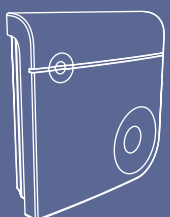
Itho Daalderop
RFT RH sensor BAT



Installation & Use

itho daalderop
Climate for life

Translation of the original document.

Introduction

The installer is responsible for installing and commissioning the unit.

The following definitions are used in this manual to draw attention to hazards, instructions or indications related to people, products, installations and/or the surroundings.

Warning!

Indicates a hazard that can cause injury and/or severe damage to the product, system or surrounding area.

Caution!

Instructions important for the installation, functioning, operation or maintenance of the product. Failure to observe these instructions can result in minor injury and/or severe damage to the product, system or surrounding area.

Note

Instructions important for the installation, functioning, operation or maintenance of the product. Failure to observe these instructions can result in minor damage to the product, system or surrounding area.

Tip

Instructions that may be important for the installation, functioning, operation or maintenance of the product, but are not related to injury or material damage.

Although this manual has been drawn up with the utmost care, no rights may be derived from this document.

de fabrikant reserves the right to modify products and manuals without prior notice.

Due to our continuous product improvement process, this document may not match the appliance you received. You can download the latest version of the manual from .

Contents

1. Safety and other regulations

- Do not use the product for purposes other than those for which it is intended, as described in this manual.
- Take the following steps before carrying out work on an open device:
  - Disconnect power to the device.
  - Secure the device against being switched on accidentally.
- This product and/or system may be operated safely by children aged 8 years and older and by people with physical, sensory or mental disabilities or a lack of experience/knowledge if under supervision or after having received instructions regarding safe use, and if they are aware of the product and/or system hazards.

- Cleaning and maintenance by the user may not be done by children or people with physical, sensory or mental disabilities or a lack of experience/knowledge without supervision.
- Do not allow children to play with the product and/or system.
- If the battery is damaged, wear personal protective equipment during removal and ensure safe disposal.
- When removing the battery, take care not to create a short circuit between the two battery terminals or damage the battery.
- Risk of fire, explosion and burns. Batteries may not be charged, disassembled, heated above 100°C or burnt.
- The safety instructions must be followed in order to prevent physical injury and/or damage to the product.
- Maintenance instructions must be followed to prevent damage and excessive wear and tear.

- The product may not be modified.
- Inspect the product regularly for faults. In the event of faults, immediately contact your installer or de fabrikant.
- Switch the product off if:
  - The product is not working properly.
  - You want to clean the outside of the product.

2. Product information

2.1. Product description

⚠ Caution!

Control based on wireless sensors (CO_2, RV and/or PIR) only works when the ventilation unit is in **Auto or Auto-Night** mode.

To ensure a healthy indoor climate and prevent mould and damp spots, it is important that the humidity level not become too high.

The sensor can be placed in any area, but preferably in a room producing a lot of moisture, such as a bathroom or laundry area.

The control sensor measures the humidity level in the room. It translates the measured value into a ventilation demand and communicates this wirelessly to the ventilation unit with which it is paired.

Note

When the humidity level has fallen sufficiently, the capacity of the ventilation unit is automatically decreased.

Tip

It is possible to place several wireless sensors and controls in the dwelling, up to a maximum of 20.

2.2. Technical specifications

RV-sensor BAT	
Dimensions	99 x 100 x 29mm (L x W x H)
Weight	0.1kg
Installation	2 x 4mm screws (supplied)
Housing	ABS plastic (RAL 9003)
Power supply	Batteries (2 x 1.5V AA)
Battery life	2 years (in normal use)
Sensor type	Capacitive, temperature adjusted
Measurement range	0-100% RH
RF (built in)	30 m in free space, 868 MHz

2.3. Application

The wireless sensor can be connected to the following de fabrikant products:

Ventilation units	
• CVD S ECO	• HRU ECO 150
• CVE ECO RFT	• HRU ECO 200
• CVE S ECO	• HRU ECO 300
	• HRU ECO 350

