

# **Operating Instructions 4.1**



Dew point control for dehumidification of cellars



### Table of Contents

INTRODUCTION	3
Intended Use	4
OPERATION DESCRIPTION	4
WARRANTY	5
SAFETY INSTRUCTIONS	5
SCOPE OF SUPPLY	7
BEFORE COMMISSIONING	8
USE	8
Assembly instructions	8
Assembly	g
Mount and connect cable sensors (not applicable if you only have radio ser	nsors) 10
Operation with a fan	11
Operation with two fans	11
Operation with one window opener	12
Operation with two window openers	12
Operation with one window opener and one fan	13
Operation by radio receiver	13
Finish assembly	14
The first commissioning and setting up of the sensors	14
Making settings	22
MANUAL OPERATION	27
OVERVIEW OF ALL MESSAGES	28
Change batteries	30
SETTING UP THE APP	31
TECHNICAL SPECIFICATIONS	37
CLEANING, CARE AND STORAGE	38
ENVIRONMENTAL PROTECTION	38

### INTRODUCTION

Congratulations on purchasing your new **ventilation control system!** You have thus opted for a high-quality product that now takes care of your moisture-burdened rooms

The operating instructions are part of this product, hereinafter referred to as the device. They contain important instructions pertaining to its safety, use and disposal. Please familiarize yourself with all the operating and safety instructions before using this product. Use your product only as described and for the specified areas of use. Store these operating instructions in an easily accessible place. Hand over all documents when passing on the product to any third parties.

Please do not hesitate to contact us at any time should you have any questions.



### Intended Use

This device is intended exclusively for:

- The elimination of high humidity in damp rooms through ventilation (e.g., in cellars, garages or laundry rooms)
- The dehumidification of moisture created through use and dense building envelopes
- The dehumidification of condensation water on walls, floors and ceilings

It must be ensured that moisture input due to defective components, gutter, roofs, etc. is prevented by suitable repairs.

The connected fans must not exceed a maximum power of 1800 W!

Any other use or modification is considered improper and involves significant accident risks. The manufacturer assumes no liability for any damage arising from improper use or failure to comply with these operating instructions.

### **OPERATION DESCRIPTION**

Ventilation systems of various types are used for the dehumidification of buildings. Temperature and humidity sensors compare the internal and external temperatures as well as humidity. The control unit compares these values. In case of higher absolute humidity in a building, a ventilation system is switched on via a load relay. The fans are only put into operation if it is drier outside than inside and thus a drying of the room is possible.

### WARRANTY

The warranty begins with the invoice or delivery date and is valid for 24 (twenty-four) months. During the warranty period, any defects will be corrected free of charge. If a defect is found, you are obliged to report it to the manufacturer immediately. It is at the discretion of the manufacturer to fulfill the warranty by sending spare parts or repairing. In the case of dispatch of spare parts, the authorization of replacement without loss of warranty exists. Repair at the installation site is excluded. The control unit is not suitable for commercial use. Any violation of the use of the product will result in a reduction of the warranty or loss of warranty. The warranty only applies to material or manufacturing defects. Wear parts or damage caused by incorrect or improper handling, use of force and interventions, which are carried out without prior consultation with our service department, void the warranty. If possible, please keep the original packaging for the duration of the warranty period to protect the goods sufficiently in the event of a return. Do not send goods to the service department with shipping charges not prepaid. The use of warranty services does not extend the warranty period. Claims for compensation for damage that may occur outside the device (unless liability is necessarily regulated by law) are excluded.

If the device is opened above the terminal box, the warranty expires.

### **SAFETY INSTRUCTIONS**

**CAUTION!** Failure to comply with the safety instructions and instructions listed below may cause electric shock, fire and/or serious injury.

- 1. Please read these operating instructions completely before use.
- 2. If this device is passed on to anyone else, these operating instructions must also be passed on with it.
- This device conforms to the relevant technical standards and corresponding safety requirements for electrical equipment.
- 4. The device must not be used by children.
- 5. Please keep the device and its connection cables out of the reach of children.
- 6. Children should be supervised to ensure that they do not play with the device. This also applies to the cleaning of the device.
- 7. Do not allow this device to be used by anyone who is not familiar with it or has not read these instructions.
- 8. **RISK OF ELECTRIC SHOCK AND SHORT CIRCUITING!** Do not open the housing under any circumstances Do not introduce any objects into the housing. In the event of this happening, the safety of the device cannot be guaranteed and the warranty is rendered null and void.

