

Operating Instructions HLOG II

Software version from 1.7



**PC software for Höntzsch handheld units for configuration,
readout and processing of measured data**

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1 Introduction

The HLOG II software provides readout and visualisation of the data logger contents of Höntzsch handheld units, as well as configuration and management of settings and pairs of values.

1.1 Features of HLOG II

- Readout, visualisation and print of data logger contents
- Saving datasets to the PC
- Exporting datasets as XLS and CSV files for processing in a spreadsheet calculation program
- Change parameter settings
- Pair of values configuration setting
- Saving and restoring parameters and pair of value configurations

1.2 Supported Instruments

The following Höntzsch handheld units are supported by HLOG II v1.7 onwards:

- flowtherm Ex (German, English, French, Japanese)
- flowtherm NT.2 (German, English, French, Japanese)
- flowtherm NT (German, English, French, Japanese)
- HAA-Ex
- HFA from Version 1.5x
- HFA-Ex from Version 1.5x
- HTA from Version 1.6x
- HTA-Ex from Version 1.6x
- HVA from Version 1.7x

2 System Requirements

- Intel® Pentium III® (or higher) or equivalent processor
- Microsoft® Windows®: Windows 98 (SP2), or higher
- 256 MB RAM (512 MB recommended)
- 100 MB free hard drive space
- SVGA monitor with 256 colours. A colour depth higher than 16 bit and a minimum resolution of 1024 x 768 pixel are recommended
- Windows-compatible pointing device
- CD-ROM drive for the installation
- Microsoft .NET Framework 2.0 (included on user CD)
- Free serial interface or USB-port

3 Installation



Please note: Admin rights are necessary for installing the HLOG II software!

Exit all open programs and insert the installation CD in the CD-ROM drive. Installation starts automatically. Should this not be the case, start the setup.exe directly from the CD.

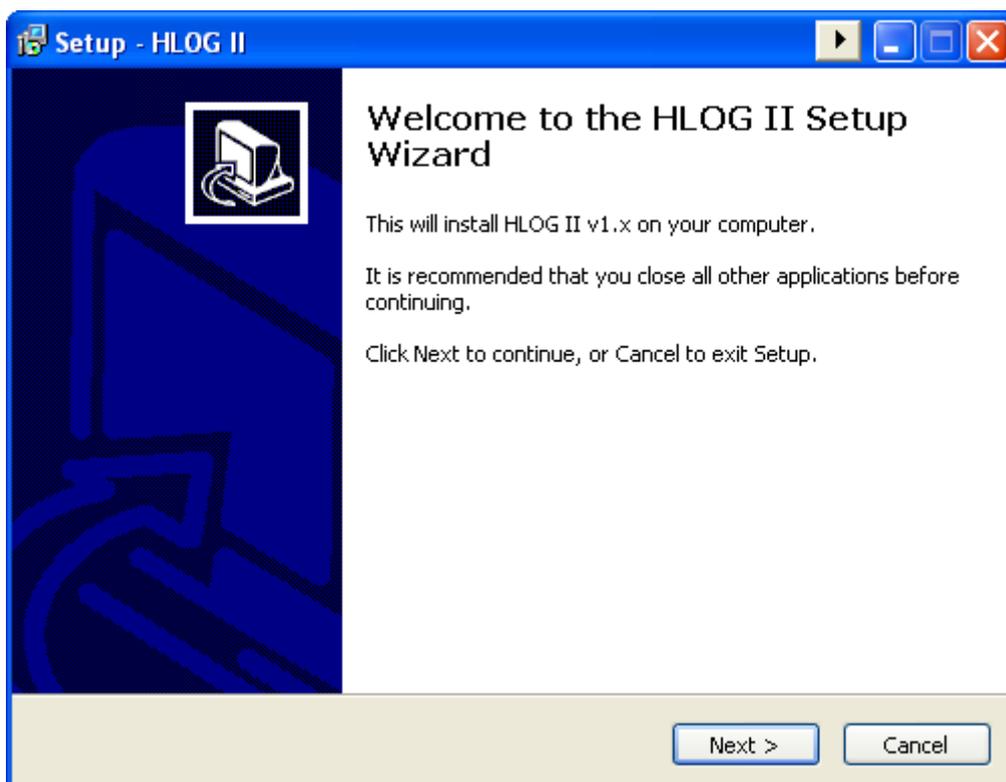


Fig. 1: HLOG II setup dialog

Follow the directions on the screen.