3. Installation

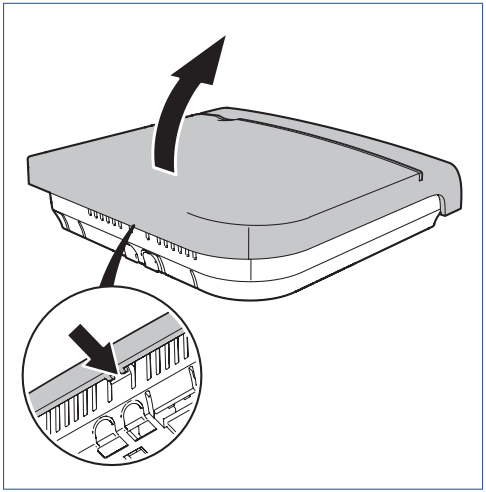
⚠ Caution!

In a bathroom you should mount the sensor vertically and ideally near the shower at a height of approximately 2 metres above the floor.
In a utility room you should mount the sensor vertically and ideally at a height of approximately 1.5 metres above the floor at a central location in the room.
Do not place the sensor immediately next to a window or door, or behind a cabinet or couch. This can affect the sensor reading.

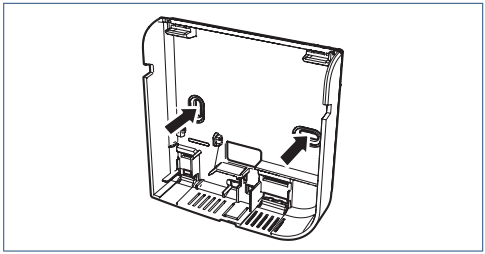
Note

With average use, the sensor batteries should last approximately two years. When the batteries are almost empty, the sensor's status LED flashes red. Once the batteries are completely empty, all the sensor's LEDs will stop functioning, and the ventilation unit will no longer react to increasing humidity levels.

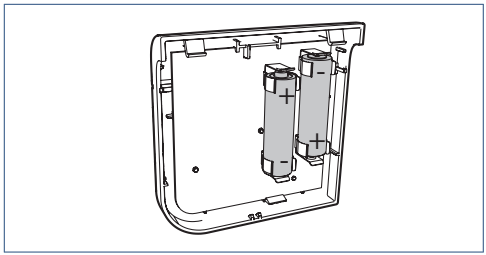
a) Open the sensor by manually releasing the latch at the bottom.



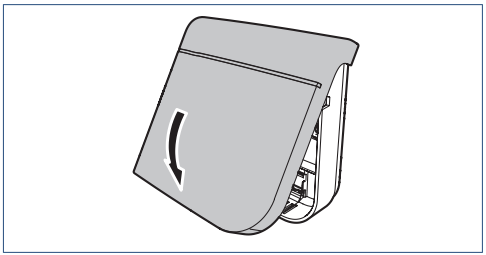
b) Attach the sensor to the wall with the supplied screws and anchor plugs through the provided holes in the back of the sensor.



c) Insert the supplied batteries (2x) into the battery compartment on the circuit board inside the cover. Pay attention the positions of the (+) and (–) terminals.

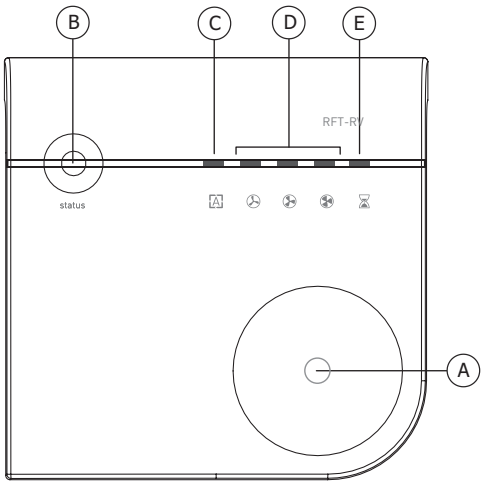


d) Place the cover with the circuit board back on the installed wall support.



