BRINK

Air for life

Installation regulations

Wireless RH sensor

English

Installation regulations

Wireless RH sensor

$C\epsilon$

Store near the appliance

This appliance may be used by children as of 8 years of age, persons with reduced physical or mental capacities, and persons with limited knowledge and experience if they are supervised or have received instructions on how to use the appliance safely and are aware of the possible dangers.
Children younger than 3 years of age must be kept away from the appliance, unless they are under constant supervision.
Children between the ages of 3 and 8 may switch the appliance on or off, but only if supervised or if they have received clear instructions on the safe use of the appliance and understand the possible dangers, on the condition that the appliance has been placed and installed in the normal position for use. Children between the ages of 3 and 8 may not insert the plug into the socket, nor clean or make changes to the settings of the appliance, nor carry out any maintenance on the appliance that would normally be carried out by the user. Children may not play with the appliance.
If you need a new power cable, always order the replacement from Brink Climate Systems B.V. To prevent dangerous situations, a damaged mains connection must only be replaced by a qualified expert!

Country: GB

Contents

1 User manual

Dear client,

Thank you for purchasing the Wireless RH sensor. This user and installation manual contains all required information to quickly become familiar with the product. We kindly request you to carefully go through this information before using the product. This user's manual is intended for the Wireless RH sensor installer and end user.
Store this user's manual. For more information or ordering manuals, please contact:

Brink Climate Systems B.V.
P.O .Box 11
NL-7950 AA, Staphorst, The Netherlands
T: +31 (0) 522 46 99 44
F. +31 (0) 522 46 94 00
E. info@brinkclimatesystems.nl
www.brinkclimatesystems.nl

1.1 Description Wireless RH sensor

Intended and unintended use

This manual is about the Wireless RH sensor (See E in the image below).
The Wireless RH sensor should only be used in combination with products approved by Brink Climate Systems B.V..

The Wireless RH sensor can only be used with a heat recovery unit (HRU) equipped with a USB connection and where the various components are equipped with specific software versions:

- HRU device software version starting with S2 $\rightarrow$ Version S2.01.24 or higher.
- HRU device software version starting with S3 $\rightarrow$ Version S3.01.03 or higher.
- Wireless transmitter/receiver and remote controller(s)/sensor(s) software version $\rightarrow$ S1.01.15 or higher.

Software versions on the HRU device can be checked through the user interface or by consulting the relevant installation manual of the device. The HRU device can be updated using the USB stick and instructions provided with the wireless transmitter/receiver.

Brink Climate Systems B.V. offers a series of remote controllers/sensors that connect to a heat recovery unit (HRU) via a wireless transmitter/receiver (F). This series consists of 5 types of wireless remote controllers/sensors (A-E). The remote controller (A, B, or C) indicates when the filter(s) need to be replaced/cleaned or when there is a malfunction in the ventilation system.

Optionally, a signal amplifier is available. This amplifier is necessary when the signal in the dwelling/house needs to travel a long distance, in very well-insulated homes, or in situations where signal-disruptive materials are used. When designing, provide for provision for this signal booster.

The connected HRU device is operated by pressing one of the buttons on the Wireless RH sensor. For explanation of the buttons of the Wireless RH sensor see $\rightarrow$
The Wireless RH sensor must always be used together with a Wireless transmitter/receiver on the HRU appliance; a combination of multiple remote controller(s)/sensor(s) on 1 Wireless transmitter/receiver is possible.
In total, a maximum combination of 12 remote controller(s)/sensor(s) can be paired to 1 transceiver (Max. 4 controllers / max. 4 CO_2-sensors and max 4 humidity sensors).

> ℹ️ **Note**
> A remote controller with a build in CO_2-sensor is seen by the connected HRU appliance as a CO_2-sensor and a controller with a build-in humidity sensor is seen as a humidity sensor(RH).

If one or more CO_2 sensors are paired with the HRU device, then the device ventilates according to the conditions set in the HRU device by the connected CO_2 sensor(s).
If multiple sensors are used, the sensor requesting the highest ventilation level takes priority; if multiple remote controllers are used, the most recently used ventilation level takes precedence.

When the vacation mode (⌂) is activated (if available), the humidity control/CO_2 control (if applicable) is not operational! The CO_2 control is also not operational in setting 3 of a 3-position switch and in boost mode on a RH sensor with boost function.

