

Getting started in 5 minutes

Congratulations with your purchase, thank you for choosing Quantified!

This is a quick guide to getting started, please go to <https://www.quantified.eu/our-products> for all our manuals and product catalog with specifications.

1 Gateway installation

When connecting to a company network ask your IT-department to open “port 1700”
(For IT-department, connect to: router.eu.thethings.network with upd protocol)

For optimal functionality the gateway must be placed as high as possible:

- Higher then 2meters from the floor and in growing environments preferably above the canopy
- For optimal connectivity: antenna vertically positioned, in line of sight with the sensors. No obstacles within 50 cm of antenna (preferably no metal within several meters)

1.1 Instructions for indoor / low humidity Gateway G868i

Connect the gateway with an ethernet cable to an active internet port. When the blue LED is flashing continuously, port 1700 on your network/internet-router is blocked. For wifi-connection Quantified needs to pre-install the gateway to the wifi-network you provided on the order form). Antenna vertically!



Figure 1: Correct lights (blue LED should not flash, wait +/- 5 minutes for lights to settle)

1.2 Instructions for indoor / low humidity Gateway G4G868i (4G-connection)

This gateway will automatically connect to 4G-networks if ethernet is not available. Attach both antennas (black antenna = 4G, white for Lora) Connect the gateway with an ethernet cable from the WAN socket to an active internet socket. (make sure port 1700 on your ethernet network is not blocked). Antennas should be vertically!



Figure 2: Correct lights for 4G-connection, wait +/- 5 minutes for lights to settle

1.3 Instructions for outdoor G868o and G868o-4G gateway

There are 2 types of outdoor gateways: regular ethernet/Wifi and 4G mobile network connectivity. For the 4G type the SIM-card is pre-installed by Quantified. Please notice that it might take a few minutes for the gateway to make a connection with the 4G mobile network. Connecting to a LAN or Wifi internet is also an option, the gateway will select these options when available and will only switch to 4G when needed. Install the antenna vertically, as high as possible (> 3 meters) and free standing!

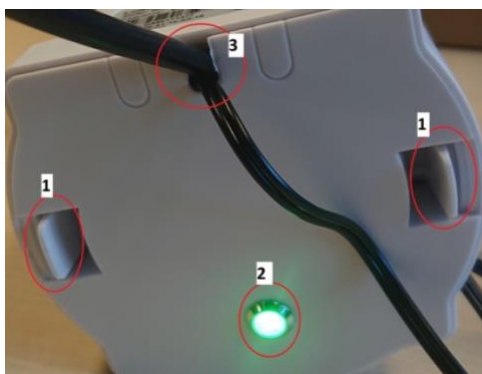


Figure 1: Underside of the gateway

1. Squeeze and pull the tabs on 1 to gain access to the antenna, power and ethernet ports.
2. LED status light:
 - a. SOLID GREEN: Gateway has a LoRaWAN server connection.
 - b. BLINKING GREEN: a) Device has internet connection but no LoRaWAN Connection. Or b) Device is in booting stage, in this stage, it will be BLINKING GREEN for several seconds and then RED and YELLOW will blink together.
 - c. SOLID RED: Device doesn't have Internet connection.
3. Cable passthrough port
4. Install the antenna vertically, as high as possible (> 3 meters) and free standing!



Figure 2: Mounting hardware and antenna

The gateway can be screwed onto the plastic block which has holes for the metal straps. This way the gateway can be mounted onto almost any pole. The fixing material in the plastic bag can be used to mount the antenna.

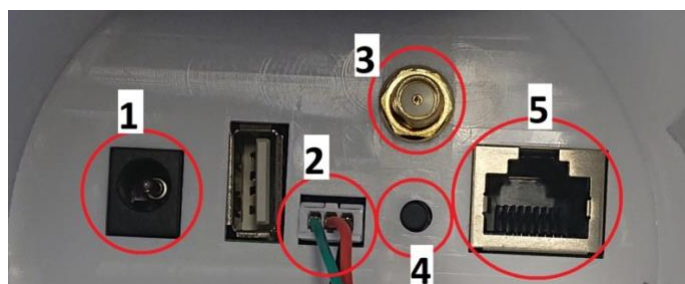


Figure 5. (1) Power supply, (2) LED connector, (3) Lora antenna connector, (4) Hard reset button. **Do not use!**, (5) Ethernet port

2 Installing the Firefly sensor (first install the Gateway!)

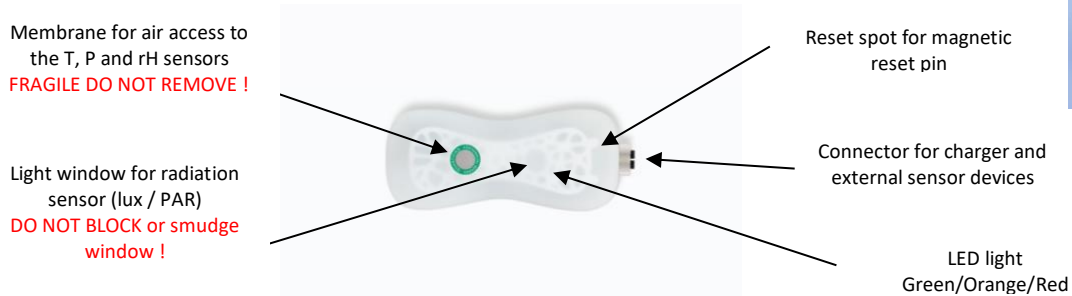


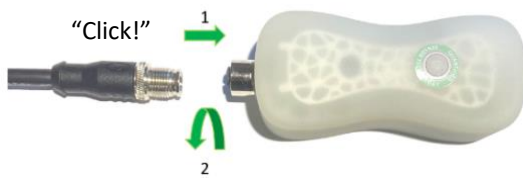
Figure 6. Firefly sensor (sensor configuration as an example, your configuration may differ)

The Firefly sensor nodes are shipped in “safe mode” to preserve battery life and prevent transmission during airfreight. Charge the battery to 100% (red indicator lamp on the charger will turn green when fully charged).

