



in.hub Waves 1.0.0

User Manual

Compatible with SIINEOS version 2.10.3 and above
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Table of Contents

Legal information	3
1. General information	5
1.1. Scope of delivery	5
1.2. Other applicable documents	5
1.3. Compatible hardware	5
1.4. Network security	5
2. General product information	6
3. Setting up a working environment for in.hub Waves.	7
3.1. Establishing communication with the HUB-VM102 via a network	7
3.2. Checking the SIINEOS version	10
3.3. Installing SIINEOS updates	10
3.4. Managing licences in in.hub Marketplace	11
3.5. Adding a licence file to SIINEOS	14
3.6. Installing app updates	14
4. Administering in.hub Waves	16
4.1. Logging in	16
4.2. Selecting a device	16
4.3. Importing a firmware update	17
5. Working with in.hub Waves	18
5.1. Opening in.hub Waves	18
5.2. FFT function	18
5.2.1. Operating the diagram	19
5.2.2. Configuring the diagram	19
5.2.3. Export FFT to storage	20
5.2.4. Checking the state	20
5.3. Configuring channel settings	21
5.3.1. Restoring default settings	23
5.3.2. Importing and exporting channel settings	23

Legal information

Safety information

This documentation contains information that you must observe for your personal safety and to prevent material damage. Read the safety information carefully and always keep this documentation within easy reach.

The safety information is presented in descending order of hazard level as follows:

**DANGER**

Indicates an immediate hazard to humans. Failure to comply will lead to irreversible injuries or death.

**WARNING**

Indicates an identifiable hazard to humans. Failure to comply may lead to irreversible injuries or death.

**CAUTION**

Indicates an identifiable hazard to humans or potential material damage. Failure to comply may lead to reversible injuries or material damage.

**ATTENTION**

This gives you information that may lead to material damage if not complied with.

**NOTE**

A note gives you useful information on specific actions and issues.

**TIP**

A tip gives you tips, tricks or recommendations from in.hub that have proven to be helpful in handling the products.

Qualified personnel

The product associated with this documentation may only be handled by personnel qualified for the respective task. The device may only be installed, commissioned and operated in compliance with the associated documentation and the safety information contained therein.

Based on their training and experience, qualified personnel are able to recognize risks and avoid potential hazards when handling these products.

Knowledge of PCs, operating systems and web applications is a prerequisite. General knowledge in the field of automation technology is recommended.

Intended use

in.hub products may only be used for the applications specified in the corresponding technical documentation.

If third-party products and components are used, they must be recommended or approved by in.hub.

Proper storage, set-up, assembly, installation, commissioning, operation and maintenance are essential for the correct and safe operation of the products.

The permissible ambient conditions must be complied with. Instructions in the associated documentation must be followed.

Brands

All designations marked with the “®” symbol are registered trademarks. The other designations in this document may be trademarks whose use by third parties for their own purposes may infringe the rights of the owner.

Disclaimer

in.hub accepts no liability for product malfunctions resulting from improper handling, mechanical damage, incorrect application and improper use.

The contents of this document have been checked for conformity with the product described. However, deviations cannot be ruled out, so that we cannot guarantee complete conformity. The information in this publication is regularly reviewed. Necessary corrections are included in subsequent editions.

1. General information

This document contains all the information you need to commission and use the device/software.

1.1. Scope of delivery

1 x in.hub Waves voucher for using the app in SIINEOS

1 x User Manual as a PDF

1.2. Other applicable documents

In addition to this document, please observe the following documents. You can find these in the in.hub download portal at <https://download.inhub.de>:

- User Manual for the IoT (Internet of Things) operating system SIINEOS
- Operating Instructions for other devices that you wish to plug in or connect

1.3. Compatible hardware

The application software in.hub Waves can be used on the following devices:

- HUB-GM200
- HUB-GM400
- HUB-EN200
- HUB-SE100

1.4. Network security

Please bear in mind that the product does not communicate in encrypted form within the internal network. Therefore, protect your network from unauthorized access from outside! Any integration into a network with Internet access must be undertaken with great caution. It is imperative to speak with your system administrator in advance.

2. General product information

in.hub Waves is a software application (app) in SIINEOS, with which you can aggregate your HUB-VM102 devices and monitor values from the vibration sensors.

