User Manual

1.3.1

Envira Sostenible S.A.

Nanoenvi IAQ

envira IOT

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Chapter 1. Revision control

Version	Changes
V1.2.1	Created user manual
V1.2.2	Image update and correction of minor errors
V1.2.3	Added information about noise level sensor
V1.3.1	Updated styles and improved content

Chapter 2. Preface

2.1. About this manual

Nanoenvi IAQ™ has been designed for companies and individuals interested in continuous monitoring of indoor air quality. This manual is part of the product and contains important information on safety, installation, use, and disposal of the product. Please read this manual carefully and follow the instructions provided. This document will help you to prevent damage to people and property and to ensure the correct use of the device, extending its useful life. Envira Sostenible S.A. does not accept any liability for failure to comply with the instructions described in this document.

Before using and installing Nanoenvi IAQ™you must read this manual.

As a user, you are not required to have any specific qualifications to install or use this product. However, it's recommended that you are familiar with the use of Smartphones and / or PC.

The product is not to be used by children under 14 years of age.

2.2. Conventions used

The following style and symbol conventions are used in this manual:

This symbol and typography highlight important information that requires special attention.

This symbol and typography indicate a note

	This symbol indicates important information for the protection of the environment

2.3. Safety symbols

In this manual, we will use the following symbols and warnings:

This symbol warns of risks due to electrical current. Ignoring this symbol may pose a risk of personal injury or fire due to electrical voltages from the connection to the electrical network.

Indicates a dangerous situation that could pose a serious threat to the physical integrity of people.

This symbol indicates a risk of damage to the product. Failure to follow the instructions and warnings can damage the equipment, partially or totally.

2.4. Obtaining documentation and information

2.4.1. Internet

You can find the latest version of the Nanoenvi IAQ™ user manual at:

`https://enviraiot.es/nanoenvi-iaq/`

2.4.2. Obtaining documentation and information

Documentation, user instructions and technical information can be requested through:

- Email `<nanoenvi.support@envira.es>`
- Website `https://enviraiot.es/`

2.4.3. Report of errata or changes

Comments and clarifications about this manual can be reported through:

- La dirección de correo electrónico `<nanoenvi.support@envira.es>`
- La Web `https://enviraiot.es/`

We welcome your comments and improvements.

Chapter 3. Safety instructions

Nanoenvi IAQ™™ has been designed to be installed in a safe indoor space in order to monitor the air quality continuously. All use for any other purpose will be considered as incorrect.

Nanoenvi IAQ™has been manufactured in accordance with the latest regulations on safety and reliability in technology and its operation. It has been tested and distributed from the factory, technologically safe and completely reliable. However, there can always be a residual risk. Read and follow the safety instructions carefully to prevent these risks and use them correctly. Envira Sostenible S.A. cannot accept any liability for non-compliance with the safety and use instructions.

Before installing and / or using the device make sure you have read and understood this manua

3.1. Safety instructions

The device must be handled under the indications specified in this manual and the following risks and indications must be considered:

- Never use the equipment with faulty or damaged cables.
- Improper use or opening of your Nanoenvi IAQ™ can cause electric shock, fire, flames and other related problems.
- Do not use the Nanoenvi IAQ™ near liquids and especially don't submerge it in them.
- Do not open the covers of the equipment or remove their fasteners.
- Do not use the equipment if it shows damage that could pose a risk.
- Do not make unauthorized modifications or repairs to the equipment, its components or accessories.
- Keep the equipment away from water and its surroundings.
- Nanoenvi IAQ™ is not designed to be handled by children under 14 years of age.
- Do not use Nanoenvi IAQ™ near water, fire, or in extreme heat conditions.

Extreme levels of humidity and contamination can damage this equipment.

Protect the equipment from moisture, dirt, and shock during transportation, storage, and operations To avoid damage to the equipment, follow the instructions below:

- Do not cover all or part of your Nanoenvi IAQ™.
- Use Nanoenvi IAQ™ as indicated in this manual.
- Do not use Nanoenvi IAQ™ if it has been damaged or you think it is not working properly.
- Do not install or place Nanoenvi IAQ™ on surfaces exposed to heat.
- Do not attempt to open the case and make modifications to the Nanoenvi IAQ™.
- Do not use Nanoenvi IAQ™ for uses other than those specified in this manual.

- Do not use Nanoenvi IAQ™ outdoors.
- Do not expose Nanoenvi IAQ™ to gas concentrations higher than those indicated in the technical characteristics

3.2. Foreseeable misuse of the device

Any use other than those described in this manual is considered improper use of the equipment and could pose a risk of damage to it, to the environment or the people. Envira Sostenible S.A. is not responsible for damages caused by any use of the equipment different from its expected uses. The user (or the operator) is exclusively responsible for any risk..

The equipment is NOT designed to work under the following conditions:

- Exposure of the equipment to levels of gas concentration, temperature and / or relative humidity outside those specified in the operating range.
- Installed other than on the supplied wall bracket anchored to a vertical surface.
- Power supply outside the range defined in the technical specifications.
- After receiving splashes of any liquid.
- After having been physically modified.
- After being physically damaged.

Chapter 4. Product description

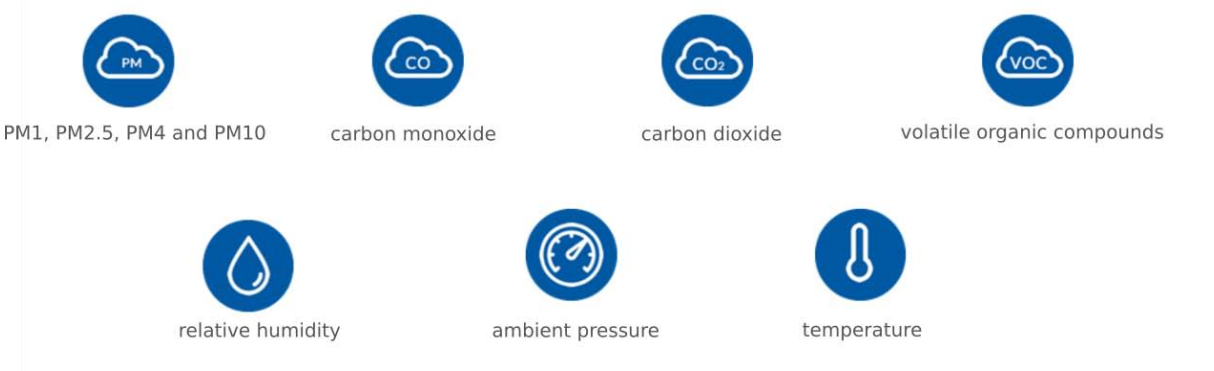
4.1. Description

4.1.1. Air quality measurement to improve people's lives

Nanoenvi IAQ™ is a device designed and manufactured by Envira Sostenible S.A. with the aim of helping building managers or owners make decisions to improve people's comfort, well-being and health based on real data on air quality. Nanoenvi IAQ™ allows you to create wireless networks of indoor air quality sensors to know, in real time, information about the air we breathe. Nanoenvi IAQ™ is indicated for placement in homes, work centers, classrooms, hospitals, conference rooms, garages, laboratories, cinemas, theaters, means of transport and ultimately, any interior space where people spend their time.

