

# Hydrant tester HT80-V4 Professional



Operating  
instructions

**Manufacturer, Sales, and Support**

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## About this guide

### Purpose

This operating manual enables qualified personnel responsible for measuring and flushing to safely operate the HT80-V4 Professional hydrant tester.

### Target audience

This operating manual is intended for use by qualified personnel responsible for measuring or flushing.

### Software version

This manual applies to the HT80-V4 Professional hydrant tester from software version 4.3 onwards. The software and hardware are subject to continuous development. It is possible that the hardware and software may differ from those described in this operating manual.

### Related documents

– Operating manual for the **STX Control Center** software from Sotronix e. K.

### List of readings

**Bold type** is used in this operating manual for names, e.g., menu or function names.

*Italics* are used in this operating manual for Internet addresses and references within the document.

### Further help

If you have any questions that are not answered in this user manual, please refer to the Sotronix e. K. help page (<https://www.sotronix.de/index.php/faq/>) or contact:

Sotronix e. K.  
Stockumer Str. 28  
58453 Witten

Phone: +49 2302 9146010  
Fax:

Email: [info@sotronix.de](mailto:info@sotronix.de)

## Safety

### Intended use

The hydrant tester is intended exclusively for measuring the flow, pressure, and temperature of water and for flushing the pipe network. Any other use is considered improper.

The manufacturer is not liable for damage resulting from improper or unintended use.



The minimum conductivity of the measuring medium must be 25 µS. The device is not approved for lower values.

### Safety instructions



#### **NOTE** Follow the instructions!

Improper use may damage the device or lead to incorrect measurement results.

- Read these operating instructions carefully.
- Follow the instructions and notes in this operating manual.



#### **CAUTION!** Damage to the device due to water ingress!

Water ingress into the device can damage it through the unsecured USB port.

- Ensure that the cap of the USB port on the device is closed properly.
- Only open the USB port cover when necessary and in a dry environment.



#### **ATTENTION!** Damage to the device due to external force!

Strong external forces can damage the device.

- Avoid applying strong force to the device.
- Protect the device from falling objects during transport.



#### **CAUTION!** Damage to the device due to improper storage!

Improper storage can damage the device.

- Store the device in a dry environment.

**CAUTION!****Damage to the device due to improper transport!**

Improper transport can damage the device.

- Disconnect the battery from the electronic components for shipping (see section *Disconnecting the battery* starting on page 21).

**CAUTION****Incorrect measurement results due to incorrect flow direction!**

The wrong flow direction can lead to incorrect measurement results.

- When connecting the device, ensure that the flow direction of the water matches the flow direction indicated on the device.

**ATTENTION!****Incorrect measurement results due to incorrect connection!**

An incorrectly connected pipe can produce incorrect measurement results.

- Connect the pipe to the hydrant tester using the shut-off valve so that the shut-off valve is not located at the outlet of the hydrant tester.

**ATTENTION!****Incorrect measurement results due to magnetic fields!**

Magnetic fields near the device cause incorrect measurements.

- Ensure that there are no interfering magnetic fields near the device.

## EU Declaration of Conformity

**Manufacturer:** Sotronix e. K.  
Stockumer Str. 28  
58453 Witten  
Germany

We declare under our sole responsibility that the product:

**Product name:** Hydrant tester HT80-V4 Professional  
**Product description:** Battery-powered, magnetic inductive flow meter (MID)  
**Model/Type:** HT80-V4 Professional

Complies with the provisions of the following EU directives and regulations:

- 2014/30/EU – EMC Directive
- 2014/53/EU – Radio Equipment Directive (RED), including Delegated Regulation (EU) 2022/30 on Article 3.3 (d), (e), (f)
- 2014/68/EU – Pressure Equipment Directive
- 2011/65/EU – RoHS Directive (including amendments)
- Applied harmonized standards and technical regulations:
- DIN EN 61326-1:2021 – EMC requirements for measuring, control, and laboratory equipment → Industrial environment (outdoor use)
- EN 300 328 V2.2.2 – Radio modules in the 2.4 GHz range (Bluetooth)
- EN 301 489-1 V2.2.3 & EN 301 489-17 V3.2.4 – EMC requirements for radio modules (Bluetooth)
- EN 18031-1:2024 – Network protection (Article 3.3 (d))
- EN 18031-2:2024 – Data protection and privacy (Article 3.3 (e))
- EN 18031-3:2024 – Protection against fraud (Article 3.3 (f), if applicable)

Place, date: Witten, September 17, 2025

Signature:

SOFTWAREENTWICKLUNG · INDUSTRIELEKTRONIK  
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## Type plate

The type plate with the CE marking and the manufacturer's contact details is located on the front of the device at the bottom right.



