Knick

User Manual
English

# Paraly SW 112


Valid from version 02.00.00

Latest product information: www.knick.de

**Please note:**
From version 02.00.00, the Paraly SW112 PC software no longer supports the Portamess series.
Use version 01.xx.xx of the Paraly SW112 PC software with Portamess devices.

# Table of Contents

## Introduction

The Paraly SW 112 PC software supplements the devices of the Portavo 904, 907 and 908 series of Knick Elektronische Messgeräte, which are equipped with computer interfaces. It allows convenient management of the data collected by the devices as well as simple and straightforward configuration of the devices.

## System Requirements

Computer with:

- Windows 7/8/10 [1)] (32-bit or 64-bit)
- Microsoft .Net Framework 4.6 (already included in Windows 10)
- USB 2.0 port

## Installation

Double-click the ParalySetup.exe file to start the installation. [1)] This file can be found in the Software folder.
First, select the installation language.

**Note:** After installation, you can change the user language for the Paraly SW at any time while working with Paraly. This is independent of the installation language. After changing the language, you will have to restart the software.

You can install Paraly for all users of the PC (requires administrator rights) or for the currently logged-in user (without administrator rights).

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

## Program Start


Double-click the program icon to start the application.

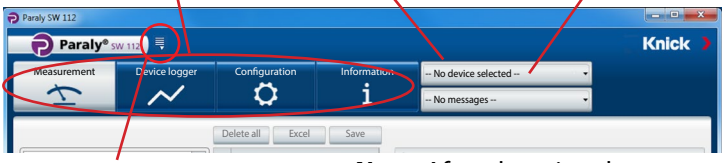
**Note:** Communication between several instances of the Paraly program and one single device is not possible.

## First Steps

Selecting the functional area

Device selection

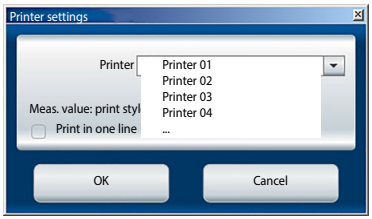
System messages




Language
Printer
Help
About Paraly

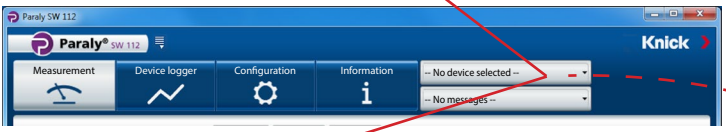
**Note:** After changing the language you have to restart the software.

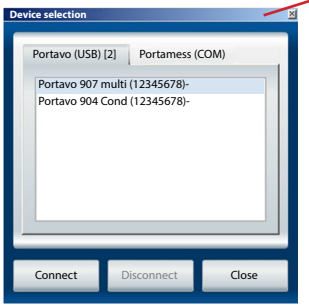
Printer presettings



## Connecting and Activating a Device

**Devices of the Portavo series:**
Connect each device to a USB port of your computer using the supplied USB cable.
Devices of the Portavo series are automatically recognized by the computer.
If you have connected several devices, you can activate the desired device on the "Portavo (USB)" tab of the "Device selection" window.
Click the device selection button to open that window.



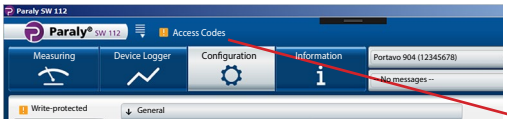




Select the desired device and click "Connect". Proceed accordingly to change the devices.
Now the device selection button shows the corresponding model designation and the serial number.

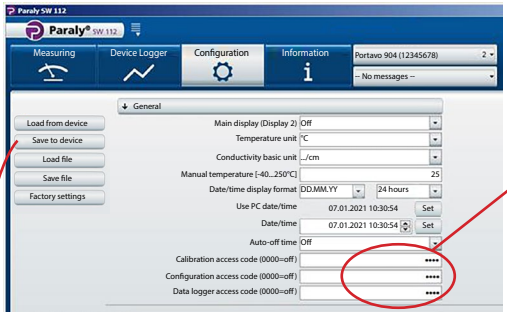

Clicking the "Disconnect" button terminates the connection to the active device.

**Note:** When the logger function is activated for the selected device, this is indicated by a red dot on the "Device logger" button.

With the Portavo 904/907/908 devices, access to certain functions can be protected by using access management (option 001 SOP [1]). Access management can be configured either in the device or via Paraly SW112. If access management is enabled on the connected device, you will also need to enter your access data in Paraly. Portavo 904 uses access codes, Portavo 907/908 uses a user management and PIN codes for access.

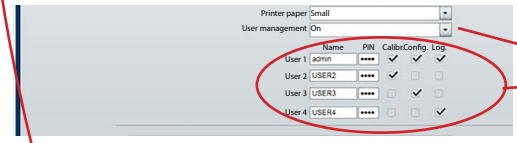



**Portavo 904:**
When accessing protected functions, you will be prompted to enter an access code.




You can assign access codes or modify existing ones here for each functional area.

