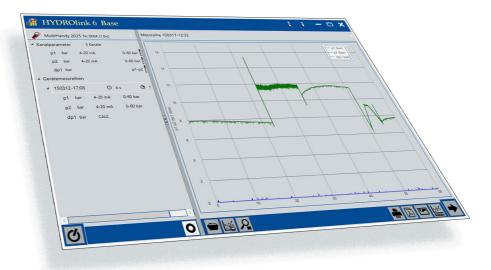
H HYDROTECHNIK



FN

HYDROlink6 Base

Operating Instructions



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Your experiences and feedback

We appreciate your suggestions and feedback. It helps us to continually improve our products.

Version 1.0 HYDROlink6 Base 2

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1 About these instructions

This chapter will provide you with basic information about these instructions.

1.1 Purpose of the instructions

These instructions provide you with information which is required for the efficient use of the software.

1.2 Required knowledge

These instructions assume that you have previous experience in working with the Windows operating system and its operating elements, e.g. dropdown menus, buttons, etc. Windows menu items and dialogue windows such as Save as... and their operating elements are not described in this manual.



1.3 Structure of information

The information used in the manual and its meaning are explained in the following.

A Danger

This warning informs you about imminent dangers, which can occur due to an operating error/inappropriate behaviour. If these situations are not avoided, death or extremely serious injuries can be the result.

Warning

This warning informs you about possibly dangerous situations, which can occur due to an operating error/inappropriate behaviour. If these situations are not avoided, death or serious injuries can be the result.

Caution

This warning informs you about possibly dangerous situations, which can occur due to an operating error/inappropriate behaviour. If these situations are not avoided, light or slight injuries can be the result.

Note

This warning informs you about possibly dangerous situations, which can occur due to an operating error/inappropriate behaviour. If these situations are not avoided, damage to the machine or the surroundings can be the result.



This information will provide you with tips to make your work easier. This information will also provide you with further details about the working process.

1.4 Abbreviations used

The following abbreviations are used in this manual.

approx.	approximately
e.g.	for example
LAN	Local Area Network
max.	maximum
min.	minimum
tab	tabulator
USB	Universal Serial Bus



1.5 Symbols used

The following symbols are used in this manual.

1, 2,	Steps within an operating sequence
(A)	Reference to the element indicated by letters in a figure
⇔	Cross-reference to a different part of this manual or to a different document.
Button	Button, controller, slider, switch area and terms from the software.
VOICE COMMAND	Voice command for controlling the software.

1.6 Validity

The manual at hand applies to software packages with the name HYDROlink6 Base, manufactured by the HYDROTECHNIK GmbH, Limburg, Germany. The manual applies only to software with the version number indicated on the title page of this manual.

If you do not have the matching instructions to your software, please contact us. We will be happy to make them available to you. Please visit the HYDROTECHNIK homepage.

This manual supports the user in the daily operation of the software package. It contains information about the windows, dialogues, commands, and switch areas (buttons) of the software and explains specific procedures and operational steps. For information beyond the contents of this manual, we offer customerspecific training, either at a HYDROTECHNIK branch office or at your facilities.

Please contact our sales department or your local HYDROTECHNIK partner for additional information.

2 Operation

This chapter explains how to carry out working steps with the software properly.

2.1 Introduction

HYDROlink6 is a measurement evaluation software from HYDROTECHNIK.

2.1.1 Functional description

HYDROlink6 facilitates the operation of HYDROTECHNIK measuring instruments that are connected to the PC.

HYDROlink6 provides you with the following functions:

- Display of current measured values of selected channels.
- Min./max. Display of measured values of selected channels.
- Display of measurement stored on the measuring instrument.
- · Saving measurements.
- Export of measurement as graphic (PNG, JPG, BMP, GIF).
- Printout of a measurement protocol or saving as a PDF file.
- Display of measurement saved on the PC, exporting or creating a protocol from it.

You can change the display of the measured values and measurements. You can adapt the layout of the protocol.

You can operate the HYDROlink6 using the mouse, your voice or the touch screen.

2.1.2 Programme editions

HYDROlink6 is available in three editions:

- Base
- Advanced
- Professional

These instructions describe the **Base** edition.

2.1.3 System requirements

Please observe the following system requirements.

Operating system Microsoft Windows 7 or higher.

We recommend the 64-bit version.

.NET Framework .NET Framework 4.5 or higher.

The installation routine from HYDROlink6 checks for the presence and the version of the .NET Framework. If necessary, the .NET Framework will be automatically installed or updated.

PDF viewer Adobe Reader or comparable reader program.

Hardware At least the same system requirements of Microsoft Windows 7.

Recommended hardware:

- Processor: Intel i3 multi-core processor with 2.5 Ghz or comparable processor
- · Memory: 4 GB
- Printer
- Multi-touchscreen is supported

Measuring instruments

HYDROlink6 supports the following HYDROTECHNIK measuring instruments:

- MultiHandy 2020
- MultiHandy 2025
- MultiHandy 3020
- MultiSystem 4010
- MultiSystem 5060
- MultiSystem 5060 Plus
- MultiSystem 8050
- MultiControl 8050

2.2 Installation



A setup wizard will assist you during the installation of HYDROlink6.

■ How to install HYDROlink6

- 1 Disconnect all HYDROTECHNIK measuring instruments from the PC.
- 2 Save and close all applications.
- 3 Run the installation file.Confirm the confirmation prompts, if applicable.
- 4 Select the setup language.
- **5** Follow the instructions in the setup wizard.



2.3 Setting up HYDROlink6

You can start and set up HYDROlink6 after the installation has been completed.

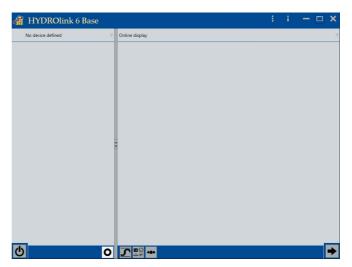


Figure 2-1: HYDROlink6

You can adapt HYDROlink6 to your needs.

All settings are made in the **Settings** dialogue and described in chapter **Software description**.

⇒ See 3.5 Settings on page 55

You should always specify the following settings:

- User interface language
- · Standard directories for measurements
- Protocol layout
- How to open and close the Settings dialogue



1 Double-click on the HYDROlink6 icon on your desktop to start HYDROlink6.



2 Click on the Open Settings dialogue button.

The Settings dialogue is displayed.





All changes and input are immediately adopted by HYDROTECHNIK. Saving the settings is not necessary.

 A new language will be used the next time the application is started.