Figure 1: Nameplate of the HT80-V4 Professional hydrant tester

## Scope of delivery

The scope of delivery of the HT80-V4 hydrant tester includes:

- 1 HT80-V4 Professional hydrant tester



Check the scope of delivery upon receipt! If you have any questions, please contact the manufacturer. The contact details can be found in the *Further Help* section on page 5.



Check the contents for damage upon receipt! If you have any questions, please contact the manufacturer. The contact details can be found in the *Further Help* section on page 5.

## Transport and storage

Protect the device from strong external forces during transport and storage, e.g. from falling objects. Avoid strong magnetic fields in the immediate vicinity of the device and prolonged direct sunlight. Cover the display during transport and storage, e.g. with a suitable foam mat.

Before sending the device to the manufacturer, e.g., to replace the battery, disconnect the battery from the electronic components. For information on the steps required to do this, see the section *on disconnecting the battery* on page 21.

## Design and function

The HT80-V4 Professional hydrant tester is a battery-powered, magnetically inductive flow meter (MID) that ensures free flow. It measures the flow, pressure, and temperature of electrically conductive liquids.

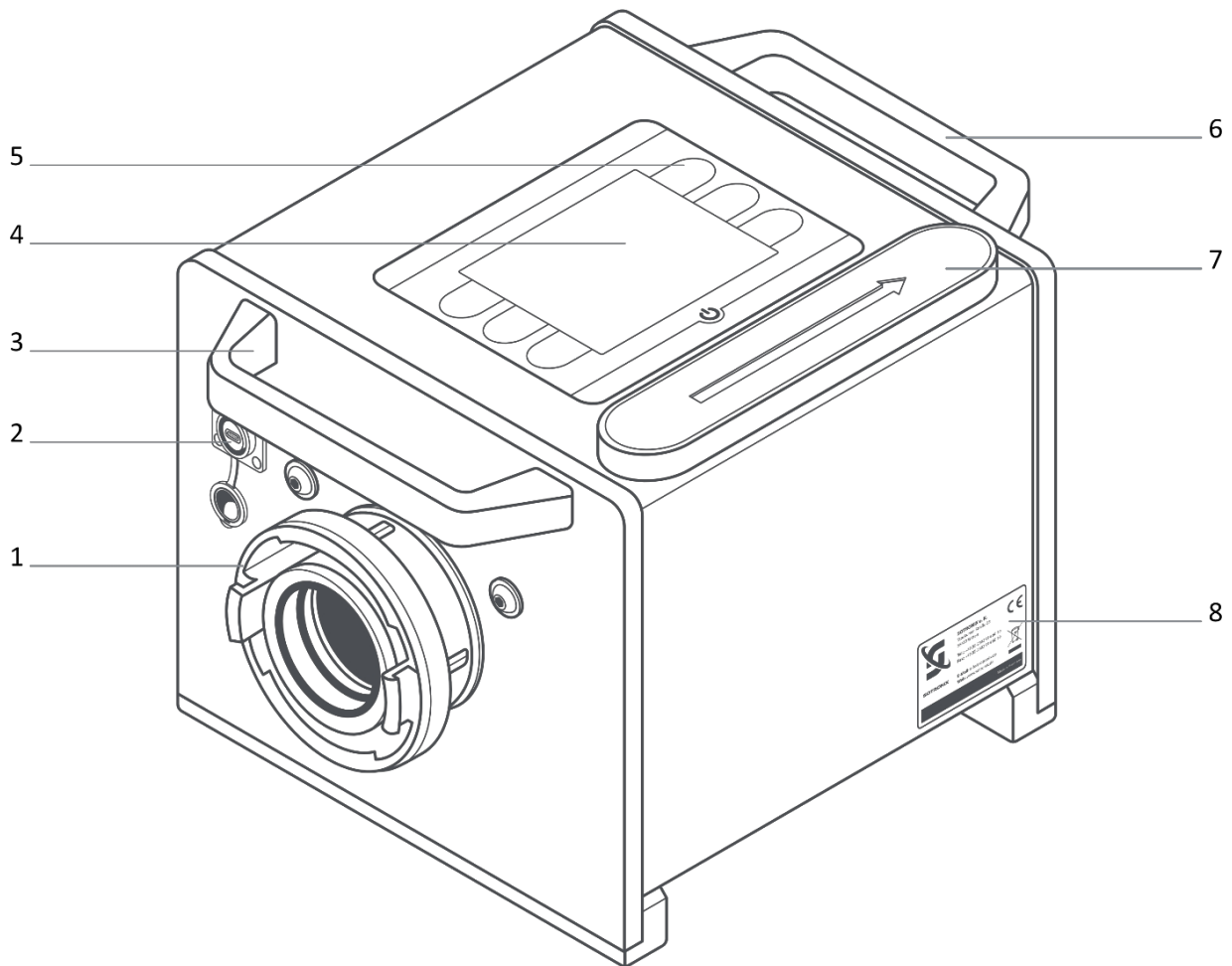


Figure 2: HT80-V4 hydrant tester

| Number | Meaning                              |
|--------|--------------------------------------|
| 1      | Storz B connection                   |
| 2      | USB-C connection with protective cap |
| 3      | Handle                               |
| 4      | Display                              |
| 5      | Buttons                              |
| 6      | Handle                               |
| 7      | Flow direction                       |
| 8      | Type plate with CE marking           |

The HT80-V4 Professional hydrant tester has the following technical features:

- Permanent display
- Battery operation up to 12 hours
- Recording of flow rate, pressure, and temperature
- USB interface
- Bluetooth interface
- 8 GB memory
- Nominal diameter DN 80
- GPS receiver
- Flow rate up to 217 m<sup>3</sup>/h
- Working pressure up to 16 bar
- Flow measurement accuracy:  $\pm 0.5\%$  in the nominal range
- Measurement accuracy pressure:  $\pm 1\%$  in nominal range
- Evaluation using WINDOWS<sup>™</sup>-based software



The minimum conductivity of the measuring medium must be 25  $\mu\text{S}$ . The device is not approved for lower values.