The terminal box may only be opened by qualified personnel for the connection of the cables. Do not operate the device with opened terminal box. 9.RISK OF FIRE AND SHORT CIRCUITING! Do not immerse the device or any its accessories in water or use it near water. Do not allow any liquids to enter the device and the sensors

- 10. **DANGER OF ELECTRIC SHOCK!** If the device should happen to fall into water, or liquids have entered the device, unplug the device immediately. Before recommissioning, check the device and, if necessary, have it repaired by qualified personnel.
- 11. **DANGER OF ELECTRIC SHOCK!** Do not use the device outside. Only the sensor intended for outdoor use may be installed outdoors, protected from rain and without sunlight in the northern direction.
- 12. **DANGER OF ELECTRIC SHOCK!** Never touch the device or the mains plug with wet or damp hands, and do not use the device while standing on a wet floor.
- 13. Only mount the device and the accessories intended for assembly in places that ensure secure mounting.
- 14. Do not operate, store or place the device on or near hot surfaces and open sources of fire, such as hotplates, ovens, radiators or candles.
- 15. Do not place any objects on top of the device.
- 16. **DANGER OF ELECTRIC SHOCK!** Check that the mains voltage and the type of electrical current matches the information provided on the type plate before connecting the device to the mains power supply.
- 17. Check the device, mains plug and mains cable for damage regularly and always before using the device.
- 18. **DANGER OF ELECTRIC SHOCK!** Do not use the device if it displays any signs of damage or if the device has fallen onto the floor or may have been otherwise damaged.
- 19. Please contact customer services if the device malfunctions or there are any signs of damage.
- 20. To avoid hazards, defective components may only be replaced by the manufacturer, its customer service or similarly qualified personnel.
- 21. Only plug the device into a properly installed mains socket.
- 22. If the mains connection cable on the device is damaged, it must be replaced by the manufacturer or the manufacturer's customer services, or another suitably qualified person, in order to prevent hazards.
- 23. Plug the mains plug into an easily accessible mains socket so that you can quickly disconnect the device from the mains supply in the event of an emergency. If there is a danger, immediately remove the mains plug from the mains socket.
- 24. If the mains plug is damaged or cut, do not touch the mains plug, but immediately unplug it. Damaged or entangled mains cables increase the risk of electric shock.

Always unwind the mains plug and extension cord completely.

- 25. Do not use the mains cable for any other purpose, for example, to carry or hang up the device or to pull the plug out of the mains socket. Do not wind the cable around the device. Keep the mains plug away from heat, oil and sharp edges. Ensure that the mains cable is not squashed, pulled tightly, bent or chafed.
- 26. Arrange the mains cable so that it is not possible for anyone to unintentionally pull or trip over the mains cable.
- 27. Before changing accessories or extra moving parts, the device must be switched off and unplugged from the mains.
- 28. **Danger of injury!** Disconnect the device from the mains before cleaning, when not in use, in the event of thunderstorms, defective functions, malfunctions or dangerous situations, or when assembling or disassembling it.

### SCOPE OF SUPPLY

1x control unit



2x sensors for indoor and outdoor



These operating instructions

Please ensure that all components are included in the package and check for any visible damage. All components listed above should be included. Only use accessories that are listed in the operating instructions. The use of any parts or other accessories that are not listed here may place you at risk of injury or damage the device irreparably and will invalidate the warranty.

### **BEFORE COMMISSIONING**

Remove all packaging materials and check the device and its accessories for any damage.



Please be certain to read the operating instructions carefully before using for the first time.



DANGER OF SUFFOCATION! Keep all packaging material away from children. Make sure that all packaging materials are disposed of in a responsible manner. You can find out further information about collection points and recycling from your local authority.

### **USE**



DANGER OF INJURY! Only plug the device into the mains socket after you have assembled the device and just before you use it.

# Assembly instructions

The control unit must be easily accessible and attached to a dry wall near a socket

The outdoor sensor must be fitted with a shock-proof surface, above the splash water area (50 cm), preferably on the north side, and otherwise in a shaded area.

Direct sunlight distorts the measurement result due to heating. Direct rain destroys the sensors.

The inside sensor is to be mounted in the region of the greatest moisture load, preferably on an inner wall.

### If you have purchased radio sensors:

The radio sensors should be placed within a radius of 10 m around the control unit to ensure a continuous radio connection. This connection is also possible through several walls.

The greatest range is achieved when the antennas are bent vertically upward.

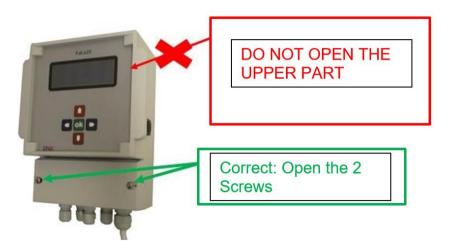
The exact range depends on your circumstances in the building such as wall thickness, pipe and cable laying and the number of sources of interference from other electrical devices. If you need a longer range, you can just try it out.

### **Assembly**

Insert the drill and dowels into the drill holes. The control unit is
mounted with a total of 3 screws. First insert the upper, middle screw for
fixing the device and the other screws in the following step (as explained
below). The sensors are each mounted on the corresponding walls with a
screw

Note: The sensors include special precision sensors that must not be breathed on. Otherwise, they may lose their sensitivity.