Whilst Grafana only allows you to visualise the raw signal values (processed or unprocessed), with in.hub Waves, it is possible to generate, display and export a frequency spectrum from the digitalized sensor signals using FFT. With this, the signals are broken down into their frequency components, and the amplitudes of the respective frequency components are displayed with in.hub Waves.

3. Setting up a working environment for in.hub Waves.

Before you can use in.hub Waves, you must have completed the following steps:

- ✓ A SIINEOS-enabled device, e.g. the HUB-GM200, is installed, configured and accessible in the network. For this, see the SIINEOS User Manual. You can find the current version in the download portal at <https://download.inhub.de/siineos/>.
- ✓ A HUB-VM102 is installed and data communication with the SIINEOS-enabled device is established. To do this, an I/O unit of the HUB-VM102 type must be created in SIINEOS and configured, and the HUB-VM102 must be available on the network.
[Establishing communication with the HUB-VM102 via a network \[7\]](#)
- ✓ At least one vibration sensor must be connected to the HUB-VM102 and configured. For this, see the HUB-VM102 Operating Instructions.
- ✓ You have installed at least the SIINEOS version valid for this in.hub Waves version. You will find the valid version on the title page of this document.
[Checking the SIINEOS version \[10\]](#) and [Installing SIINEOS updates \[10\]](#)
- ✓ You have purchased the licence and uploaded it to SIINEOS.
[Adding a licence file to SIINEOS \[14\]](#)
- ✓ The system administrator has received the software bundle for in.hub Waves from in.hub and installed it in SIINEOS.
[Installing app updates \[14\]](#)
- ✓ The system administrator has also enabled the app: **SIINEOS > Apps > in.hub Waves > Enable app.**

3.1. Establishing communication with the HUB-VM102 via a network

The procedure described here applies if you want to integrate a HUB-VM102 into your network using a LAN cable instead of a backplane bus. In this case, the SIINEOS-enabled device and HUB-VM102 can be connected directly together, or the HUB-VM102 can be connected to the corporate network via a LAN cable. Since the HUB-VM102 always uses the same IP address, it can be accessed from anywhere on the corporate network, unless you connect multiple devices and change their IP addresses.

Perform the following steps in the SIINEOS of the device with which the HUB-VM102 is connected:

1. On the **I/O management** start page, select **I/O units**.
2. Click on **Add I/O unit**.
3. Select **HUB-VM102** as the type.
The setup wizard opens to guide you through the rule creation process. In the following, confirm each entry with **Next** or press **Enter**.
4. Enter the **Name** for the I/O unit.

- Click on **Finish** to add the I/O unit.

A page will open where you can configure the settings for the unit.

I/O management > I/O units > HUB-VM102

Signals

General

Enabled ☒ On

System ID e9dd468a536e4d178407de26f66472b7

Name HUB-VM102

Location e.g. Building 1, Room 234

HUB-VM102

IP address

Network mask

Gateway address

Request timeout [ms] 100

Request retry count 0

CHANGE VM102 NETWORK SETTINGS

Device settings for the HUB-VM102 in “Advanced” viewing mode (example)

The newly added I/O unit is automatically enabled. If you want to use it later, set the **Enabled** slider to **Off**.

- Optional: Enter the **Location**.
- If you want to use one HUB-VM102 on the network, enter the static IP address of the HUB-VM102: **192.168.1.200**.
– or –
- If you want to use more than one HUB-VM102 on the network, a different IP address must be assigned to each device. To do this, complete the following steps for each HUB-VM102.
 - Connect to the HUB-VM102 whose IP address you wish to change.
 - Open the device settings for the other I/O unit of type HUB-VM102.
 - Switch to **Advanced** viewing mode.
 - Click on the **Change VM102 network settings** button.

Change VM102 network settings

New IP address
192.168.1.200

New network mask
255.255.255.0

New gateway address
192.168.1.1

CANCEL OK

- Enter a new **IP address**, a new **subnet mask** if necessary, and a **gateway address** and confirm with **OK**.

This setting is made directly in the HUB-VM102. The device now has the newly assigned IP address and can be accessed via this address on the network. Take care to assign the IP address only once.

- f. In the **Request timeout [ms]** field, define after how many milliseconds without a response a request should be resent or discarded.
- g. In the **Request retry count** field, enter how often a request should be sent if no response is received. After the entered number of attempts, the request is finally cancelled.