3 Click on the **Close** button to close the Settings dialogue.



User interface language

HYDROlink6 is installed with the same language used by the operating system. If HYDROlink6 does not have this language, HYDROlink6 will be installed with the English user interface.

You can change the user interface language in the **Settings** dialogue in the **General** tab.





- Click on the button next to the Language entry.
 The list of available languages is displayed.
- **2** Click on the desired language symbol.



3 Close the Settings dialogue.



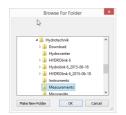
- 4 Close HYDROlink6.
- 5 Start HYDROlink6.HYDROlink6 starts in the new language.

Standard directories for measurements

During installation, HYDROlink6 creates a standard directory for measurements.

You can change the standard directory and specify that HYDROlink6 saves new measurements in the standard directory automatically.

■ How to specify the standard directory for measurements



- Click on the button in the Directories area.
 The Windows dialogue Browse folder is displayed.
- 2 Mark the desired folder or create a new folder.
- 3 Click on OK.
- **4** To have HYDROlink6 save new measurements automatically, click on .

Protocol layout

You can change the layout of the protocol in the **Protocol layout** dialogue.

In the **Settings** dialogue, click on **Configure** button next to the **Protocol layout** entry to open the **Protocol layout** dialogue.

⇒ For information on configuring the layout, see **Configuring** the layout of the protocol on page 31.

Overview 2.4

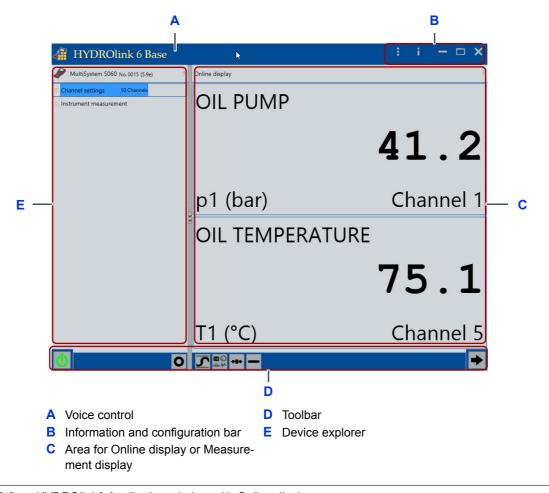


Figure 2-2: HYDROlink6 Application window with Online display

HYDROlink6 is divided into two main areas:

The left side is the device explorer (**E**) and shows information about connected measuring instruments in a hierarchical structure. If no measuring instrument is connected, the most recently displayed information will be shown.

⇒ See 3.2 Device explorer on page 38.



The right side (C) shows either the Online display to the connected measuring instrument or measurement as line diagram. You can open measurements from the measuring instrument or the PC. Use the **Switch** button to switch between the Online display and the Measurement display.

- ⇒ See:
 - 3.3 Online display on page 45
 - 3.4 Measurement display on page 50

The toolbar (D) is located under the device explorer, the Online display and the Measurement display. Different tools are offered for the Online display and the Measurement display.



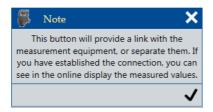
The information and configuration bar (B) is located in the upper right. You can open the **Settings** here next to the Windows standard buttons.

⇒ See 3.5 Settings on page 55.

You can operate certain functions of HYDROlink6 using voice control. Voice control must be activated in the **Settings**. When activated, the symbol $\underline{\P}$ will be displayed in the title bar (A).

⇒ See 3.7 Voice control on page 62.

2.4.1 Starting tips



HYDROlink6 will show you information about many of the buttons the first time you use them. The information provides a brief description of the button. This will help you learn how to use HYDROlink6.

Click on the checkmark to close the information window. HYDROlink6 will subsequently execute your command. The next time you click on the same button HYDROlink6 will no longer show the starting tip and execute your command directly.

If you would like HYDROlink6 to show you the starting tip again, activate the starting tips in the **Settings**.

⇒ See 3.5.4 Extended on page 61.

2.4.2 Touch operation

HYDROlink6 supports touch-capable devices, for example, tablets. Use can use familiar gestures from tablet interfaces. For simplicity's sake, these instructions only describe the operation using a mouse. Touch gestures are only described in certain situations.

2.4.3 Tooltips



HYDROlink6 will show you tooltips at many locations, for example, if you hover the mouse pointer over **Channel settings**. When using touch operation, leave your finger on the corresponding point for approx. one second.

2.5 Connecting a measuring instrument

You must physically connect a measuring instrument to the PC and connect it to HYDROlink6 to allow HYDROlink6 to access the measuring instrument.

After doing this, you can:

- display measured values in the Online display.
- · create measurements.
- download and display measurement from measuring instruments.

How to connect your measuring instrument to HYDROlink6

1 Connect the measuring instrument to the PC.

The operating instructions for the measuring instrument will explain how to connect the measuring instrument to the PC.

2 Switch the measuring instrument on.

Wait until the measuring instrument has switched on and Windows detects it as a device.

3 Open HYDROlink6.



4 Click on the Connect button.

When the measuring instrument is connected to HYDROlink6 the **Connect** button icon is green. The device information, channel settings and measurements of the device are shown in the device explorer.





Connection error

If HYDROlink6 is unable to detect any measuring instrument, then no connection can be established.



HYDROlink6 displays the **Connection error** dialogue. The **Connecting** button symbol is red.

Check whether the measuring instrument is correctly connected to the PC and switched on.

Unsupported measuring instrument

HYDROlink6 checks the model of the measuring instrument.



If the model is not supported by HYDROlink6, an error message will be displayed. You can not use the measuring instrument with HYDROlink6. You may require different software. Please contact HYDROTECHNIK for more information.

⇒ List of the supported measuring instruments: **Measuring instruments** on page 8.

Firmware version information

HYDROlink6 checks the firmware version of the measuring instrument.



Information will be displayed if the firmware version is not compatible with HYDROlink6. Depending on the situation, HYDROlink6 may be able to work with the measuring instrument, however, in a limited way.

Click on the checkmark to close the information. In the device information, the symbol \triangle indicates that the firmware version is not fully supported by HYDROlink6.

Perform a firmware update on your measuring instrument.

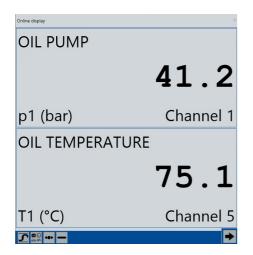
Multiple measuring instruments

HYDROlink6 always establishes the connection to one measuring instrument only.

