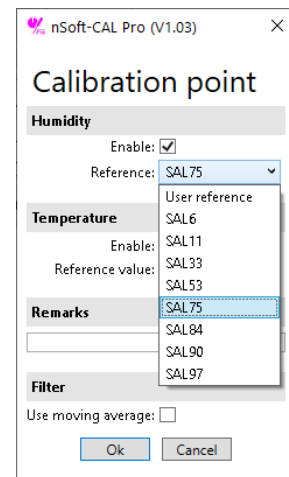


Enable Humidity

Reference: Select “User Reference”
For individual humidity reference and enter reference value

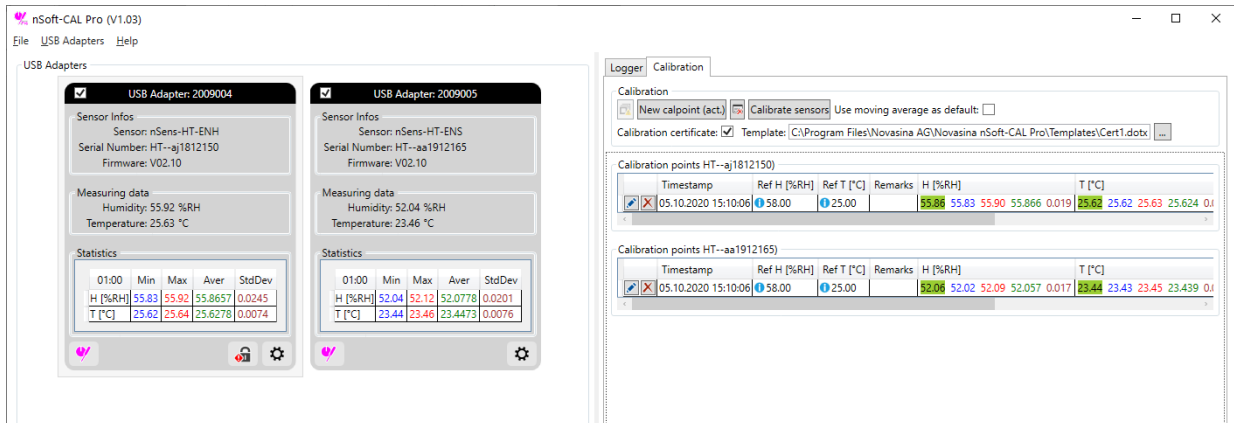
Or select SAL-SC reference value

Enable Temperature if required for temperature calibration and enter Reference value.

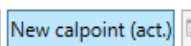


Press OK.

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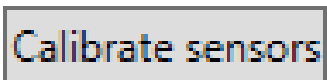
The calibration points are pre-recorded in the software, but have not yet been transferred to the nSens!

Repeat now above steps with  and add more calibration points if required.

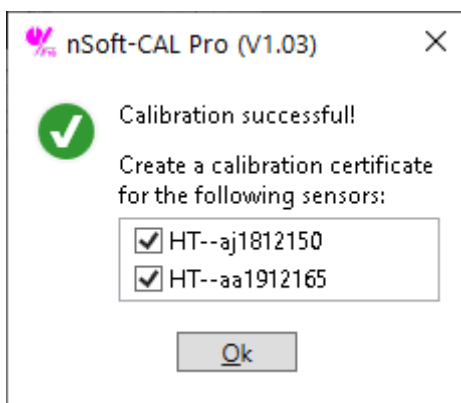
Delete or Modify existing calibration points individually



Calibrate sensors

Use  once your calibration points have been finalized. Now the new points are transferred to the nSens.

Only nSens without password protection can be calibrated!




Pressing Ok opens MS Word with calibration certificates as Found / As Left.

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6. MS Word Certificate configuration

Example for Standard certificate (one point)



The Art of Precision Measurement

CALIBRATION CERTIFICATE

Sensor type	Serial no.
nSens-HT-ENS	HT-aa1912165

We herewith certify that the above mentioned sensor was manufactured, checked, calibrated and adjusted in compliance with the latest technical standards.

Humidity Calibration

Salt	
Reference [%RH]	58.00
As-found [%RH]	52.06
As-left [%RH]	58.00
Error	-5.94
Result (OK/NG)	OK
Timestamp	05.10.2020 15:10:08

Temperature Calibration

Reference [°C]	25.00
As-found [°C]	23.44
As-left [°C]	25.00
Error	-1.56
Result (OK/NG)	OK

The calibrated values are valid under above conditions only at the time of measurement and are referenced to the mentioned reference and working standards.

Lachen, 5. Oktober 2020 Technician:

|

Novasina AG, Neuheimstrasse 12, 8853 Lachen, Switzerland
 Telephone +41-55-642 67 67 Fax +41-55-642 67 70, E-Mail: info@novasina.ch, www.novasina.com

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Modify the Standard certificate template

Standard template is stored as follows:

C:\Program Files\Novasina AG\Novasina nSoft-CAL Pro\templates\cert1.dotx.

Make a backupcopy of this file. Open the file by using right mouse button and open to open as template.

Modify normal texts, headlines, logo, layout according to your requirements.