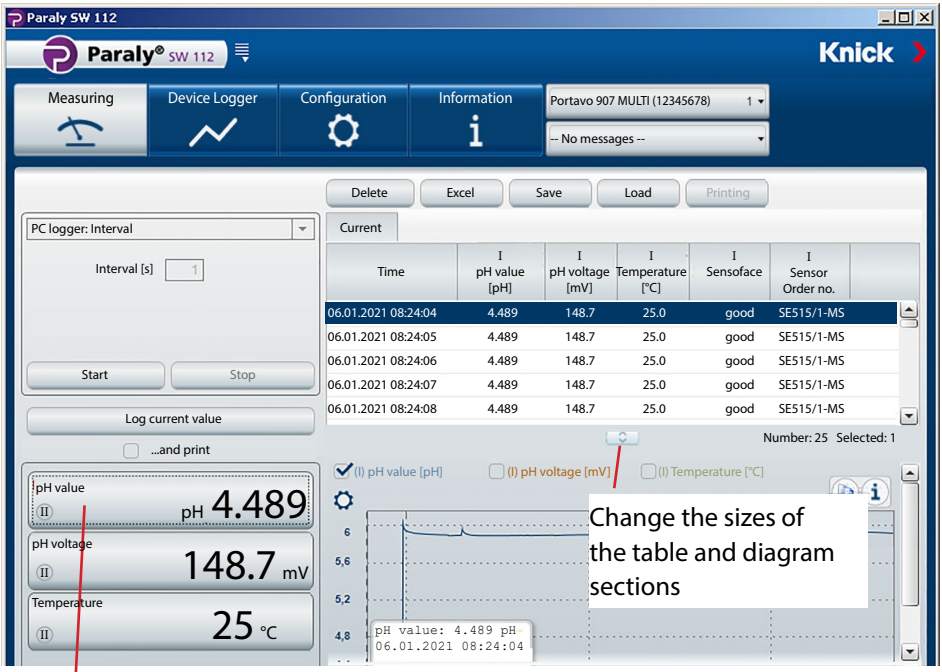

**Portavo 907/908:**
When accessing protected functions, you will be prompted to enter your login data.
After enabling "User management" (select "On"), you can set up or modify existing user rights with user names and associated functional areas.



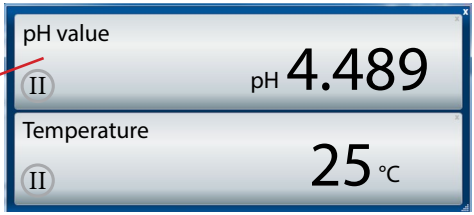

**For All Portavo Devices:**
After making all entries, transfer the settings to the device by clicking on "Save to device".

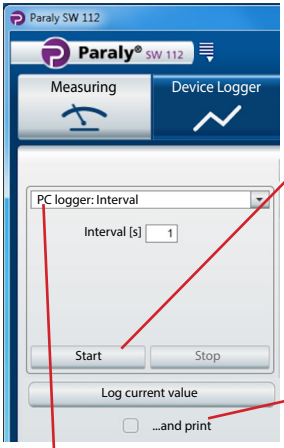
1) Activate option in Portavo; see Portavo user manual.

The "Measuring" functional area allow users to view and record the measured values supplied by the device.




By clicking on a measured-value display it is magnified and can be placed at any position on the screen.






***NOTICE!*** Measurements started by the PC logger will only be stored on the PC and not in the device.

Use "Start" to begin recording using the set parameters. A red dot on the "Measuring" button indicates that the PC logger is active.
Clicking "Stop" stops the recording.

Click "Log current value" to log a single value.
With the "... and print" box checked, this value will also be printed.

PC logger selection

| **Interval** | **Available for all measurements** | |
|---|---|---|
| | **Process variable:**<br>Interval | **Values:**<br>[s] |

**Measurement: pH, ORP**

| **Limit** | **Process variables:** [1] | **Limit values (minimum/maximum):** |
|---|---|---|
| | pH value | [pH] |
| | pH voltage | [mV] |
| | rH value | [rH] |
| | ORP voltage | [mV] |
| | Temperature | [°C or °F] |
| **Difference** | **Process variables:** [1] | **Difference values:** |
| | pH value | [pH] |
| | pH voltage | [mV] |
| | rH value | [rH] |
| | ORP voltage | [mV] |
| | Temperature | [°C or °F] |

1) Process variables dependent on connected sensor and configuration.

**Measurement: Conductivity**

| **Limit** | **Process variables:** [1] | **Limit values (minimum/maximum):** |
|---|---|---|
| | Conductivity | [µS/cm] |
| | Conductivity (comp.) | [µS/cm] |
| | Salinity | [g/kg] |
| | TDS | [mg/l] |
| | Concentration | [wt%] |
| | Temperature | [°C or °F] |
| **Difference** | **Process variables:** [1] | **Difference values:** |
| | Conductivity | [µS/cm] |
| | Salinity | [g/kg] |
| | TDS | [mg/l] |
| | Concentration | [wt%] |
| | Temperature | [°C or °F] |