Reset the Firefly by swiping the Quantified reset magnet over the indicated spot just above the connector. The LED-indicator will flash red. After some time the LED will flash green, the Firefly is online! Ensure that the M12 connector is always shielded with a cap to prevent corrosion and internal damage.

It is important to reset the Firefly when in its final location, this will optimize the wireless connection. Also after moving the Firefly to another location later on.

3 Connecting external sensor devices to the FireFly sensor



External sensor devices use the transmission module and power source of the Firefly platform sensor. The connector only fits in one position. Carefully rotate the connector until it clicks into place. Then screw the chrome ring tight (firm but only by hand), this is important to keep any moisture out! When the external sensor is connected, activate the combination by using the magnetic reset pin. This reset also

resets counters in sensors like the scale, pluviometer and drainsensor.

Please consult the relevant installation guide or manual for your external sensor on our website.

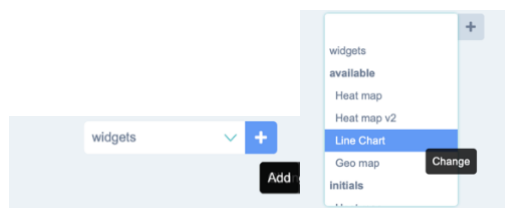
It is important to reset the Firefly when in its final location, this will optimize the wireless connection. Also after moving the Firefly to another location later on. Each additional magnetic reset will result in a reset of counters or taring of scales.

4 Connecting to “Insight”

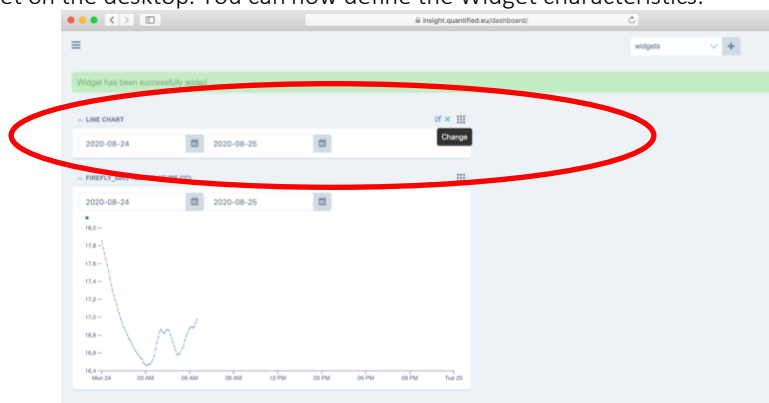
To get all the functionalities working the use of either [Google Chrome](https://www.google.com/chrome/) or [Firefox](https://www.mozilla.org/en-US/firefox/) is needed. WARNING: Insight will not work correctly using other browsers like Internet Explorer or Safari. Go to www.quantified.eu and use the “Log in” button in the right top corner of the website to connect to Insight.

4.1 Dashboard screen and managing Widgets

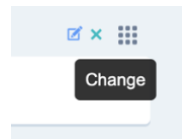
After logging in you will find yourself on the dashboard page which you can customize according to your needs with multiple widgets. To Add a Widget select a Widget type from the dropdown and click on +.



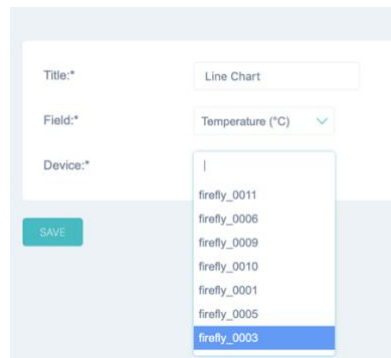
This will add a Widget on the desktop. You can now define the Widget characteristics.




To define a Widget, select the change Widget Icon on the top right of the Widget.



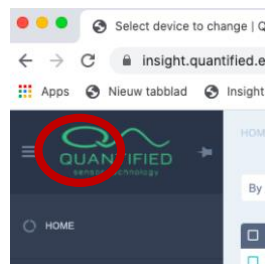
Select the device from the list and choose the Field type. Next click on the SAVE button.



You can **re-position the widget** by clicking and dragging the Widget on its  Icon.

4.2 Device screen

By clicking on the hamburger symbol in the top left of your screen, you can open the menu screen where you will find the Devices Menu item. You can toggle the menu by clicking on the hamburger symbol.



Clicking on the Devices menu will show a screen with all available devices. From this screen you can download device data or see the data of each individual device by clicking on the device name.

4.3 Downloads

Clicking on the Download device data button will show a pop-up where you can enter data range and export type of data. After clicking Download the data will be collected from the server and can be opened in Excel by clicking on the excel link in your browser. **ATTENTION: The download size is limited as indicated in the download screen.**