4. Operation

4.1. Status



A. Touch button
B. Status LED
C. Ventilation speed Auto/ Auto Night
D. Ventilation speeds
E. Timer

The status LED on the control switch shows the status of the ventilation unit:

- Status LED lit *green*: The ventilation unit and sensor are working properly.
- Status LED flashes 1x *orange*: The air filter of the ventilation unit with heat recovery is dirty and needs to be replaced.
- Status LED flashes 1x *red*: RH sensor error.
- Status LED flashes 2x *red*: RF communication error.
- Status LED flashes 3x *red*: There is a problem with the ventilation unit.
- Status LED flashes 4x *red*: The sensor batteries are nearly empty.
- Status LED lit *red*: The sensor is unpaired.

4.1.1. Ventilation speeds

You can set the unit to different ventilation speeds (flow rates) with this sensor. The current ventilation speed is indicated by a continuously lit *green* LED.

Proceed as follows to select the ventilation speed:

a) *Briefly* press the touch button once to enter *ventilation speed setting* mode. The current ventilation speed is shown.

b) Press the touch button repeatedly to select the desired ventilation speed.

c) Stop when you reach the right ventilation speed.

d) After 2 seconds, the ventilation speed selected is activated; if no further adjustments are made for the standard time of 10 seconds, the LEDs will automatically be dimmed.

When the timer expires, the ventilation unit switches back to the last selected speed before the timer was started unless that was high speed. In that case the ventilation unit switches back to medium or low speed (or auto/auto night speed), depending upon which of these was most recently selected.

The timer can be stopped at any time by selecting a different ventilation speed.

Ventilation speed sequence		LED state
A	Auto mode [1] [2]; **automatic mode**	A On
A	Auto night mode [3]; **automatic mode**	A Blinking
	Level 1: **low speed**	On
	Level 2: **medium speed**	On
	Level 3; **high speed**	On
	Timer 10 minutes; **high speed**	On On
	Timer 20 minutes; **high speed**	On On On
	Timer 30 minutes; **high speed**	On On On On

*1) **Auto** can only be selected if the ventilation unit also supports Auto mode.*

*2) Control based on wireless sensors (CO_2, RV and/or PIR) only works when the ventilation unit is in **Auto or Auto-Night** mode.*

*3) **Auto night** is available in combination with the RH sensor as well as the CO_2 sensor. This speed is not available if more than one CO_2 sensor is connected to the ventilation unit.*

Note

By default, the ventilation speeds Low, Medium, and High are not limited in duration. The ventilation unit therefore stays in the Low, Medium, or High speed setting until a different speed is selected.

You can limit the duration of the ventilation speed selected. After the pre-set time period has ended, the ventilation unit will then automatically return to the **Auto** speed setting. You can set this up using the configuration settings menu. To do so, refer to the Configuration Settings section.

4.1.2. Auto Night speed

The **Auto Night** speed setting raises the minimum ventilation speed to ensure sufficient ventilation during the night. This speed is determined, in part, by the settings chosen for the number of floors and residents (via the configurations settings menu). To ensure proper operation of the **Auto Night** speed, it's important to ensure that these settings have been properly configured.

You can set the unit to **Auto Night** when you go to bed in the evening. Always ensure that the room grilles are open when using this setting.

> ⚠ **Caution!**
>
> Auto-Night does not switch off automatically after a defined time. You should manually switch to Auto (or another level) in the morning.

4.1.3. Dirty filter indication

The controller of the ventilation unit uses a smart counter to keep track of when the filters need to be cleaned or replaced. If the system detects that a filter is dirty, the ventilation unit sends a wireless message to this effect. This message can be displayed on specific linked devices.

Such as the CO_2 sensor, the RH sensor and the Spider air conditioning thermostat.

The (dirty) filter indication is displayed by the status LED on the sensor flashing orange.