**Measurement: Oxygen**

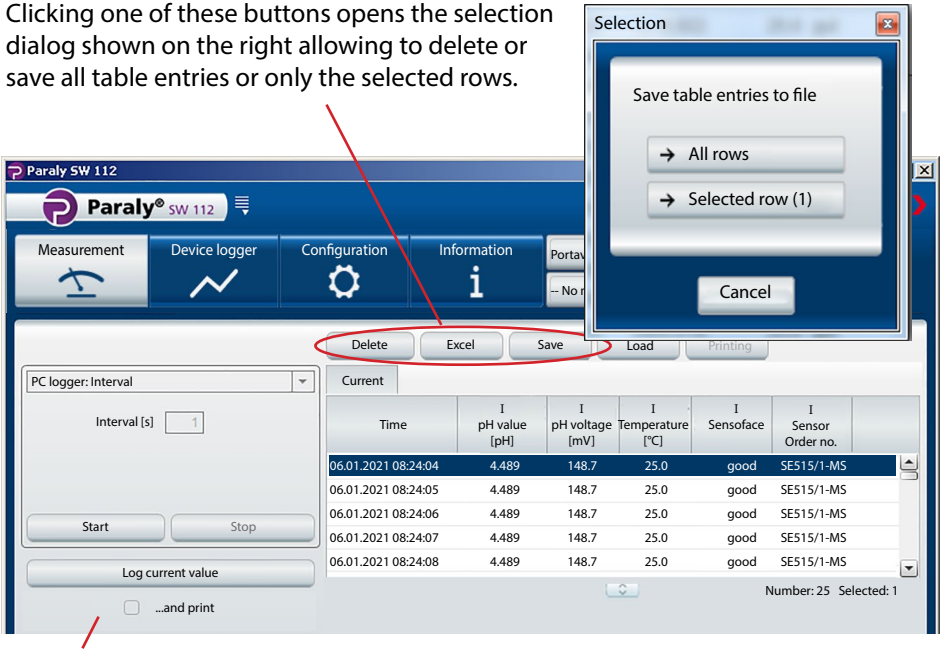
| **Limit** | **Process variables:** [1] | **Limit values (minimum/maximum):** |
|---|---|---|
| | Partial pressure | [mbar] |
| | Concentration (liquid) | [%] |
| | Concentration (gas) | [mg/l] |
| | Saturation | [%air] |
| | Pressure (absolute) | [mbar] |
| | Temperature | [°C or °F] |
| **Difference** | **Process variables:** [1] | **Difference values:** |
| | Partial pressure | [mbar] |
| | Concentration | [mg/l] |
| | Saturation | [%air] |
| | Pressure (absolute) | [mbar] |
| | Temperature | [°C or °F] |

**Note:** The exact logger behavior is set out in the "Data Logger" chapter of the Portavo user manual.

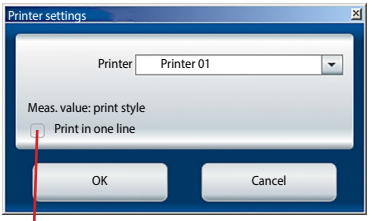
1) Process variables dependent on connected sensor and configuration.

The collected data is presented in tabular form and as a diagram.
Using the buttons above the table, the data can be deleted, opened directly in Excel or saved as file (*.csv or *.xls).

Clicking one of these buttons opens the selection dialog shown on the right allowing to delete or save all table entries or only the selected rows.




The printouts differ depending on the selected printer settings.




01/27/2016 09:53:43

**pH value [pH]: 7.14**
**pH voltage [mV] 0**
**Temperature [°C]: 25.0**

Sensor serial no.: 11000
Latest calibration: 01/11/2016 08:53:
Zero [mV]: 7.8
Slope [mV/pH]: 54.5

Paraly SW 112 Ver. 1.7.
Knick Elektronische Messgeräte GmbH & Co. KG
01/27/2016 09:53:19

Sensor
Sensor type: pH (glass), Memosens®
Order no.: SE515/1-MS
Serial no.: 11000
Manufacturer: Knick
Sensor TAG: myTag

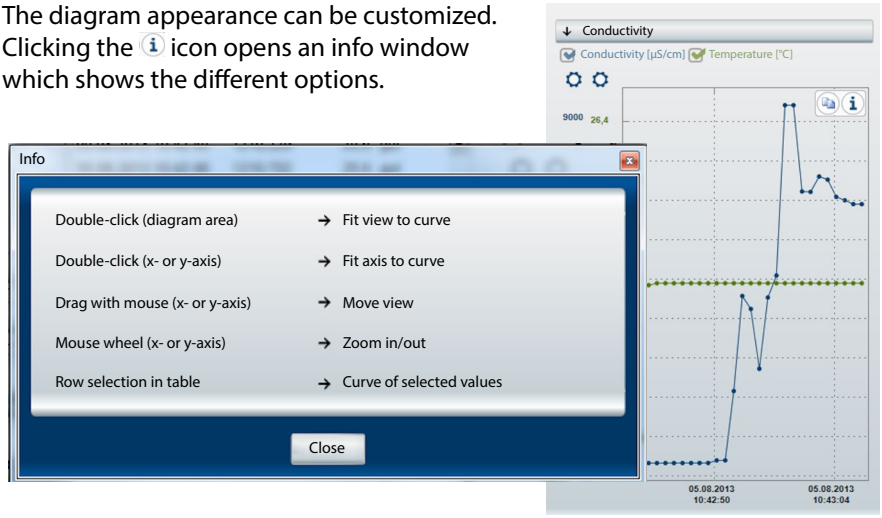
Latest calibration
Sensoface: good
Latest calibration: 01/11/2016 09:53:00
Zero [pH]: 7.14
Zero [mV]: 7.8
Slope [%]: 92.0
Slope [mV/pH]: 54.5
Temperature offset [K]: ---
Operating time [h]: 442.00
Wear [%]: 76
SIP: 23