Open the terminal box of the now hanging control unit. To do this, screw
the two lower screws on the terminal box and remove the cover. Now you can
mark the two lower fixing screws on the device and drill the corresponding
holes so that the control unit is now firmly attached with all 3 screws.



### Then the inside looks like this:



# Mount and connect cable sensors (not applicable if you only have radio sensors)

Then mount the cable sensors in the places you have provided.

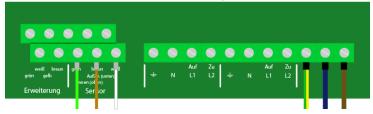
The outdoor sensor must be fitted with a shock-proof surface, above the splash water area (50 cm), preferably on the north side, and otherwise in a shaded area.

Direct sunlight distorts the measurement result due to heating. Direct rain destroys the sensors.

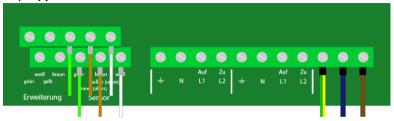
The inside sensor is to be mounted in the region of the greatest moisture load, preferably on an inner wall.



Connect the outdoor sensor cable (if you have purchased an outdoor cable sensor). Insert the cable through the left PG gland and screw it into the terminals provided for this purpose. Ensure the correct color assignment of the cables (lower terminal from the left: Green – Brown – White).



Connect the indoor sensor cable (if you have purchased an indoor cable sensor). Upper terminal from left: Green – Brown – White.



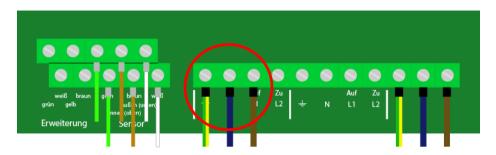
Caution! Do not insert batteries into the cable sensors. They are supplied with power from the control unit.

### Operation with a fan

If you want to operate the control unit with a fan, connect the cable of the fan to the terminals provided for this purpose (from left to right: protective conductor – neutral conductor – phase). You can connect the fan to the terminals labeled Fan 1 or Fan 2. The terminal with the designation "Zu" (Closed) is not required in this case.

**Note:** Depending on the fan you have chosen, a fan cable with 2 connection wires (without protective conductor) or with 3 connection wires (with protective conductor) may be required (**not included in this scope of delivery**). For more information, please refer to the fan documentation. For the sake of completeness, the picture below shows all three connections. Your connection may therefore differ slightly from this picture.

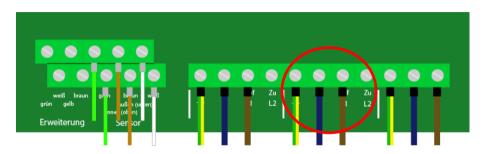
Leave this step to a professional!



## Operation with two fans

If you want to operate the control unit with two fans, connect the cable of the fans to the terminals provided for this purpose (from left to right: protective conductor – neutral conductor – phase).

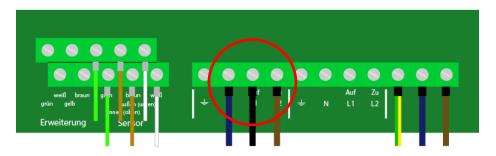
The terminals with the designation "Zu" (Closed) are not required in this case.



### Operation with one window opener

If you want to operate the control unit with one window opener, connect the cable of the window opener as shown in the following picture. You can connect the window opener to the terminals labeled Window opener 1 or Window opener 2.

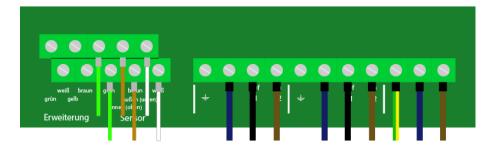
The window opener shown here has three connecting wires. black: opening phase; brown: closing phase and blue: neutral conductor If you use a window opener that has a protective conductor, you can connect it to the protective conductor terminal.



# Operation with two window openers

If you want to operate the control unit with two window openers, connect the cables of the window openers as shown in the following picture.

The window openers shown here have three connecting wires. black: opening phase; brown: closing phase and blue: neutral conductor

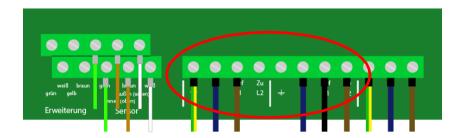


### Operation with one window opener and one fan

If you want to operate the control unit with one window opener and one fan, connect the cables as shown in the following picture.

The window opener shown here has three connecting wires. black: opening phase; brown: closing phase and blue: neutral conductor If you use a window opener that has a protective conductor, you can connect it to the protective conductor terminal.

The fan shown also has three connecting wires (from left to right: protective conductor – neutral conductor - phase).