3.1 Installation of Microsoft .NET Framework 2.0

HLOG II requires Microsoft .NET Framework 2.0 or higher. Should this not already be installed on your PC, the required Microsoft Installer for the .NET Framework will be installed before completion, followed by the runtime environment.

4 Program Start-Up

After successful installation start HLOG II by selecting the Start menu, by default under Programs -> HLOG II, or the optionally installable icon  on your desktop.

5 User Interface

The functional user interface provides a quick overview of the recorded datasets – as a spreadsheet on the left of the screen and as a chart on the right.

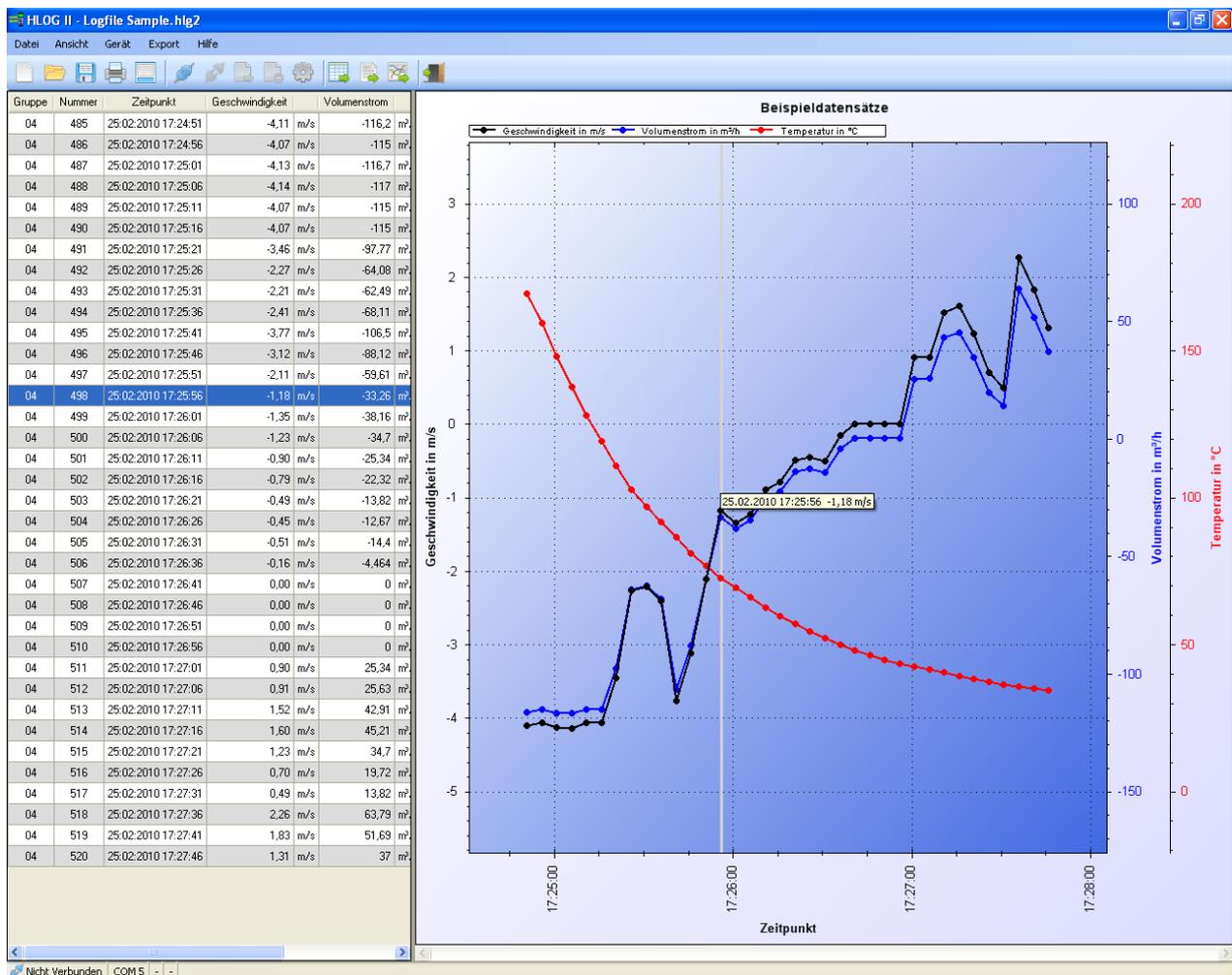


Fig. 2: HLOG II User Interface*

5.1 Menu bar

The menu bar provides clear and speedy access to all relevant HLOG II information and functions.



Fig. 3: HLOG II Menu bar

5.1.1 File

Standard functions to create new documents, open and save a dataset file, print and exit the program.

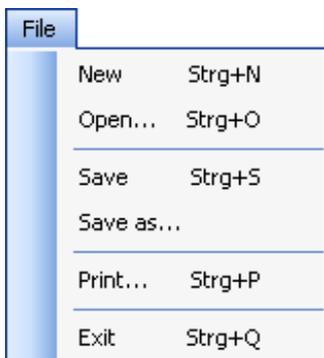


Fig. 4: HLOG II File

5.1.2 View

Under View you can show or hide the options.



Fig. 5: HLOG II View

5.1.3 Unit

For connecting / disconnecting the handheld unit, readout and deletion of datasets. Furthermore, it is possible to receive information about the connected unit (Operating Instructions*), as well as to open the unit manager.

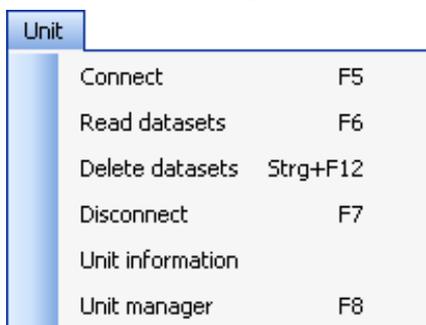


Fig. 6: HLOG II Unit

* Status at the time of producing the HLOG II - CD

5.1.4 Export

Here charts and spreadsheets can be exported in different ways for further processing or data storage.

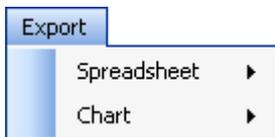


Fig. 7: HLOG II Export

5.1.5 Help

Under Help you can find this Manual in electronic format, information about HLOG II versions, as well as how to contact Höntzsch GmbH & Co. KG.



