

INSAFE

INSTRUCTION MANUAL



INSAFE + PILOT

Temperature and humidity sensor / Indoor Air Quality Monitor



INSAFE + CARBON

Carbon dioxide detector / Temperature and humidity sensor
Indoor Air Quality Monitor

INSTRUCTION MANUAL

Read this manual carefully before use.

Keep all documentation supplied throughout the entire service life of the product.

1. PRÉSENTATION



INSAFE+ PILOT is a temperature and humidity sensor as well as an indoor air quality monitor.

Applications:

- Control of indoor air quality and hygrothermal comfort in residential or commercial environment
- HVAC control
- Enhancement of energy efficiency in residential, commercial or industrial buildings



INSAFE+ CARBON is a carbon dioxide detector, a temperature and humidity sensor as well as an indoor air quality monitor.

Applications :

- Indoor air quality control in residential premises and public places. The device measures temperature, relative humidity and CO2 levels.
- INSAFE+ Carbon calculates the level of containment which assesses the quality of air renewal
- HVAC control

<p>INSAFE+ Pilot</p> <ul style="list-style-type: none"> - Temperature / Humidity sensor and Indoor Air Quality monitor - Product model: 1880 	<p>INSAFE+ Carbon</p> <ul style="list-style-type: none"> - Carbon dioxide detector, temperature and humidity sensor and indoor air quality monitor. - Product model: 1420
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INSAFE+ Pilot, INSAFE+ Carbon and their sealed lithium batteries have a lifespan of up to 10 years according to wireless protocol and environment.

These products come with a push button that enables to automate actions and to control various connected devices and services.

For further information, refer to the appropriate technical documentation or contact our service support.

INSAFE+ Pilot and INSAFE+ Carbon devices are in conformity with the relevant Union harmonization legislation:

- Directive 2014/53/EU Radio Equipment Directive (RED)
- Directive 2011/65/EU restriction of the use of certain hazardous substances (RoHS)

The complete EU Declaration of Conformity can be found on Nexelec's website: www.nexelec.fr

- Dimensions: L 105 mm x W 105 mm x H 30 mm
 - Storage and operating temperature: between 0°C and +50°C
 - Humidity: from 0% to 95%
 - Protection rating: IP40
- The devices are designed to be used in a household environment.

Recurrent and/or extended use in an exceptional environment can reduce the life of the battery and therefore the autonomy of the monitor.

Les appareils sont conçus pour être utilisés dans un environnement intérieur.

Une utilisation récurrente et/ou prolongée dans un environnement exceptionnel peut réduire la durée de la pile et donc l'autonomie du détecteur.

Protocols	Radio frequencies
EnOcean	868MHz : Europe (EN300-220) 915MHz : US (FCC Part 15) 920 MHz: South America, Australia, New Zealand (ANATEL 506, AS/NZS 4268)
Sigfox	868MHz : Europe (EN300-220) 915MHz : US (FCC Part 15) 920 MHz: South America, Australia, New Zealand, Japan (ANATEL 506, AS/NZS 4268)
LoRa	868MHz : Europe (EN300-220) 915MHz : US (FCC Part 15) 920 MHz: South America, Australia, New Zealand (ANATEL 506, AS/NZS 4268) 2.4GHz : Worldwide (ISM Band)
Zigbee / Thread	2.4GHz : Worldwide (ISM Band)
Bluetooth Low Energy	2.4GHz : Worldwide (ISM Band)

The product sends specific messages according to used wireless protocol.




For further information, refer to the appropriate technical documentation or contact our service support.

2. MEASUREMENT AND ANALYSIS OF CARBON DIOXIDE

INSAFE+ Carbon measures temperature, humidity and carbon dioxide (CO₂) level every 10 minutes.

The level of CO₂, produced naturally through breathing, is a good indicator of building level of containment.

INSAFE+ Carbon calculates an index that characterizes the quality of air renewal.

Optional visual indication (LED)	Indoor Air Quality	Analysis and recommended actions
	Bad The air renewal is too low	The concentration of carbon dioxide is too high. Ventilate the room right now and check the ventilation systems to improve indoor air quality
	Poor The air renewal is too low	The concentration of carbon dioxide is high. Ventilate the room to improve indoor air quality
	Excellent Optimal conditions	Measurements are good, indoor air quality seems ideal

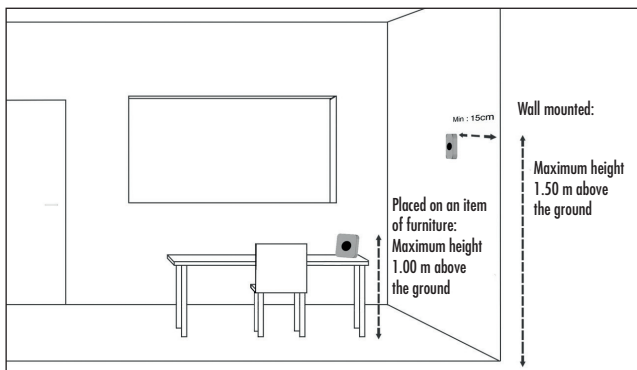
3. INSTALLATION LOCATIONS

Recommended locations in a domestic or tertiary environment

It is recommended to install the monitor:

- Less than 1 meter above the ground if the monitor is placed on an item of furniture or a shelf (using the mobile mounting base delivered with INSAFE+ Carbon)
- Less than 1.5 meters above the ground if the monitor is wall mounted (attached with screws and wall plugs)

In order to obtain accurate and reliable data, we suggest you to follow recommended locations



- Indoor Air Quality Monitor

Locations to avoid

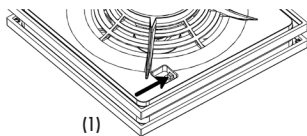
Do not install the indoor air quality monitor:

- Less than 30 cm from the ceiling
- Outdoors
- In a location where the temperature is less than 0°C or more than 50°C
- In a location where humidity levels is more than 95% (bathroom, kitchen, laundry room, etc.)
- In a dusty or dirty location (garage, workshop, etc.)
- Less than 1 m from doors and windows, heating, cooling or air vents
- In a narrow area where the monitor could be damaged
- In a contained location (e.g. in a cupboard or behind a curtain)
- In a location where the monitor could be blocked (e.g. by furniture)

4. COMMISSIONING THE MONITOR

To commission your monitor, activate the single-use switch (1).