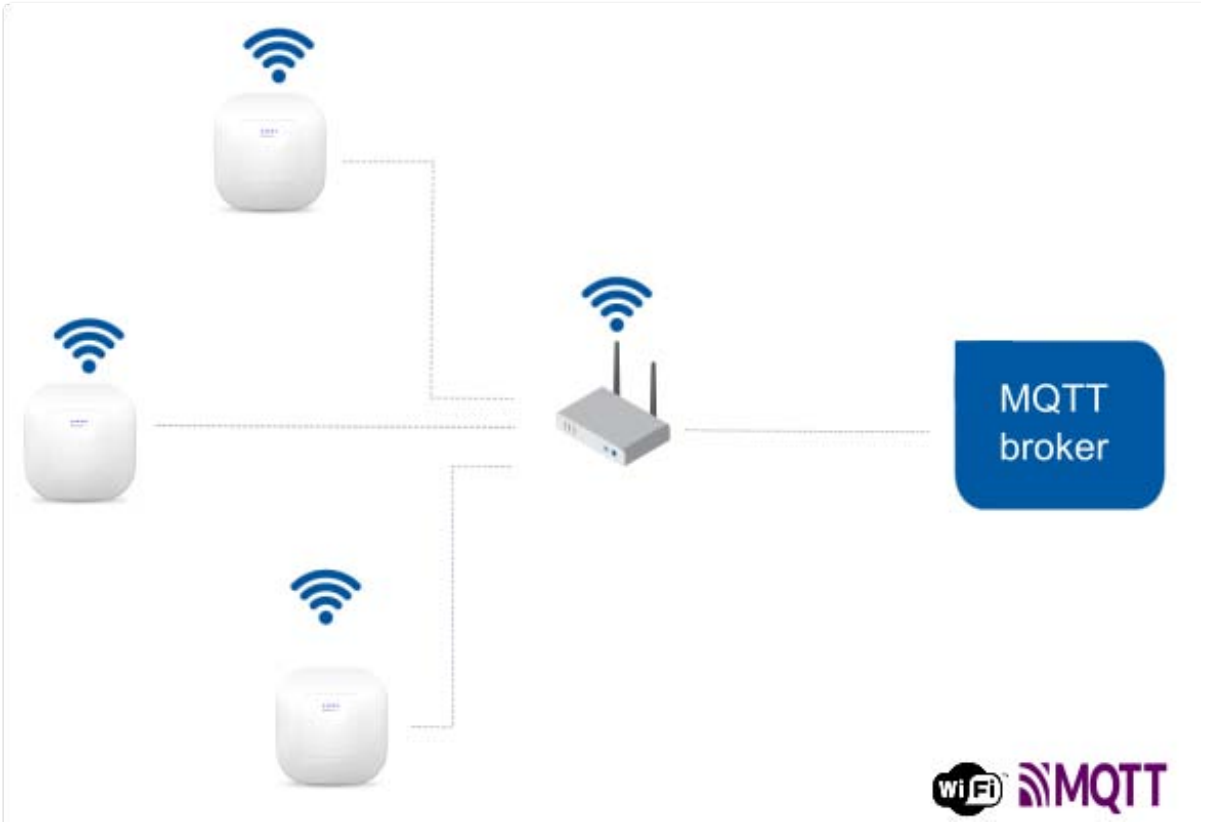
4.1.2. Measurement of up to 10 variables with a single device

Nanoenvi IAQ™ is capable of measuring temperature, humidity, atmospheric pressure and concentration of CO2, CO (optional), noise level (optional), VOCs, PM1, PM2.5, PM4 and PM10.



4.1.3. Privacy and freedom of integration

Unlike other products of its class,Nanoenvi IAQ™ does not force the customer to send the data to third parties nor does it require the installation of a mobile app.



Nanoenvi IAQ™ uses the MQTT protocol, a standard and widely used data sending protocol. When the device is installed, you can configure the MQTT server to which it will send the data. In this way, the user can decide where the data will be sent, own it and use it for their own purposes. This opens the door to an unlimited number of applications and the freedom of integration without sacrificing privacy. Some of the most common solutions are:

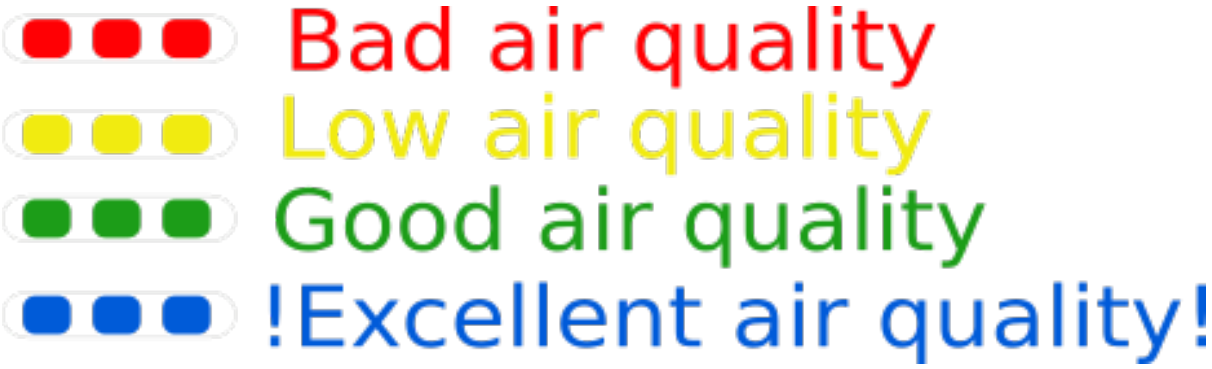
- Integration with BMS.
- Generation of air quality reports.
- Ventilation control.
- Capacity control.

- Support in environmental or energy efficiency consulting.

If you have questions about the visualization or how to use the data collected by Nanoenvi IAQ™, contact your distributor.

4.1.4. Air quality traffic light

Nanoenvi IAQ™ lights change color based on air quality. This allows people to know the quality of the air immediately and carry out adequate and efficient ventilation.