The HT80-V4 Professional hydrant tester is part of a complete system. In addition to the device, this complete system includes two settling sections (with shut-off valves if required) and the **STX Control Center** evaluation software.

For information on how to connect the HT80-V4 Professional hydrant tester and the associated components correctly, see the section *Connecting the device* on page 18.

To transfer the measurement data to the **STX Control Center** evaluation software, connect the HT80-V4 Professional hydrant tester to your PC via a USB-C cable or Bluetooth. All further steps are described in the **STX Control Center** operating instructions.

## Operation

### Commissioning

Before using the HT80-V4 Professional hydrant tester at the place of use, first check the battery charge status and make any necessary settings. For information on how to make the settings, see the section *Making settings* on page 15.



Figure 3: Start screen and buttons for operation

| Number | Meaning                      |
|--------|------------------------------|
| 1      | Control buttons              |
| 2      | Status bar                   |
| 3      | Display (view: start screen) |
| 4      | Control buttons              |
| 5      | On/Off button                |

|  |                                             |
|--|---------------------------------------------|
|  | You can adjust the settings while charging. |
|--|---------------------------------------------|

### Steps

1. Press the **On/Off** button. The device switches on.
2. Check the battery charge status in the top right corner of the display.
3. If necessary, charge the battery using the charger and USB cable.

## Navigate through the menu

In the **Settings** menu, the buttons are assigned navigation functions or the **Select** or **Cancel** functions. The list of navigation symbols can be found in the section *Symbols for navigation* on page 25.



The buttons to the left and right of the display can be assigned different functions. The display shows the respective function. To activate it, press the corresponding button.

## Rotate display

You can rotate the display. The button assignments are adjusted automatically. Each time the device is switched on, the display is in its original position, regardless of whether it was rotated before being switched off.

### Steps

1. Switch on the device.
2. Press the **Rotate display** button. The display is rotated 180° and the button assignments are adjusted accordingly.

## Making settings

Make the settings during initial startup. You can change these settings at any time. The list of menu symbols can be found in the section *Symbols in the menus* on page 26.

