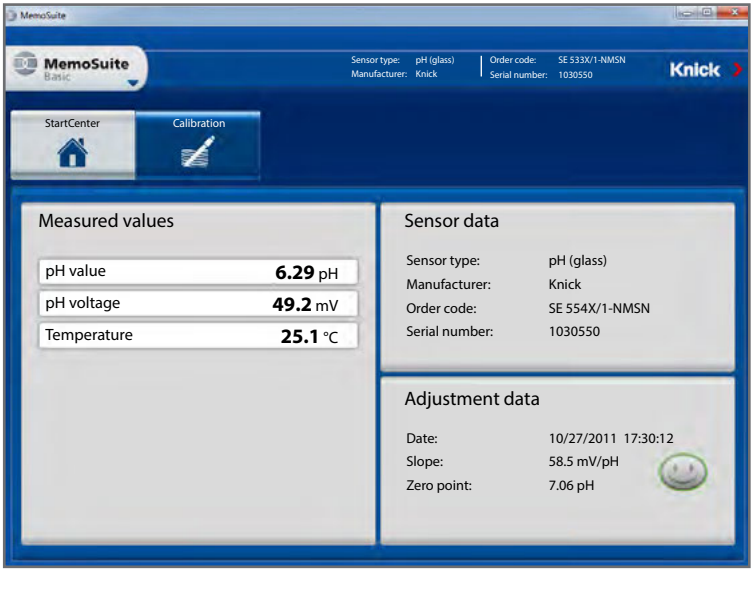
The Art of Measuring. Knick

English

MemoSuite® Basic

Software for Memosens® Sensors
Plug-and-Play Data and Sensor Management



Latest Product Information: www.knick.de

MemoSuite Basic:
Plug-and-Play Calibration Software for Memosens Sensors

Overview of Functions
"MemoSuite Basic" is an easy-to-use PC software for calibrating Memosens sensors. The sensors are connected via "MemoLink" and a USB port. MemoSuite shows the measured values and the data of the last adjustment.

Process variables
The software supports Memosens sensors for measuring pH values, oxygen, conductivity, ORP and temperature.

System Requirements (Minimum)

Hardware

CPU: 1 GHz Pentium or comparable processor

RAM: 512 MB

Graphic card: 1024 x 768 true color (32-bit)

USB 2.0

Hard disk: 700 MB

Operating system:

Windows 7*/8/10 (32bit or 64bit version)

Microsoft .Net Framework 4.6 (already included in Windows 10)

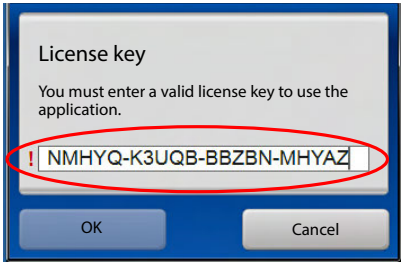
*) If you have a computer with Windows 7, first make sure that Microsoft .Net Framework 4.6 is installed before you start the Paraly installation (free download from microsoft.com).

Installing the Software
You must have administrator rights for the system where you plan to install the software. Installation should start automatically when the CD-ROM is inserted. If not, please start the MemoSuiteBasicSetup.exe file.
Follow the instructions of the installation program.

Initial Start-up of the Software

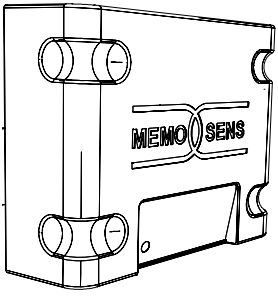
License key

After installation of MemoSuite, you will be prompted to enter a license key. The license key is included on the package of the CD-ROM.
An incorrect entry is signaled by an exclamation point.

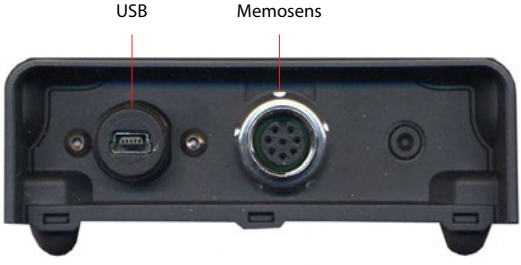


MemoLink – the Interface to the Sensor

The MemoLink is connected to the computer via USB cable, a separate power supply is not necessary. A Memosens cable with suitable M12 connector is required for connecting the Memosens sensor (accessory).



The MemoLink measures 97 x 78 x 38 mm. Thanks to its non-slip rubber feet, it can be conveniently placed on a laboratory bench. The ZU0881 accessory allows wall or post mounting.