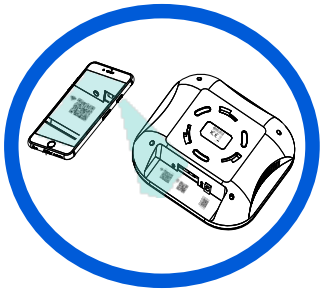


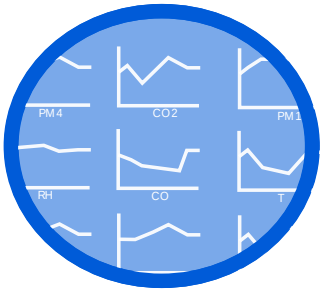
4.1.5. Quick install

Nanoenvi IAQ™ is designed for quick and easy installation. It has two modalities of operation: configuration and communication.

When the device is installed, it starts in configuration mode: it creates a WiFi network and generates a Web page to configure the WiFi network and the MQTT broker to which it will connect, when in communication mode, to send the measurement data. In this way, Nanoenvi IAQ™ can be configured from a smartphone or PC.

Once configured and installed, the device will start working in communication mode: it will measure the air quality continuously and you no longer need to worry about the device.





4.1.6. Zero maintenance

Nanoenvi IAQ™ does not require specific maintenance. In addition, it implements configuration messages that allow you to know the status of the device, perform software updates or change its configuration remotely. In this way, building managers or integrators can have control over the installed devices without travel or extra costs.

4.1.7. Accuracy and reliability

Nanoenvi IAQ™ integrates the latest technology for measuring indoor air quality. For this, Envira Sostenible S.A. trusts and relies on European manufacturers that offer cutting-edge technology, with the highest quality standards.

4.2. Product overview

Figure 4.1. Front view of Nanoenvi IAQ with wall bracket

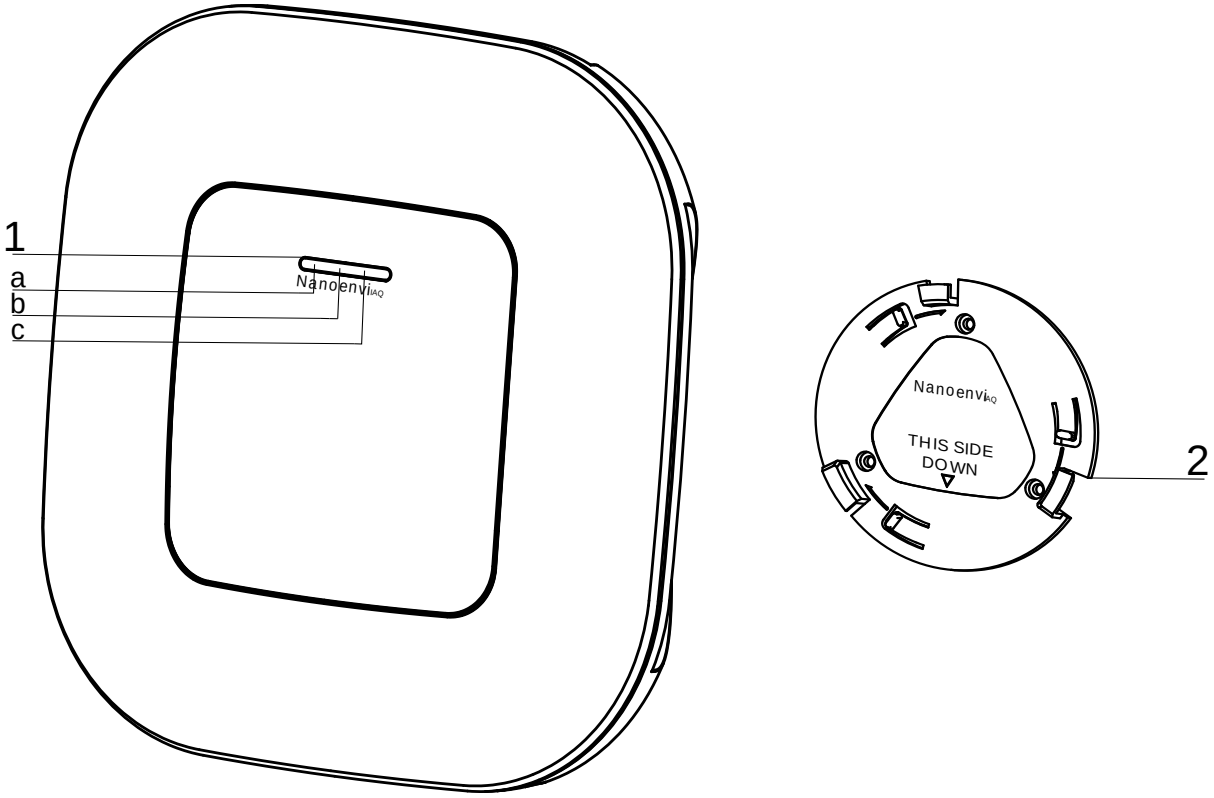
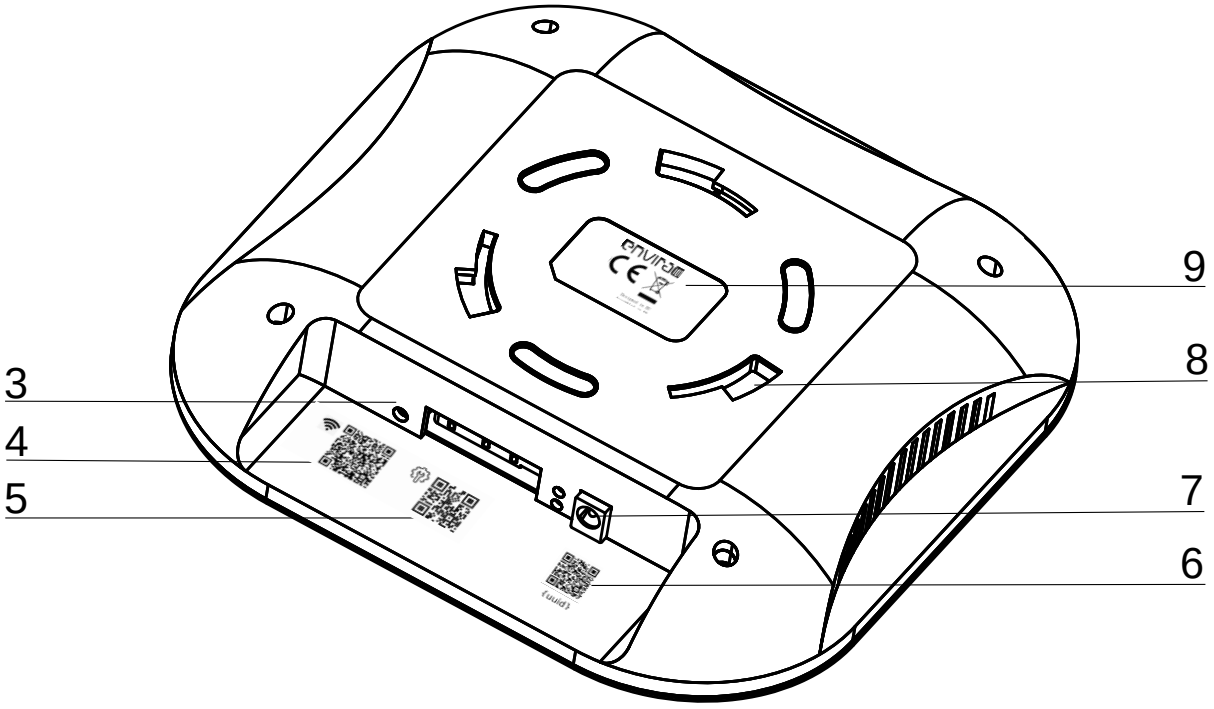