If there is more than one measuring instrument connected to the PC and available to HYDROlink6, the following measuring instrument will be selected for the connection:

- 1. The last measuring instrument connected to HYDROlink6.
- The measuring instrument connected via USB.
 If more than one measuring instrument via USB is available, the measuring instrument that the operating system detects first will be used.
- 3. The measuring instrument connected via RS232 (serial interface) or via Bluetooth.
- The measuring instrument connected via TCP/IP network.
 HYDROlink6 checks the list of TCP/IP connections. The first possible connection will be used.

2.6 Using the Online display



If you connect a measuring instrument with HYDROlink6, you can use the Online display.

The Online display shows the current measured values of the selected channels.

In the device explorer under **Channel settings**, the icon indicates that a channel is selected for the Online display.

With measuring instruments of the product family *MultiHandy*, all available channels are always displayed. With *MultiHandy 2020* and *MultiHandy 2025* devices, special channels are also displayed, if they are available.



Use the **Switch** button to switch from the **Online display** to the **Measurement display** and back again.

⇒ See Using the Measurement display on page 21

2.6.1 Selecting, arranging and deleting channels

On measuring instruments that have more than 3 channel displays, you can specify which channels are displayed.

Selecting a channel for the Online display

Drag a channel from the **Channel settings** of the device explorer into the **Online display**.

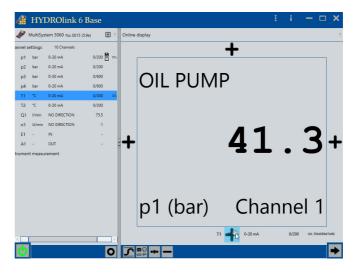


Figure 2-3: Dragging a channel into the Online display

- How to position a channel next to an existing channel display
- 1 Drag the channel into the Online display.
 - You can position the channel wherever + symbols are displayed.
- 2 Drag & drop the channel onto the + symbol.
- How to replace an existing channel display
- Drag the channel onto a channel in the Online display.
 The channel display changes colour to dark blue.
- 2 Let go of the channel to replace the channel display.

Arranging channels in the Online display

Swap the positions of the displayed channels using drag & drop.

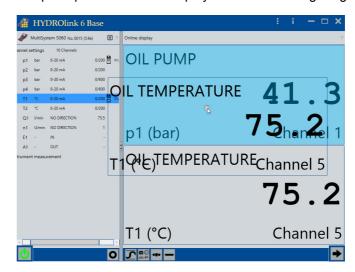


Figure 2-4: Swapping channels in the Online display

You can swap the position of channels in the **Online display**:

- How to swap the position of channels in the channel display
- 1 Drag the channel onto a channel in the **Online display**.
- 1 Drag the channel onto a different channel in the **Online display**.

The channel display changes colour to dark blue.

2 Let go of the channel.

The positions of the two channels are swapped in the **Online display**.

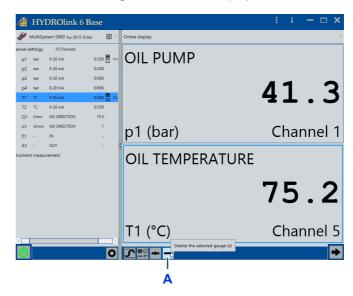


Deleting channels from the Online display

Delete the channels from the **Online display** by using the **Delete** button.

Not possible with measuring instruments from the *MultiHandy* product family.

⇒ See Measuring instruments on page 8



A Delete button

Figure 2-5: Deleting a channel from the Online display

- How to delete a channel from the Online display:
- Highlight the desired channels in the Online display.
 Highlighted channels have a blue border.

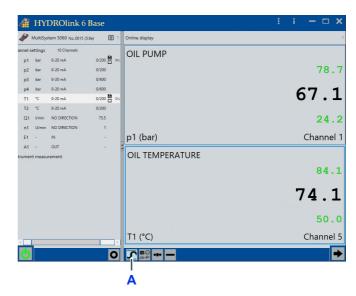


2 Click on the **Delete** button (A) to delete all highlighted channels from the **Online display**.



2.6.2 Min/Max values

You can switch the **Online display** of the min/max values on or off.



A Max/Min button

Figure 2-6: Min/Max values

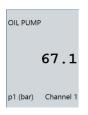
■ How to switch the max/min values on



- Click on the Min/Max button (A).
 The min/max values are displayed.
- 2 Click on the Min/Max button (A) to switch off the min/max values again.

2.6.3 Changing and scaling the display style

You can change the display style for every channel display.













Numeric gauge

Dial gauge

Digital gauge

Bargraph indicator Chart

Classic gauge

Figure 2-7: Display style of the Online display

If a channel is added to the **Online display**, the standard display style will be used for the channel view.

⇒ See 3.5 Settings on page 55

■ How to change the display style

Highlight the desired channels in the Online display.
 Highlighted channels have a blue border.



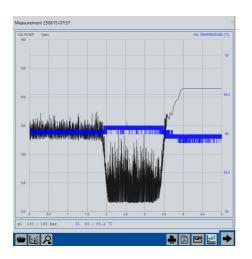
2 Click on the **Display style** button.

The list of display styles is displayed.



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2.7 Using the Measurement display



You can save measurements from the connected measuring instrument onto the PC and display them in the **Measurement display**. You can open measurements that have been saved on your PC without a measuring instrument being connected to HYDROlink6.

Measurements are saved as MWF files.

In the device explorer under **Instrument measurements**, the symbol indicates that a measurement has already been saved to the PC. You can display this measurement without having the measuring instrument connected to HYDROlink6.

Measurements are shown as line diagram.

The horizontal axis is the time axis. The two vertical axes represent one channel each. Channels with the same unit are summarised on one axis.



Use the **Switch** button to switch from the **Measurement display** to the **Online display** and back again.

⇒ See Using the Online display on page 16

2.7.1 Displaying measurements

You can import measurements from the measuring instrument or open measurements, saved on your PC.

Saving and displaying measurement series from the measuring instrument Drag a measurement from the **Device measurement** of the device explorer into the **Measurement display**.

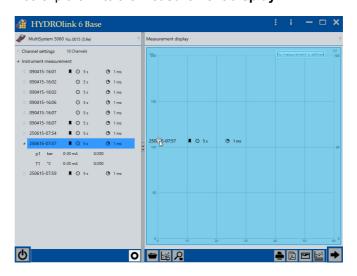
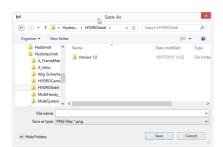


Figure 2-8: Saving and displaying measurement series from the measuring instrument





■ How to save and display a measurement

- 1 Drag a measurement into the **Measurement display**.
- 2 If automatic saving is not specified in the **Settings**, the Windows dialogue **Save as** will be displayed.
 - ⇒ See Setting up HYDROlink6 on page 9.