The airflow rates associated with the ventilation settings must always be set in the paired HRU device. Refer to the installation manual of the connected HRU device for the ventilation settings..
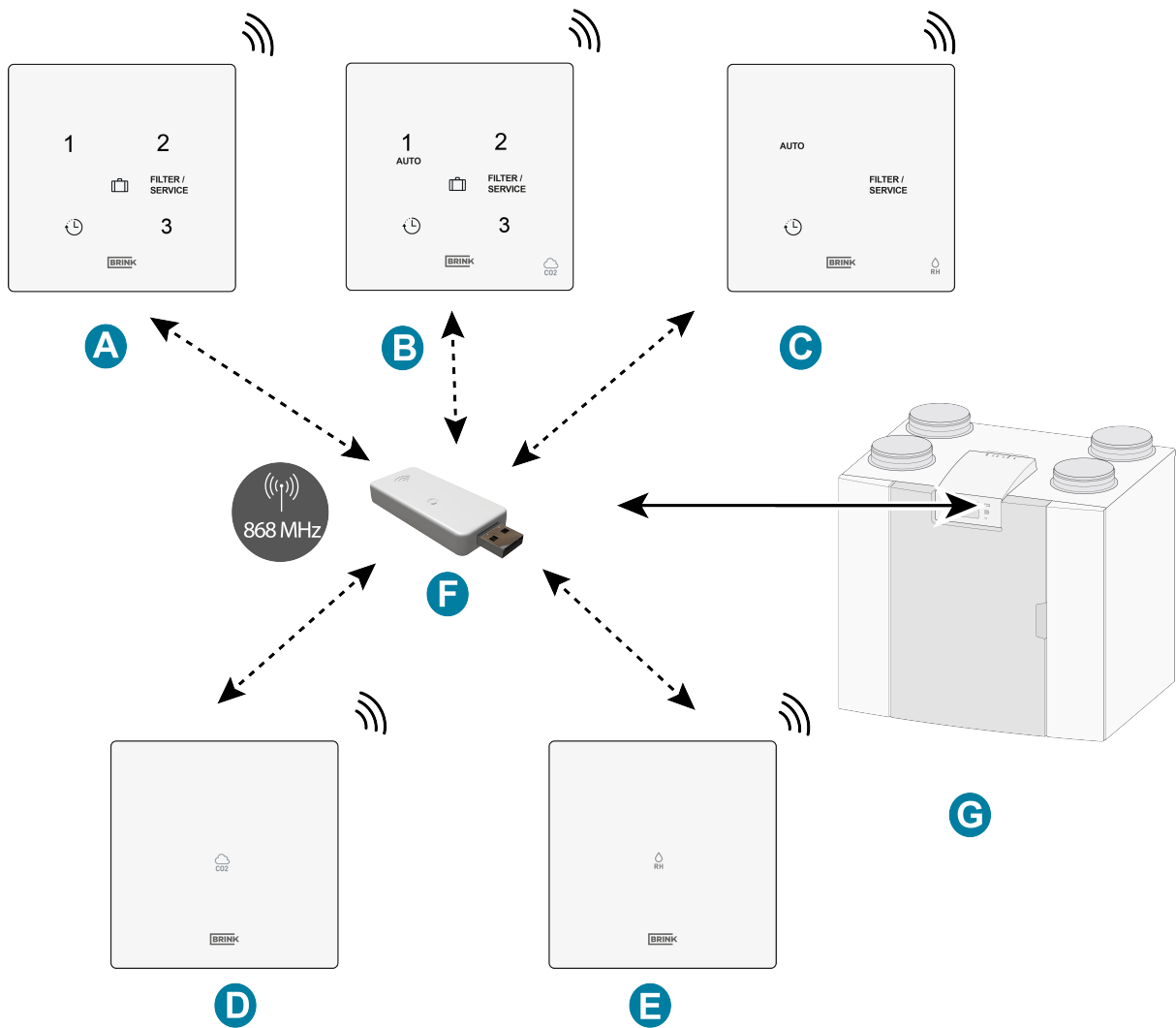
A. Wireless 3-position switch
B. Wireless CO_2 sensor with 3-position switch
C. Wireless RH sensor with boost function
D. Wireless CO_2 sensor
E. Wireless RH sensor
F. Wireless transmitter/receiver
G. Device with USB connection (e.g., HRU device type Flair)

1.2 Delivery content

Check that delivered Wireless RH sensor is complete and not damaged.