Figure 4.2. Vista de la parte trasera de Nanoenvi IAQ



1. Status LEDs:
    a. LED1
    b. LED2
    c. LED3
2. Wall bracket
3. Configuration mode push button (also referred to as 'AP mode pushbutton').
4. QR code for connection to the device configuration WiFi network.
5. QR code to access the configuration web page.
6. UUID: device unique identifier
7. Power supply connector
8. Wall mount socket
9. CE marking

Chapter 5. TECHNICAL SPECIFICATIONS

5.1. General specifications

Paramter	Value
Supply	100-240V AC @ 50-60 Hz (power supply included)
Max. power consumption	5 W
Average power consumption	2,5 W
Operating temperature and humidity range	10 ~ 55 º C / 5 ~ 90 % RH (non-condensing)
Storage temperature and humidity range	10 ~ 55 º C / 5 ~ 90 % RH (non-condensing)
IP grade	IP21
Sensors	CO (optional), CO2, atmospheric pressure, TVOC, PM1, PM2.5, PM4, PM10, T and noise (optional)
Package weight	800 g
Device weight	340 g
Dimmensions	189x189x37 mm
Conformity markings	CE
Manufacured in	

5.2. Sensor specifications

5.2.1. CO sensor specification

Accuracy	± 5%
Range	0 ~ 5000 ppm
Operating range	-10 ~50 ºC, 10 ~95 % RH
Calibration	Initial factory calibration
Response time	60 seconds

5.2.2. CO2 sensor specification

Accuracy	± 30 ppm
Range	400 ~ 10000 ppm
Operating range	0 ~50 °C, 0 ~95% RH
Calibration	Self calibration
Response time	20 s (63 %)

5.2.3. PM sensor specification

Accuracy for PM1 and PM2.5	±10 µg/m3 for measurements in range from 0 to 100 µg/m3 and ±10 % for measurements in range from 100 to 1000 µg/m3
Accuracy for PM4 and PM10	±25 µg/m3 for measurements in range from 0 to 100 µg/m3 and ±25 % for measurements in range from 100 to 1000 µg/m3
Range	0 ~1000 µg/m3
Operating range	-10 ~ 60 °C y 0 ~ 95 % RH
Calibration	Initial factory calibration
Response time	1 s

5.2.4. Pressure sensor specification

Accuracy	±10 hPa
Range	500 hPa to 1150 hPa
Operating range	-40 a 105 °C
Calibration	Initial factory calibration
Response time	N/A

5.2.5. Temperature sensor specification

Accuracy	± 1 ° C
Range	0 ~65 °C
Operating range	0 ~100 % RH/ -20 ~ 85 °C
Calibration	Not required
Response time	8 s

5.2.6. Relative humidity sensor specification

Accuracy	±5 % RH
Range	10 ~95 % RH
Operating range	0 ~100 % RH/ -20 ~ 85 °C
Calibration	Not required
Resposne time	8 s

5.2.7. TVOC sensor specification

Accuracy	30 % of measured value
Range	0 ~ 60000 ppb
Operating range	5 ~90 % RH/ 5 ~55 °C
Calibration	Self calibration
Response time	< 30 s

5.2.8. noise snesor specification

Accuracy	Cualitative measurment, not characterized
Range	0 ~ 100 %
Operating range	0 ~ 95 % RH/ 0 ~ 60 °C
Calibration	Initial factory calibration
Frequency range	20 - 20000 Hz

5.3. Communication specifications

5.3.1. WiFi communications

Frequency	2.4 GHz
Communication period	Configurable. 40 seconds minimum.

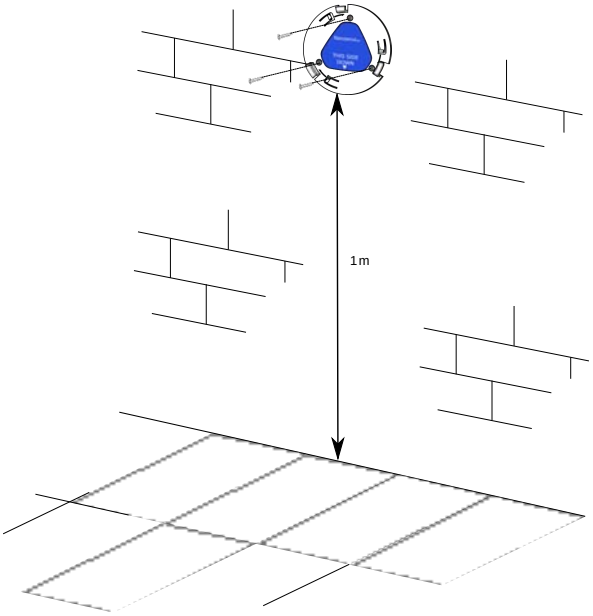
Chapter 6. Installation

6.1. Nanoenvi IAQ™ WiFi installation

The objective of the installation is to place the device in a suitable place and configure the name and password of the WiFi network that it will use to connect to the Internet and send the measurement data. Once the equipment is installed and configured, Nanoenvi IAQ™ does not require any additional attention, it will start to measure continuously.

1. Take the Nanoenvi IAQ™ out of its box together with the wall mount. Hold the wall mount with one hand and rotate the device with the other counterclockwise to separate the device from the wall mount and packaging.