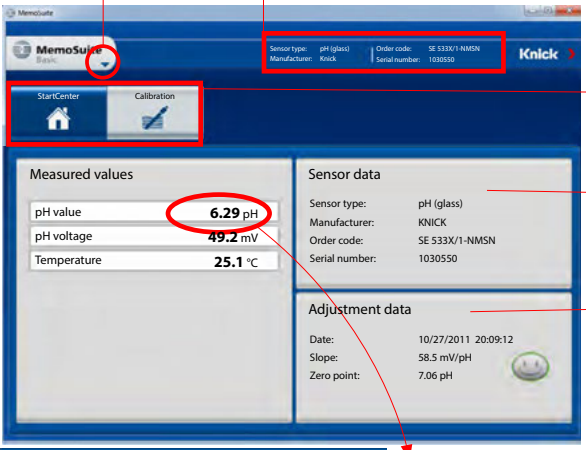
Software Functions

StartCenter

The software automatically identifies a connected Memosens sensor. The parameters currently supplied by the sensor are shown in the "Start-Center". Function selection and access to basic settings and specifications are provided at any time.

Settings menu
Measured parameters (°C / °F, pressure for O_2 measurement), language selection

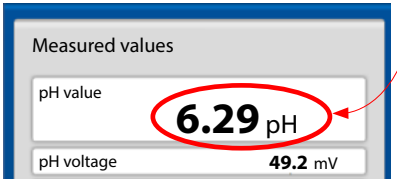
Connected sensor:
Sensor type, manufacturer, order code and serial number



Function selection
(The selected function is highlighted.)

Connected sensor:
Sensor type, manufacturer, order code and serial number

Last adjustment



Display size of measured values:
When the cursor moves over a measured value, it changes to a magnifying glass, allowing to magnify the measured-value display at a mouse click.

The displayed parameters depend on the process variable.

Calibration

A multitude of established calibration methods can be used for adjusting the sensors. The following buffers are available for calibrating pH sensors: Ciba94, DIN 19267, Hach, Hamilton Duracal, Knick CaliMat, Mettler Toledo, NIST standard, NIST technical, Reagecon, WTW.

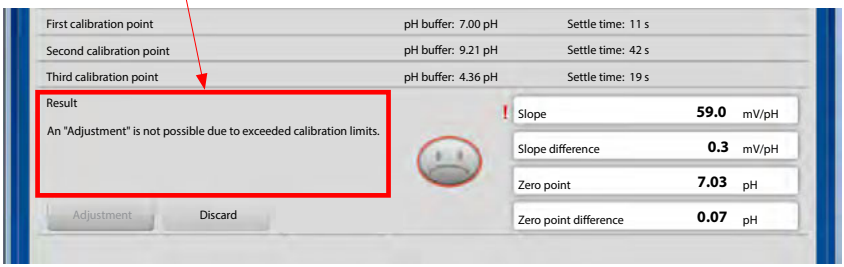
Available Calibration Methods

Process variable	Available calibration methods
pH	Automatic (“Calimatic”) Data entry Reference calibration Manual calibration
Oxygen	Data entry Slope in air Zero point
Conductivity	Data entry Reference calibration Automatic in solution
ORP	Data calibration (entering an ORP delta value) Manual calibration (correcting or entering the electrode voltage)

After you have selected a calibration method, MemoSuite will take you step by step through the calibration process. At the end of each calibration, the resulting calibration values (e.g. zero point, slope, cell constant) will be evaluated and the corresponding Sensoface icon will be displayed (friendly, neutral, sad smiley). If the calibration values lie within the permitted range, the “Adjustment” button is enabled. Click it to save the values in the sensor.

User Support during Calibration with MemoSuite

When errors are recognized during calibration, the software indicates the critical parameter (red exclamation point).
It informs on the result and does not allow an adjustment:



Example: Calibrating a pH Sensor using "Calimatic"