The delivery content of the Wireless RH sensor consists of the following components:

1. Wireless RH sensor
2. Frame
3. Wall bracket
4. Mounting screws (2x) & wall plugs (2x)
5. Short information with QR-code to on line manual
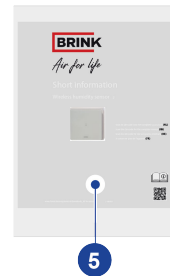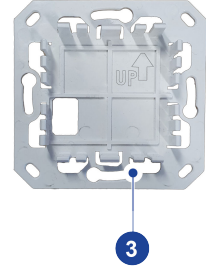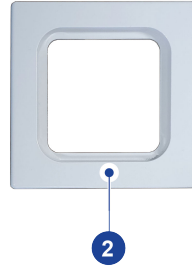
The delivery content does not include the optionally available permanent power supply which can be ordered from Brink under part number 532924.

2 Technical specification

2.1 General product specification

Product description

Name:	Wireless RH sensor

Technical product specifications

Operating voltage:	3 V
Protection class:	IP21
Type of battery :	CR2032.MRF Lithium (preferred manufacturer Renata or Panasonic CR-2032/BS)
	Not applicable if a permanent power supply is used!
Battery performance:	**Battery performance will drastically deteriorate when no connection to the Wireless transmitter/receiver in the HRU appliance can be made!** For example out-of-range or removed from the USB slot. Please remove the battery when storing the sensor/controller.
Frequency:	868 MHz
Color:	RAL 9010 (White)

Ambient conditions

|	
Ambient temperature:	0 °C to 50 °C
Storage temperature:	-20 °C to 60 °C
Humidity:	0% to 90%
Other:	For indoor use only
Range:	300 m (open field; 1 meter height)

2.2 Environmental influences

For correct functioning, the Wireless RH sensor should be placed and used in a space with the correct ambient conditions for proper operation. The Wireless RH sensor may only be mounted indoors, but not close to a heat source, a radiator or in a extreme humid environment. The Wireless RH sensor may not be exposed to direct radiation heat (sun light). The Wireless RH sensor may not be installed close to a magnetic field. This could damage internal components.

2.3 Overview operational controls

The Wireless RH sensor has four invisible (capacitive) buttons. Each button is equipped with a LED (white).
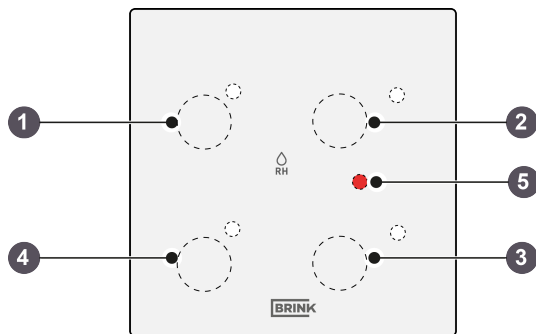
1. *Button 1 - Not visible but available for setting "node ID" during pairing*
2. *Button 2 - Not visible but available forsetting "node ID" during pairing*
3. *Button 3 - Not visible but available for setting "node ID" during pairing*
4. *Button 4 - Not visible but available for setting "node ID" during pairing*
5. *Fault indication LED (red)*

Button 1, 2, 3 & 4
When the (not visible) buttons 1, 2, 3 & 4 are operated for a node ID (see → Connecting with wireless transmitter/receiver (Pairing) -> page 16) the white LED placed next to these buttons will flash once as "button press" confirmation.
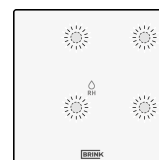
Fault LED
This red LED indicates when the filter(s) must be cleaned/replaced (LED lit continuously) or when the connected HR unit malfunctions (LED flashes). This applies to both the battery and 230 V powered sensor/remote control.
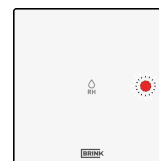
3 Assembly

3.1 Installing Wireless RH sensor

Follow **step 1** to **step 4** to install the Wireless RH sensor. An example of a wireless 3-position switch is shown in this section, other remote controllers/sensors are is installed in the same way.

Step 1
The wall bracket can be attached to a flush mounted electrical box (Ø 55 mm) or can be directly mounted on the wall with supplied double sided adhesive tape. Mounting on a electrical box is necessary when a permanent power supply (option) is used, see → Connecting permanent power supply (option) -> page 13.
The Wireless RH sensor should be placed at a height of approximately 1.65 meters above the floor.

- Screw or glue the wall bracket onto the wall in the correct position.