Select the destination and enter a file name. Click on Save.



- **3** The measurement is saved on the PC and then displayed in the **Measurement display**.
- How to open a saved measurement



- 1 Click on the Search button.
 - The Windows dialogue **Open** is displayed.
- 2 Navigate to the desired measurement and open the measurement.



3 The measurement is displayed in the **Measurement display**.

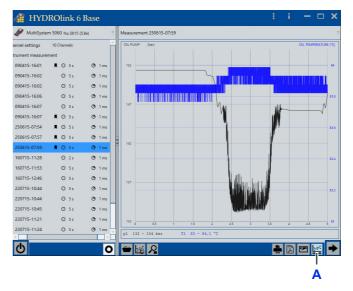
EΝ

2.7.2 Changing the Measurement display

You can change the position of the legend, zoom the measurement or clear the **Measurement display**.

Changing the position of the legend

Change the position of the legend using the **Legend** button.



A Legend button

Figure 2-9: Changing the position of the legend

The legend can be displayed at the following positions:



- Top right
- · Below the line diagram



Changing the axis labelling Click on the axis labelling to change it.

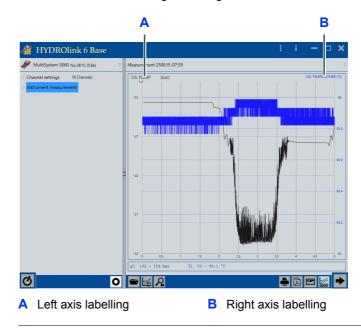


Figure 2-10: Changing the axis labelling

Enlarging the line diagram

You can enlarge the line diagram of the Measurement display.

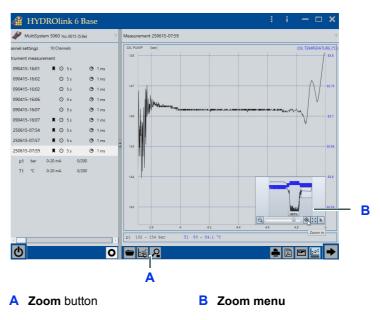
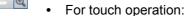


Figure 2-11: Enlarging the line diagram

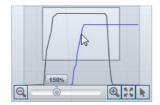
The line diagram can be zoomed in the following ways:

- Point the mouse over the line diagram and turn the mouse scroll wheel.
- Drag a box around the area you want to zoom.
- Use the **Zoom** button to overlay the **Zoom menu**.

Point the mouse over the **Zoom menu** and click on a button.



Use the normal gestures (example: spread your fingers) to zoom in on a line diagram.



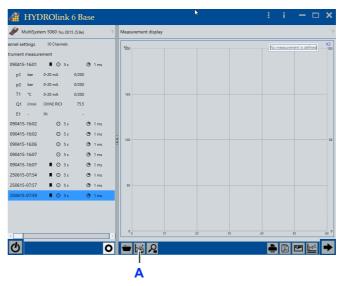
To change the position of the section, grab the section in the zoom menu and move it.



Click on the **Reset zoom** to display the line diagram in the original size.

Clearing the Measurement display

Clear the **Measurement display** with the **Clear** button.



A Clear button

Figure 2-12: Clearing the Measurement display

2.8 Recording a measurement



You can record measurements from the connected instrument with HYDROlink6. The instrument must be connected to HYDROlink6 for this.

Only the channels that are displayed in the Online display will be recorded. The channels are indicated with the symbol in the channel settings.

The recorded measurement is saved as a MWF file on an available hard drive on the PC. Depending on the setting, HYDROlink6 will automatically save the measurement or you must specify the file name and destination manually. If HYDROlink6 saves the measurement automatically, the file name will be created from the current date and time of day.

⇒ See Standard directories for measurements on page 11

The scanning rate is dependent on the quality of the connection to the instrument and is determined automatically. The smallest scanning rate is 10 milliseconds.

⇒ To display saved measurements, see **How to open a saved** measurement on page 22.

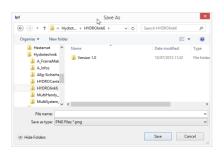
ΕN

■ How to record a measurement

1 Specify the channels you want to record.

To do this, select these channels for the **Online display**.

- ⇒ See **Selecting, arranging and deleting channels** on page 16
- 2 Click on the Recording button.



- 3 If automatic saving is not specified in the **Settings**, the Windows dialogue **Save as** will be displayed.
 - ⇒ See **Setting up HYDROlink6** on page 9.

Select the destination and enter a file name. Click on Save.





4 Click on the **Stop** button to stop the recording.

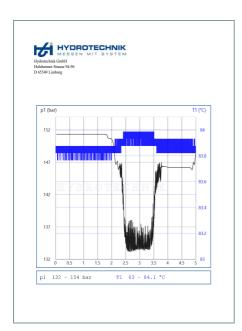


The **Information** dialogue shows the file name and the destination of the measurement.



5 Click on the ✓ button to display the measurement in the Measurement display.

2.9 Protocol

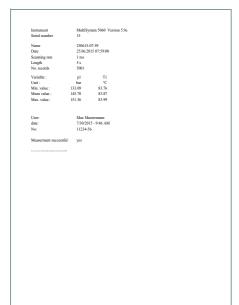


You can print out the protocol of a measurement or save it as a PDF file.

Use the protocol to document your activity or the condition of the inspected system.

The protocol consists of up to 5 areas:

- 1. Company logo
- 2. Company name
- Line diagram
 Corresponds to the diagram display in the Measurement display.
- 4. Measurement information
- 5. Additional text (e.g. name of the inspector, inspection date)



2.9.1 Generating a protocol

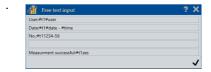
A printer is required to print a protocol. If no printer is available, you can save the protocol as a PDF file for printing later.

■ How to print a protocol

- 1 Open the measurement that you would like to generate a protocol for.
 - ⇒ See Saving and displaying measurement series from the measuring instrument on page 21



- 2 Click on the Print button.
- 3 If the free text input is activated in the settings, the **Free text** input dialogue will be displayed.
 - ⇒ See Configuring the layout of the protocol on page 31.

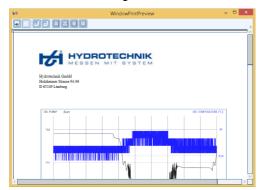


Change or add to the text.



4 Click on the ✓ button.

The Windows dialogue **WindowPrintPreview** is displayed.