4.1.4. Resetting filter indication

After cleaning or replacing the filters in accordance with the instructions provided with the device, you should reset the dirty filter indication:

You can reset the dirty filter indication in the following way:

a) Disconnect power to the ventilation unit.
b) Apply power to the ventilation unit.
c) Within 10 minutes, hold the touch button on the sensor down for 5 to 7 seconds.

After a successful reset, the status LED flashes green 3x.

5. Use

5.1. Pairing

Proceed as follows to link the sensor to the ventilation unit:

a) Set the ventilation unit to pairing mode as described in the manual for the ventilation unit.

Then ensure that the sensor sends a pairing signal within 2 minutes. If pairing fails, repeat the procedure.

b) Restore power to the sensor by refitting the cover with the circuit board.

All green LEDs flash three times when the sensor is initialised. After this the status will be red.

c) Hold the touch button down (5-7 seconds) until the status LED is continuously lit *white*. At this point the sensor sends a pairing message.

d) The pairing status is shown as follows:
   - Status LED flashes *green* (once per second): pairing successful; RF signal level good. The ventilation unit briefly changes speed to indicate that pairing was successful.
   - Status LED flashes *orange* (once per second): pairing successful; RF signal level moderate. The ventilation unit briefly changes speed to indicate that pairing was successful.
   - Status LED flashes *red* (once per second): pairing failed.

   If pairing fails, repeat the entire procedure from the start.

e) When pairing is successful, the LEDs flash for five seconds and then show the status and ventilation speed of the ventilation unit.

f) The sensor is now linked to the ventilation unit.

5.2. Configuration settings

Note

The settings mode for the configuration settings as well as for the user settings become available only after the sensor has been paired with the ventilation unit.

To enter configuration settings mode, you must first switch off power to the sensor and then restore power to the sensor. After that, *within 2 minutes* you must press and hold the touch button down until the status LED lights up blue.

Then push and hold the touch button for a minimum of 5 seconds, after which you can release it after:

- **5 to 7 seconds:** pair (if applicable).
- **7 to 9 seconds: Configuration setting 1:** Set type of space. After releasing the touch button, the status LED is lit blue and Auto /Auto Night flashes. Briefly press the touch button:
  - Option 1: Bathroom (standard).
  - Option 2: Laundry.

Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

- **9 to 11 seconds: Configuration setting 2:** Setting the duration of maximum speed of the ventilation unit. Hold the touch button down until the status LED lights up blue, the Auto / Auto night indicator lights up green, and the Low Speed indicator starts flashing. The following settings can be selected by briefly pushing the touch button:
  - Option 1: no limit.
  - Option 2: 3 hours.
  - Option 3: 6 hours.
  - Option 4: 9 hours.

Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

- **11 to 13 seconds: Configuration setting 3:** Setting the duration of other ventilation speeds. Hold the touch button down until the status LED lights up blue, the Auto / Auto night indicator and the Low speed indicator light up green, and the Medium speed indicator starts flashing. The following settings can be selected by briefly pushing the touch button:
  - Option 1: no limit.
  - Option 2: 12 hours.

- Option 3: 24 hours.
- Option 4: 48 hours.

Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

Configuration Setting	Status LED	A				
Type of room (Bathroom/Laundry)	On (blue)	Flashes				
Maximum duration high speed *	On (blue)	On	Flashes			
Maximum duration not automatic**	On (blue)	On	On	Flashes		

** The **maximum duration non-automatic** determines how long an installation may be set to a manual mode (e.g. speed 1, 2 or 3). After the pre-set time period has expired, the installation will return to automatic mode in which the flow rate is determined by the sensors.*

***By default, the ventilation speeds are not limited in duration.*

The selected setting can be modified according to the schemes below.