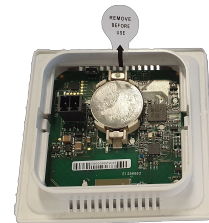> ⓘ **Note**
> The arrow on the wall bracket must point upwards!
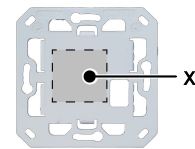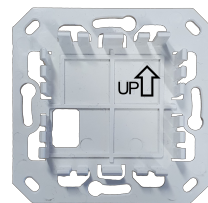
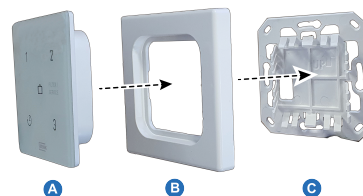Backside wall bracket with position double sided adhesive tape

Step 2
Remove the plastic isolation strip from the battery.

Step 3
Click the Wireless RH sensor (A) together with supplied frame (B) on the wall bracket (C).

Ⓐ Ⓑ Ⓒ

After mounting the Wireless RH sensor on the wall bracket, remove the foil from the front.

Step 4

When the Wireless RH sensor has been installed on the wall, the Wireless transmitter/receiver* can be placed in the USB port of the HRU appliance that needs to be connected with the Wireless RH sensor. To connect the Wireless transmitter/receiver with HRU appliance see → Connecting with wireless transmitter/receiver (Pairing) -> page 16 .

The Wireless transmitter/receiver is not included in the scope of delivery of the Wireless RH sensor and must be ordered separately!

⊢ⓘ⊣ **Note**

Once the wireless remote controller/sensor receives power, all 5 LEDs on the controller/sensor will start flashing.

3.2 Remove Wireless RH sensor

For removing the Wireless RH sensor from the wall bracket: Grasp the front of the Wireless RH sensor by the edges and gently pull it away from the bracket.

An example of a wireless 3 position switch is shown in this section, but other wireless controllers/sensors are to be removed from the wall bracket in the same way.
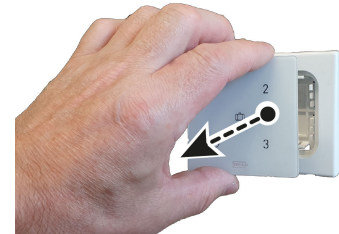
3.3 Connecting permanent power supply (option)

The optional permanent power supply can be ordered from Brink under article code 532924. When using the optional permanent power supply, the Wireless RH sensor must be installed on a flush mounted electrical wall box (Ø 55 mm).

⚠️ **Danger**
At all times disconnect the 230 V. mains supply when connecting a permanent power supply.

Step 1

- Place the permanent power supply (A) inside the wall box.
- Connect the 230V mains supply to the factory mounted gray connectors of the power supply. Strip the wire over a length of approx. 7 mm.

Step 2

- Feed the red and black wires with the green connector through the square hole in the in the wall bracket(C).
- Screw the wall bracket on the wall box.
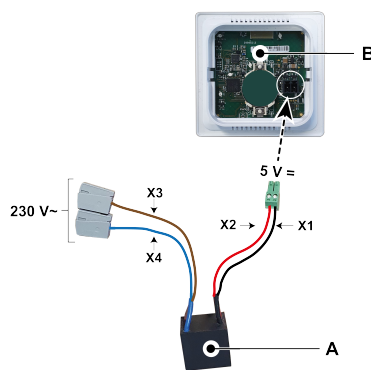
ℹ️ **Note**
The arrow on the wall bracket must point upwards!

A. *Permanent power supply (230 VAC/5 VDC)*

B. *Wireless RH sensor*

X1 = Black
X2 = Red
X3 = Brown
X4 = Blue

Step 3

- Removal of the battery (if mounted) is not required but recommended.
- Feed the red and black wire with the green connector through the frame (B), and connect this to the connector on the back side of the Wireless RH sensor (A).
- Click the Wireless RH sensor (A) together with connected red and black wires and the frame (B) on the wall bracket (C).
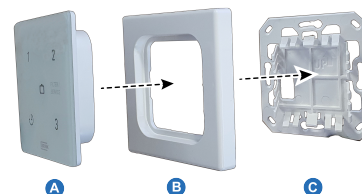
Step 4

- After mounting the Wireless RH sensor on the wall bracket, remove the foil from the front.
- Reconnect the 230 V mains supply.

Step 5

- When the Wireless RH sensor has been installed on the wall, the Wireless transmitter/receiver* can be placed in the USB port of the HRU appliance that needs to be connected with the Wireless RH sensor. To connect the Wireless transmitter/receiver with HRU appliance see → Connecting with wireless transmitter/receiver (Pairing) -> page 16


The Wireless transmitter/receiver is not included in the scope of delivery of the Wireless RH sensor and must be ordered separately!

