



VILPE Sense

Leak Detector

How to use the cloud service in the planning and installation phases

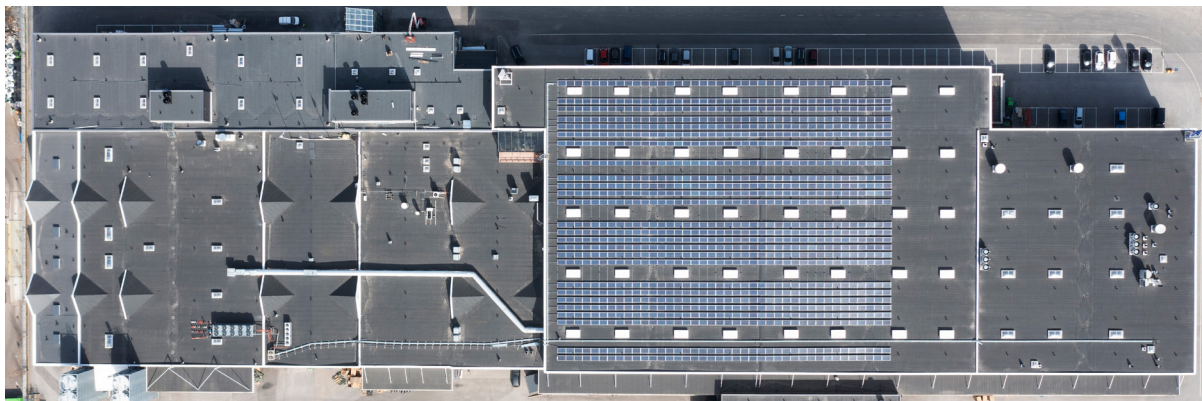
Before installing the leak detector, the installation needs to be pre-planned using VILPE's Sense cloud service at sense.vilpe.com through the browser on your computer.

During the planning phase, you enter information about the site and specify the sensor locations in the system prior to installation. This allows you to read the individual serial numbers of the devices and associate them with the sensors in the plan during the installation phase. At this stage, you will use a mobile phone with a camera.

You will need user credentials for the VILPE Sense cloud service. You can create the user credentials in the system when registering the devices, but you will need the serial numbers of the devices for this. If you do not yet have access to physical devices or serial numbers, you can request user credentials via email from sales@vilpe.com or by submitting an inquiry through the web form at <https://www.vilpe.com/request-access/>.

You will need a site layout image for the cloud service

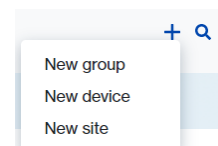
- The purpose of the layout image is to describe the installation site as a two-dimensional area, including the shape of the roof as seen from above. It can be taken from the blueprint or a direct image of the roof from the air. You can also use an image from Google Maps. Ensure that all parts of the roof are in the correct proportions.
- At least one actual measurement in site layout image should be known (in meters), such as the length of one side of the roof. If desired, you can also mark the measurements on the site layout image.
- During the installation phase, it is easier to locate planned sensor positions in the construction site when there are some reference points visible on the site layout image, such as other technical equipment on the roof
- The site layout image should be in png, jpg/jpeg, or gif format (maximum size is 10 MB).
- You can add your own annotations to the site layout image, such as names of different areas.