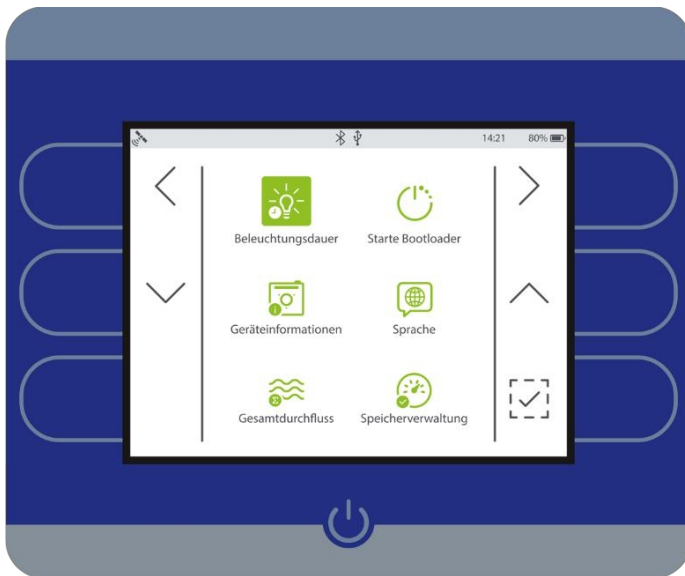


Figure 4: Screen with status bar, navigation symbols, and menu

Use the **Brightness** function to adjust the brightness of the display.

Use the **Power Off Delay** function to set the length of time the device remains on without being operated. After this time has elapsed, the device switches off automatically.

Use the **Language** function to select the language for the interface texts.

Use the **UTC deviation** function to set the difference to the time zone in which the measurements are to be taken. The selection ranges from -12 h to 12 h. You can

only set integer values. This setting affects the time displayed in the status bar. This setting does not affect the display of GPS data.

Use the **Key Tone** function to turn the key tone on and off.

Use the **Battery Disconnect** function to disconnect the battery from the electronic components. If the device is not connected to the power supply, it will switch off immediately after the battery disconnect function is activated. If the device is connected to the power supply, the error message "Disconnect the charger and press any key" will be displayed. If you do not make a selection, the **Battery Disconnect** function will automatically be set to **No** after a few seconds and the **Settings** menu will be displayed.

The **Measurement Label** function allows you to specify whether the measurement label must be entered in full each time or whether the label from the last measurement is displayed as an input aid. The selected setting is retained when the device is restarted. You can activate or deactivate the function at any time. This function is deactivated by default. After activating this function for the first time, the measurement label must be entered in full once.



Disconnect the battery before each shipment. For the steps required to do this, see the section *Disconnecting the battery* on page 21.



The device automatically switches between summer and winter time.

## Steps

1. Turn on the device.
2. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
3. Navigate to the desired menu item and press the **Select** button.
4. Make the desired settings and press the **Select** button. The changes are saved and the **Settings** menu is displayed.
5. Repeat steps 3 and 4 as necessary.
6. Navigate to the **Exit** menu item and press the **Select** button. The Start menu is displayed.

## Display device information

You can retrieve the following information about the device: Device serial number, software, bootloader, and hardware version.

## Steps

1. Turn on the device.
2. Press the **Settings** button. The **Settings** menu appears on the display. The menu item **Brightness** is highlighted.
3. Navigate to the **Device information** menu item and press the **Select** button. The device information is displayed.

4. Press the **Select** button again. The **Settings** menu is displayed.
5. Navigate to the **Exit** menu item and press the **Select** button. The Start menu is displayed.

### Display total flow

You can display the total flow and other counters and reset these counters. For the steps required to reset the counters, see the section *Resetting Counters* on page 21.

#### Steps

1. Turn on the device.
2. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
3. Navigate to the **Total Flow** menu item and press the **Select** button. The **Total Flow** page is displayed.
4. Press the **Select** button. The **Settings** menu is displayed.
5. Navigate to the **Exit** menu item and press the **Select** button. The start menu is displayed.

### Displaying GPS data

After switching on the device, it takes a moment for the integrated GPS receiver to receive sufficient satellite signals. During this time, the GPS symbol is displayed in red in the top left corner of the display. Once the device has received sufficient satellite signals, the GPS symbol is displayed in green. The GPS data can now be accessed via the menu.