5 Click on the **Print** button.

The protocol is printed.

- How to save a protocol as a PDF file
- 1 Open the measurement that you would like to generate a protocol for.
 - ⇒ See Saving and displaying measurement series from the measuring instrument on page 21



- 2 Click on the Save as PDF button.
- 3 If the free text input is activated in the settings, the **Free text** input dialogue will be displayed.
 - ⇒ See Configuring the layout of the protocol on page 31.



Change or add to the text.



4 Click on the ✓ button.

The Windows dialogue Save as is displayed.



5 Select the destination and enter a file name. Click on the Save button.

The protocol is created as a PDF file and then displayed in the PDF viewer.



2.9.2 Configuring the layout of the protocol

You should configure the layout of the protocol when setting up HYDROlink6.



The buttons **Show example** shows or hides a preview for the **Line diagram** and **Measurement information** areas.

■ How to configure the layout of the protocol



- 1 Open the **Settings**.
 - ⇒ See **How to open and close the Settings dialogue** on page 10



2 In the General tab next to the entry Protocol layout, click on the Configure button.

The Protocol layout dialogue is displayed.

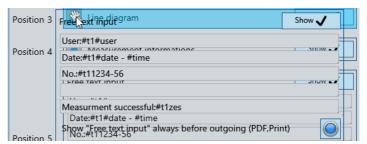




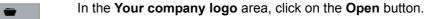
3 Click on the **Show** button to show or hide an area in the protocol.

If an area in the protocol is displayed, then the button is identified with \checkmark .

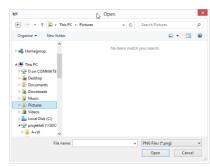
4 If you want to change the order of the areas in the protocol: Swap the positions of the areas using drag & drop.



5 If you want to display your company logo in the protocol:



The Windows dialogue Open is displayed.

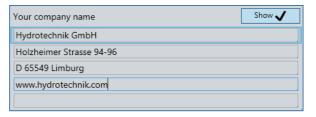


Navigate to the graphics file with your company logo and open the file.

You can use graphics files with the formats PNG or JPG only. The graphic is adapted and centred in the area.

6 If you want to display your company name and address on the protocol:

In the Your company name area, click in the text field and enter the desired text.



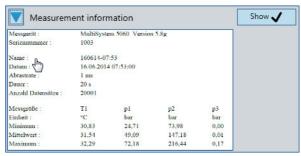


7 If you want to display the Line diagram and the Measurement information in the protocol:



Click on the **Show example** button to display an example.

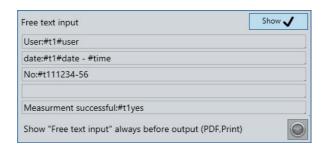






Click on the **Show example** button again to hide the example.

8 If you want to display an additional text in the protocol:
In the Free text input area, click in the text field and enter



You can use the following variables:

- #user (Windows name of the logged in user)
- #date (current date)

the desired text.

- #time (current time)
- #t1 (tabulator for aligning the texts. Only one tabulator is supported)



9 If you want the **Free text input** dialogue to be displayed before every protocol generation:



Activate the button next to the entry **Show "Free text input"** before each output (PDF, print).



If the button is deactivated, no dialogue for free text input will be shown when the protocol is generated.



10 Close the **Protocol layout** dialogue.

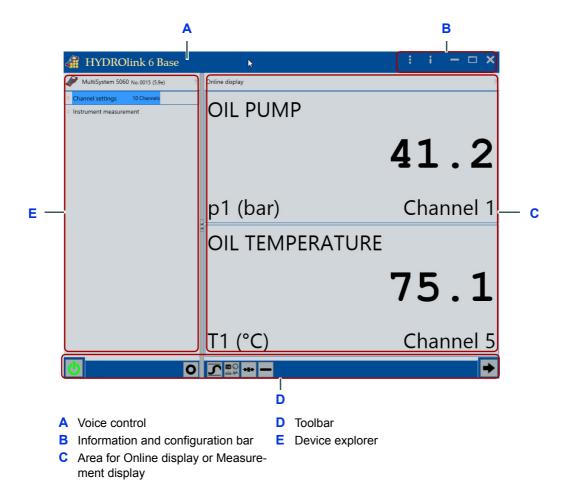


11 Close the **Settings** dialogue.

3 Software description

You can learn about how the windows, dialogues and software elements function in this chapter.

3.1 Main dialogue





The main window is divided into two parts.

- Left side: Device explorer (E)
 - Hierarchical display of device information:
 - Device name, serial number, firmware version
 - Channel settings
 - Instrument measurements
 - ⇒ See **Device explorer** on page 38.
- Right side: Online display or Measurement display (C).
 - The Online display shows the current measured values of the selected channels of the measuring instrument.
 - The selected measurement is graphically displayed in the Measurement display.
 - ⇒ See:

Online display on page 45 Measurement display on page 50

Size ratio of the window sections

You can change the size ratio of the window sections by moving the vertical separation bar.

Use the button to reveal or hide the device explorer.



3.1.1 Information and configuration bar

The buttons of the information and configuration bar are located in the right, upper edge of the application window (B).

Opening the Settings dialogue



Opens Settings dialogue.

Opening the information dialogue



Open list:

- · Show help
- About...

Minimise



Minimises the application

Maximise



Switches to full screen and back again

Close



Closes the application



3.2 Device explorer



The device explorer shows information about the connected measuring instrument. If no measuring instrument is connected, the information from the last connected instrument will be shown.

Use the button to reveal or hide the device explorer.

The device explorer is divided into three areas:

- Device information
- Channel settings
- Instrument measurements
- Toolbar
- ⇒ See Toolbar on page 43

3.2.1 Device information

The device information is displayed as title line of the device explorer.



The following device information is shown for the connected instrument:

- · Instrument icon
- Instrument name (example: MultiSystem 5060 Plus)
- Instrument serial number (example: 5100)
- Instrument version number (example: 6.8)
- Symbols



Device information symbols

The following symbols can be displayed with the device information:

Warning



The warning symbol indicates that the instrument firmware is not fully supported by HYDROlink6.

You can use the instrument, however, its functionality may only be limited when used with HYDROlink6. You should perform a firmware update.

Connection type

A connection symbol indicates that an instrument is connected with HYDROlink6. The connection symbol also indicates how the instrument is connected with the PC.