Device
Model: Portavo 907 Multi pH
Serial no.: 555002
Hardware version: 1
Software version: 1.5.0 (Build 10404)

"Print in one line" means that the measurement data (here pH value, pH voltage, temperature) + time stamp are printed in one line.

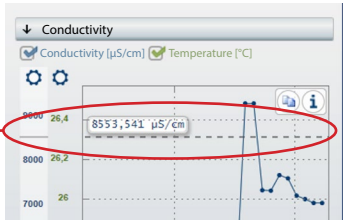
```
0    25,0 27.01.2021 10:13:33
```

The diagram appearance can be customized. Clicking the icon opens an info window which shows the different options.

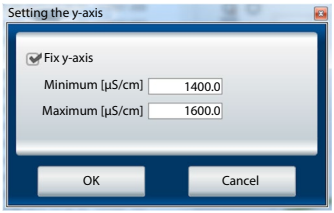



Clicking the icon copies the current diagram view to the clipboard as an image. From there, it can be used, for example, for graphic or text programs.

When you place the cursor somewhere on the y-axis, an info window will open within the diagram and show the respective values. At the same time, a broken line helps assigning the value to the measurement curve.



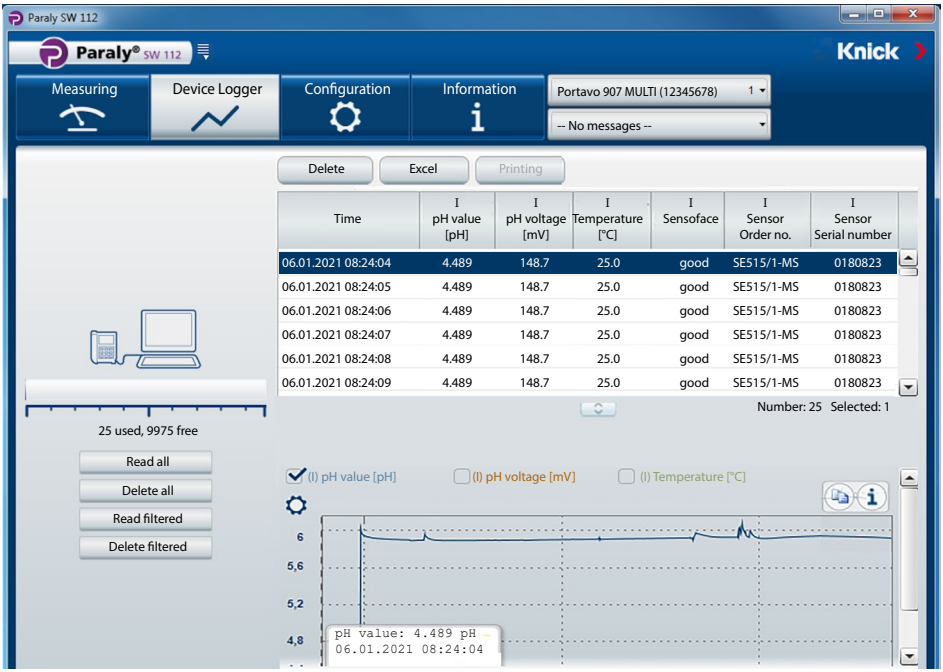

Clicking the icon above the y-axis opens the window shown on the right. Here, you can enter limit values for fixing the y-axis. These values remain stored as user settings and will be available when Paraly is started again. To deactivate the fixing of the y-axis, remove the checkmark next to “Fix y-axis”.



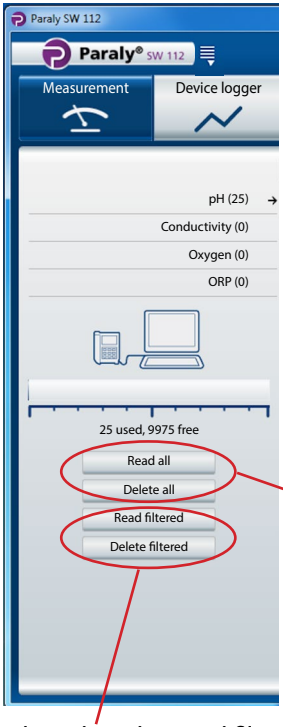
When you position the cursor within the diagram, an info window will open and show the measured values and time of measurement. When the broken line crosses a measured value (point on the curve), the information text appears in black.


When the broken line lies between two points, the intermediate values will be calculated (linear interpolation) and shown in gray.

Reading, viewing, and exporting data logged by the device.