#### Colors of the GPS symbol

| Color  | Meaning                                                                                                                                              |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Green  | The GPS receiver is receiving signals from at least four satellites.                                                                                 |
| Yellow | The GPS receiver is receiving signals from three satellites. The altitude cannot be displayed.                                                       |
| Red    | The GPS receiver is receiving signals from fewer than three satellites. GPS positioning cannot be performed. No GPS data is displayed on the device. |

#### Displayed GPS data

| Line | Data                                                         |
|------|--------------------------------------------------------------|
| 1    | Date and time (UTC – Universal Time Coordinated)             |
| 2    | Latitude                                                     |
| 3    | Longitude                                                    |
| 4    | Speed at which the HT80-V4 Professional hydrant tester moves |
| 5    | Height above sea level                                       |

| Row | Data                                                                                                                                                              |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6   | Number of satellites from which the GPS receiver receives data (SiU – Satellites in Use)                                                                          |
| 7   | Quality of location determination using GPS (PDOP – Positional Dilution of Precision); the lower the PDOP value, the higher the quality of location determination |

|                                                                                   |                                                                                           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|  | GPS data can only be retrieved once the device has received sufficient satellite signals. |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|

### Steps

1. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
2. Navigate to the **GPS Data** menu item and press the **Select** button. The GPS data is displayed.
3. Press the Select button again. The **Settings** menu is displayed.
4. Navigate to the **Exit** menu item and press the **Select** button. The start menu is displayed.

### Connect device

Once you have made the settings, connect the device for measuring or flushing (see *Figure 5: Connection diagram using the example of an above-ground hydrant*).

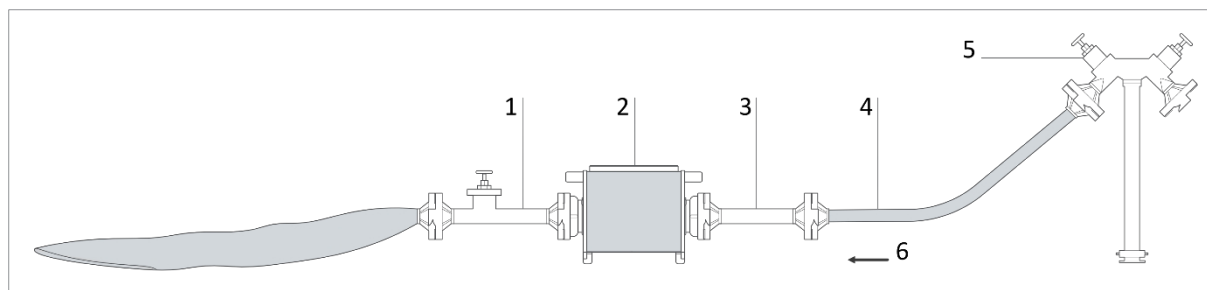


Figure 5: Connection diagram using the example of an above-ground hydrant

| Number | Meaning                              |
|--------|--------------------------------------|
| 1      | Settling section with shut-off valve |
| 2      | Hydrant tester HT80-V4 Professional  |
| 3      | Settling section                     |
| 4      | Connecting hose                      |

| Number | Meaning              |
|--------|----------------------|
| 5      | Above-ground hydrant |
| 6      | Flow direction       |

## Perform measurement

Once you have connected the hydrant tester, you can start taking measurements. If necessary for the measurement, you can rotate the display. For the steps required to do this, see the section *on rotating the display* on page 15. The button assignments are adjusted automatically. The flow direction always remains the same. It is marked on the device by a black arrow. In addition, the display shows the flow direction as soon as the device is switched on and displays the start screen.

Before starting the measurement, enter a short description for the respective measurement, e.g., the name of the hydrant or a location. When entering the description, you can use the **left** and **right** arrow keys to navigate within the current description, e.g., to enter or correct a character at the desired position. Use the **up** and **down** navigation keys to select the desired character.

| Characters for the description of the measurement |                                                                 |
|---------------------------------------------------|-----------------------------------------------------------------|
| Letters                                           | Capital letters from <b>A</b> to <b>Z</b>                       |
| Numbers                                           | from <b>0</b> to <b>9</b>                                       |
| Special characters                                | <b>% &amp; / ( ) [ ] + - * , . ; :</b> and the <b>space bar</b> |

During the measurement, you can change the unit for the flow rate. When the measurement starts, the unit is set to **m<sup>3</sup>/h**. You can use the **unit selection** button to switch to the units **l/min** and **l/s**.