Fig. 8: HLOG II Help

5.2 Toolbar

By selecting the toolbar the most important functions are just a mouse click away.



Fig. 9: HLOG II toolbar

	New		Readout datasets
	Open file		Delete all datasets in handheld unit
	Save file		Open unit manager
	Print		Export spreadsheet as Excel file
	Show / hide options		Export spreadsheet as CSV file
	Connect		Export chart as image
	Disconnect		Exit HLOG II

Table 1: Explanation of symbols

5.3 Status bar

Information regarding connectivity, the COM-Port in use, connected unit and its serial number is found on the status bar.



Fig. 10: Status bar*

5.4 Keyboard shortcuts

Shortcut keys are easy-to-use and save time. All available shortcuts can be found in the following table.

Function	Shortcut
New	CTRL - N
Open dataset file	CTRL - O
Save dataset file	CTRL - S
Print	CTRL - P
Exit HLOG II	CTRL - Q
Show / hide options	F4
Connect	F5
Readout datasets	F6
Delete datasets in handheld unit	CTRL - F12
Disconnect	F7
Unit manager	F8
Help	F1
Automatic unit search	CTRL - F5

Table 2: Keyboard shortcuts

6 First Steps

Connect the handheld unit via a COM port, USB adapter or USB port (flowtherm Ex, flowtherm NT.2 and flowtherm NT) to your PC and select "connect" on the HLOG II user interface. When first connecting to a handheld unit after installing the HLOG II, search for the COM port in use (virtual COM port if using a USB adapter, flowtherm Ex, flowtherm NT.2 or flowtherm NT) follows automatically. On confirming the dialog, HLOG II checks all available COM ports for a connected handheld unit and establishes a connection automatically. HLOG II memorizes the appointed port for further use. Changes are possible on the settings tab in the options.