# Operation by radio receiver (optional, has to be ordered separately)

In the previous operating modes, the ventilation components were connected directly by cable. However, you can also connect the components by radio by purchasing our radio receiver. This eliminates the need to route cables from the fan to the control unit. Simply plug the cable of the fan or window opener into the radio receiver shown here (see the instructions for the radio receiver for more details) and plug it into a socket. The power supply to the fan or window opener is provided via the socket, and communication with the control unit is carried out via radio.

You can have any number of radio receivers controlled by one control unit. Usually only one fan or window opener is connected to a radio receiver.

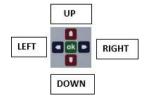
Funkempfänger

### Finish assembly

Close the terminal box again.

# The first commissioning and setting up of the sensors

When you have completed assembly, you can then plug the mains plug into a mains outlet and press the **On/Off switch.** Then the device switches on



# At the first start, press and hold the LEFT button until the following display appears.

You only need to keep the button pressed when you start the device for the first time (to set up the sensors) or if you want to change the type of sensors after installation (from radio to cable or from cable to radio).



Since you can choose between cable sensors and radio sensors when purchasing, you must tell the control unit what type of sensor you are using for inside and outside. You can use the **UP** and DOWN buttons to select between "Cable" and "Radio". Confirm with **OK** 



### Selection of the receiver channel

#### Note:

This section is only important if you are using radio receivers. If you have connected your ventilation components only by cable, simply press the OK button. Then you can continue reading on the next page.

In the section **Operation by radio receiver**, you connected your fans or window openers to the radio receivers and plugged them into a socket. Communication by radio can thus take place. However, it is possible to install a plurality of control units in a house, which are to switch independently of one another. Even in apartment buildings, it can happen that each apartment has its own system. In order for the control unit to switch only the radio receivers that belong to the system and not all, each system must transmit on its own channel (similar to Wi-Fi networks). You can choose between 8 channels, which can be set by pressing the UP and DOWN buttons. Then you confirm your selections with OK.

If you only operate one system in the house, you can choose the channel as

Just make sure that you have set the same channel here in the control unit and in the radio receiver. Please read the instructions of the radio receiver for this.



### **App Settings:**

Here you can choose whether the device should send data for the use of our ventilation app. The prerequisite for this is that you have also ordered access to the app. You can learn how to download this app in the "App Setup" chapter. If you do not want or are not allowed to use the app, use the UP and DOWN buttons to set the setting to **NO**. Otherwise, set it to **YES**.



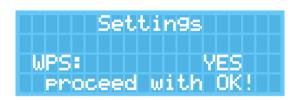
On the back of these operating instructions is an app ID, which you must now enter in the device. This ensures that the data of the app can be uniquely assigned to the device. Each device has its own app ID. To enter the ID, use the **UP** and **DOWN** buttons. Then press the **RIGHT** button and repeat this with the next 4 characters. After you have entered the 5th character, press **OK**.



**Use WPS (not applicable if you did not order app access)**: Because the device communicates with the app via Wi-Fi, you must either enter the name of your Wi-Fi network in the device or use WPS.

WPS means that you press a WPS button on your Wi-Fi router and the router sends the access data to the control unit for about 2 minutes so that you do not have to enter it manually. This is much more convenient than entering the name and password of the network manually. The only prerequisite for this is that your router has a WPS button. But this can be easily checked by looking at the router. This should not be a problem with newer routers.

If you want to use WPS, press **UP** or **DOWN** to set YES and press **OK**. If you cannot use WPS, set NO.



# Press the WPS button (not applicable if you did not order app access or selected WPS NO):

If you want to use WPS, you must now press the WPS button on the router. Then press **OK** on the control unit. Then the connection is tested. If it works, "Connected" appears on the screen. If not, you are prompted to press the WPS button again. However, it usually works immediately. Note that the WPS signal is active only approx. 2 minutes after you press the button.

**Note**: If you have never used WPS and it does not work, it might be switched off in the router settings. Simply switch it on and it should work. Sometimes the WPS button also needs to be pressed for a few seconds.



# Enter the Wi-Fi name (not applicable if you did not order app access or selected WPS YES):

If you do not want to use WPS, you must enter the name of your Wi-Fi network here. To do this, use the **UP** or **DOWN** button to select the first character of the name and press the **RIGHT** button. Now repeat with the next character until you enter the last character. After you have selected the last character with the **UP** or **DOWN** button, press **OK** instead of **RIGHT**. This tells the control unit that the name entry has been completed.



Enter the Wi-Fi password (not applicable if you did not order app access or selected WPS YES):

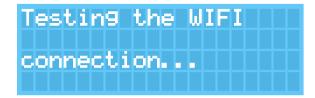
Next, enter the Wi-Fi password. You do this in the same way as for the Wi-Fi name. Use the **UP** or **DOWN** buttons to select the appropriate character and press **RIGHT** to enter the next character, or **OK** to complete the entry.