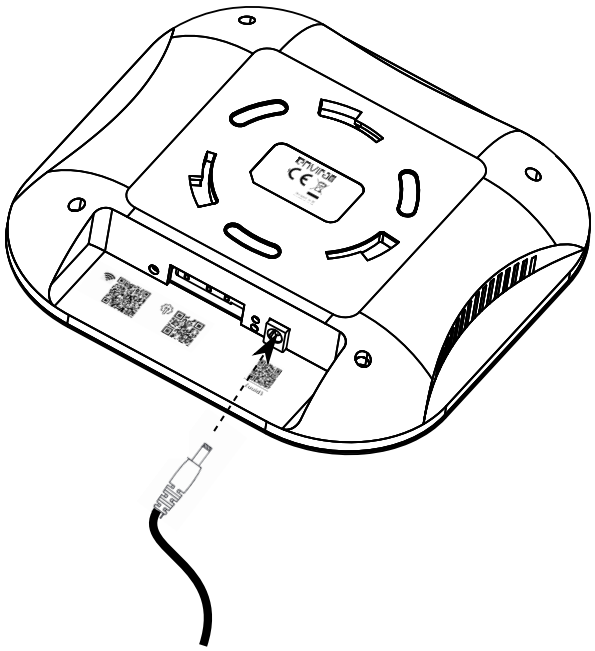
2. In the case of the wall version, install the bracket on a vertical wall at mid-height (you can take your hip height as a reference). To fix the bracket to the wall, use a fixing method that is sufficient to support the weight of the Nanoenvi IAQ™. it's recommended to use three screws suitable for the surface on which it will be installed (screws not included). Please note that Nanoenvi IAQ™ needs to be plugged in.



Beware that you have the knowledge and that you are able to install the wall bracket. If not, contact someone with the capacity to do that.

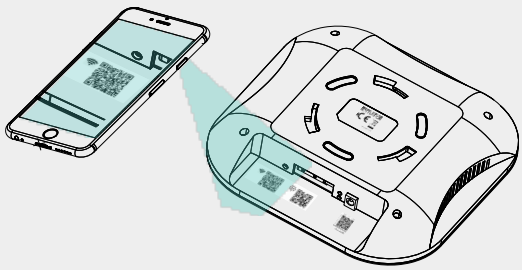
3. Prepare the power supply. Remove the power supply from the box and insert the plug adapter compatible with the plug to which the Nanoenvi IAQ™ will be connected.

4. Plug the power supply into the wall and then connect the power cord to the Nanoenvi IAQ™.



After connecting the device, the lights will start flashing cyan. Wait for the lights to remain solid cyan (not flashing) - see Appendix B, *Nanoenvi IAQ Status lights* for more information on the color of the lights - at which point Nanoenvi IAQ™ is ready to be configured. From a smartphone or PC, you must connect to the WiFi network with SSID `NanoenviIAQ` and password `NanoenviIAQ`. This WiFi network is generated by the Nanoenvi IAQ™ device and is only used for its configuration.

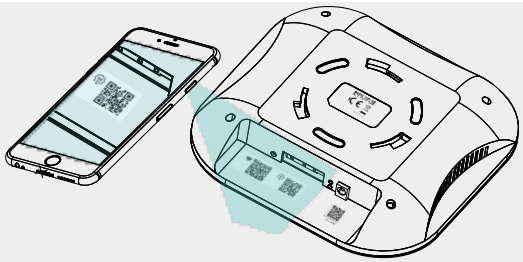
To connect to the configuration WiFi network generated by the device, you can scan the QR code next to teh WiFi symbol with your smartphone camera



In the case of using a PC, disconnect the network cable and in the case of using a smartphone, disable the mobile data connection. If you don't, you won't be able to configure the device correctly.

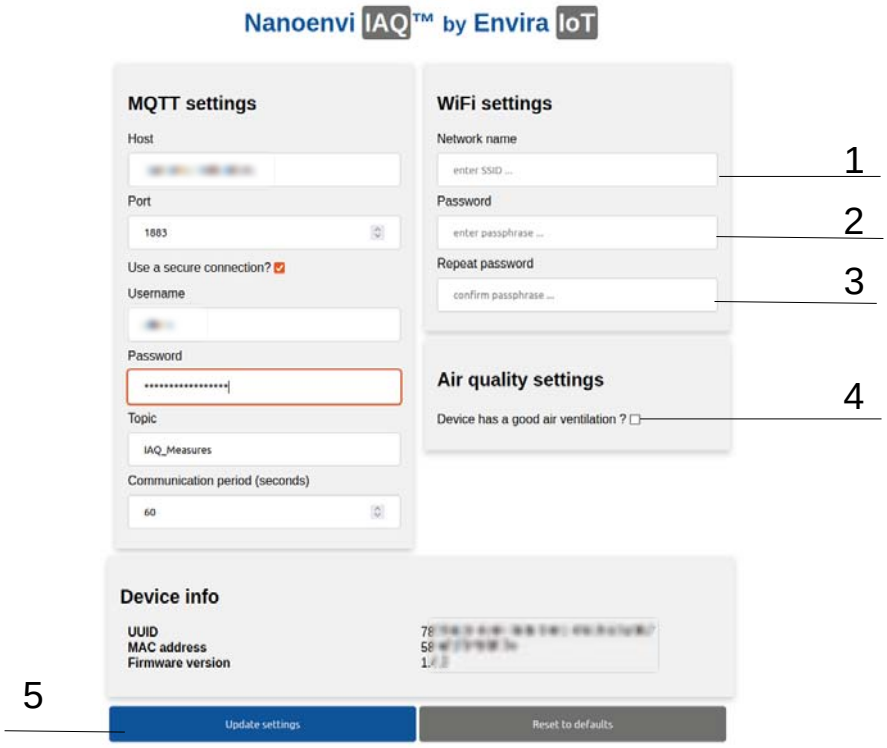
5. Open a web browser on the smartphone or PC that you are using for configuration. In the address bar enter the following URL: `http://192.168.4.1`This is the Nanoenvi IAQ™ configuration web page and is generated by the device.

If you use a mobile phone for configuration, you can open the configuration page by scanning the QR code next to the gear symbol as shown in the following image.



Note that your smartphone (or PC) is directly connected to Nanoenvi IAQ™, it is not connected to the Internet. This is only necessary during the installation of the equipment.