Now readout of the content of the data logger is possible and the unit parameters can be changed easily via the Unit manager.



Please note: It is advisable first of all to carry out a basic settings and pairs of values backup, so that the standard settings can be restored at a later date. To do this, open the Unit manager with connected unit, click on the "Readout settings" button and save under a distinctive name on your PC using the "Save settings" button.

6.1 Read datasets

For data logger readout, connect the handheld unit to your PC and establish the connection to HLOG II. Then select "Read datasets" in the menu or toolbar. The datasets are provided with a group number and consecutive number in the handheld unit. The group number increases automatically when starting entry of the measured data on the unit.

All handheld units except flowtherm Ex, flowtherm NT.2 and flowtherm NT: Measurement starting time is requested before each group readout. With multiple recorded measurements, HLOG II repeatedly requests the start time during the readout process, so that each individual dataset is given a date and a time. If the exact time is not relevant for the interpretation, simply close the query window with the help of "X" in the top right corner. Because of this, change over between numbering and time of the X-axis of the chart can subsequently no longer be carried out and only the consecutive numbering is displayed.

As soon as all datasets have been read out, close the dialog with "OK". As a result, the spreadsheet is generated and the data visualised in the chart.

6.2 Delete datasets

To delete the data logger contents of the unit entirely, select "Delete datasets" under "Unit" on the menu bar and affirm the HLOG II confirmation prompt.



Please note: All datasets in the handheld unit will be deleted irrevocably. If you need the data for a later evaluation, make sure that the data is saved as a dataset file.

6.3 Chart navigation

With the help of the mouse you can easily navigate in the chart and have sections displayed. Press and hold the left mouse button to highlight and enlarge sections. The chart can be moved using the CTRL key and the left mouse button. In the context menu (available in the chart using the right mouse button) it is possible to reset the scale of the chart to the standard value, as well as several actions around the chart.

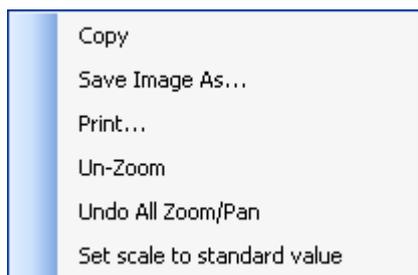


Fig. 11: Context menu of HLOG II chart

7 Options

Options can be shown or hidden in the menu under View -> Options, alternatively with the  or  button on the toolbar. Different tabs for selection of data range, amendments to the chart, collection of statistical data via the datasets, as well as a tab with general HLOG II settings are available.

7.1 Datasets tab

Using the Datasets tab a time selection and a data selection can be implemented, so that for instance it is possible to limit the data range in spreadsheet and chart to a single group and to just the velocity.

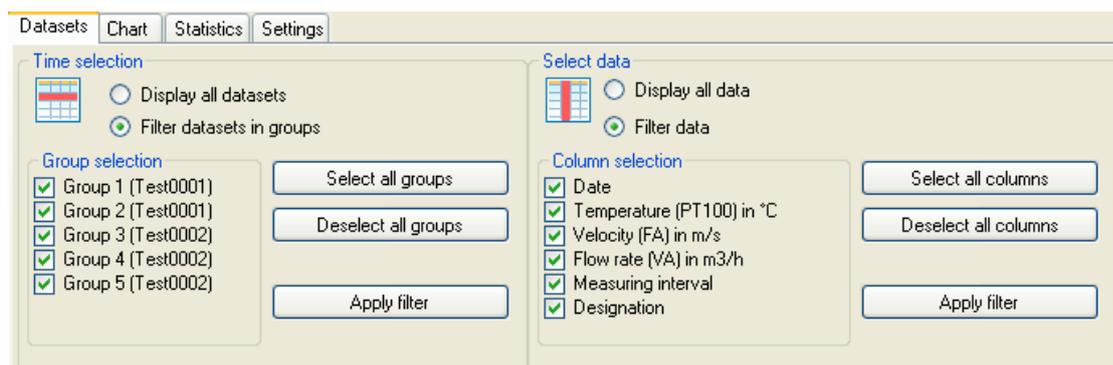


Fig. 12: Tab Datasets*

7.1.1 Time selection

To filter the datasets in groups, select "Filter datasets in groups" and remove the checkmark for the groups which are not to be displayed. Click on "Select all groups" or "Deselect all groups" to check or uncheck all groups.