9. Click on **Signals**.

The signals for all channels of the HUB-VM102 have already been created.

I/O management > I/O units > HUB-VM102 in.hub Fabrik > Signals

[EDIT](#) [QUICK EDIT](#)

☐	Identifier ^	Name	Group	Type	Value
☐	FREQ_DIN1	Digital Input 1 Frequency		DOUBLE	0,0 Hz
☐	FREQ_DIN2	Digital Input 2 Frequency		DOUBLE	0,0 Hz
☐	PEAK_S1	Sensor 1 Peak		DOUBLE	0,0 m/s ²
☐	PEAK_S2	Sensor 2 Peak		DOUBLE	0,0 m/s ²
☐	RMS_S1	Sensor 1 RMS		DOUBLE	0,0 m/s ²
☐	RMS_S2	Sensor 2 RMS		DOUBLE	0,0 m/s ²
☐	VOLT_S1	Sensor 1 Voltage		DOUBLE	0,0 V
☐	VOLT_S2	Sensor 2 Voltage		DOUBLE	0,0 V

Signals for the HUB-VM102 (example)

10. Select the signal you want to configure.

A window opens in which you will find three tabs.

I/O management > I/O units > HUB-VM102 in.hub Fabrik > Signals > Digital Input 1 Frequency

SIGNAL SETTINGS | SIGNAL PROCESSING | MEASUREMENT MODELLING

General

Name: Digital Input 1 Frequency | System ID: freq_din1

Enabled: ☒ On | Sampling interval [ms]: 1000

Record signal values: ☒ On | Recording interval [s]: 60

Use custom identifier: ☐ Off | Custom identifier: FREQ_DIN1

“Signal settings” tab in “Advanced” viewing mode

11. Enable and configure the interface on the **Signal settings** tab.

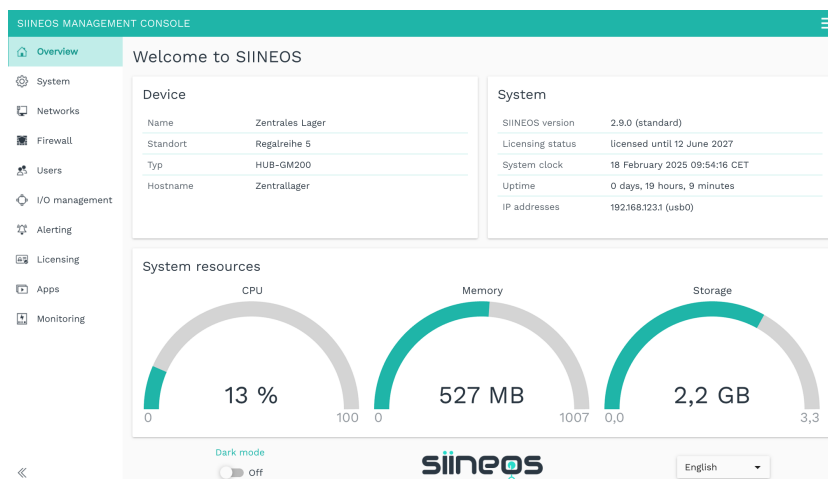
- a. Optional: Change the name of the interface.
- b. Set the **Enabled** slider to **On**.
- c. In the **Sampling interval** field, specify the interval at which the signal is to be sampled (in milliseconds).
- d. Set the **Record signal values** slider to **On** if the values are to be recorded in the local VictoriaMetrics database.
- e. In the **Recording interval** field, enter the desired time interval for the recording (in seconds).

12. Additional settings are available in **Advanced** viewing mode:

- a. **Use custom identifiers:** Set the slider to **On** if you want to enter your own identifier name.
 - b. **Custom identifier:** Enter your own identifier name.
13. On the **Signal processing** tab, you can specify how the signal value is to be processed. A detailed description of the **Signal processing** tab can be found in the current SIINEOS User Manual.
14. Click on **Save**.
15. On the **Measurement modelling** tab, you specify how the measurements are to be visualized. A detailed description of the **Measurement modelling** tab can be found in the current SIINEOS User Manual.
16. Finally, click on **Save & close**.

3.2. Checking the SIINEOS version

1. Go to the SIINEOS start page by selecting the **Overview** page on the left.



“Overview” start page (example)

2. Check the **SIINEOS version** field to see which version is installed on your gateway.
3. Go to the download portal at <https://download.inhub.de/siineos/> and check whether a new version of SIINEOS is available.