Once you have entered everything, the connection is tested. If the connection was successful, you can proceed with these operating instructions. If an error has occurred, you are prompted to re-enter the Wi-Fi name and password. An error only occurs if the access data have been set incorrectly or the Wi-Fi connection is too weak (router too far away). Since the control unit has at least as long a range as a mobile phone, you can simply check with a mobile phone whether the reception is there at all.

Note: If you need to re-enter the data, the previously entered data are already visible. Consequently, you do not have to re-enter everything. If you do not change a character, press the RIGHT button until you reach the last character. At this, press OK again to complete the entry.

Note: If the access data of the Wi-Fi change at a later time, you can re-enter them when restarting with the LEFT button pressed. Note that you can also use the UP and DOWN buttons to set the characters, RIGHT to move to the next character, and OK to complete the entry for the last character.



Once you have made the settings, the device will tell you how to set up the sensors. Depending on the sensors purchased, there are four possibilities for this, which are explained on the following pages:

Outside Radio / Inside Radio, Outside Radio / Inside Cable, Outside Cable / Inside Radio, Outside Cable / Inside Cable

The outdoor sensor must be fitted with a shock-proof surface, above the splash water area (50 cm), preferably on the north side, and otherwise in a shaded area.

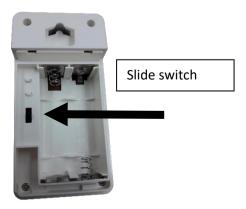
Direct sunlight distorts the measurement result due to heating. Direct rain destroys the sensors.

The inside sensor is to be mounted in the region of the greatest moisture load, preferably on an inner wall.

### Outside radio and inside radio

If you use a radio sensor on the outside and a radio sensor on the inside, you will see the following picture on the display (on the left):

Please wait and switch on the outside sensor after approx. 5 minutes



Then the device searches for all radio sensors in the vicinity. If you have several in a house or maybe neighbors have a control unit, the device will find them.

When a sensor is found, the display shows a number between 1000 and 1300. <u>This is the channel of the sensor just found</u>. The sensors transmit every 60 seconds, so they can also be detected every 60 seconds.

In order for the control unit to know which sensor it needs to use, you can select Yes or No for each sensor found. Yes is the **RIGHT** button and No is the **LEFT** button.

Now let the device run for approx. five minutes, write down the channels if any are displayed and press the LEFT button (i.e., NO) for all of them. Because these are the sensors that we do not want to use.

Then use the slide switch in the battery compartment (**see picture above**) to select a channel for the external sensor that has not yet been shown. You can select between channels 1, 2 and 3. Then switch on the outdoor sensor by inserting 2xAA batteries. **It does not matter which of the sensors you use for indoors or outdoors.** The sensor should be detected after three minutes at the latest.

After a few moments, the device displays the channel of the sensor (channel 1 = 1001, channel 2 = 1002, channel 3 = 1003). Then press YES and it is set up.

Then the following message appears:



Then use the slide switch to select a different channel for the inside sensor. If you selected channel 1 for the outdoor sensor, select channel 2 or 3 for the indoor sensor. Switch on the inside sensor. This should also have been detected after a few minutes. Here, too, all other radio sensors nearby could be detected. Press Yes only when a channel corresponding to the one you set is displayed. This is the channel of the inside sensor. For all others, press No again.

After you do this, the message "Sensors detected" appears. From now on, the sensors are stored and can be mounted.

#### Outside radio and inside cable

If you use a radio sensor on the outside and a cable sensor on the inside, you see the following picture:



Please set up the outside sensor as described in the previous section **outside radio** and inside radio

Then you set up the inside sensor. Outside and inside sensors must always have a different channel. If you selected channel 1 for the outdoor sensor, select channel 2 or 3 for the indoor sensor. However, do not insert batteries into cable sensors.

### Outside cable and inside radio

If you use a cable sensor on the outside and a radio sensor on the inside, you see the following picture:



Please set up the inside sensor as described in the previous section **outside radio** and inside radio

Then you set up the outside sensor. Outside and inside sensors must always have a different channel. If you selected channel 1 for the inside sensor, select channel 2 or 3 for the outdoor sensor. However, do not insert batteries into cable sensors.

### Outside cable and inside cable

The inner sensor and outer sensor are then set up one after the other. Outside and inside sensors must always have a different channel. If you selected channel 1 for the inside sensor, select channel 2 or 3 for the outdoor sensor. However, do not insert batteries into cable sensors.

## **Making settings**

You are now in the Settings screen.

First, set the minimum temperature of the room. You use this to define the temperature that should never be fallen below in the room. This is particularly important in winter, since ventilation should not make the room too cold.

Use the UP/DOWN input buttons to make the settings. Then confirm with OK.



Then you can set the maximum temperature. This is particularly important for wine cellars, where the temperature must be kept within a precise range. If you are unsure, just keep the default value.