6. 7. The page that will be displayed in your browser will look like this:



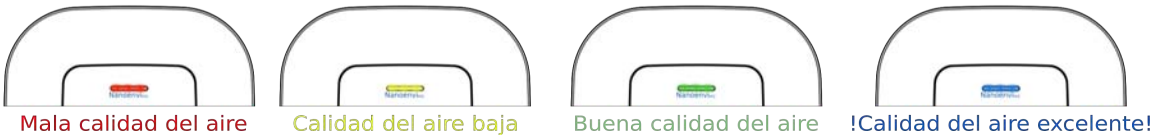
Enter in the Network Name (1) the name of the WiFi network that Nanoenvi IAQ™ will use to send the data. Enter the password in the Password (2) field and re-enter it in the Repeat Password (3). If Nanoenvi IAQ™ is installed in a well-ventilated environment (eg room with forced ventilation, with opening windows or doors), check the box (4).

If you think you have made a mistake while entering the data, the Reset to defaults button overwrites the settings with the factory settings.

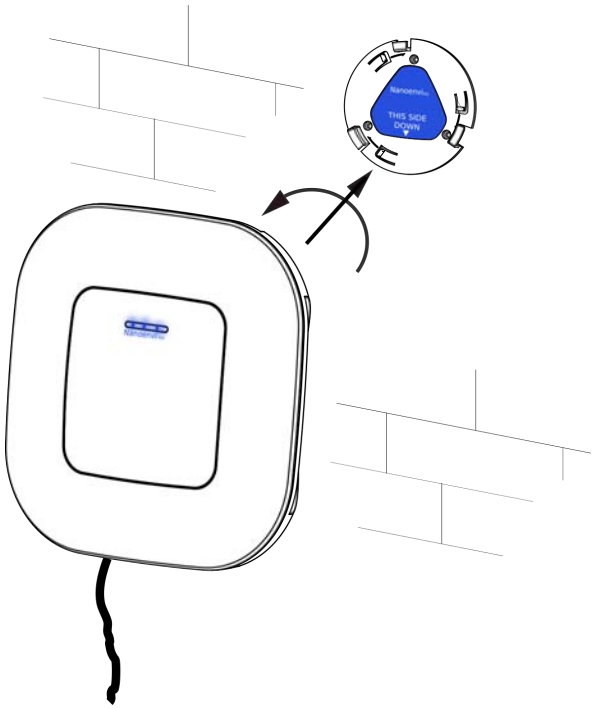
If you need to change the MQTT broker settings, you must enter them in the corresponding fields in the MQTT Settings box. This will be necessary if, for example, you want to integrate Nanoenvi IAQ™ with your own MQTT broker. For more information see the developer manual.

7. Press the Update settings (5). If everything went well, you will see a green 'success' message displayed in your browser, and the lights on the device will flash cyan again. At this time Nanoenvi IAQ™, has just been configured: the device is starting up and making its first connection.

8. After a few minutes, all three lights on the device should be lit blue, yellow, green or red depending on the air quality (see Appendix B, *Nanoenvi IAQ Status lights*). This means that Nanoenvi IAQ™ is connected to the Internet, can send data without problem and the device's LEDs show the air quality. If this does not happen (only one of the three lights is lit, red or yellow), see Section 9.1, "Troubleshooting" [21].



9. 10. You can now place the device on the wall bracket. To do this, align your housing with the bracket and turn clockwise. You can also reconnect your smartphone or PC to the network you normally use.



Make sure the device is properly secured.

You can find the following supporting videos on Envira IoT's Youtube™ channel [https://www.youtube.com/channel/UC1bQfcxdMtxACN0fhLRDHVA/videos]:

- Nanoenvi IAQ™ initial configuration from Android device.
- Nanoenvi IAQ™ initial configuration from PC.
- How to update the Nanoenvi IAQ™ configuration.

Chapter 7. Expected use of Nanoenvi IAQ™ WiFi

Once installed, Nanoenvi IAQ™ will continuously collect and send indoor air quality data. The device works autonomously and does not require calibrations or maintenance programs.

If you want to change the Nanoenvi IAQ™ (for example, change the WiFi network to which it connects) you must press and hold the configuration mode button (see Section 4.2, "Product overview") until the lights start to flash in cyan color.

Chapter 8. Manteinance

Nanoenvi IAQ™does not require specific maintenance. However, some cleaning considerations must be taken into account.

8.1. Limpieza

- Do not wash with water.
- Do not wash with objects that emit dust.
- Do not wash with solvents or alcohol.
- Do not use aerosols on the device.
- Clean the housing of the device simply with a sterile gauze.
- Dry air can be used to clean sensors when measurement levels are unusual.

Chapter 9. Troubleshooting

9.1. Troubleshooting

Q: I have configured the Nanoenvi IAQ ™ following the instruction manual and the LED2 is red

A: The LED2 lit in red indicates that the device has been configured with a WiFi network that it cannot access. Check the availability of the WiFi network and configure the device again. Remember that the WiFi network name and password that have to be entered in the configuration page are the name and password of a WiFi network and a WiFi router. Remember that the WiFi network name NanoenviIAQ and password NanoenviIAQ are generated by your Nanoenvi IAQ™ device only for configuration operations.

Q: When I press the Update settings button, in the Nanoenvi IAQ™, settings, I get a red error message in the browser.

A: This can be due to various causes. Check that the device from which you are configuring Nanoenvi IAQ™ is connected to the WiFi network called NanoenviIAQ. If not, please connect to that network. Check that in case of using a smartphone the data connection is deactivated, or in case of using a PC check that it is not connected to the Internet via cable. While configuring Nanoenvi IAQ™, you should only have an active WiFi connection with Nanoenvi IAQ™.

Q: The configuration page does not load, or it loads partially.

A: Refresh the web page and see if the problem persists. If it does, try unplugging the device from the power source and plugging it back in.

Q: I have changed the location of the device and now the LED1 is lit red.

A: This happens because, probably, in the new location the WiFi network that the device uses is not available. You must configure the device again. To do so, select the Setup mode by holding down the setup mode button until the lights are flashing cyan; then follow the setup instructions.

Q: The LED1 is lit red.

A: This indicates that the Nanoenvi IAQ™ has no WiFi connection (probably because the WiFi network it was connected to is down). Check that the WiFi network to which the device is connected is working properly.

Q: Right after configuring the device, the LED3 is lit red.

A: This indicates that Nanoenvi IAQ™ has no connection to the MQTT broker (the service it sends the data to). It may be due to a server problem or because you have configured Nanoenvi IAQ™ with incorrect MQTT broker parameters. Reconfigure the device; If the problem persists, contact your local Nanoenvi IAQ™ dealer.

If you integrate Nanoenvi IAQ™ with your own MQTT broker, check that you can connect to the broker from a PC with the same configuration and check the Nanoenvi IAQ™ MQTT configuration (or, failing that, configure the device again).