3.3. Installing SIINEOS updates

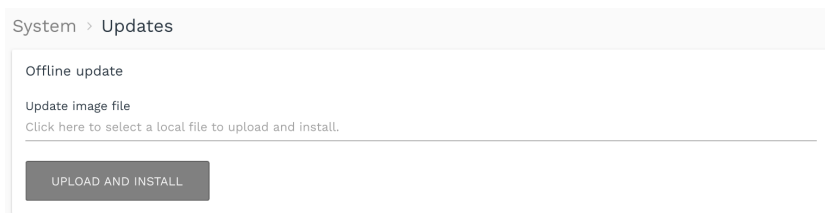


NOTE

You can only upload updates on the **System** page if you have a valid SIINEOS licence.

If the licence has expired, you will be informed that you cannot import any updates.

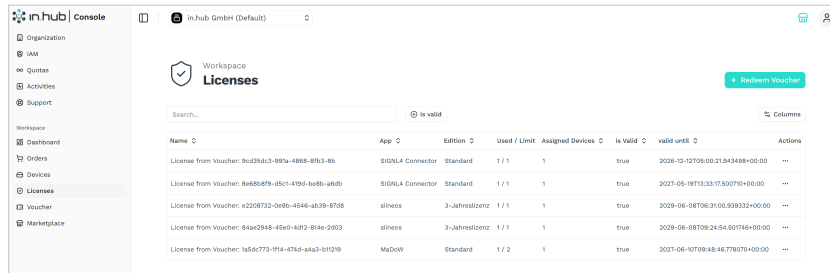
1. Go to the download portal at <https://download.inhub.de/siineos/> and select the required SIINEOS package.
Two variants are available:
 - The complete software package in 64-bit architecture for the HUB-GM400 and the HUB-CX400
 - The complete software package in 32-bit architecture for modules, such as the HUB-GM200 or the HUB-EN200
 - SIINEOS Light without Docker containers with a smaller file size for the HUB-IO100
2. When the download is complete, go to the **System** page in SIINEOS and select **Updates**.



- System > Updates
3. Click in the **Update image file** input field and select the software package provided by in.hub in *.raucb format from your local file-storage location.
 4. Click on **Upload and install**.
The installation will proceed automatically and takes about 1 minute. After a successful installation, you will be asked whether you want to restart the gateway.
 5. Click on **Yes**.
 6. After restarting, check that the new version of SIINEOS is displayed on the **Overview** page.
 7. If the version has not been updated, proceed as follows:
 - a. First delete your browser cache and refresh the page in your browser.
 - b. if that doesn't work: Switch off the power to the gateway and switch it on again after a few seconds.
 - c. Start SIINEOS and check the version number.

3.4. Managing licences in in.hub Marketplace

1. Register in in.hub Marketplace or log in if you already have an account.
<https://marketplace.contiinum.inhub.de>
2. Go to the **Console > Licences** workspace and click the **Redeem Voucher** button to redeem the voucher you received from in.hub in advance.



A dialogue window will open.

3. Enter the voucher's serial number and confirm with **Submit**.

Redeem Voucher
✕

Redeem Voucher to add new license bundle.

Serial number

Enter the Voucher serial number.

Cancel Submit

The licence will then be generated.

4. Now switch to the **Devices** workspace and click the **+ Device** button to add the device you have purchased.

A dialogue window will open.

5. Enter all your device information and confirm with **Submit**.

Add Device
✕

Add new Device to your Workspace

Name

Name of the Device.

Mac Address / Hardware-ID

Enter the device's MAC address or the Hardware ID from Silneos. MAC addresses can be provided with or without separators (., -, or .). The Hardware-ID is available at the top of the Licensing page in Silneos.

Device Group

Select Device Group...

Device Group the device belongs to.

Device Type

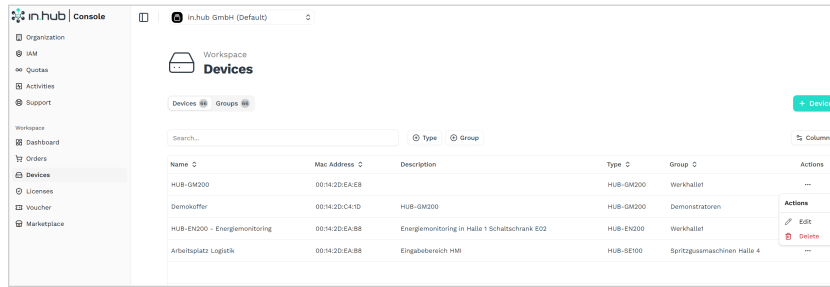
Select Device type...