ℹ️ **Note**

Once the wireless remote controller/sensor receives power, all 5 LEDs on the controller/sensor will start flashing.

3.4 Using another frame (option)

The Wireless RH sensor consists of a wall bracket (C), a frame (B) and the wireless controller (A). The wall bracket (C) is designed in such a way that a large number of frames from other vendors can be used.
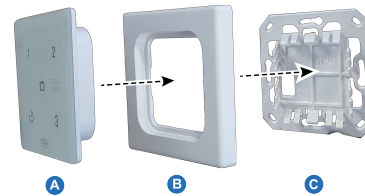
Products are supplied with Brink frame as standard. This frame can be replaced by frames from the other manufacturers and series. Appearance and tolerances vary by manufacturer. The following types of frames can be used instead of the standard frame:

A. Gira - System 55
B. Busch Jaeger Balance/Reflex SI
C. Jung AS
D. Siemens Delta
E. Berker S.1
F. Merten System M
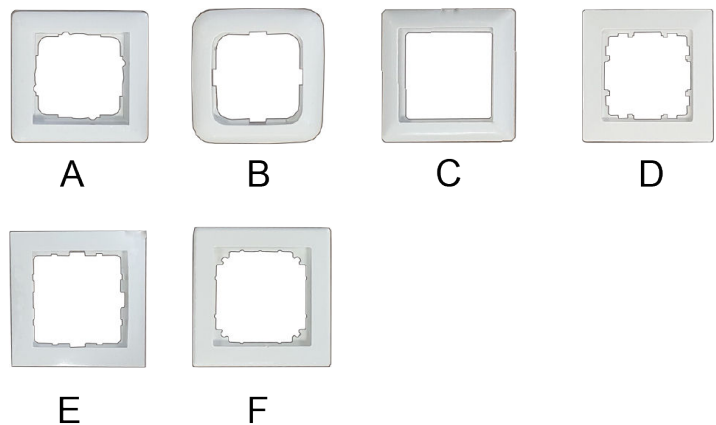
The above mentioned alternative frames are not included in the Brink delivery program!

A   B   C   D

E   F

4 Setting to work

4.1 Connecting with wireless transmitter/receiver (Pairing)

The Wireless RH sensor can be used as an extension to a set of wireless controller and a USB transceiver.
When the Wireless RH sensor is mounted on the wall and the USB transceiver is placed in the HRU appliance (see image on the right), the Wireless RH sensor can be connected (pairing).
For a HRU appliance equipped with a display, the USB symbol (⬛) is visible as confirmation that the USB transceiver has been "recognised"; for a HRU appliance without a display, this USB symbol will be visible in the app. If the USB symbol is not visible, your HRU appliance is probably equipped with a software version before July 2022 and it is not possible to connect the Wireless RH sensor.

Follow the steps as described below:

Step 1
Apply mains power to the HRU appliance.

Step 2
Press and hold the pairing button of the USB transceiver between 3 and 10 seconds.
The green LED on the USB transceiver starts flashing (1x per second). The pairing mode is active for 10 minutes.

Step 3
Press and hold the pairing button between 3 and 10 seconds on the bottom of the controller (through a small hole), for example with the end of a paper clip. When pressing the button a ''click'' should be noticeable.

Pairing enabled when the LEDs (4 pcs) light in turn (0.5 sec. ON and next will ON when previous is OFF).

When pairing is not succesfull set Wireless RH sensor back to factory setting and try to pair Wireless RH sensor again.
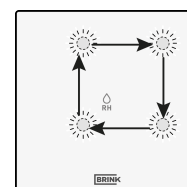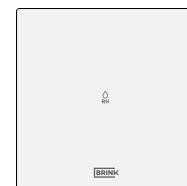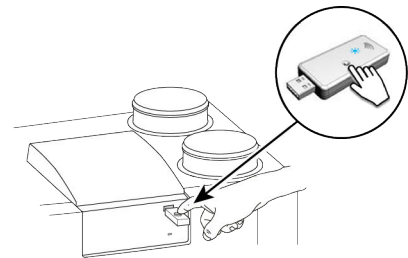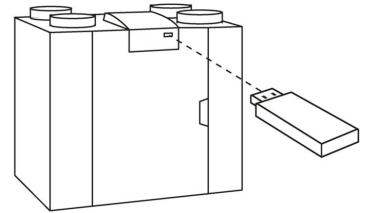
Step 4
Choose under which number the Wireless RH sensor should be registered
by configuring a "NODE ID"; press any of the four buttons on the Wireless
RH sensor .
For example press button 1; LED 1 will flash once.