After the measurement is complete, you can transfer the measurement data to the **STX Control Center** software. The steps required for this are described in the **STX Control Center** operating instructions. After transferring the measurement data, you can delete it from the device. The steps required for this are described in the section *Deleting measurements* on page 20.



Before starting the measurement, make sure that the HT80-V4 Professional hydrant tester and the settling sections are connected correctly.



Before starting the measurement, ensure that the battery in the device still has sufficient capacity.



After switching on the device, wait until it has received sufficient satellite signals and the GPS symbol appears green on the display before taking a measurement.



The values for pressure and flow may be greater than zero if there is no water in the MID.

### Steps

1. Switch on the device.
2. Press the **Start measurement** button. The **Description** page is displayed.
3. Use the arrow keys to enter a description for the measurement.
4. Press the **Select** button to start the measurement.
5. Press the **End Measurement** button and confirm the security prompt with **Yes**.
6. Finally, press the **Select** button. The measurement is ended and the display shows the start page.

### Evaluating measurements

You can evaluate the recorded measurements using the **STX Control Center** software. There are two program versions available for this purpose: the **Basic Edition** and the **Professional Edition**. A list of the respective features can be found at:

<https://www.sotronix.de>

### Canceling a measurement

You can cancel a measurement.

### Steps

1. Switch on the device.
2. Press the **Start measurement** button. The **Description** page opens.
3. Press the **Cancel** button to cancel the measurement. The measurement is canceled and the start page is displayed on the screen.

### Delete measurement

After transferring the measured values to the **STX Control Center** software, you can delete the recorded values in the device. For information on the steps required to transfer the measured values to the software, refer to the **STX Control Center** operating instructions.

You can also reset the counters for the total flow. The steps required for this are described in the section *Counters* on page 21.



When you delete the measurements, the entire measurement memory is deleted. It is not possible to delete individual measurements.

### Steps

1. Switch on the device.
2. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
3. Navigate to the **Memory Management** menu item and press the **Select** button.
4. Confirm the security prompt with **Yes** and press the **Select** button. The measurements are deleted and the **Settings** menu is displayed.
5. Navigate to the **Exit** menu item and press the **Select** button. The start menu is displayed.

### Resetting the counters

The device has five counters for total flow. You can reset each of these counters to zero. The currently selected counter is underlined in the display.

### Steps

1. Turn on the device.
2. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
3. Navigate to the **Total Flow** menu item and press the **Select** button. The **Total Flow page** is displayed.
4. Use the navigation buttons to select the meter you want to reset.
5. Press the **Cancel** button and confirm the security prompt with **Yes**. The counter is reset and the **Total Flow** page is displayed.
6. Press the **Select** button. The **Settings** menu is displayed.
7. Navigate to the **Exit** menu item and press the **Select** button. The start menu is displayed.

### Disconnect battery

This function disconnects the battery from the electronic components.

### Steps

1. Turn on the device.
2. Press the **Settings** button. The display shows the **Settings** menu. The menu item **Brightness** is highlighted.
3. Navigate to the **Battery Disconnection** menu item and press the **Select** button. The Battery Disconnection page is displayed.
4. Navigate to the **Yes** option and press the **Select** button. The battery is disconnected from the electronic components and the device switches off.

### Switching off the device



To turn off the device, it must be in the start menu and not connected to the power supply.

### Steps

1. With the device switched on, press the **On/Off** button. The device switches off and the display goes blank.

## Decommissioning

The device is temporarily decommissioned for shipping. To do this, the battery must be disconnected from the electronic components. For the steps required to do this, see the section *on disconnecting the battery* on page 21.

## Maintenance

The HT80-V4 Professional hydrant tester is maintenance-free. Clean the device as needed. The software is continuously being developed. Perform software updates regularly.



Depending on the conditions of use, the manufacturer Sotronix e. K. recommends having the device inspected every two to three years.

## Storz connection

Clean the Storz couplings as needed. You can use a commercially available brake or metal cleaner to clean the couplings, e.g., *WEICON Surface Cleaner* 400 ml or *Interflon Metal Clean* (aerosol).