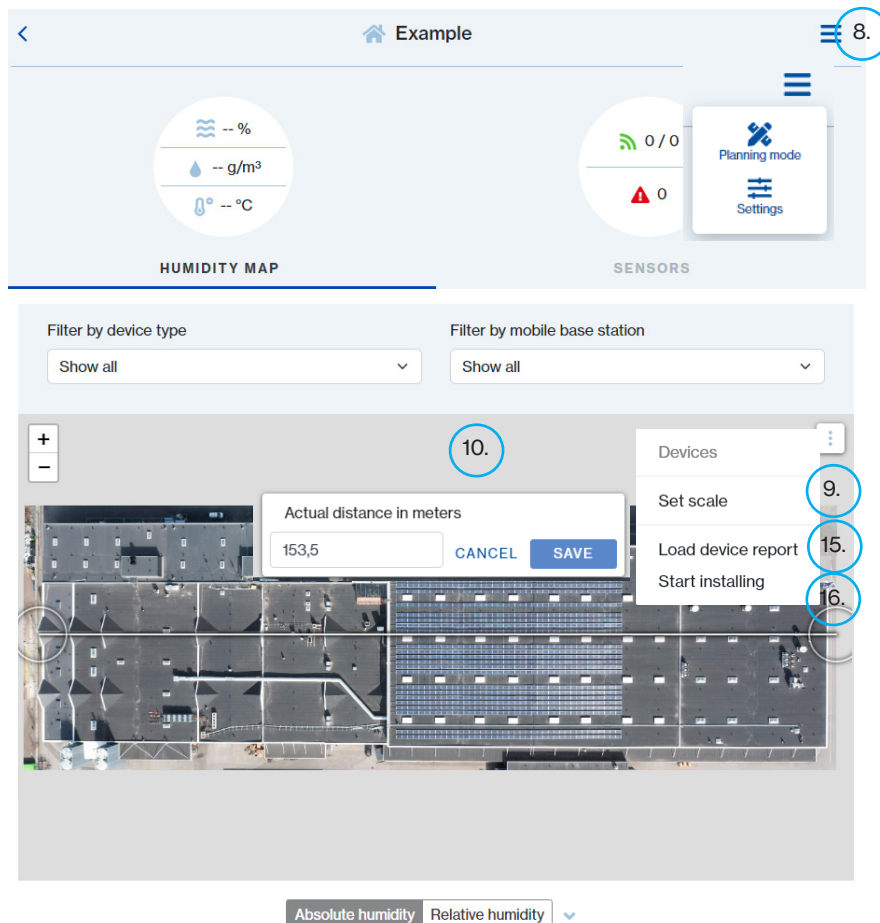


Example of the site layout image

Planning phase in the cloud service:

1. Log in to VILPE Sense cloud service at sense.vilpe.com using your login credentials.
2. Select "New site" by clicking on the plus sign in the upper right corner to create a new site.
3. Provide a name for the site and upload a site layout image. Then click "Next."
4. Optionally, specify the time of day you want the sensors to measure humidity levels. This can be changed later.
5. You can set alarm thresholds for temperature and/or relative humidity, or based on percentage points above the average relative humidity. These settings can also be modified later.
6. Once the settings are complete, click "Create."
7. You will be taken to the Sites view, where the newly created site is displayed. Click on the site's name to open the humidity map view. The actual humidity map will be displayed once the system has been fully planned and the devices have been installed.





8. Go to planning mode by selecting “Planning mode” from the menu next to the site name on the right side.

9. Set the scale for the site layout image by selecting “Set scale” from the menu icon (three dots) in the upper right corner of the view with the site image.

10. Move the endpoints of the visible line on the site layout image to mark the measurements. Enter the corresponding length in meters in the field, e.g., “153.5,” and then click “Save.”

11. If the mobile base stations have already been registered in the system for the respective site, you can add them to the plan(layout image) by selecting “Devices” from the menu icon (three dots) and choosing the relevant base station from the list. If this is not the case, you can proceed to the next step.

12. Add the mobile base stations (CCU-1) and sensors (RHT-2) to the site layout image by left-clicking at the desired location. Select the device type and name the device if necessary. If adding a sensor, select the mobile base station through which the sensor will send measurement data to the cloud service (the last selected base station will be preselected). You can also see how many sensors are already connected to the selected mobile base station. Click “Add” when the desired settings are entered.

13. Optionally, you can move the device's position on the site layout image. First, select the device by clicking on its icon. Hold down the left mouse button over the highlighted icon and drag it to the desired location.