When there are more wireless controllers or wireless sensors to connect
with the device, press different (invisible) button; the number of the button is
also the number of connected CO_2-sensor in the menu of the device. If
pairing is not successful go back to Step 3. Check also the USB transceiver.
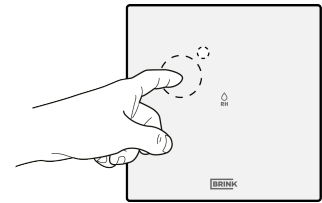
The air flow quantities associated with the ventilation settings must always be set on the connected HRU
appliance and cannot be adjusted on the Wireless RH sensor
For settings Wireless RH sensor (To switch on and set the sensitivity of the humidity sensor), see the installation
manual of the relevant connected HRU appliance; this setting applies to all connected humidity sensors.

4.2 Factory reset Wireless RH sensor

It is possible to reset the wireless transmitter/receiver and remote control(s)/sensor(s) back to factory settings:

Factory setting controller

- Press and hold the pairing button (for example with end of a paperclip) for more than 20 seconds. When pressing the button a ''click'' should be noticeable.
- To confirm the reset all 5 LED's will flash two times (0,5 second on and 5 seconds off).
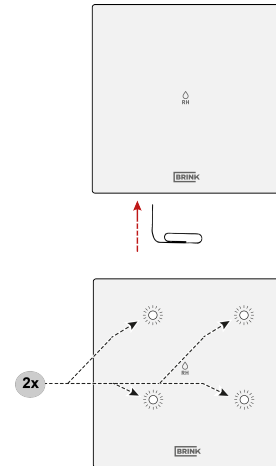- All the pairing information has been deleted from the Wireless RH sensor.

Factory setting USB transceiver

- Press and hold the button on the Wireless transmitter/receiver for more than 20 seconds.
- To confirm the reset, the green LED on the Wireless transmitter/receiver will flash two times.
- All the pairing information has been deleted from the Wireless transmitter/receiver.
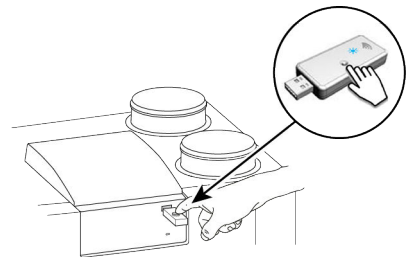
4.3 Pairing multiple systems

When pairing multiple installations/residences, be sure to complete the pairing of the wireless transmitters per installation/residence, and ensure that only one (1) wireless transmitter/receiver is in pairing mode at a time.
It is possible for a Wireless transmitter/receiver in pairing mode to detect and pair with wireless transmitter/receiver(s), wireless controller(s), and/or sensor(s) from different installations/residences.
To stop the pairing mode on a Wireless transmitter/receiver: Press the pairing button on the wireless transmitter/receiver (1 second). The Green LED on the device will stop flashing.

> **ℹ Note**
> Always deactivate the pairing mode on the wireless transmitter/receiver immediately after pairing.

5 Information additional Wireless RH sensor

5.1 Pairing additional remote controller/sensor

For connecting extra remote controllers or sensors to the HRU appliance follow the steps as described below.

A wireless 3-position switch is shown as an example.

Step 1
Apply mains power to the HRU appliance.

Step 2
Press and hold the pairing button on the Wireless transmitter/receiver (between 3 and 10 seconds).
The green LED on the Wireless transmitter/receiver starts flashing (1x per second). The pairing mode is active for 10 minutes.
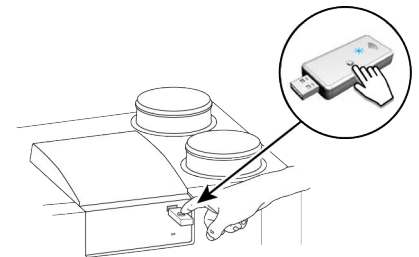
Step 3
Press and hold the pairing button between 3 seconds 10 seconds on the bottom of the controller (through a small hole), for example with the end of a paper clip. When pressing the button a ''click'' should be noticeable.

Pairing is enabled when four Led lights illuminate in turn (0.5 sec ON, the next one comes on when the previous one is off).
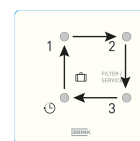
Pairing disabled when the red LED is ON for two seconds.
If pairing fails, reset Wireless RH sensor to factory setting and try to pair Wireless RH sensor again.Or see → <u>Signal amplifier</u> -> page 22

Step 4

Choose under which number the sensor should be registered by configuring a "NODE ID"; press any of the four buttons on the Wireless RH sensor (do not use the holiday button 🛄). For example press button 2; LED 2 will flash once.