The measurement data can be saved as a file (*.csv or *.xls) or opened directly in Microsoft Excel. If you save the measurement data as a .csv file, you can reimport it later in the “Measuring” functional area and display it as a table/diagram.



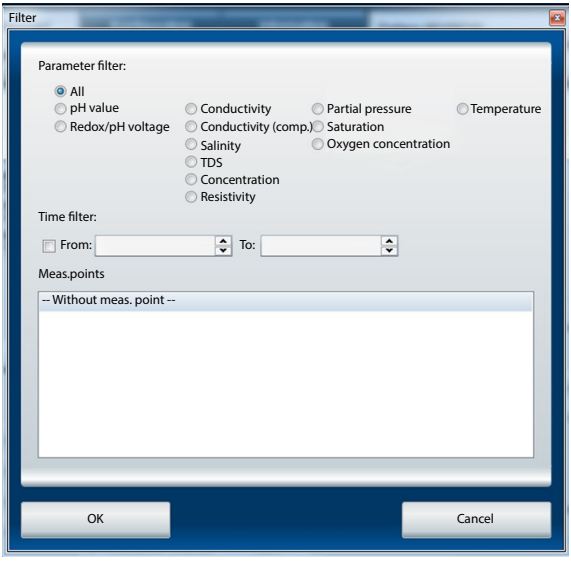

When Paraly reads out the measured values, it assigns the data records to the corresponding parameter (here 25 pH data records).

Display of total memory space usage of the connected device (Portavo series only).

Buttons for reading out the measurement data from the device or deleting the data in the device.

**Note:** This delete function only applies to the device.

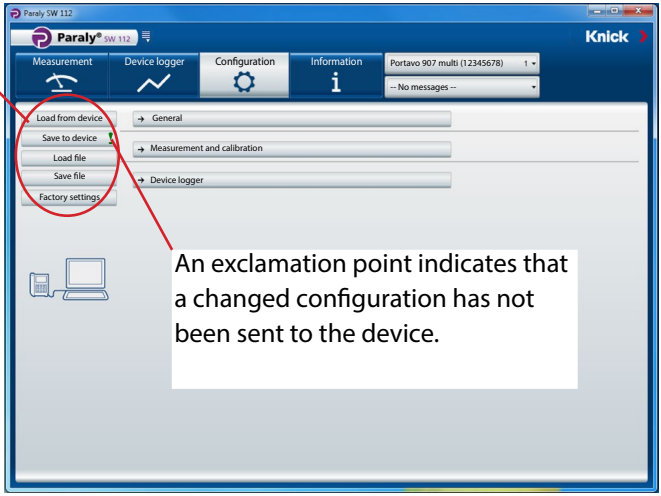
Filtered reading and filtered deleting is only available for devices of the Portavo 907 and 908 series.
If you wish to use filtering, the filter dialog box shown here will open.



The Configuration window allows:

- conveniently configuring the device from a computer
- saving the device configuration in an XML file for recovery purposes or copying it to other devices

The buttons on the left allow loading or saving configurations from/to the device or from/to the computer or restoring the factory settings (only available for the Portavo series).

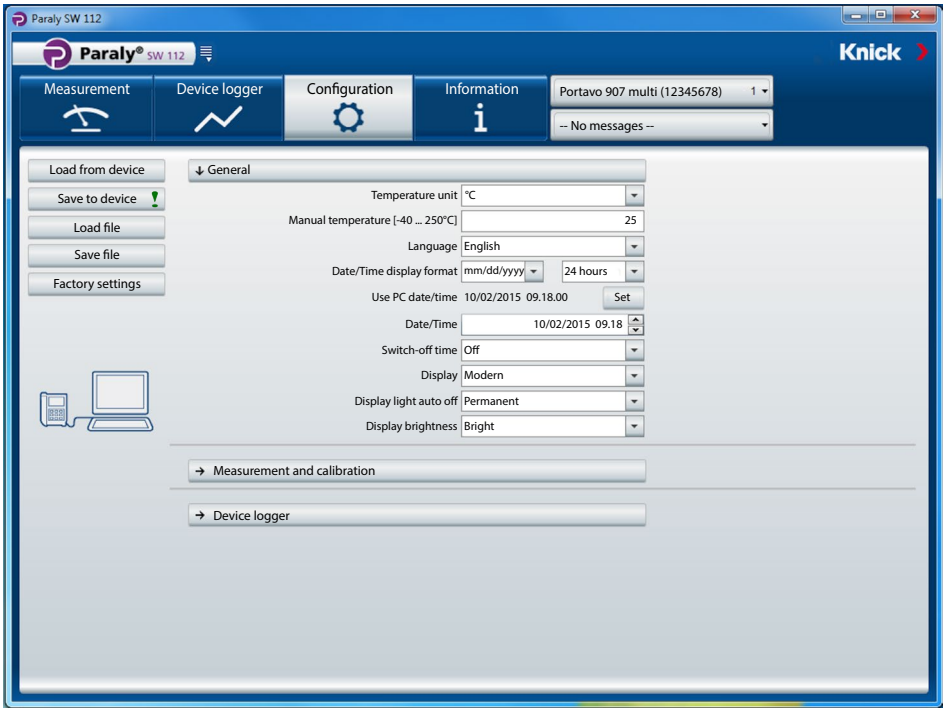



The Configuration window is divided into the sections "General" (for all measuring tasks), "Measurement and calibration" (with sections for the different measuring tasks) and "Device logger". A click on a button opens the corresponding input areas (see illustrations on the following pages).