Confirmation of product activation is indicated by a flashing of the green-orange-red LED for 10 seconds. Then, the green LED flashes about every 20 seconds during the initializing period that may last up to 2 minutes. The end of this initializing period is represented by the continuous lighting of the green LED for 5 seconds.



Attaching the monitor to a wall

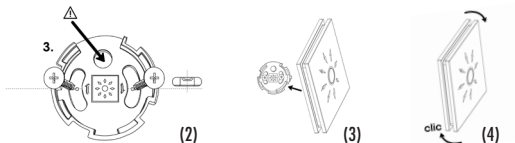
Use the mounting base and the screws and wall plugs provided with the monitor.
The product can also be mounted using the INSAFE Fix adhesive attachments (sold separately).

Comply with the following procedure:

- Select an appropriate location to secure the monitor to the wall
- Remove the mounting base from the monitor
- Mark the preferred location of screw holes on the wall using a pencil. The drawing inside the base shows the final position of the monitor when attached. (3)
- Insert the nylon wall plugs provided and screw on the mounting base (4)
- Place your monitor on the mounting base and then rotate a quarter turn to the right to secure.

You should hear a «click», indicating that your monitor is secured in its mounting base (5)

- Check that your monitor is securely fitted to the wall



Placing the monitor on an item of furniture or a shelf (for INSAFE+ Carbon only)

Use the mobile mounting base supplied with the monitor.

Comply with the following procedure:

- Place the monitor on an item of furniture or a shelf, less than 1 meter above the ground, to prevent any damage if the monitor accidentally falls.
- Place your mobile mounting base on the back of the monitor and then rotate a quarter turn to the right to secure. You should hear a «click», indicating that your monitor is secured in its mobile mounting base.



5. PRECAUTIONS AND OPERATING LIMITS OF THE MONITOR

- Do not install the monitor in one of the locations described in § «Locations to avoid».
- Do not paint or cover the monitor.
- Do not block the monitor openings.
- Do not disassemble, modify or damage the monitor.

The monitor is designed to operate for a life up to 10 years that would ensure the measurements of temperature, humidity, CO2 (INSAFE+ Carbon model only) and air quality throughout this period.

Some conditions could damage the monitor, reduce its sensitivity and/or the life of the battery and therefore of the monitor:

- Exposing the monitor to temperatures or humidity levels outside of the normal environment.
- A recurrent and/or prolonged use in this exceptional environment.

6. MAINTENANCE

Clean your monitor on a regular basis:

- Remove the dust from your monitor and clean the upper edges using an anti-static cloth

7. SCRAPPING AND RECYCLING THE

MONITOR



This symbol, placed on the monitor and its packaging, indicates that this product must not be scrapped with household waste, in accordance with European Directive 2002/96/EC on Waste electrical and electronic equipment (WEEE).

The monitor must be disposed of at an appropriate recycling centre for electrical and electronic equipment. Comply with national scrapping laws.

By cooperating with these instructions, you are helping to eliminate the potential effects of hazardous substances on the environment and human health, as well as enhancing re-use, recycling and other forms of recovery.

NEXELEC is a member of the following eco-friendly waste management organisation: Ecologic

IMPORTANT : The monitor contains a lithium battery: do not dispose of this battery by fire, melt or incinerate.

8. GARANTIE

NEXELEC proposes a contractual warranty for INSAFE+ Pilot and INSAFE+ Carbon monitors within the European Union, covering the product's design functions, in accordance with the applicable European Directives and Regulation, for a period of 2 years from the date of purchase.

This warranty will not apply for any damage to the monitor, caused by negligence, inadequate storage conditions, inappropriate handling, inadequate attachment, incorrect use, inappropriate maintenance, dismantling, modification, non-compliance with the operating precautions recommended for the monitor in the user manual. This warranty will not apply for any damage caused by the use of incorrect attachment devices or non-compliance with the installation process. Given the many different factors which could affect the quality of the installation of the monitor, only the user is able to oversee all risks inherent to installation, as these factors are difficult to foresee and depend on the characteristics of the environment in which it is installed. The inadequate operation or non-operation of the monitor due to clogging by dust and/or insects, despite maintenance in compliance with this manual, will be considered as normal wear to the device and cannot be covered by the warranty as these aspects are difficult to predict and depend on the characteristics of the dwelling. This warranty cannot be considered as insurance. This warranty applies in addition to your statutory warranty. If a fault is detected for the product, and if the warranty is applied as per the conditions mentioned in the user manual, the defective monitor will be repaired or replaced.

9. AFTER-SALES SERVICE

Before requesting the application of the contractual warranty, you must check the information available on the website www.nexelec.fr/support and obtain a return reference. The warranty may not be applied without a return reference.

If a fault is detected during the warranty period, the buyer must send the monitor by post to the NEXELEC after-sales service.

Proof of purchase, with a date, and a letter requesting the application of the warranty and explaining the fault in question must be enclosed with the monitor.

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