When pairing multiple sensors/remote controllers with the HRU device, press a button for NODE ID that has not been paired yet. This ID must be unique for each sensor. The button number corresponds to the number of the paired accessory in the HRU device menu.
If pairing is unsuccessful, return to step 3. Also, check the wireless transmitter/receiver.

To stop the pairing mode: Briefly press and hold the pairing button of the wireless transmitter/receiver (1 second). The green LED on the wireless transmitter/receiver will stop flashing.
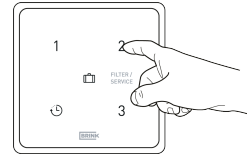
ℹ	**Note**
	Always deactivate the pairing mode on the wireless transmitter/receiver immediately after pairing.

ℹ	**Note**
	If a wireless remote controller/sensor is registered with an existing NODE ID, the first registered remote controller/sensor will be overwritten. Please ensure that all paired remote controllers/sensors have their own unique NODE ID.

6 Settings

6.1 RH-sensor general

The Wireless RH sensor ensures optimum ventilation in the dwelling by automatically adjusting the air flow rate on the basis of the humidity content. The air flow rate is determined by the humidity sensor that requests the highest level.
Depending on the sensitivity of the humidity sensor, the Wireless RH sensor adjusts the air flow proportionally between the setting 1 (set low) and setting 3 (set high). The settings made in the menu of the connected appliance applies to all connected humidity sensors.

6.2 Settings RH-sensor

After installation the RH sensor(s) must be activated in the settings menu step number 7.1 to ON. Optionally, the sensitivity of the sensor can be altered by means of step number 7.2. Process for adjusting the value (s) in the settings menu of the Flair appliance, see the installation instructions.

Step no.	Description	Factory setting	Adjusting range
7.1	RH-sensor	OFF	OFF = RH-sensor not active ON = RH-sensor active
7.2	Sensitivity	0	+2 = most sensitive 0 = default setting -2 = least sensitive

Check the operation of RH sensor
Select ⓘ on touchscreen and go with ∧ and ∨ to readout value RH sensor.
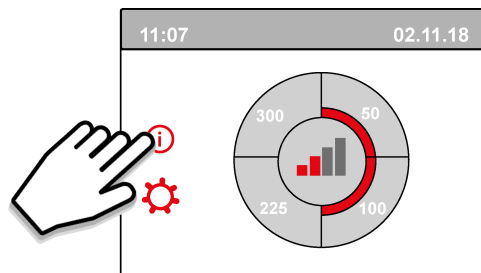
7 Signal amplifier

An optional signal amplifier is available. This amplifier is necessary when the signal needs to cover a long distance in the house , in very well-insulated homes, or in situations where signal-disrupting materials are used.

If a sensor/remote controller is out of range of the wireless transmitter/receiver and cannot be paired (red LED on controller or sensor); remove the wireless transmitter/receiver from the Brink device and connect it to a smartphone adapter or laptop (to provide power to the wireless transmitter/receiver). Now locate the wireless transmitter/receiver in the same room as the controller or sensor to be paired.

Restart the pairing procedure. If pairing is successful, a signal amplifier needs to be installed to extend the signal range of the wireless transmitter/receiver to the location of the controllers and/or sensors.

The signal amplifier can be ordered at Brink under article code 532715.

ℹ	**Note**
	The signal amplifier requires a fixed 230 V power supply.

ℹ	**Note**
	Always pair remote controllers and sensors directly to the wireless transmitter/receiver and not through the signal amplifier. The signal amplifier cannot be used for pairing.
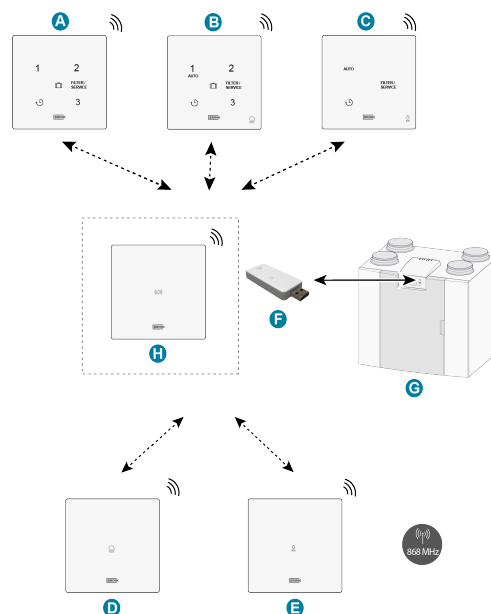
A. Wireless 3-position switch