**Note:** Some settings of the device configuration will also affect the Paraly display (e.g. selection of temperature unit °C or °F, selection of Cond calculation and others).

## General

**Note:** You can configure all process parameters supported by the selected device, independent of the currently connected sensor. The possible settings are described in detail in the user manual of the respective device.

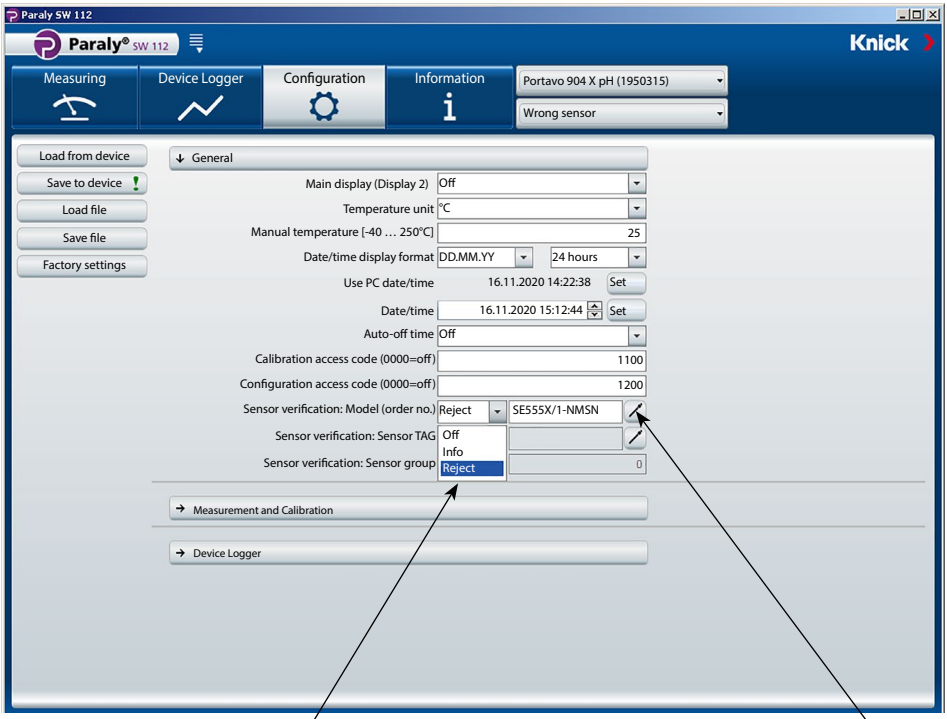



The general configuration allows making device settings which are independent of the respective measuring task. The following applies to all sensors: You can create completely new configurations or adapt configurations stored in the device ("Load from device") or the computer ("Load file").

**Note:** All settings only become effective in the device after they have been transmitted by clicking the "Save to device" button.
By clicking the "Save file" button, you can also store the data in the computer for later use.

## Sensor Verification for Memosens Sensors

The "Sensor Verification" function makes it possible to assign the device to a specific Memosens sensor (option 001 SOP [1]). Any other sensors will then be rejected and generate error message "21" in the device.




Options (Off = inactive):
**Reject** generates error message "21" for all other sensors – a measured value is not displayed.
**Info** generates error message "21," but still displays the measured value.

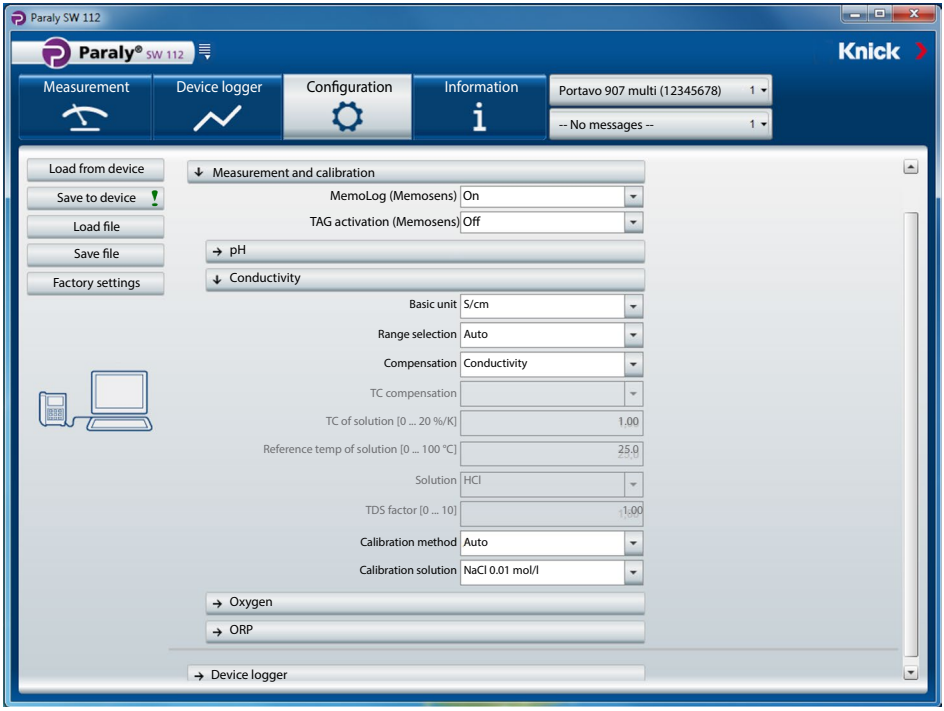
Clicking on this icon saves the order code of the connected sensor.