Click on "Use filter" for the selection to be carried out. Only the data from the selected groups will then be displayed in the spreadsheet and chart.

7.1.2 Data selection

Data selection takes place analog to the time selection and corresponds to a selection of the columns in the spreadsheet. With the exception of group and number, each column can be hidden. The curves of the deselected columns are likewise hidden in the chart.

All handheld units except flowtherm Ex, flowtherm NT.2 and flowtherm NT: Deselection of the columns for the units allows for a selection of data before export. Display of the units in the axes of the chart is not affected by this.

7.2 Chart tab

With the Chart tab you have the possibility to customize the display and the behaviour of the chart.

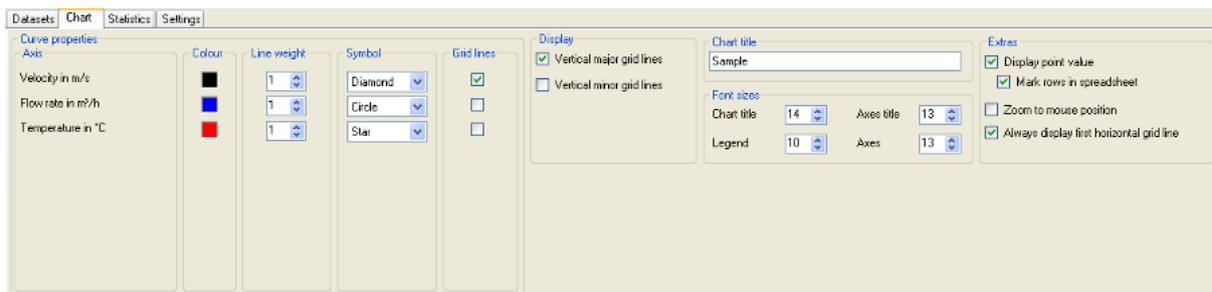


Fig. 13: Chart tab

7.2.1 Curve properties

Listed under curve properties are: the individual axes of the chart, their colour, the line weight, the point symbol and the unhidden gridlines.

- Colour**
 Click on the colour of the desired axis to open a colour choice dialog. Select the desired colour and confirm with "OK". The colour of the axis, the titles of the axes, the legend and the curve are amended directly in the chart.
- Line weight**
 Modification of the line weight and symbol size
- Symbol**
 Each point of a curve represents a single dataset and is displayed as a symbol. This symbol can be changed here.
- Grid lines**
 A horizontal grid line can be added to each axis, making reading the values in the chart easier.

7.2.2 Display

Here the vertical major and minor grid lines can be shown or hidden.

7.2.3 Chart title

The chart title can be changed individually. This is restored when loading a data set file.

7.2.4 Font size

The font size of the chart title, legend, axis and title of the axes can be set individually.

7.2.5 Extras

Under Extras the various behaviour patterns of the chart can be customized.

- **Display point values**

Position the cursor over the point values of the curve to have them displayed as ToolTip in the form "Date, Time, Value".

- **Mark rows in spreadsheet**

The row pertaining to the point value is highlighted automatically.*

*Only possible in connection with "Display point values".

- **Zoom to mouse position**

With the help of the scroll wheel it is possible to zoom the chart to the mouse position. The system-wide setting of the scrolling (number of rows) when turning the scroll wheel is for this purpose crucial for the zoom levels per turn. For accurate zoom this value should be kept low in the control panel.

- **Always display first horizontal grid line**

The horizontal gridline of the first Y-axis is automatically displayed when creating the chart.