Next, set the ventilation duration. This determines the duration in which the fan is switched on or the window remains open. As soon as the control unit has detected that it is drier on the outside than on the inside, it switches on the fan or window opener precisely for the duration of the ventilation period.

When this time has elapsed, the fan is automatically switched off (called a fan pause in this case) or the window is closed. This is to ensure that the drier air has spread well in the room before the next ventilation.

**Note:** If you set the ventilation time to 0 minutes, it means that the fan or window opener is switched on **without pause** until it is no longer dry enough outside. Therefore, the room is ventilated until room air is drier than the outside air. Depending on the time of year, this means that the connected device can be switched on continuously (several hours and days) and no pause is made.

However, this is not permitted for every fan. **Some cannot be switched on continuously.** For this setting, use a fan that allows this. Otherwise, the fan might become damaged.

If you are unsure, it is best to select the preset value of 10 minutes and try that.



The next point is the ventilation pause. If you are unsure, keep the default value.



If you confirm with OK, you are taken to the next settings screen. You can set the minimum permissible relative humidity there. The control unit uses this value as the target value, which is not undershot.

This allows you to ensure that the room does not become too "dry". On the other hand, you should not set this value too high; otherwise. adequate ventilation will not be possible. If you are unsure, just keep the default value.



Next, you can set the differential gap of the device:

This is expressed in grams per cubic meter and indicates the difference between the absolute humidity inside and outside, which must be achieved for the device to ventilate. If you set the value to 1.00, it means that at least 1 gram more of water vapor per cubic meter of air must be present inside than outside for ventilation. The ventilation is only terminated when the ventilation period has elapsed or when the absolute humidity inside and outside is the same (difference is therefore 0).

As a rule of thumb, you can first set a differential gap between 1 and 2. **The higher the differential gap, the less frequent ventilation takes place.** Too low a value ensures that the fans are constantly switched on and off. Too high a value means that the system rarely ventilates. Find a compromise here by simply trying it out. The exact value depends on your circumstances and the use of the rooms.



Then you can set whether you want to secure the device with a key lock. This is useful, among other things, for rented or publicly accessible rooms, so that the settings cannot be changed by unauthorized persons.

The setting and manual ventilation can then only be called up by entering the correct key combination. This keyboard shortcut consists of four keys and is: UP, RIGHT, DOWN, LEFT

If you forget these, you can also read the keyboard shortcut on the sticker on the inside of the terminal box



Next, set the current time:



Then select the day period in which ventilation is permitted. This is called working time here. Setting the working time makes sense if you only want to have ventilation at certain times of the day. For example, this can be in apartment buildings during the day, so as not to disturb the tenants at night. You can select from 0:00 to 23:59 at From and To.

In principle, there are three possibilities for ventilation:

- 1) Ventilation is permitted at any time during the day. If you want this, set the device to: From: 0:00 (midnight) To: 23:59
- 2) Ventilation is only permitted during the day. To do this, set the device as follows: From: 6:00 am To: 10:00 pm
- 3) Ventilation is only permitted during the night. To do this, set the device as follows:

From: 10:00 PM To: 06:00 AM



The settings are now complete and will be saved.

You then access the main screen. This is divided into three parts: First, all measured values (temperature – relative humidity - absolute humidity) are displayed from the inside, then after 5 seconds these values are displayed from the outside and after another 5 seconds a message about the current state of the device is displayed. The three screens alternate every 5 seconds.

Note: If you notice that you have previously set a value incorrectly in the settings, you can simply correct it by pressing the OK button on the main screen. This will take you back to the settings and allow you to set the settings again as explained above.

It can take up to five minutes for the values from inside and outside to be displayed. Until then, you will see the following message:



The values for inside and outside at a glance:

The temperature is displayed in  $^{\circ}$  C, the relative humidity in % and the absolute humidity in grams/cubic meter (g/m³). The time is always shown at the top right:

Inside 10:	55
Temperature:	27.10
rel.Humidity:	74.00
abs.Humidity:	17.45
Outside Temperature: rel.Humidity: abs.Humidity:	24.70 50.00 11.50

### MANUAL OPERATION

You can also operate the fan or window opener manually. This is useful, for example, if you also want to ventilate independently of the humidity values. This manual operation is also useful for checking the connected devices.

To enter manual mode, simply press **the LEFT or RIGHT button**. Then the following message appears:



Use the LEFT button to switch the connected fans off and the RIGHT button to switch them on.

To return to automatic mode, press the **OK button**.

Manual operation can be carried out as continuous operation or with a time limit. Therefore, a number in minutes is displayed in the middle of the screen (here: 30 min). This is the time after which the device exits manual operation and returns to automatic mode. You can set them from 0 to 300 minutes with the **UP** AND **DOWN** buttons. If you want continuous operation, simply set this number to 0.