1) Activate option in Portavo; see Portavo user manual.

## Measurement and Calibration

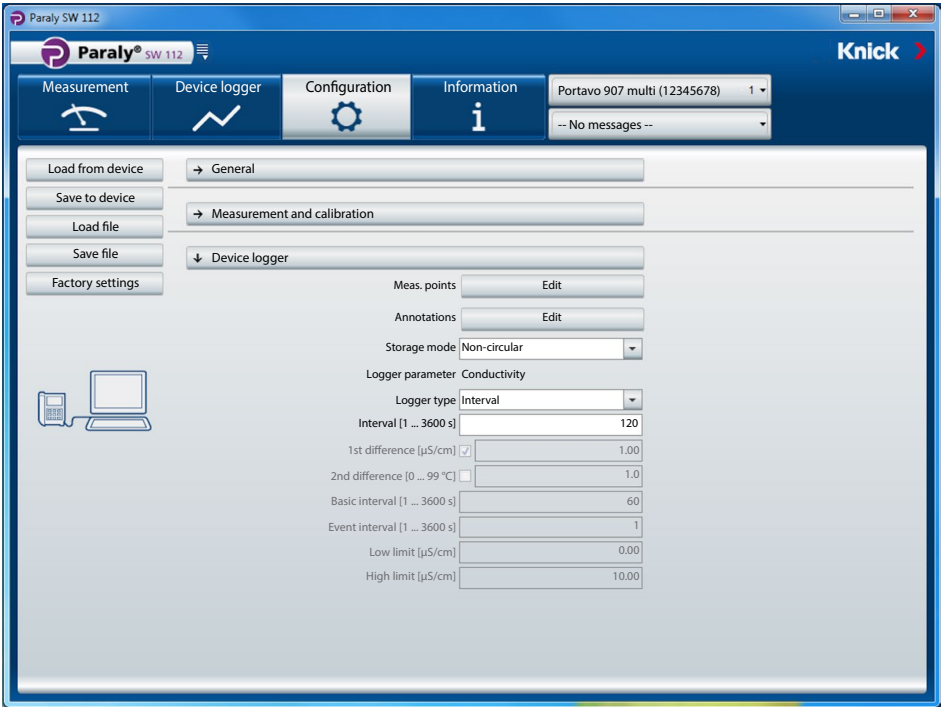
The example shows the settings for conductivity measurement.

**Note:** Depending on the selections in the dropdown lists, different additional fields will be activated or entries in activated fields will change.

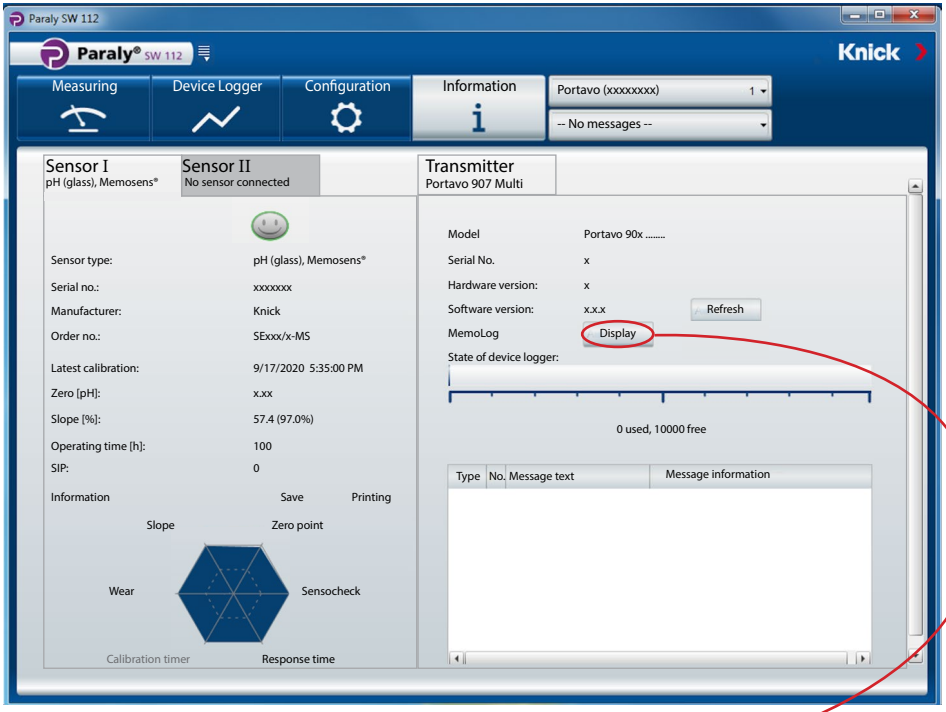


## Device Logger

**Note:** Some configuration parameters in the device logger section depend on the connected sensor (e.g. 1st and 2nd difference).