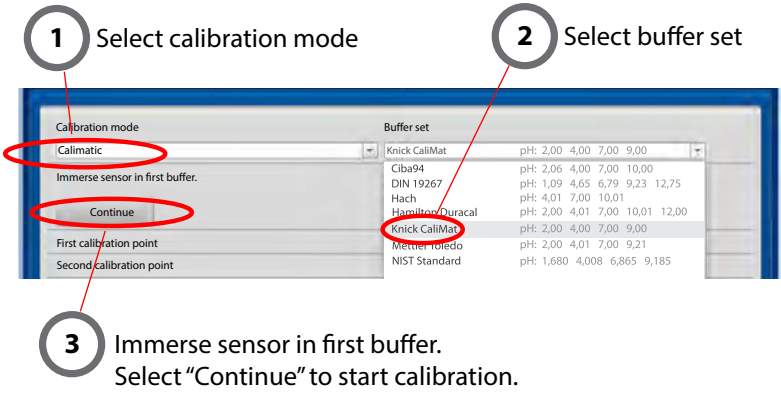
Automatic calibration ("Calimatic") automatically retrieves the temperature-corrected buffer value from the stored tables after the respective buffer set has been specified. It can be used for the following types of calibration:

One-point calibration
With one-point calibration, the zero point of the pH sensor is checked and corrected by an adjustment if required. One pH buffer is used as calibration solution. In many cases, this type of calibration is sufficient, particularly when the sensor slope does not change or changes only slightly.

Two-point calibration
Two-point calibration is recommended where high demands are placed on accuracy. Here, you have to use two different pH buffer solutions which should encompass the pH value of the process (bracketing procedure). As a result, the zero and slope values of the sensor are determined and saved in the sensor if an adjustment is required.

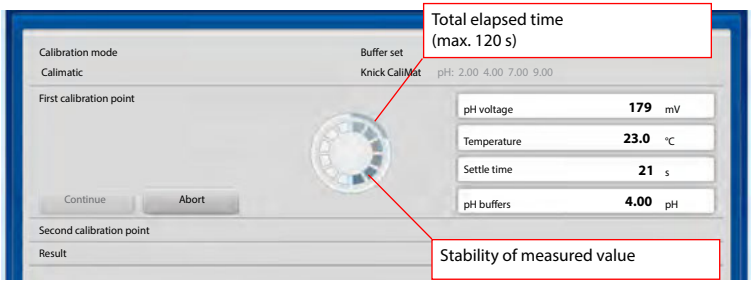
Three-point calibration
If you want to measure pH values over a very wide range, you can calibrate the sensor using three different buffer solutions which cover a broad range of pH values. Zero and slope of the sensor are calculated using a line of best fit (linear regression) and are saved in the sensor if an adjustment is required.

Example for a two-point calibration:



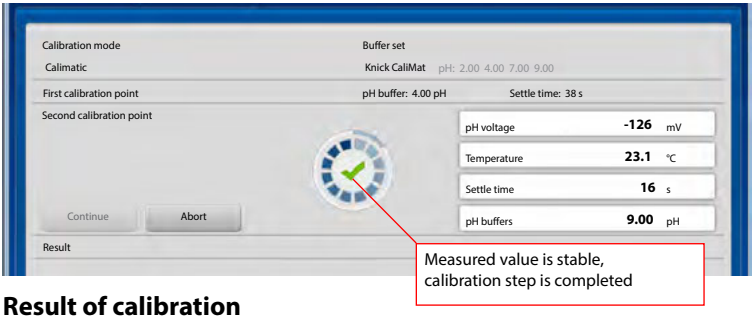
4 First calibration point

The value of the buffer solution is automatically measured.
The currently measured parameters are displayed during the calibration:



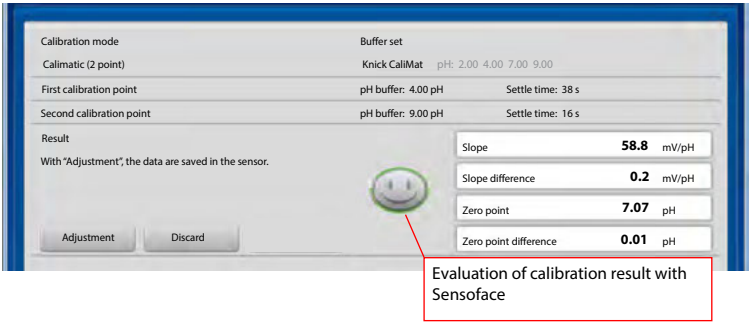
5 Second calibration point

When prompted to do so, immerse the sensor in the second buffer.
Select "Continue" to proceed with the calibration.



6 Result of calibration

The values determined for zero point and slope are displayed.
Click "Adjustment" to save the values in the sensor.



Knick
Elektronische Messgeräte GmbH & Co. KG
Beuckestr. 22
14163 Berlin
Germany
Tel: +49 (0)30 - 801 91 - 0
Fax: +49 (0)30 - 801 91 - 200
Internet: http://www.knick.de
info@knick.de

TA-271.000-KNE02 20170703