By default, Nanoenvi IAQ™ uses port 8883 and SSL / TLS to send data through MQTT. Some routers have port 8883 closed by default. You can try checking your router configuration or reconfiguring Nanoenvi IAQ™ with the following parameters:

- *Port*: 1883
- *Username*: empty (clear the contents of the dialog)

- *Password*: empty (clear the contents of the dialog)
- *Use a secure connection?*: checkbox not checked.

Remember that the *Reset to defaults* button on the configuration web page allows you to restore the default configuration.

Q: Nanoenvi IAQ™ was working smoothly, but now the LED3 is lit red.

A: This indicates that Nanoenvi IAQ™ has no connection to the MQTT broker. Wait a reasonable time and see if the problem persists. If so, contact you Nanoenvi IAQ™ dealer. If you have the means to do this, check that from the network that Nanoenvi IAQ™ connects to, it can connect to the MQTT broker. In case you integrate Nanoenvi IAQ™ with your own broker, check that the MQTT broker works properly.

Q: Nanoenvi IAQ™ only has one of the LEDs lit yellow.

A: There is no problem, Nanoenvi IAQ™ is performing a software update.

Q: CO2 values measured by the device are very low, below 400 ppm.

A: Your device may have been damaged or exposed to very high CO2 levels for a long time. Your Nanoenvi IAQ™ dealer has likely provided you with information on how to correct this. Consult the documentation that your distributor gives you and if you do not find anything about it, contact him.

Q: One or more of the variables measured by the device is indicating values out of their range.

A: Check that the measurements are indeed wrong. Check that you are viewing the measurements in real time and if you are comparing them, that the reference is reliable and that you measure under the same conditions. Try disconnecting and reconnecting power to the device if the problem persists. If still not solved, contact your Nanoenvi IAQ™ dealer.

9.2. Frequently asked questions

Q: Can I see Nanoenvi IAQ™ data if I connect to the NanoenviIAQ WiFi network?

A: No, NanoenviIAQ WiFi network is generated by the device only to be configured. Once configured, Nanoenvi IAQ™ uses the WiFi network indicated in the configuration. To view the data, use the means specified by your distributor (eg Web viewing platform).

The Nanoenvi IAQ™ communications operating principle is the same as that of many other IoT products: it generates a configuration WiFi network so that the WiFi network (generated by the user's router) can be configured with a PC or mobile device can be used by Nanoenvi IAQ™ to send data. Once configured, the device connects to the WiFi network and sends data through the network.

Q: How do I integrate Nanoenvi IAQ™ with my own platform?

A: Nanoenvi IAQ™ uses the MQTT protocol to send data; when installing the device, you can configure which broker MQTT will send the data to. To use the data it's only necessary to subscribe to the topic to which they are sent. The submission format is unencoded JSON (plain text). You can ask your Nanoenvi IAQ™ dealer for information on the message format.

Q: DoesNanoenvi IAQ™ have a REST API?

A: No, you don't need it because it uses the MQTT protocol. MQTT messages are sent in plain text (JSON), the message fields are self-explanatory. Your Nanoenvi IAQ™ dealer will provide you with detailed and complete information in this regard, upon request.

Q: What is the use of the box on the configuration page that asks if Nanoenvi IAQ™ is installed in a well-ventilated space?

A: It's used to configure the CO2 sensor. If the box is checked, the CO2 sensor can only be recalibrated over time (this calibration requires air with a low CO2 concentration at least once a day). If not checked, the CO2 sensor will keep the factory calibration. Remember that Nanoenvi IAQ™ can be reconfigured whenever you want.

Q: Can I use another power supply?

A: No. Use the power supply included with the Nanoenvi IAQ™ device. If for integration reasons (for example integration in vehicles) you need to use another power supply, please contact your Nanoenvi IAQ™ dealer.

Using a different power supply than the one supplied by Nanoenvi IAQ™ may cause the destruction of the device and the loss of the warranty. Only if the integration of the device requires another source, contact your distributor to provide you with requirements for the power supply and means for integration.

Q: I have configured the Nanoenvi IAQ™ without errors, what do I have to do to see the data?

A: If the device is configured correctly and the lights do not show any errors, it means it's correctly connected to the WiFi network and sending data to the MQTT broker. To view the data, you must refer to the information provided by your Nanoenvi IAQ™ dealer. You will probably have provided a web address and login credentials for this.

Q: What do the TCI, EIAQI and IAQI measurements mean?

A: LThe three indexes are calculated by the device and correspond to:

- IAQI: indoor air quality index. This is a value on a scale from 0 to 100 that indicates the quality of the air (0 corresponding to the worst quality and 100 to the best). By default, this index is obtained from the concentration of CO, CO2, VOC and PM10.
- TCI: thermal comfort index. This is a value on a scale from 0 to 100 (0 representing less thermal comfort and 100 representing optimal comfort) obtained from measuring relative humidity and temperature and indicates the comfort level of the ambient conditions.
- EIAQI: General Air Quality Index. It's an index that combines the two previous indices and reports on the general comfort of the environment. This index is presented on a scale between -3 and 7 (with -3 representing the worst index and 7 the best).

Q: Nanoenvi IAQ™ will be installed in a place where the electrical current is periodically cut off: will the connection configuration be lost every time?

A: No. Whether you lose power, lose your WiFi connection, or your connection to the MQTT broker, the device will automatically reconnect, when possible, without human intervention.

Q: Can I use the device other than what is documented in the manual?

A: You must not. However, you can consult with your dealer to indicate whether it's a proper use, advice and authorization to do so.

Q: What criteria does Nanoenvi IAQ™ use for the color change of the lights?

A: When Nanoenvi IAQ™ is measuring and sending data, the color of the lights varies depending on the air quality. By default, this color is obtained from an air quality index calculated by the device. This calculation is implemented based on an algorithm developed by Envira Sostenible S.A. based on empirical studies from the company and different universities and air quality regulators. The algorithm weights the gas concentrations, temperature and humidity with different weights. If you integrate Nanoenvi IAQ™ with your own platform you can configure algorithm parameters by sending MQTT messages. If you need more information, consult your Nanoenvi IAQ™ dealer.

Q: Do I need to calibrate the Nanoenvi IAQ™?

A: It's not necessary. The device implements state-of-the-art calibration algorithms. However, you can request a quote from your Nanoenvi IAQ™ dealer if you want an additional calibration.

Q: How many Nanoenvi IAQ™ devices do I need to monitor the air quality of a space? How much surface does the device cover?

A: It depends on the type of space and the application: each Nanoenvi IAQ™ is a sampling point, so the greater the number of sampling points, the higher resolution and knowledge you will have about air quality. it's up to the user or installer to determine how many sample points you need. Some installers prefer to adhere to the UNE 171330-2 standard (Indoor air quality, Part 2), others prefer to increase the number of sampling points in crowded places such as offices, meeting rooms, etc. On the other hand, certification standards such as WELL establish their own criteria for the number of sampling points and their placement.