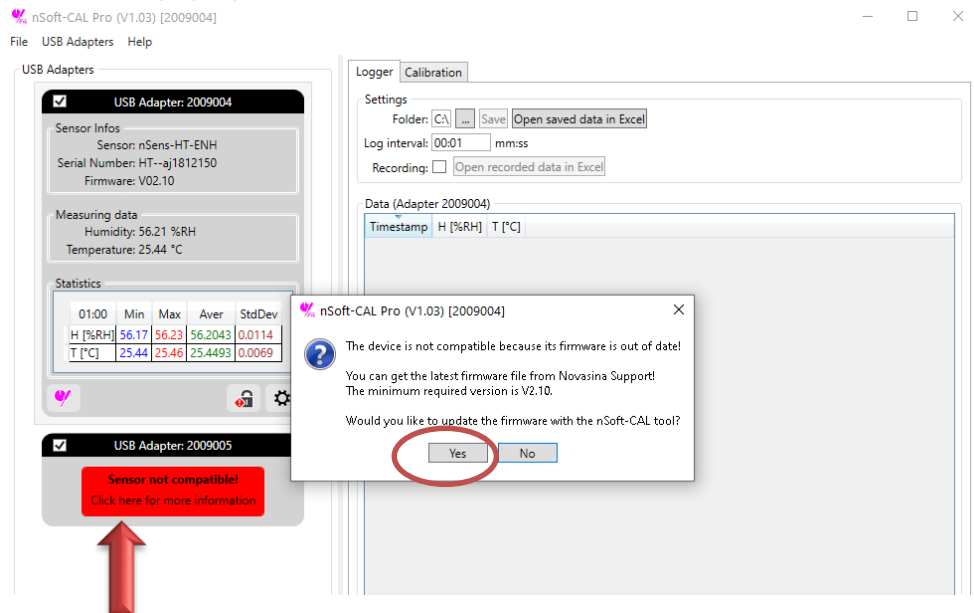
Name Textmarker	Function
xSensType	Sensor type
xSerNum	Serialnumber nSens
xCtHumAt	Text for humidity calibration, visible only if humidity has been calibrated
xCtHum	Complete Table for humidity
xCtTempAt	Text for temperature calibration, visible only if humidity has been calibrated
xCtTemp	Complete Table for temperature

Safe the modified document as Word-Template with the name "cert1". The software only recognizes this name as template. Make sure to keep the original cert1 template as backup if you modified it fubar.

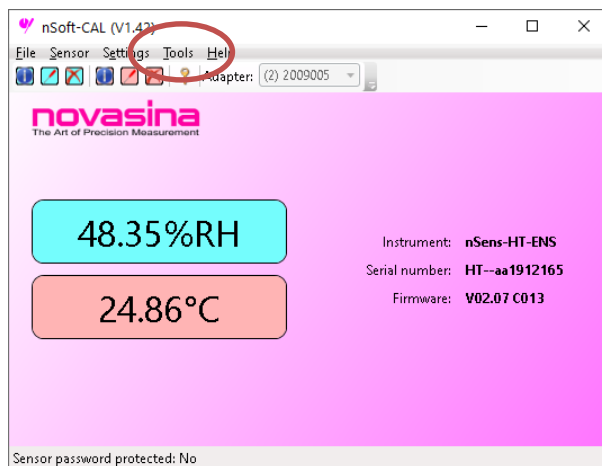
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7. nSens Update

Red Warning “Sensor not compatible” requires nSens Update. Click on the red label and confirm the pop up window with Yes.

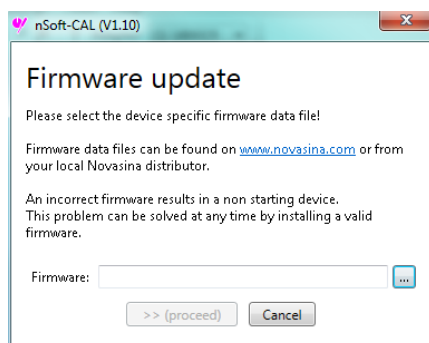


The Software nSoft-Cal will be opened with all sensor information. While nSoft-Cal is active the Sensor is deactivated in the nSoft-Cal Pro software.



Select Menu “Tools” : Firmware Update.

The actual firmware file can be obtained from your distributor or send an email to climate@novasina.ch



1. Select " Tools->Firmware update...

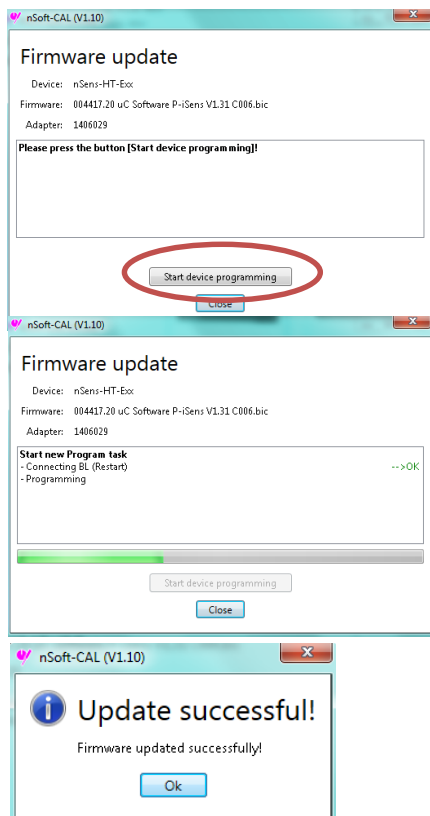


2. The firmware selection window appears.

3. Select the corresponding update software file and press [>> (proceed)].

Ask your distributor or climate@novasina.ch for the actual firmware file

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4. Start the update: [Start device programming]

5. The firmware is updated




6. The firmware was installed successfully. To complete and exit the installation procedure press [Ok]



These symbols indicate that no nSens is connected or nSens is faulty.

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8. Accessories

nSens cable extensions	nlink-USB-Pro & Smart	Table holder
Extension cable between nLink-USB and nSens. .	USB connection for all nSens probes. With 1.8 M USB cable.	Angled table top holder for nlink-USB
		
260 1136 nSens Extension 5m 260 1201 nSens Extension 2m	260 1945: Pro with USB-A 260 1958: Smart with USB-C	260 1957 nlink-USB-Holder