Device Type.

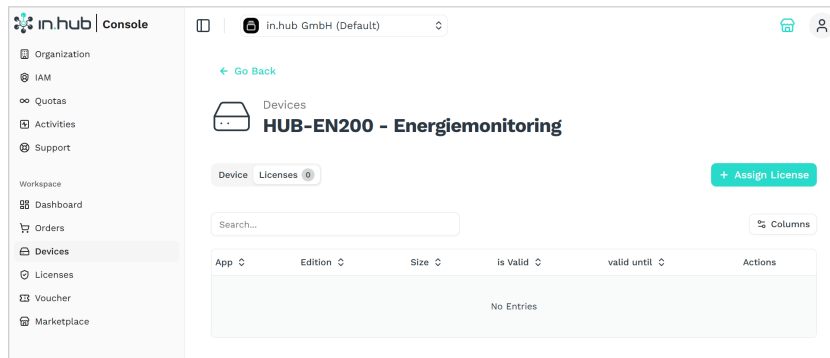
Description

Cancel Submit

6. In the row for the newly created device, click on **Actions > Edit**.

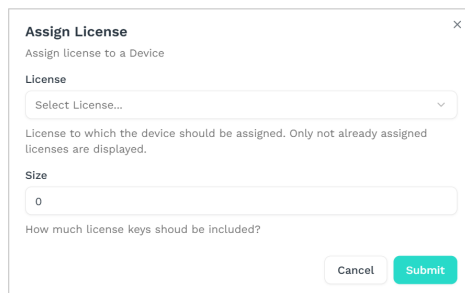


7. Select the **Licences** tab and click the **Assign Licence** button.



A dialogue window will open.

8. Select the licence and the number of licences to be included in the licence file, then confirm with **Submit**.

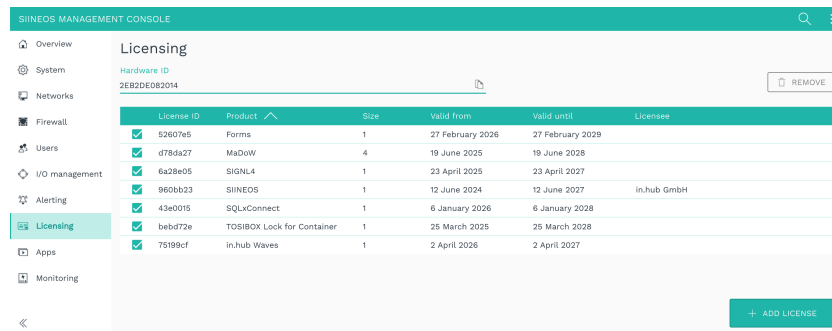


Either the download will start automatically, or you can click on **Actions > Download**.

3.5. Adding a licence file to SIINEOS

1. In SIINEOS, navigate to **Licensing**.

In the list, you will find all software licences that you have purchased and uploaded. The check mark in the first column indicates that the licence is valid.



License ID	Product	Size	Valid from	Valid until	Licensee
52607e5	Forms	1	27 February 2026	27 February 2028	
d78da27	MaDoW	4	19 June 2025	19 June 2028	
6a28e05	SIGML4	1	23 April 2025	23 April 2027	
960bb23	SIINEOS	1	12 June 2024	12 June 2027	in.hub GmbH
43e0015	SQLxConnect	1	6 January 2026	6 January 2028	
bebdf72e	TOSIBOX Lock for Container	1	25 March 2025	25 March 2028	
75189cf	in.hub Waves	1	2 April 2026	2 April 2027	

“Licensing” page (example)

2. Click on **Add license**.
3. Select the licence file from your file directory and click on **OK**.
The licence is added to the list. From that point on, you can implement updates again or return to using a blocked app.
4. To remove a licence again – because it has become invalid, for example – select the licence ID and click on **Remove**.
This will not delete the licence file itself, but only remove it from the list.