This functional area displays information on the connected device and sensor, as well as a list of currently active status messages.

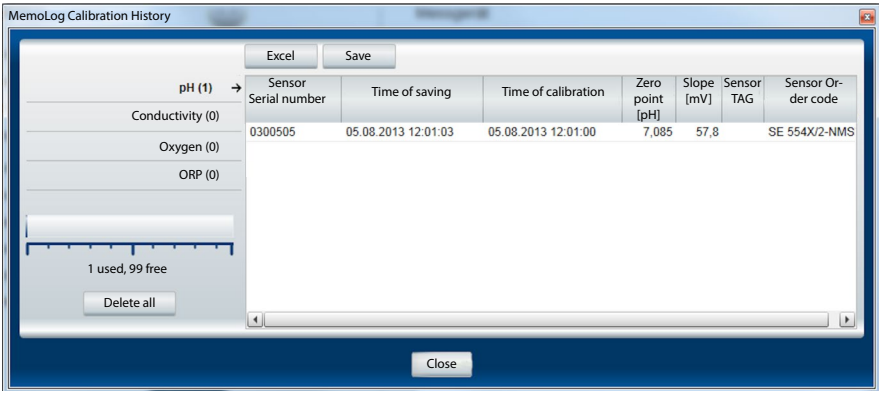



**MemoLog:** Click on the "Display" button to open the "MemoLog Calibration History" window.

**What are MemoLogs?**
It is possible to record Memosens calibration histories in the Portavo 904, 907, and 908 devices. Paraly can read out this data.

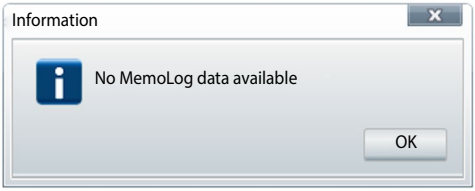
See the next page for more information.

This window shows information on sensor calibrations performed (Memosens only). (Up to 100 calibrations are possible.) The data can be opened directly in Excel or saved as a file (*.csv or *.xls).




**Note:** To view this data, you must set the MemoLog function to "ON" in the "Configuration" menu and transfer this configuration change to the device. See page 19.

If no MemoLog data is available, the following information is displayed:



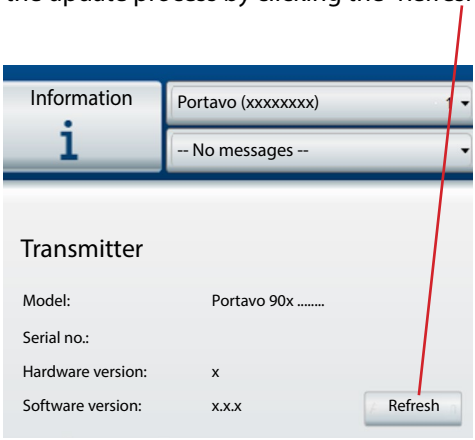
## Updating the Device Software

**Note:** The software can also be downgraded.

Make the following backups prior to upgrading or downgrading:

- Read out Portavo data logger.
- Save the Portavo device configuration in Paraly.

If you have received a file to update the device software from Knick, you can start the update process by clicking the "Refresh" button.



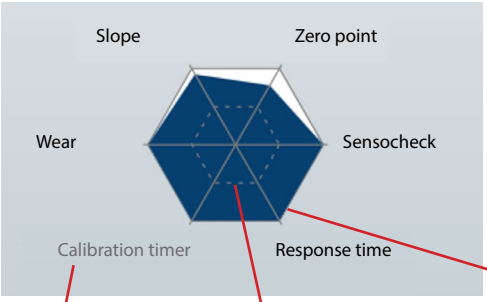

The software automatically checks if the file is valid for the activated device. Click "Start" to send the file to the device. The installation progress is displayed.

**Note:** During file transfer, the display of the Portavo 904 will switch off. The display on the Portavo 907 and 908 shows the message **Run Update**.

After a successful update of the device software, the connection to the device is restored automatically.

## Sensor Diagrams (for pH and Oxy Sensors Only)

The sensor diagrams provide a graphical view of the status of the connected sensor:




- Slope
- Zero point (operating point with Memosens ISFET)
- Sensocheck (pH) or leakage current (ISFET and Oxy)
- Response time
- Calibration timer
- Wear (Memosens)

Parameters which cannot be checked are shown as inactive (gray) and are set to 100 %.

The parameter values should lie between the outer (100 %) and inner (50 %) hexagon.
If a value enters the inner hexagon (<50 %), the corresponding caption text is displayed in red.

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This document was published on March 29, 2021.
The latest documents are available for download on our website
under the corresponding product description.

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