USB

- · MultiHandy 2020
- MultiHandy 2025
- MultiHandy 3020
- MultiSystem 4010
- MultiSystem 5060
- MultiSystem 5060 Plus
- MultiSystem 8050
- MultiControl 8050



LAN (TCP/IP network)

- · MultiSystem 5060 (with additional options)
- MultiSystem 5060 Plus (with additional options)
- MultiSystem 8050 (with additional options)
- MultiControl 8050 (with additional options)



Bluetooth

- · MultiSystem 5060 (with additional options)
- MultiSystem 5060 Plus (with additional options)

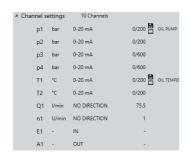


RS232

- MultiSystem 5060
- MultiSystem 5060 Plus
- MultiSystem 8050
- MultiControl 8050



3.2.2 Channel settings



The **Channel settings** area shows the available channels of the instrument.

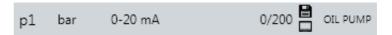
One sensor can be connected to a channel. Special channels (example: dp) are displayed if these are supported by the instrument and set up.

The **Channel settings** area can be expanded and collapsed using the arrow symbols \square and \square .

If you drag a channel into the Online display using the mouse, the current channel value will be shown in the Online display.

Channel settings

The following channel settings are shown for the connected instrument:



- Measured value (example: p1)
- Unit (example: bar)
- Signal type (example: 0-20 mA)
- Value range or parameter (example: 0-200 bar)
- · Symbols:
 - Example 1 Channel is active for the recording
 - Channel is active for the Online display
- Channel name (example: OIL PUMP)

Is only displayed if the name of the measured channel is configured in the instrument.

Tooltip

A tooltip will be displayed if you hover the mouse pointer over the channel or with touch operation, if you hold your finger on the channel for a second.

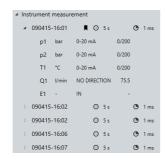


- Measured value (example: p1)
- Channel name (example: OIL PUMP)
 Is only displayed if the name of the measured channel is configured in the instrument.
- Unit (example: bar)
- Channel number (example: 1)
- Signal type (example: 0-20 mA)
- Value range or parameter (example: 0-200 bar)
- Storage : Channel for recording activated (on/off)
- Show : Channel for Online display activated (on/off)





3.2.3 Instrument measurements



The **Instrument measurements** area shows all measurements stored in the instrument.

The **Instrument measurements** area can be expanded and collapsed using the arrow symbols \square and \square .

If you drag an instrument measurement into the Measurement display using the mouse, the measurement is transferred from the instrument and saved to the PC and shown in the Measurement display.

Overview of the instrument measurements

The overview shows all instrument measurements stored in the instrument. The individual instrument measurements can be expanded and collapsed using the arrow symbols \square and \square .



The following information is shown for each instrument measurement:

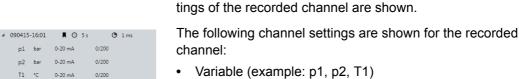
- Name of the instrument measurement (example: 090415-16:01)
- In shows that one instrument measurement is already saved on the computer.

This measurement is also available offline and can be displayed without an instrument being connected.

- Shows the length of the instrument measurement (example: 5 s)
- Shows the scanning rate used (example: 1 ms)



Channel settings



Q1 I/min NO DIRECTION 75.5 E1 - IN

Variable (example: p1, p2, T1)

Unit (example: bar)

Signal type (example: 0-20 mA)

Value range or parameter (example: 0-200 bar)

Tooltip

A tooltip will be displayed if you hover the mouse pointer over an instrument measurement or with touch operation, if you hold your finger on the instrument measurement for a second.

If you click on the arrow symbol [5], the channel settings for this instrument measurement will be shown. Only the channel set-

The tooltip shows the following details:

Name (example: 090415-16:01)

Date (example: 09.04.2015 16:01)

Length (example: 5 s)

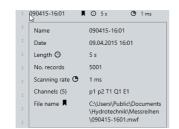
Number of data records (example: 5001)

Scanning rate (example: 1 ms)

Channels (number) and channel name (example: (4) p1 p2 T1 Q1)

File name and path are only shown if the measurement is stored on the PC.

This measurement is also available offline and can be displayed without an instrument being connected.





3.2.4 Toolbar



The toolbar is located at the bottom edge of the device explorer.



Use the toolbar to connect your instrument with HYDROlink6.



Start the recording of a measurement with the toolbar.

Buttons, voice commands and functions

The toolbar contains the following buttons:



Connect

Establishes the connection to the instrument or disconnects it. HYDROlink6 automatically detects the type of connection (USB, RS232 or TCP/IP).

The button resp. connection can have the following states:

- · No connection established:
 - Symbol colour black
 - Symbol turns every five seconds
 - Tooltip: Connect to instrument
 - Function: Establishes connection to the instrument
 - Voice command: CONNECT
- Connection established:
 - Symbol colour green
 - Symbol does not turn
 - Tooltip: Connected USB
 - Function: Disconnects the connection to the instrument
 - Voice command: DISCONNECT
- Connection error
 - Symbol colour red
 - Symbol does not turn
 - Information about the connection error is displayed
 - Tooltip: Connected USB
 - Function: Attempts to establish a connection to the instrument again
 - Voice command: CONNECT





∮ Connecting

∮ Cut



Recording



Starts the recording of a measurement.

Voice command: RECORDING

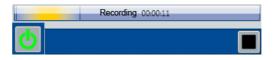
The recording is only possible if an instrument is connected with HYDROlink6.

Only the channels that are displayed in the Online display will be recorded. The channels are indicated with the symbol in the channel settings.

The maximum length of the recording with HYDROlink6 is limited by your PC. During the recording by the instrument, the length is limited by the instrument. Thus, you can usually perform a significantly more comprehensive recording with HYDROlink6.

If specified in the **Settings**, the Windows dialogue **Save as** will be displayed. You must specify a destination and can change the file name.

⇒ See **Specify folder and assign filename automatically** on page 57



A progress bar and the time of the recording up to now will be displayed during the recording.



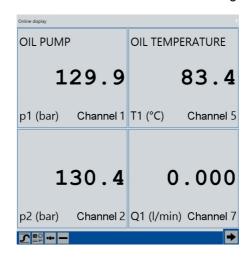
Ends the online recording.

Voice command: STOP



3.3 Online display

The Online display shows the measured values of the selected channels of the connected measuring instrument.



Use the **Switch** button to switch between the Online display and the Measurement display.

⇒ See Switch on page 49.

The Online display is divided into two areas:

- · Channel display
- Toolbar
- ⇒ See Toolbar on page 49

The channel display can be configured:

- displayed channels
 Channels can be added or removed.
- Arrangement of the channel display
 Free arrangement or vertical/horizontal arrangement
- Display style of the channel display
 Example: Numerical or round indicator

The channels which are displayed in the Online display will be used for the recording.