7.3 Statistics tab

The Statistics tab provides a total statistical data of all datasets and a statistical data of the individual groups, which is additionally displayed itemized by measurable variables.

Group	Range	Measurable variable	Minimal value	Maximum value	Average	Duration of measurement	Number of datasets
1	1 - 296	Temperature	-20.00 °C	-5.60 °C	-19.40 °C	04 m 55 s	296
1	1 - 296	Velocity	1.71 m/s	4.40 m/s	4.04 m/s	04 m 55 s	296
2	297 - 359	Temperature	-20.40 °C	-20.10 °C	-20.20 °C	01 m 02 s	63
2	297 - 359	Velocity	4.14 m/s	4.31 m/s	4.20 m/s	01 m 02 s	63
3	360 - 646	Temperature	-20.30 °C	17.00 °C	-19.80 °C	04 m 46 s	287
3	360 - 646	Flow	0.00 m ³ /h	1041.00 m ³ /h	431.72 m ³ /h	04 m 46 s	287
4	647 - 936	Temperature	5.00 °C	25.40 °C	15.46 °C	04 m 49 s	290
4	647 - 936	Flow	392.00 m ³ /h	544.00 m ³ /h	460.31 m ³ /h	04 m 49 s	290
5	937 - 967	Temperature	86.60 °C	87.74 °C	87.00 °C	00 m 30 s	31
5	937 - 967	Flow	404.00 m ³ /h	507.81 m ³ /h	450.16 m ³ /h	00 m 30 s	31

Fig. 14: Statistics tab*

7.4 Settings tab

Program settings for communication and print are found under the Settings tab.

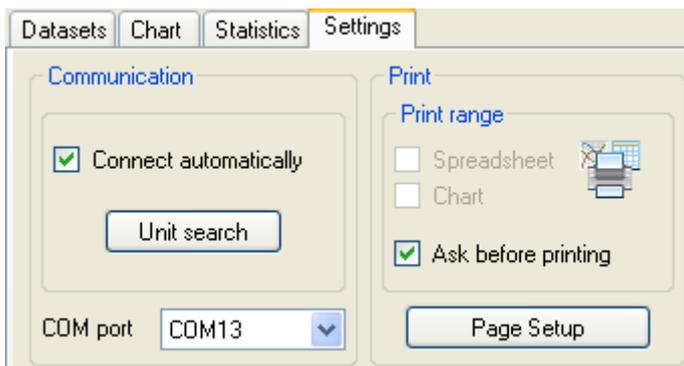


Fig. 15: Settings tab

7.4.1 Communication

HLOG II can search for a connected unit and automatically establish a connection. Manual connection is likewise possible. To do this, select the COM port to which the unit is connected and establish the connection with the help of the "Connect" button on the menu bar or the respective symbol on the toolbar. This COM port is saved for future use.

7.4.2 Print

HLOG II enables the spreadsheet and/or chart to be printed. This is either queried before each print or, provided that a preselection has been made in the settings, only the chosen range will be printed. The print page (paper size, margins) can also be modified here.

8 Unit Manager

In the Unit manager unit settings and pairs of values from the unit can be read out, modified, returned and saved. Readout of the unit data, incl. pairs of values, is started via the "Readout settings" button under "Basic settings".

In addition with flowtherm Ex, flowtherm NT.2 and flowtherm NT all device profiles can be retrieved and all settings can be saved with a profile name in the unit.

! Please note: The full range of functions is only available with connected unit. In offline operation mode it is only possible to create, load, modify and save unit settings.