### Steps

1. Unscrew the Storz connector from the device.
2. Clean the threads with a damp cloth.
3. Remove the seal from the Storz connector.
4. If necessary, clean the cleats with a commercially available brake or metal cleaner.
5. After cleaning, remove all cleaning residues from the Storz connector.
6. If necessary, replace the seal with a new one and dispose of the old seal in accordance with the applicable regulations.
7. Install the seal.
8. Grease the threads.
9. Finally, screw the Storz connector onto the device.

## Battery

Before shipping, disconnect the battery from the electronic components. For the steps required to do this, see the section *on disconnecting the battery* on page 21.

## Display

Clean the display with a damp, lint-free cloth if necessary. Avoid using cleaning agents.

## Software update

You can perform a software update using the **STX Control Center**. To do this, connect your device to your PC via a USB-C cable or connect it to your PC via Bluetooth. The software update procedure is described in the **STX Control Center** operating instructions.

## Disposal

If the HT80-V4 Professional hydrant tester needs to be disposed of, return it to the manufacturer, Sotronix e. K. The manufacturer will take care of disposal. The manufacturer's address can be found in the *Further Help* section on page 5 and on the type plate.

Before shipping, disconnect the battery from the electronic components (see section *Disconnecting the battery* on page 21) and pack the device in shockproof packaging.

## Appendix

### Navigation symbols

| Symbol                                                                            | Meaning        |
|-----------------------------------------------------------------------------------|----------------|
|  | Cancel, Delete |
|  | Select         |
|  | Right          |
|  | Left           |
|  | Down           |
|  | Up             |

### Icons in the status bar

| Symbol                                                                              | Meaning              |
|-------------------------------------------------------------------------------------|----------------------|
|  | Battery charge level |
|  | Bluetooth            |
|  | GPS                  |
|  | Daylight saving time |
|  | USB                  |

## Icons in the menus

| Symbol                                                                              | Meaning              |
|-------------------------------------------------------------------------------------|----------------------|
|    | Deviation from UTC   |
|    | Battery shutdown     |
|    | Shutdown delay       |
|    | Bootloader           |
|    | Rotate display       |
|    | Unit selection       |
|   | Settings             |
|  | Confirm              |
|  | Device information   |
|  | Total flow           |
|  | GPS data             |
|  | Brightness           |
|  | High, increase value |
|  | Measurement name     |
|  | Measurement          |
|  | End measurement      |

| Symbol                                                                            | Meaning              |
|-----------------------------------------------------------------------------------|----------------------|
|  | Down, decrease value |
|  | Memory management    |
|  | Language             |
|  | Summer time          |
|  | Key tone             |
|  | Exit                 |

## Technical data

### Dimensions and weight

|                                      |                          |
|--------------------------------------|--------------------------|
| Dimensions (length × width × height) | 373 mm × 290 mm × 268 mm |
| Weight                               | 19.5 kg                  |