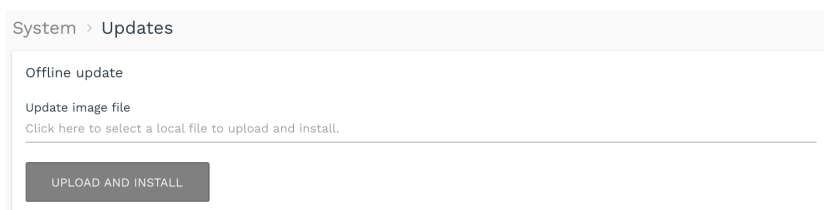


NOTE

Make sure that the system time of your device is correctly set and/or synchronized. Otherwise, the licence-file upload may fail.

3.6. Installing app updates

1. On the **System** page, click on **Updates**.



System > Updates

Offline update

Update image file

Click here to select a local file to upload and install.

UPLOAD AND INSTALL

System > Updates

2. Click in the **Update image file** input field and select the software package provided by in.hub in *.raucb format from your local file-storage location.
3. Click on **Upload and install**.
Installation will proceed automatically.
After a successful installation, you will be asked whether you want to restart the gateway.

4. Click on **No**.

You do not need to restart the gateway when uploading apps.

4. Administering in.hub Waves

Before you start, make sure that the system administrator has enabled the in.hub Waves app in SIINEOS: **SIINEOS > Apps > in.hub Waves > Enable app**

4.1. Logging in

1. Navigate to **SIINEOS > Apps > in.hub Waves**.
2. Open in.hub Waves by clicking on **Open app**.
3. Log on with the initial user data **wavesadmin/wavesadmin**.
NOTE: Please update these credentials in the user administration area of SIINEOS after logging on for the first time.
4. Select what you want to administer.

4.2. Selecting a device

In this step, you select the HUB-VM102 whose data is to be visualized and evaluated in in.hub Waves.

1. Under Administration, select the **Device selection** task.
 The list shows all HUB-VM102 recognized in the network.

IN.HUB WAVES ADMINISTRATION						
Administration > Select device page						
EDIT REMOVE						
Enabled	Connected	Name	Address	Location	FFT mode	
☒	☒	HUB-VM102 - 1	192.168.1.200	Raum 1	Both channels	
☒	☐	HUB-VM102 - 2	192.168.1.201	Halle 5	Channel 2	

2. Double-click on an entry to adjust the device settings.
3. You can make the following entries:
 - a. **Enabled:** Set the slider to **On** if the device is to be selected for evaluation.
 - b. **FFT mode:** In the drop-down list, select whether the device is to perform a fast Fourier transform (FFT) and for which channels.

The **Name**, **Address** and **Location** fields can only be changed in I/O management via the device settings of the HUB-VM102. Especially when using several HUB-VM102, it is helpful to assign various names.

4. Finally, click on **Save & close**.

4.3. Importing a firmware update

An update of the firmware from HUB-VM102 is only supplied together with the update from in.hub Waves.

If new firmware has been released and it no longer matches the current firmware on your device, you will see a message as soon as you open the app.

We recommend keeping the firmware up to date so that you can make use of new features, for example.

1. Under **Administration**, select the **Firmware update** task.

All HUB-VM102 devices in the network are displayed. You will also find the currently installed firmware version above the list.

IN.HUB WAVES ADMINISTRATION

Administration > Firmware update

Latest firmware version: 0.15 ACTIONS

Connected	Name	Address	Location	Serial No.	Mac address	Firmware Version	Hardware Version
●	HUB-VM102 - 1	192.168.1.200	Raum 1	13187240900019	08:63:32:80:00:13	0.13	0.16
●	HUB-VM102 - 2	192.168.1.201	Halle 5	0	not found	0.00	0.00

UPDATE DEVICE

2. Select the required device and click on **Device update**. The button is only active if the device is connected.

A dialogue window will open asking if you wish to update the firmware.

3. Confirm with **Yes**.

The update runs automatically. You only need to confirm with **OK** at the end.

4. Then restart the device by clicking on the **Actions > Restart device** button.

5. Working with in.hub Waves

in.hub Waves allows you to visualise the vibration sensor data directly in the app. The app uses the device configuration of the I/O unit “HUB-VM102”.

5.1. Opening in.hub Waves

1. Enter <IP address>/waves in the address bar of your browser.

This page is initially empty. Devices will only be displayed once they have been added and selected under Administration.