## **DISPLAY LIGHTING**

You can turn off the display lighting by pressing the **DOWN** button. To turn it back on, press the **UP** button.

### **OVERVIEW OF ALL MESSAGES**

Fan switched off. This message indicates that the fan is currently switched off or the window is closed.



It is not sufficiently dry outside. This message is associated with the Fan off message, but indicates the reason for it. If this message appears on the screen, the fan is or remains switched off or the window is closed because it is not sufficiently dry for ventilation outside. The control unit checks after each cycle whether this condition has changed and adjusts it accordingly by leaving the fan switched off or switched on.



**Minimum temperature has been reached.** Here too, the fan is switched off or the window is closed. However, the minimum temperature was reached this time. The system does not ventilate, so that it does not get too cold in the room.



**Target humidity has been reached.** The fan is switched off or the window is closed. The control unit has detected that it is sufficiently dry in the room and ventilation is not necessary.



Fan switched on. If all conditions are met (i.e., outside it is drier than inside; the minimum temperature has not yet been reached and the target humidity has not yet been reached), the fan is switched on for the duration of the ventilation period. Caution: If this message appears on the display, it may take up to one minute before the fans are actually switched on. This is because various processes still have to be processed in the device, such as app transmission, reading out radio sensors, etc.



**Note:** The control unit continues to check these 3 conditions. If one of these conditions no longer applies, the fan is switched off or the window is closed. **The ventilation time does not always have to be fully utilized**. When this happens, the device switches to the **ventilation pause state**.

**Fan pause.** The fan is switched off and can only be switched on again after the set ventilation pause time.



**Out of working hours**. The device is currently not in the time set under working hours. No ventilation takes place in this case.



### Sensor no signal

If the control unit does not receive measured values from one of the sensors for 5 minutes, one of the following error messages is displayed:

Indoor sensor	Ouside sensor
no si9nal	no si9nal

If the sensor in question is a **cable sensor**, it may not be properly clamped or the cable may have been damaged. Check the cable and the connection terminals. Once you have found the error, turn off the control unit and fix it. Then turn it back on and wait for it to resume operation.

If the sensor in question is a **radio sensor**, either the sensor's battery is dead or it is too far away. If this message appears just a few minutes after the first commissioning, the range is not sufficient. **Either place the sensor closer to the device or bend the antenna vertically upwards.** 

If this message appears after several months, it is a sign that the batteries are dead. Please note the following:

### Change batteries

If the batteries of a sensor are dead, switch off the control unit and replace the batteries on the affected sensor. If you have both sensors as radio sensors, it is best to change the batteries of both sensors.

Then switch the control unit back on. Please do not change the channels of the sensors. Otherwise, you will have to be configure them again.

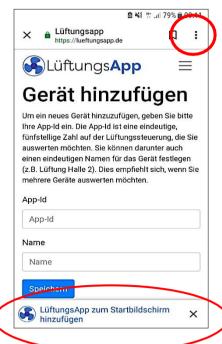
### SETTING UP THE APP

Now that you have fully set up the ventilation control, you can use the corresponding app. The prerequisite for this is that you have also ordered access to the app. This access is located on the back of this manual.

The app is a **PWA** (Progressive Web App). This means that you can access it as a normal website via your browser and also install it as an app on your smartphone, tablet and desktop device.

<u>Accessing the app works with all browsers</u>. Installing works with **Chrome** on Android devices or Windows computers, and with **Safari** on iOS devices.

### 1a) Installing on Android or Windows devices:



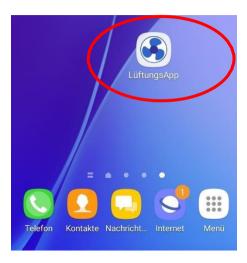
To install the app on your Android or Windows device, use this device to visit the following website:

# lueftungsapp.de

After that, your screen should look similar to the one shown on the left. A banner should open at the bottom that allows you to add (install) the app to the home screen. The installation only takes a few moments.

Note: If the banner does not open, you can click on the three dots in the upper right corner of Chrome (top right picture). Then click "Add to Home Screen" and the app will be installed.

You can now open the app as shown in the right picture by clicking on the app icon on your Start screen.



### 1b) Installing on iOS devices:

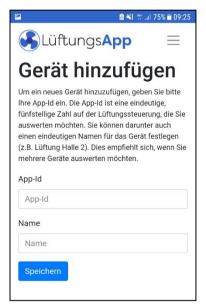


To install the app on your iOS device, use <u>this</u> <u>device</u> to visit the following website:

# lueftungsapp.de

After that, your screen should look similar to the one shown on the left. Now click the share icon (red circle in the left picture). Then click on "Go to Home Screen". Then the app is installed and you can access it from the home screen.