14. Add all devices to the site layout image in the same manner.

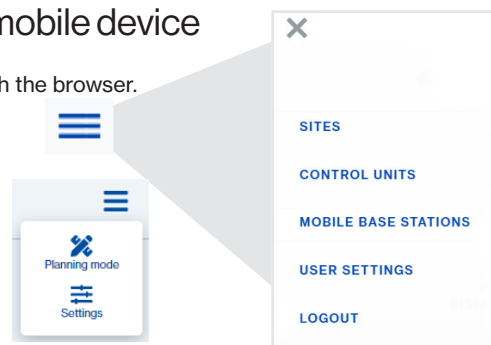
15. Once the plan is complete, you can generate a device report from the plan. The report can be downloaded by clicking the menu icon (three dots) and selecting “Load device report”. The report will include information such as the number of sensors and mobile base stations added to the plan.

16. Optionally, you can activate the installation mode for the site, which prevents movement and addition of devices. The installation mode can be easily deactivated if changes need to be made to the plan.

After the planning phase comes the installation phase. The site owner can invite the installer as a user through the site settings, creating the necessary user credentials for the installer. During the installation phase, the sensors and mobile base stations must be accessible to the installer. The installer logs into the cloud service using their own user credentials. It is recommended to first register the mobile base stations according to the plan before installing the sensors.

Installation phase in the cloud service using a mobile device

1. Log in to the VILPE Sense cloud service on your mobile device through the browser.
2. Go to the "Sites" view in the top left corner of the menu.
3. Select the site where the devices will be installed.
4. Choose "Planning mode" from the menu in the upper right corner.
5. When you are ready to start the installation, select "Installation mode".
6. Tap on the icon of the device in the plan that you want to install. By tapping the icon, the device registration process will automatically start.
7. Enter the device's serial number or tap "Read QR code" if the device has a QR code.
 - If the device has a QR code, you can use your mobile device's camera to read it. Select "Read QR code", and your mobile device's camera will be activated. Take a picture of the QR code and confirm the image (OK) if it is clear. If you want to take the picture again, select "Retry".
8. Tap "Next" once the serial number has been entered.
9. Install the device in the location marked on the image and click "Register".
10. Tap on the icon of the next device to be installed according to the plan.
11. Install all devices in the same manner.



After the installation, the site owner can deactivate the planning mode in the site settings, which means that only the owner can make changes to the site. If ownership needs to be transferred to another person (e.g., from the contractor's representative to the end user), it can also be done in the site settings. Ownership can be transferred to any user who has been added to the site. Ownership can be transferred to another user by selecting "Move ownership" from the menu next to the user (three dots). It is advisable to agree with the relevant user in advance before the ownership transfer. Once the ownership has been transferred, the new owner can log into the system with their login credentials

Installation and placement of the mobile base station (CCU-1):

- The mobile base station should be installed indoors as close to the connected sensors as possible.
- A mobile base station can connect up to 200 sensors.
- The maximum distance between the base station and a sensor depends on the installation site but is typically between 50-100 meters. Structures consisting of metals (such as reinforced concrete, roof, and wall panels) can cause the most signal attenuation.

Installation of the RHT-2 sensor:

The RHT-2 sensor is designed to be installed in the roof insulation of a flat roof, but it can also be installed in many other constructions where temperature and/or humidity conditions are wanted to be monitored.

Example of installing an RHT-2 sensor on a flat roof

- It is recommended to install the sensors in the site at the same depth. It is recommended to use a Croco fastener to control a sensor installation depth.
- The sensor can be installed either directly in the roof insulation before the roof membrane is installed or through the roof membrane.
- If needed, drill a hole with a 15-17 mm drill through the roof membrane and/or insulation to the desired installation depth for the sensor.
- If the insulation is hard (e.g., EPS), it is recommended to drill a hole through the insulation board to improve air circulation around the sensor.
- Insert the sensor along with the Croco fastener through the hole until the base of the fastener is in place.
- Seal the installation site waterproof with a new piece of roof membrane.
- The recommendation is to install the sensors with a distance of 4-5 meters between each other.