Channel displays for functions of the toolbar can be highlighted with a mouse click. Highlighted channels have a blue border.

Highlighted channel displays can be moved in the Online display.

The highlighting can be deselected with a mouse click.







The Online display can be maximised/minimised using the **b**utton.

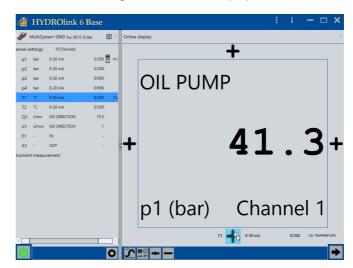
⇒ See Min/Max display on page 49

Adding channels

Channels can be dragged into the Online display from the device explorer using drag & drop.

Not possible with measuring instruments from the *MultiHandy* product family.

⇒ See Measuring instruments on page 8



If a channel is dragged into the Online display, + symbols are displayed where the channel can be dropped. A channel display can also be replaced by a different channel. The target position is highlighted in blue.

When the mouse is released, the channel is inserted at the currently marked target position.

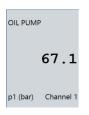
Channels can be removed from the Online display using the button.

⇒ See **Delete** on page 49



3.3.1 Display style

A variety of display styles are available for the channel display.













Numeric gauge

Dial gauge

Bargraph indicator Chart

Classic gauge

If a channel is added to the **Online display**, the standard display style will be used for the channel view.

⇒ See **General** on page 55.

The display style for highlighted channel displays using the substant.

⇒ See **Display style** on page 49



3.3.2 Scaling

The following display styles can be scaled:

- Dial gauge
- · Bargraph indicator
- Chart



If the display style of a highlighted channel display is scalable, the button [] for scaling will be shown in the upper right of the channel display. The button opens the **Scaling** dialogue.



The dialogue shows the current actual values (**Minimum**, **Maximum**).

Set values configure the scale of the channel display. Enter the desired starting value of the scale in the **Minimum** field. Specify the desired end value of the scale in the **Maximum** field.

Enter the desired value for the scale intervals in the Interval field.



Use the **Calculate** button, to automatically generate the fields **Minimum**, **Maximum** and **Interval** based on the actual values.

No calculation takes place if no measured values are sent from the instrument.



3.3.3 Toolbar



The toolbar is located at the bottom edge of the Online display.

Buttons, voice commands and functions

The toolbar contains the following buttons:

Min/Max display



Switches the Min/Max display on or off.

Voice command: MINMAX

Display style



Shows the selection dialogue for changing the display style of the highlighted channels and changes the display style of the highlighted channel display.



The standard display style is indicated by an asterisk.

⇒ See **Display style** on page 47

Arrangement



Changes the arrangement of the channel display from horizontal to vertical and vice versa.

Voice command: ALIGNMENT

Delete



Removes the highlighted channel from the display.

The button is not shown for instruments from the product family *MultiHandy*.

Switch



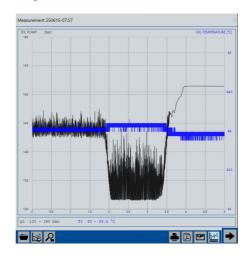
Switches between Online display and Measurement display.

Voice command: SWITCH



3.4 Measurement display

The Measurement display shows the measurement as a line diagram.



Use the **Switch** button to switch between the Online display and the Measurement display.

⇒ See Switch on page 49.

The Measurement display is divided into three areas:

- Infobar
- · Diagram display
- Toolbar

Measurements can be displayed in the following ways:

- Move instrument measurements into the measurement view using drag & drop.
 - The instrument measurement is transferred from the instrument to the PC and saved there.
- Open the measurement stored on the PC.
 - ⇒ See **Search** on page 52



3.4.1 Infobar

Measurement 090415-16:01

The infobar displays the name of the measurement.

A tooltip will be displayed if you hover the mouse pointer over measurement name or with touch operation, if you hold your finger on the measurement name for a second.

The tooltip shows the following details:

- Instrument (example: MultiSystem 5060 Version 5)
- Name (example: 090415-16:02)

 Date (example: 09.04.2015 16:02)
- Length (example: 5 s)
- Number of data records (example: 5001)
- Scanning rate (example: 1 ms)
- Channels (number) and channel name (example: (4) p1 p2 T1 Q1)
- File name and path to the measurement file

3.4.2 Diagram display

Measurements are shown as line diagram.

The horizontal axis corresponds to the time. The vertical axis corresponds to the measured variable. The measured values are shown as lines. The different channels are indicated by different colours.



The legend shows which channel is shown with which colour in the diagram. The legend can be in the upper right or below the diagram.

⇒ See **Legend** on page 53

The left and right axis show the value scale for the channels. Channels with the same unit are summarised on one axis and thus scaled equally.



Switch the axis to the next channel by clicking on the axis label.



3.4.3 Toolbar



The toolbar is located at the bottom edge of the Measurement display.

Buttons, voice commands and functions

The toolbar contains the following buttons:

Search



Shows the Windows Open dialogue.

Opens a measurement from a data carrier (hard drive of the PC, USB stick). Measurements must have the MWF file format.

Clear



Clears the current Measurement display.

Zoom



Shows or hides the zoom menu. The zoom menu is shown in the bottom right in the measurement diagram.

⇒ See **Zoom menu** on page 54

Print



Prints the protocol of the current measurement.

If the free text input is activated in the settings, the **Free text input** dialogue will be displayed first.

⇒ See

Protocol layout on page 58 **Free text input** on page 61

A preview of the protocol will be shown in the Windows **Window-PrintPreview** dialogue before printing.

Voice command: PRINT



Save as PDF



Saves the protocol as a PDF file.

If the free text input is activated in the settings, the **Free text input** dialogue will be displayed first.

⇒ See

Protocol layout on page 58 **Free text input** on page 61

The Windows dialogue **Save as** is displayed. The protocol is opened after saving.

Voice command: SHOW

Save as image file



Saves the line diagram as an image file.

The Windows dialogue **Save as** is displayed.

The following file formats are possible:

- PNG
- JPG
- BMP
- GIF

Voice command: PICTURE

Legend



Changes the position of the legend.

Possible positions:

- Top right
- Bottom

Switch

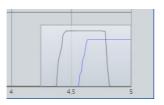


Switches between Online display and Measurement display.

Voice command: SWITCH



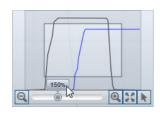
3.4.4 Zoom menu



The zoom menu is displayed or hidden using the **Zoom** button.