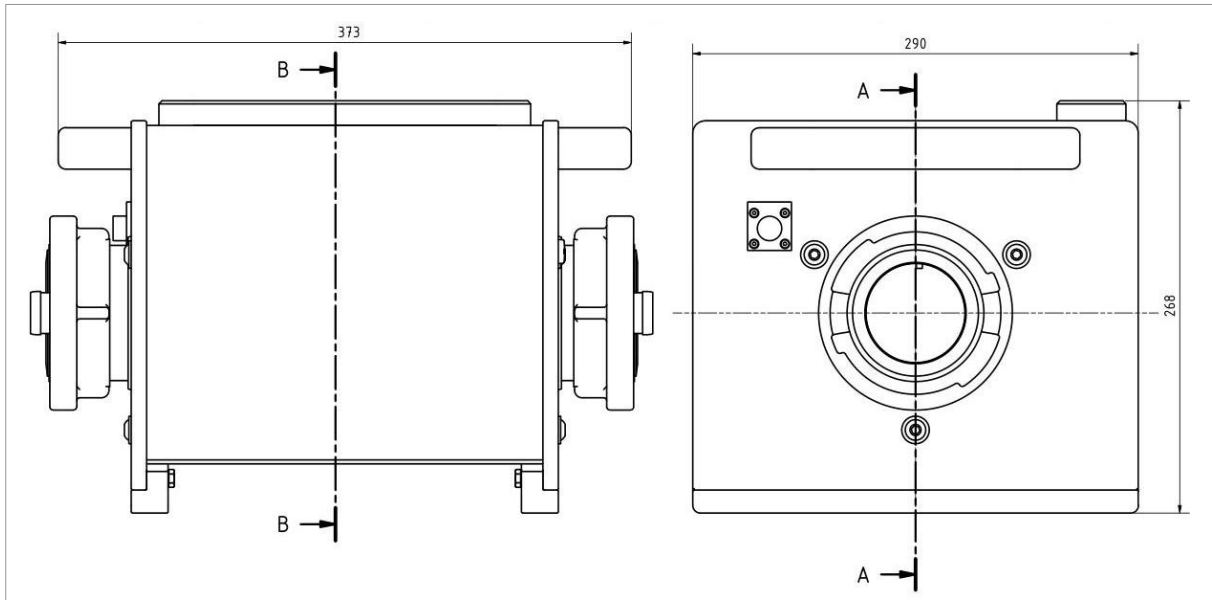


Figure 6: Dimensions of the HT80-V4 hydrant tester

### Measuring range

|                  |                             |
|------------------|-----------------------------|
| Flow rate        | up to 217 m <sup>3</sup> /h |
| Working pressure | up to 16 bar                |
| Temperature      | −10 °C to +60 °C            |

### Temperature

|                                      |                  |
|--------------------------------------|------------------|
| Ambient temperature during operation | −10 °C to +50 °C |
| Ambient temperature during storage   | −10 °C to +50 °C |
| Operating temperature                | −10 °C to +40 °C |
| Operating temperature battery charge | +5 °C to +40 °C  |
| Media temperature                    | −10 °C to +40 °C |

**Protection class**

Protection class

IP67 (30 cm/1 h)

**Nominal diameters**

Nominal diameter (including Storz connection)

 $Q_{\min}$  (m<sup>3</sup>/h) $Q_{\max}$  (m<sup>3</sup>/h)

Weight (kg)

DN 80

3

Storz B

5.4

217.2

7.4

**Battery**

Type

Lilon

Voltage

7.2 V

Number

1

**Measurement accuracy**

Flow

±0.5% in nominal range

Pressure

±1% in nominal range

Temperature

1 °C in nominal range

**Interfaces**

Bluetooth

USB

**Connections**

USB

Type C

**Data storage**

Capacity

8 GB

| Display    |                  |
|------------|------------------|
| Size       | 5.7              |
| Technology | TFT              |
| Resolution | 640 × 480 pixels |

| Media properties                   |                                 |
|------------------------------------|---------------------------------|
| Media                              | Electrically conductive liquids |
| Minimum conductivity               | 25 µS                           |
| Permissible gas content (volume)   | < 3%                            |
| Permissible solid content (volume) | < 10%                           |

## Problems, causes, solutions

| Problem                                                                                      | Possible cause                                                                                             | Solution                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The device cannot be switched on.                                                            | The battery has been disconnected from the electronic components (battery disconnection).                  | <ol style="list-style-type: none"> <li>1. Connect the HT80-V4 Professional hydrant tester to the power supply using the USB cable and charger. The battery will connect to the electronic components and the device will switch on.</li> <li>2. Disconnect the USB cable and charger. The device remains switched on.</li> </ol>                                             |
| The error message <b>"Disconnect the charger and press any button"</b> is displayed.         | The device is connected to the power supply while the <b>battery shutdown</b> function is to be activated. | <ol style="list-style-type: none"> <li>1. Disconnect the charger and press any button. The <b>Settings</b> menu is displayed. The Battery Disconnect function is highlighted.</li> <li>2. Press the <b>Select</b> button and confirm the security prompt with <b>Yes</b>. The battery is disconnected from the electronic components and the device switches off.</li> </ol> |
| The flow rate displays the value <b>0</b> (zero).                                            | The direction of water flow does not match the direction of flow shown on the device and in the display.   | <ol style="list-style-type: none"> <li>1. Connect the device so that the flow direction of the water matches the flow direction displayed on the device.</li> </ol>                                                                                                                                                                                                          |
| The MID filled with water displays values greater than zero even though no water is flowing. | There are several possible causes.                                                                         | <ol style="list-style-type: none"> <li>1. Contact the manufacturer so that the device can be checked and recalibrated if necessary.</li> </ol>                                                                                                                                                                                                                               |

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