### 2) Adding a new device:

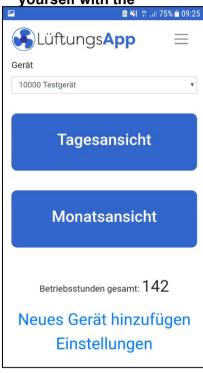


Once you have installed the app, you still need to tell the app which ventilation control you want to manage.

To do this, enter the **app ID** located at the end of these instructions and a **name** for the device. Since you can also use the app to evaluate multiple ventilation controls, you can give each device a meaningful name so that you can distinguish them in the app.

Once you have entered both, click Save.

3) Familiarizing vourself with the



You are in the main screen of the app. At the top, you can choose which **ventilation control unit** you want to view. Below there are the two blue buttons

"Day view" and "Month view". More on this on the next page.

Below this is the **Operating hours counter** for the ventilation control, which is selected above.

Under the operating hours counter, you can add more ventilation controls that you want to view in the app.

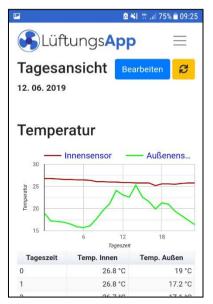
The **settings** are at the bottom of the screen. There you can set whether you want to receive push messages from a ventilation controller (e.g., when the batteries of a radio sensor are empty).

**Note:** You will only see this link if your device supports push messages for web apps. This is currently only possible on Android devices and Windows computers. Since this technology is developing very quickly, it might also be possible with iOS devices in the near future

Because the app updates automatically, you'll see it as soon as it's available.

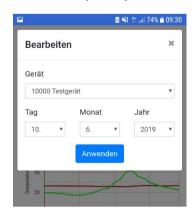
Regardless of whether you have activated push messages or not, the device will notify you of ventilation control errors the next time you open the app.

### Day view



With the app, you can evaluate the data of the ventilation control individually for each day. To do this, you can use the blue "Edit" button to select the day you want to view (as shown in the picture on the right).

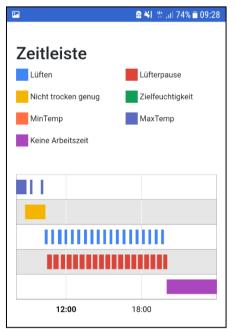
The default is always today.



The temperature and humidity values are displayed from the inside and outside. These are always transmitted by the ventilation controller on the hour.

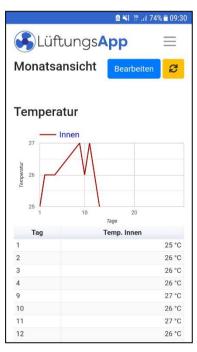
Note: Give the ventilation control one to two hours until initial data are available in the app.

You can also see below a **timeline** of what has happened so far on this day:



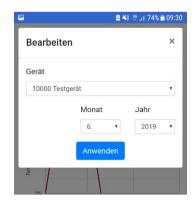
There you can see at what times of day and for how long a specific event occurred. Click on the colored rectangles to get the exact times.

### Month view



Under the **Month view**, you can see how the humidity and temperature values have changed during the month.

Use the blue "Edit" button to set the month.



### Notes on the app:

- The app updates itself automatically.
- The app does not necessarily have to be installed. You can also use it from any terminal, just like a website. This still applies if you have already installed the app on another device

### **TECHNICAL SPECIFICATIONS**

Model designation	Ventilation control unit
EAN	0757536192777
Electric connection	220-240 V ~ 50 Hz
Power consumption (without fan)	<5 W
Dimensions of the control unit	190 x 130 x 80 mm
Dimensions of the sensors	60 x 30 x 15 mm
Maximum allowable electrical power	1800 W
per fan / window opener	
Measuring range of relative humidity	0-100%
Temperature measuring range	-40 to 120° C

The connected ventilation devices such as fans and window openers must not exceed a maximum power of 1800 W!

# **CLEANING, CARE AND STORAGE**

- 1. Make sure you have read the safety instructions before cleaning.
- 2. Pull out the mains plug.
- 3. Use a slightly damp cloth for cleaning the control unit and, if necessary, a mild cleaning agent. Be very careful when cleaning the sensors. The housings of the sensors are open to the outside, so that they can carry out the measurement of humidity and temperature with sufficient accuracy. The use of water for cleaning should be avoided here.
- 4. Make sure that no water penetrates inside the housing. Never immerse the device in water or other liquids while cleaning or operating it. Do not keep any parts of the device under running water.
- 5. Make sure that the device and in particular the sensors are clean.
- 8. For storage and operation of the device and its accessories, choose a location that is protected from dust, moisture and direct sunlight. Keep the device out of the reach of children.

## **ENVIRONMENTAL PROTECTION**



The packaging materials are recyclable. Please do not dispose of the packaging in household waste, but inste4ad recycle it.

Used devices contain valuable recyclable materials that should be recycled. Therefore, please dispose of used devices via suitable collection systems.



The EU Declaration of Conformity can be requested from the manufacturer's address.