Always press the touch button to go to the next option. Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

Type of room	Status LED					
Bathroom *	On (blue)		On			
Laundry	On (blue)			On		

Maximum duration of high-speed level	Status LED					
No limit*	On (blue)		On			
Maximum 3 hours	On (blue)			On		
Maximum 6 hours	On (blue)				On	
Maximum 9 hours	On (blue)					On

Maximum duration of non-automatic selection	Status LED					
No limit*	On (blue)		On			
Maximum 12 hours	On (blue)			On		
Maximum 24 hours	On (blue)				On	
Maximum 48 hours	On (blue)					On

** Default setting*

5.3. User settings

Note

The settings mode for the configuration settings as well as for the user settings become available only after the sensor has been paired with the ventilation unit.
Modify and confirm one of the settings below and then repeat the procedure for each desired setting.

Tip

If more than one sensor is in use, you need only to configure the settings for one sensor (of the same type). The other sensors (of the same type) will automatically be set to the same settings.

To enter the settings mode for the user settings menu, you must first switch off power to the sensor and then restore power to the sensor You then need to wait for *2 minutes*. After *2 minutes* press and hold the touch button until the status LED lights up blue.

Then push and hold the touch button for a minimum of 5 seconds, after which you can release it after:

If the status LED is blinking orange:

- **5 to 7 seconds: Sending a reset message for the dirty filter indication.** A reset message is sent to the ventilation unit.

Note

If you select **reset dirty filter**, your choice will be implemented immediately and the menu will automatically close.

After a successful **dirty filter reset**, the status LED will flash green in confirmation.

- **7 to 9 seconds: User setting 1**: Sensitivity to rising humidity. Press and hold the touch button until the status LED is lit blue and the timer flashes. Briefly press the touch button:
  - Option 1: Rise of 3% in 24 seconds (default).
  - Option 2: Rise of 3% in 48 seconds.

Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

The selected setting can be modified according to the schemes below.

Always press the touch button to go to the next option.

Confirm your choice by pressing and holding the touch button for 5 seconds until the status LED flashes blue.

Relative humidity	Status LED	A				
3% in 24 seconds (default).	On (blue)		On			
3% in 48 seconds	On (blue)			On		

6. Service & Maintenance

The RV-sensor requires little maintenance in principle. It is advisable to visually check the sensor once a year for correct mounting and contamination. If needed, the outer plastic housing may be cleaned using a duster or slightly damp cloth.

Briefly press the sensor touch button to display the sensor status (see 'Operation').

⚠ Caution!

You can always reset the sensor by switching off the power, waiting 15 seconds, and switching the power back on.

⚠ Caution!

A red status LED means the RF sensor is malfunctioning. This issue must be resolved by a qualified installer.

The RV-sensor uses two penlight AA (1.5V) batteries. The battery life is approximately 2 years (in normal use). For battery replacement, see 'Installation'.

Once the batteries are empty, the sensor will stop functioning, and the ventilation unit will no longer react to increasing humidity levels.

Note

It is recommended to replace the batteries in a timely fashion.

7. Warranty

8. Recycling

This product was manufactured using sustainable materials. It should be disposed of in a responsible manner at the end of its life cycle. Your local authorities can provide you with information on how to do so.

The product's packaging can be recycled. These materials should be disposed of in a responsible manner in accordance with government regulations.

As a reminder of the need to dispose of batteries and electrical household appliances separately, the product features a symbol consisting of a crossed-out wheeled bin. This means that the product should not be disposed of with the rest of your domestic waste at the end of its life cycle. It must be taken either to a special separate waste collection centre operated by the local council or to an outlet specified by this service.

Any adverse effects on the environment and human health are minimised by handling batteries and household appliances separately. This ensures that the materials comprising the appliance can be recycled, thereby saving a significant amount of energy and raw materials.

9. Declarations

Itho Daalderop Group BV
Postbus 7
4000 AA Tiel
The Netherlands

Verklaart dat het product voldoet aan de bepalingen gesteld in de richtlijnen |
Déclare que le produit répond aux exigences des directives |
Erklärt dass das Produkt entspricht den Anforderungen in den Richtlinien |
Declares that the product complies with the requirements stated in the directives:

- Radio Equipment Directive (RED) **2014/53/EU**

Coen Schut, Innovation Manager Ventilation

Tiel, 1 July 2017.