⇒ See **Zoom** on page 52

The zoom menu is shown in the bottom right in the measurement diagram as transparent preview.



The zoom menu becomes active when the mouse points on the zoom menu preview. The measurement diagram can be zoomed using the buttons.

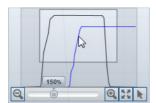


The following functions are available for zooming:

- Zoom in steps (left button)
- Zoom in or out continuously (slider)
- Zoom out in steps (right button)



• Reset to 100%



The zoomed section can be freely moved using the mouse.

EN

3.5 Settings

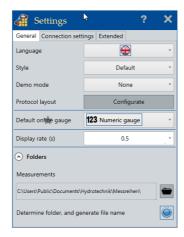
The **Settings** dialogue is opened using the **Open Settings dialogue** button.

⇒ See Opening the Settings dialogue on page 37

The **Settings** dialogue has three tabs.

- General
- Connection settings
- Extended

3.5.1 General



The **General** tab has the following settings:

Language

Changes the user interface language.

The new language will be applied the next time the application is started.

Colour style

Changes the user interface colours.



Demo mode

Activates the demo mode.

The demo mode can be activated for different instruments and application editions. It shows the functions of other application editions (example: Professional) and simulates a measuring instrument (example: MultiSystem 5060).

The button is only active when no instrument is connected.

Protocol layout

Opens the **Protocol layout** dialogue.

⇒ See Protocol layout on page 58

Default online gauge

Defines which display style is standard. This display style will be used when a channel is dragged into the Online display.

The display style can be changed in the Online display.

⇒ See **Display style** on page 47

Display rate (s)

Defines which time interval (seconds) for updating the Online display.

The measuring and transfer rate depends on the instrument connected. The display rate only defines in what time intervals the Online display is updated.

The display rate is entered as numeric value or selected from the selection menu.





Directories

The directories area can be expanded and collapsed.

Measurements

Shows the current standard folder for saving measurements.

If the function **Determine folder, and generate file name** is activated, measurements will be saved to this folder. If the function is not activated, this folder is suggested as destination.



The **Search** button shows the Windows dialogue **Search folder** and specifies a new standard folder.

⇒ See **Measurement display** on page 50

Specify folder and assign filename automatically



Specifies the saving of measurements without querying the user.

- The standard folder is used as destination.
- The filename is automatically generated from the time stamp of the measurement.



If the function is deactivated, the **Save as** dialogue is shown and the user can freely select the destination and filename.

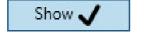


3.5.2 Protocol layout

The **Protocol layout** displays settings for the layout of the protocol. These settings are used when a protocol is printed or saved as a PDF file.



The protocol is divided into five areas: Position 1 to position 5. You can change the order of the areas using drag & drop.



The **Show** button shows or hides an area in the protocol. If an area is shown, the button has a green checkmark.



The buttons **Show example** shows or hides a preview for the **Line diagram** and **Measurement information** areas.



Your company logo

You can add a company logo to the protocol. The logo must be a graphics file with the PNG or JPG file format.

The button shows the **Open** dialogue for opening a graphics file.



Your company name

The company name and additional text (example: addresses) can be added to the protocol.

A maximum of 5 lines each with 80 characters is possible.



Line diagram Show Show

Line diagram

The line diagram of the measurement can be added to the protocol.



Free text input User:#t1#user

date:#t1#date - #time No:#t111234-56

Measurment successful:#t1yes

Show "Free text input" always before output (PDF,Print)

Measurement information

The measurement information can be added to the protocol.

The following information is shown in the protocol:

- Instrument (model and firmware version)
- Instrument serial number
- · Measurement name
- · Date and time of day of the measurement
- · Scanning rate
- Length
- · Number of data records
- · For each channel
 - Measurement variable
 - Unit
 - Minimum
 - Average
 - Maximum

Free text input

You can add any text to the protocol.

The following variables can be used:

- #user (Windows name of the logged in user)
- #date (current date)
- #time (current time)
- **#t1** (tabulator for aligning the texts. Only one tabulator is supported)

A maximum of 5 lines each with 80 characters is possible.



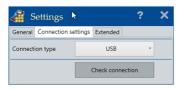
Show 🗸

The button specifies whether the **Free text input** can be edited before generating a protocol. If the button is active, the **Free text input** dialogue is opened and the text can be edited during the generation of the protocol.

⇒ See Free text input on page 61



3.5.3 Connection settings

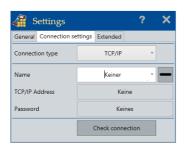


The **Connection settings** tab shows the current connection type.

USB connections to instruments are established automatically and do not have to be configured.

The **Check connection** button is inactive if there is a connection to the instrument.

TCP/IP connection



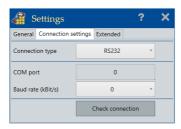
TCP/IP connections to instruments must be configured. Multiple TCP/IP connections can be created.

- Name: Name for the TCP/IP connection. Used for differentiating between individual TCP/IP connections.
- TCP/IP address: TCP/IP address of the instrument.
- Password: The connection password.



The TCP/IP address and the password must be configured on the instrument.

Connection type RS232



RS232 connections to the measuring instruments must be configured.

- COM port: The number of the COM port on the PC.
- Baud rate (kbit/s): Baud rate of the connection.



3.5.4 Extended



The Extended tab has the following settings:

- Show tips: All tips of the user interface are shown again.

The PC must have a microphone and speaker. If HYDROlink6 no microphone or speaker is found, the symbol ⚠ and a corresponding tool tip are shown.

 Allow Internet connection: Searches the homepage of HYDROTECHNIK for updates for HYDROlink6 and the connected instrument.

The PC must have an Internet connection and the firewall must allow the connection to HYDROTECHNIK.

 Fault diagnosis: Only activate if requested by HYDROTECHNIK.

3.6 Free text input

The Free text input dialogue is shown when a protocol is generated and the free text input option is activated in the settings.

⇒ See:

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Free text input on page 59



The entered text is shown in the protocol.

A maximum of 5 lines each with 80 characters is possible.



3.7 Voice control

HYDROlink6 can be partially controlled using voice commands. For voice control, no dialogues are shown that require input using the mouse or keyboard.

You must perform the Windows voice recognition exercises before using voice control.

The language is dependent on the operating system and independent of the language set in HYDROlink6.



The voice control must be activated in the settings. If voice control is activated, the \P symbol is displayed in the title bar.

The voice commands are described in this manual and are shown as follows:

VOICE COMMAND