8.1 Settings tab

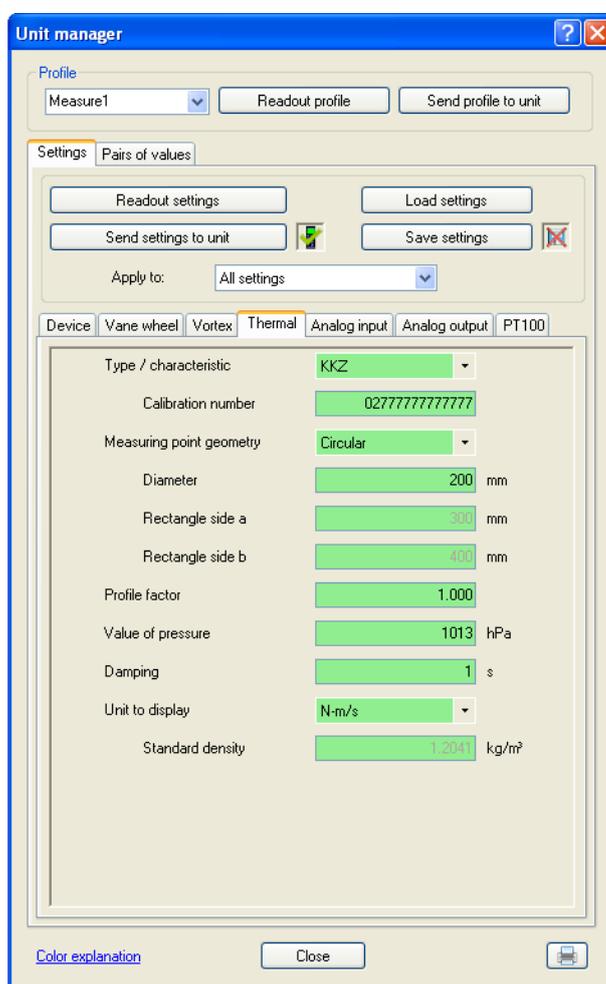


Fig. 16: Settings tab *

Depending on the unit, different settings are possible here. As soon as a value is changed it appears highlighted in red. When the amended settings are transferred to the unit the background returns to green.

To check if the actual values have already been transferred or saved to the unit, these can be read with the help of the icons next to the relevant buttons.

The command buttons for readout, send, save and upload on the flowtherm Ex, flowtherm NT.2 and flowtherm NT are applied either on all settings tabs or only on the currently selected ones, depending on the selection in the "apply to:" drop-down menu. To save all settings (incl. pairs of values), select "all settings" in the drop-down menu and click on "save settings". Pairs of values do not need to be saved separately as they are already in the settings file. Transfer of basic settings via the "send settings to unit" button is possible, likewise depending on the selection. Selection with other types of units is not applicable as the basic settings tab is not subdivided.

8.2 Pairs of values tab

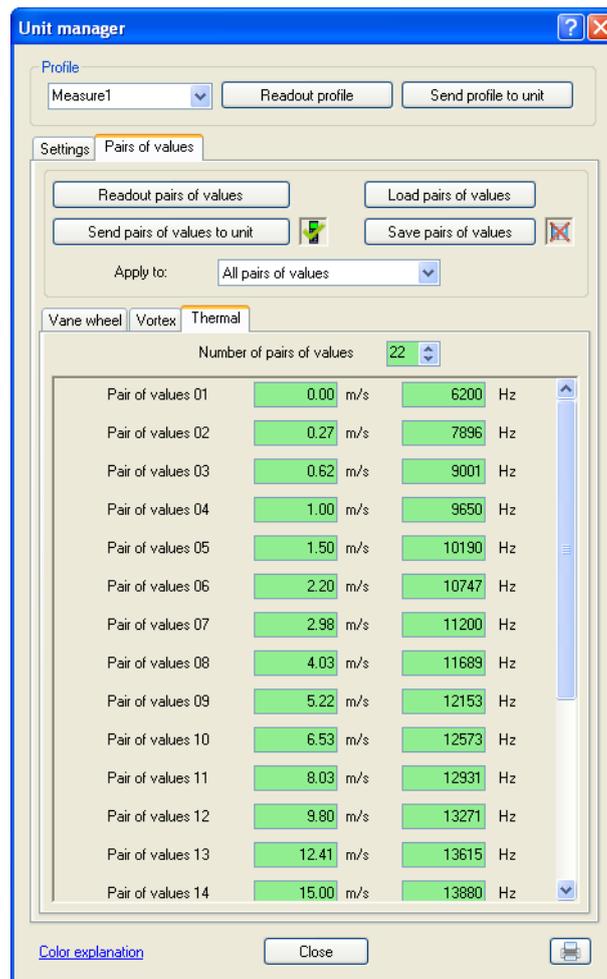


Fig. 17: Pairs of values tab*

The coloured mark is analog to the behaviour of the Basic settings tab. The number of pairs of values used can be changed top left.