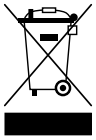
Ultimately, the number of Nanoenvi IAQ™ devices must be determined by the user or installer.

9.3. Repair

In case of breakage, deterioration, or malfunction, check your Nanoenvi IAQ™ device, make sure the device is faulty and, if necessary, contact your dealer. Nanoenvi IAQ™ must not be repaired or modified by an unauthorized entity.

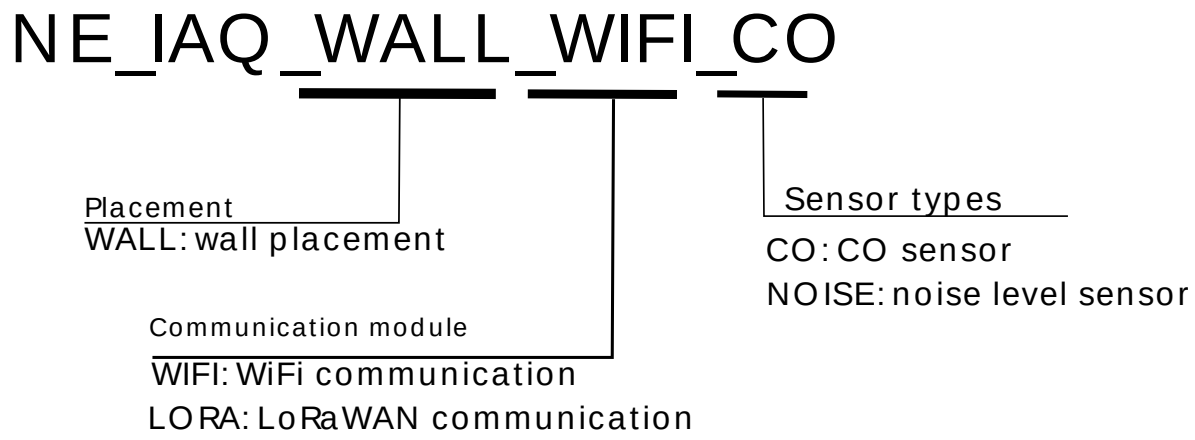
Chapter 10. Disposal

All the materials used to build this device and its packaging bear the marks and seals to be properly disposed of. This product complies with all current legal regulations, in particular the regulations regarding electrical and electronic equipment (EU Directives 2002/96 / EG WEEE and 2002/95 / EG RoHS) and the REACH ordinance (EU-REACH Community Directive and Law for the Execution of the Community Directive (EG) No. 1907/2006).

	This equipment contains valuable materials that can be recycled. Electrical and electronic equipment should not be disposed of in conventional trash containers. Always use the authorized procedures for the collection of electrical and electronic material, as well as for packaging materials. Use the appropriate containers for each case

Appendix A. Ordering information

A.1. Product reference



A.2. Package content

Nanoenvi IAQ® includes:

1. Nanoenvi IAQ®
2. Universal power supply with adapters:
   - Type G (UK)
   - Type B (USA)
   - Type C (Europa)
   - Type I (Australia)

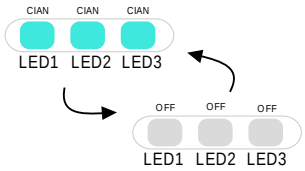
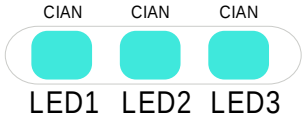
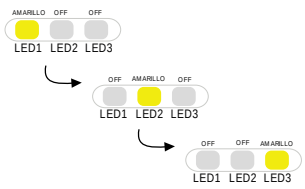
3. Pacakging

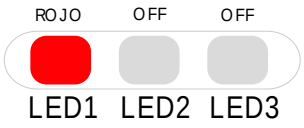
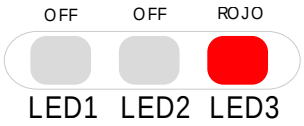
4. Wall bracket

Appendix B. Nanoenvi IAQ Status lights

B.1. Lights codes

Table B.1. Relationship between LED indicator and device status

Indicador LED	Estado del dispositivo	Descripción
	Initializing	When the LED lights blink cyan in an alternative way, Nanoenvi IAQ is starting or configuring.
	Configuration in progress	When the LED lights are lit steady cyan (not blinking), Nanoenvi IAQ is in configuration mode The device creates a WiFi access point with SSID 'NanoenviIAQ' and allows access to the configuration web.
	Connected to broker and measuring: quality of air is excellent	When the LED lights are blue, the device is taking measurements of the different parameters, it's sending the data to the MQTT broker and the air quality index selected in the configuration (either IAQI, TCI or EIAQI) is 'excellent'.
	Connected to broker and measuring: quality of air is good	When the LED lights are green, the device is making measurements of the different parameters, it's sending the data to the MQTT broker and the air quality index selected in the configuration (either IAQI, TCI or EIAQI) is' good '.
	Connected to broker and measuring: quality of air is medium	When the LED lights are yellow, the device is making measurements of the different parameters, it's sending the data to the MQTT broker and the air quality index selected in the configuration (either IAQI, TCI or EIAQI) is 'medium'.
	Connected to broker and measuring: quality of air is bad	When the LED lights are red, the device is making measurements of the different parameters, it's sending the data to the MQTT broker and the air quality index selected in the configuration (either IAQI, TCI or EIAQI) is' bad '.
	OTA update in progress	When one of the 3 LEDs is lit yellow, that indicates the download progress of an OTA update. If LED 1 is on, the device is downloading 1/3 of the update, if LED 2 is on, the second third of the OTA update is being downloaded, and if LED 3 is on, the last third of the OTA update is being downloaded.
	WiFi configuration error	After configuring the WiFi network, if LED 2 is lit red (while LED 1 and LED 3 are off), it indicates that the device cannot connect to the WiFi network because it hasn't been configured correctly (will need to be configured again).

Indicador LED	Estado del dispositivo	Descripción
	WiFi connection error	After configuring the WiFi network, if LED 1 is lit red (while LED 2 and LED 3 are off), it indicates that the device has lost connection with the WiFi network to which it was connected.
	Host connection error	If LED 3 is lit red (while LED 1 and LED 2 are off), it indicates that the device cannot connect to the MQTT broker, either because the configuration is incorrect, or because the network does not allow to reach it, or because the broker is not working properly.

Chapter 11. CONTACT

11.1. Contact details

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