B. Wireless CO_2 sensor with 3-position switch

C. Wireless RH sensor with boost function

D. Wireless CO_2 sensor

E. Wireless RH sensor

F. Wireless transmitter/receiver

G. Device with USB connection (e.g., HRU device type Flair)

H. (Optional) Signal amplifier

8 Troubleshooting and warranty

8.1 Failure

- When using battery-powered remote controllers/sensors, the HRU device will go into a fault state when the battery is low. The fault will disappear automatically after replacing the battery.
- Check if the HRU device is in vacation mode if wireless CO_2 or RH sensors are not functioning.
- If there are issues with pairing, see → Signal amplifier -> page 22
- Refer to the installation manual of the connected HRU device for other errors.

8.2 Warranty

"The Wireless RH sensor has been carefully manufactured by Brink Climate Systems B.V. and meets high-quality standards. The functionality of the Wireless RH sensor is guaranteed for a period of two years from the moment of delivery. This warranty is provided in accordance with Brink Climate Systems B.V.'s General Terms and Conditions, which you can find on www.brinkclimatesystems.nl. In case of incorrect or improper use of the Wireless RH sensor and failure to follow the instructions in this user manual, your right to warranty is void.

If you wish to claim warranty:
You must make this known in writing via:
Brink Climate Systems B.V.
P.O .Box 11
NL-7950 AA, Staphorst, The Netherlands

ⓘ **Note**

It is not allowed to make any changes to the hardware or software of the Wireless RH sensor. This can affect the proper functioning of the Wireless RH sensor, and in that case, all warranties will be void."

---

9 Maintenance

9.1 Maintenance

Clean the Wireless RH sensor regularly with a soft cloth.

ⓘ **Note**

Never apply water and/or (cleaning) liquid to the Wireless RH sensor.

9.2 Replace battery

Replace battery

(Not applicable when using the optional permanent power supply.)

Replace battery with correct type CR2032.MRF battery manufacturer Renata (or Panasonic CR-2032/BS).
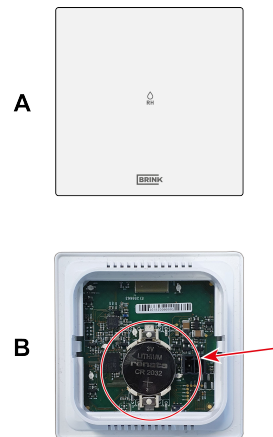
Pay attention to the position of the battery! The text marked "+" must always be legible after inserting the battery.

For replacing battery take Wireless RH sensor from the wall bracket, see → Remove Wireless RH sensor -> page 12).

ⓘ **Note**

Replace the battery at least once every 2 years to prevent malfunctions.

A. Front side Wireless RH sensor
B. Back side Wireless RH sensor

10 Declaration of Conformity

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: **Brink Climate Systems B.V.**

Address: **P.O. Box 11**
NL-7950 AA, Staphorst, The Netherlands

Product: **Wireless RH sensor**

The product described above complies with the following directives:

- 2014/53/EU   (EMC directive)

The product described above has been tested according to the following standards:

- EN 301 489-3:   V2.1.1:2019-03
- EN 300 220-2:   V3.2.1:2018-06
- ETSI EN 300 220-1:   V3.1.1 (2017-02)
- EN 62479:   2010
- EN 60669-2-5:   2016
- EN 60669-2-1:   2004 + A1:2009
- EN 50428:   2005 + A1:2007 + A2:2009

EU-Type Examination Certificate 40056587; VDE Testing and Certification Institute (0366).

Staphorst, 15-04-2023

A. Hans
Managing Director

11 Recycling and disposal

Do not dispose of as household waste!

In accordance with the Waste Disposal Act, the following components must be disposed of or recycled in an environmentally compatible manner by means of appropriate collection points:

- Old appliance
- Wearing parts
- Defective components
- Electrical or electronic waste
- Environmentally hazardous liquids and oils

Environmentally compatible means separated by material groups to ensure the greatest possible recyclability of the basic materials with the minimum environmental impact.

1. Dispose of packaging made of cardboard, recyclable plastics and synthetic filler materials in an environmentally compatible manner through appropriate recycling systems or a recycling centre.
2. Please observe the applicable national and local regulations.