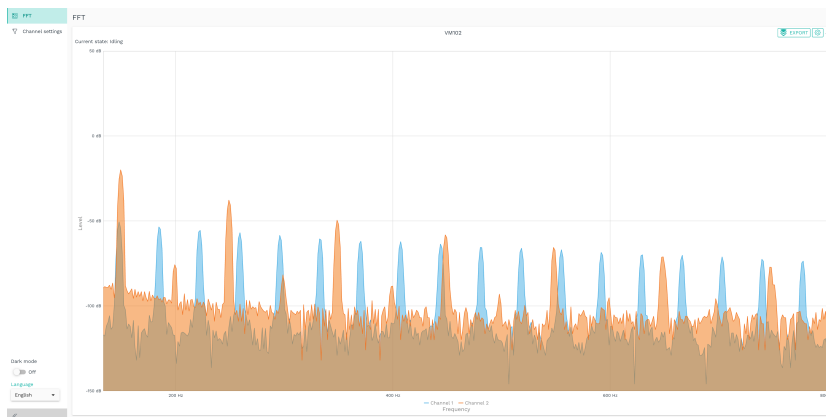
IF YOU CANNOT ACCESS IN.HUB WAVES

If in.hub Waves does not open or the IP address cannot be accessed, the app may not have been enabled in SIINEOS. Please contact your system administrator.

5.2. FFT function

The fast Fourier transform (FFT) is an algorithm used to break down a discrete-time signal into its frequency spectrum and analyse it. The FFT calculation of the HUB-VM102 provides information about the frequency composition of the sensor signal. In in.hub Waves, the FFT resolution is 1.46 Hz with a sampling frequency of 48 kHz.

If you have selected one or both channels under **Administration > Device selection > FFT mode**, you can see the **FFT** view and make other settings.



A frequency-based representation of the sensor signal calculated from the digitalized sensor signal using the fast Fourier transform (FFT); in this example, both channels of the sensor have been selected for the FFT

5.2.1. Operating the diagram

To examine the frequency spectrum in more detail, you will need a computer mouse with a mouse wheel.

1. To zoom in or out on the level axis (y-axis), press the Shift key and scroll the mouse wheel at the same time.
By holding down the left mouse button, you can now also shift the entire frequency spectrum up or down to filter out noise from the diagram, for example.
2. To zoom in or out on the frequency axis (x-axis), simply scroll the mouse wheel.
By holding down the left mouse button, you can now also shift the entire frequency spectrum to the left or right to zoom in on a specific frequency range and examine it in more detail, for example.
3. If you want to return to the overall view, you can click on the **Reset zoom**  button.

5.2.2. Configuring the diagram

1. Click on the  symbol.
2. Fill in the input fields to customise the FFT diagram to suit your needs:

Parameter	Description
Calculate FFT repeatedly	The FFT calculation starts automatically every 5 seconds and the results are displayed shortly afterwards. This is particularly useful when frequencies need to be monitored continuously. The Start FFT button is greyed out if the slider is set to On .
Minimum frequency (Hz) (Input field for each channel)	Lower frequency of the FFT diagram
Maximum frequency (Hz) (Input field for each channel)	Upper frequency of the FFT diagram, up to which the signal is displayed: max. 10 kHz The wider the frequency window you select, the longer the data transfer will take.
Start FFT	Initiates an FFT calculation based on the current ADC values The button is only active if you have set the Calculate FFT repeatedly slider to Off .
Ordinate type	Select the format for the y-axis: Linear , Logarithmic or Relative The y-axis scale changes according to the sensitivity of the sensor you entered in Channel settings .

Parameter	Description
	If you select “Relative”, the y-axis scale changes from acceleration [g] to decibels [dB]. As a logarithmic unit of measurement, the dB display is particularly useful when you want to see the ratio relative to the set reference level.
Reference level (g) (only if “Relative” is selected)	Enter the value of the reference level.
Show channel	Select whether Both channels , only Channel 1 or only Channel 2 should be displayed in the diagram.

5.2.3. Export FFT to storage

1. Click on the **Export** button.

The spectrum generated by FFT is saved in VictoriaMetrics and can later be exported to SIINEOS as a CSV file.

The spectrum of the channel or channels you have selected in the dialogue window will be exported.