To allow for configuration of different pairs of values with the same basic settings, the pairs of values can be saved, read and transferred to the unit irrespective of the basic settings.

8.3 Comparing handheld unit settings with stored values

Comparing handheld unit parameters with saved settings or pairs of values files is easy with HLOG II. Simply establish a connection to the handheld unit, open the unit manager and read out the unit settings. Subsequently open the settings or pairs of values file with the button in the corresponding tab. All different parameters between unit settings and the values in the file are highlighted in red.

8.4 Creating a settings file

Depending on the application of the handheld unit, different parameter settings for various measurements may be required. These settings no longer need to be carried out compulsorily on the handheld unit, but can easily be transferred with HLOG II. To do this either read out the unit parameters, amend accordingly and save, or alternatively create a settings file without connected handheld unit.

If no handheld unit is connected to HLOG II the following dialog will appear before opening the unit manager.

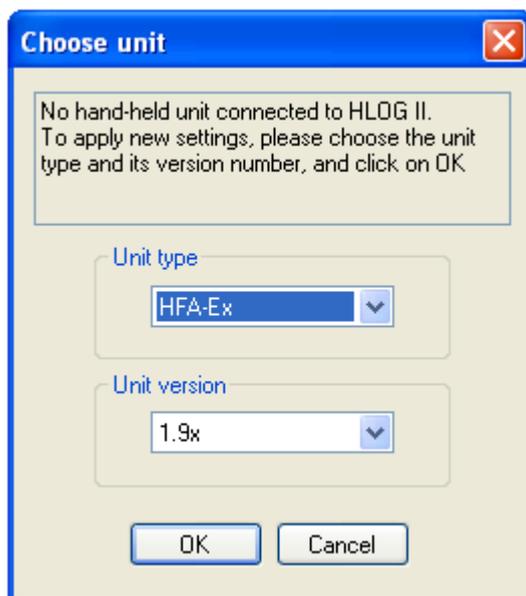


Fig. 18: Dialog "Choose unit"*

Select unit type and version (as displayed when switching on the handheld unit) and click on the "OK" button. Then the unit manager will be open regularly like having a handheld unit connected to HLOG II.

8.5 Profiles

With connected flowtherm Ex, flowtherm NT.2 or flowtherm NT unit all profile names in the drop-down menu are displayed under profile. Readout of unit settings and pairs of values saved in the selected profile follows using the "read profile" button. To save profiles in the unit under another name, select another profile in the drop-down menu, change the name and click on the "send profile to unit" button.



Note: With readout of a profile all (!) unit settings and pairs of values are read out. When sending a profile to the unit only the selection of the settings in the drop-down menu "apply to:" is sent. Possible corresponding pairs of values are also transferred. So, for instance, all settings in the "Vortex" tab including all corresponding pairs of values for this type of sensor, are transferred, if "displayed settings" is selected in the drop-down menu "apply to:" and the "Vortex" tab is active.

9 Glossary

- **Dataset**
A dataset is a single entry of the recorded measured values in the data logger. With handheld units HxA this consists of a group number, a consecutive number and velocity, temperature and flow rate variable. With flowtherm Ex, flowtherm NT.2 and flowtherm NT units each single measured value consists of a dataset.
- **Dataset file**
After readout of the datasets, the data can be saved and retrieved at a later date. The dataset files have the file extension “.hlg2”.
- **Pair of values file**
Irrespective of the settings parameters, pairs of values with the file extension “.wpset” can be saved and re-opened at a later date and transferred to the handheld unit.
- **Settings file**
The basic settings and pairs of values can be saved in a single file with the extension “.set”. A settings file is only available for one type of unit at any one time, so that for instance a HFA-Ex settings file cannot be opened in the unit manager with a connected HTA-Ex.
- **Unit manager**
The unit manager is an integral part of the HLOG II, with which the unit settings are read out, modified, saved and transferred to the handheld unit.

* Differs depending on type of unit in use

10 Imprint

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