5.2.4. Checking the state

Above the FFT diagram, you will find a display regarding the current state of the system. The following states can be displayed:

State	Description
Unconnected	The SIINEOS-enabled device is not connected to the HUB-VM102.
Initializing	The initial state after a connection to the HUB-VM102 has been established.
Initialized	Initialisation has been completed without any values being recorded; the FFT is still disabled
Sampling data	Waiting state between “Initializing” and “Idling”
Idling	Default state: Values are recorded
Calculating FFT for Channel 1	Calculates the FFT for channel 1
Calculating FFT for Channel 2	Calculates the FFT for channel 2

State	Description
Transferring Channel 1 data	Values from Channel 1 are transmitted from the HUB-VM102 to the SIINEOS-enabled device
Transferring Channel 2 data	Values from Channel 2 are transmitted from the HUB-VM102 to the SIINEOS-enabled device
Resetting	Crash or deliberate disconnection of the SIINEOS-enabled device from the HUB-VM102
Current state unknown	The current state of the connection is unknown.

5.3. Configuring channel settings

The channel settings are used to configure the calculations for the root-mean square (RMS) value and the peak value. They do not affect the FFT.

1. Select the **Channel settings** view.

Channel settings > Channel settings of HUB-VM102 - 1

Channel 1

Sensitivity (mV/g) 100,0

High pass enabled ☒ On Cutoff frequency high pass (mHz) 1000

Low pass enabled ☐ Off Cutoff frequency low pass (Hz) 5000

Rise time peak detector (µs) 1000 Peak detection delay (ms) 100

Cutoff frequency RMS filter (mHz) 1000

RMS: 0,0008 g Peak: 0,0015 g Dominant Frequency: 0,0 Hz

Channel 2

Dark mode ☐ Off

Language English

« X CLOSE SAVE ✓ SAVE & CLOSE

Channel settings: Channel 1 is enabled, Channel 2 is disabled

2. Select the channel for which you wish to configure the measurements. You can adjust the following parameters:

Sensitivity (mV/g)	You can find this value in the data sheet for the connected sensor.
High pass enabled	Set the filter's slider to On if you want frequencies above its threshold frequency to pass through, whereas lower-frequency components are attenuated.

Cutoff frequency high pass (mHz)	Enter the threshold frequency from which frequencies are to pass through.
Low pass enabled	Set the filter's slider to On if you want frequencies below its threshold frequency to pass through, whereas higher-frequency components are attenuated.
Cutoff frequency low pass (Hz)	Enter the threshold frequency below which frequencies are to pass through.
Peak detector rise time (µs)	Indicates how quickly the peak detector can track a rising signal amplitude (see envelope demodulation). The longer the rise time set, the more short pulses with high amplitude are suppressed.
Peak detector fall time (ms)	Enter the fall time at which the peak detector is to detect a significant drop in the signal. The longer the fall time set, the less the measurement signal fluctuates, but also the more rapid amplitude fluctuations are suppressed.
RMS value threshold frequency (mHz)	Enter a threshold frequency to smooth the displayed RMS value. The higher the threshold frequency, the greater the fluctuation of the root mean square value around its mean value. RECOMMENDATION For slow, dominant frequencies below 10 Hz, we recommend a ratio of threshold frequency to dominant frequency of 1:10; in other words, for a dominant frequency of 5 Hz, enter 500 mHz. For higher frequencies above 10 Hz, you can leave the predefined value as it is. The lower the ratio you choose, the more dynamic the signal will be. The higher the ratio you select, the more the signal is smoothed, which is useful, among other things, for detecting long-term effects.

- Below the input field for each channel, you will find the measurements for the **Root mean square (RMS) value**, the **Dominant frequency** and the **Peak value**. You can also read off these values in the I/O management of the HUB-VM102 to which the sensors are connected.
- Finally, click on **Save & close**.

5.3.1. Restoring default settings

1. To reset your entries under Channel Settings, click on the **Actions** button and select **Restore default settings**.

The values predefined by in.hub are used again.

5.3.2. Importing and exporting channel settings

1. To export all channel settings and use them on other devices, click the **Actions** button and select **Save settings to file**.

Depending on your system, a file storage dialogue will open or the JSON file will be automatically downloaded to your download folder.

2. To import an existing configuration file, click on the **Actions** button and select **Load settings from file**.

Your local data directory will open. Select the JSON file with the settings you want to upload.

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