inVENTer

Installation and operating instructions
Pulsar extractor fan

Read carefully and refer to the illustrations before handling the product.
Keep these instructions for future reference.

Original installation and operating instructions

Trademarks, copyrights, and industrial property rights

Disclaimer

This documentation represents a translation of the original German Installation and operating instructions.
The contents of this documentation have been checked for conformity with the components described. Nevertheless, deviations cannot be ruled out, so no guarantee can be given for complete conformity.
This documentation describes the functionality of the standard range. For reasons of clarity, the documentation does not contain all detailed information on all types of the product and cannot take into account every conceivable case of installation and assembly.
The illustrations in this documentation may differ slightly from the design of the product you have purchased. The function remains the same despite the difference in detail.
This documentation is updated regularly. Necessary corrections and appropriate supplements are always included in the following releases. You can also find the latest version at www.inVENTer.eu/downloads.

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Table of Contents

1 About this document

These Installation and operating instructions contain all the information required for operating the product. Observe the following:

- The Installation and operating instructions are part of the product.
- They must always be available to the user and be stored for the entire product service life.

Gender-neutral language

In these Installation and operating instructions, the personal pronoun “they” is used to present the information in a short, concise way. This is intended to include personnel of any gender.

1.1 Target groups

These Installation and operating instructions are intended for anyone using the product. They contain all the basic information about product commissioning, operation, cleaning, and disposal. Note the requirements for the operating personnel; see Section 2.3 “Operating personnel requirements” on page 10.

1.2 Warnings and other notices

When using these Installation and operating instructions, note the warnings. The following symbols and signal words are used:

Table 1: Symbols and signal words

Symbol/signal word	Definition
	General warning symbol: Indicates a risk of injury.
	General requirement symbol: Indicates a risk of property damage.
Danger	Immediate danger: Death or very serious injuries will result.
Warning	Possibly dangerous situation: Death or serious injuries may result.
Caution	Possibly dangerous situation: Minor or moderate injuries may result.
Notice	Information that must be heeded to ensure safe product handling and to avoid property damage.

1.2.1 Structure of warnings

The warnings in these Installation and operating instructions are structured as follows:

- **Signal word**
  Indicates the severity of the hazard.
- **Type and origin of the hazard**
  Describes the hazard and where it may occur.
- **Consequence**
  Describes the effects that may occur if the notice is not complied with.
- **Avoidance**
  Describes how to prevent the hazard from occurring, or provides instructions for safety measures if the hazard occurs.

1.2.2 Example of a warning

The warnings have the following format:

CAUTION

Risk of injury due to improper use.

Improper use of the product may lead to hazards to personnel and property.

→ Use the product only as intended.

1.2.3 Instructions

Instructions are numbered to indicate the sequence of the individual steps. Results of the actions (if applicable) are directly below.

Example:

1. This is the first step.
2. This is the second step.

   ▶ This is the result of the second step.

Operating and display elements

Operating and display elements, such as buttons, switches, and control knobs, are written in **bold**. Example: The **on/off switch** is located on the controller.

1.2.4 Other symbols

In addition to the safety instructions and warnings, the following symbols are used:

Table 2: Other symbols

Symbol	Definition
	A TIP symbol indicates practical and useful tips for handing your product or refers to additional information.
	Any additional tools and aids required for the activities are listed before the instructions.
	Red bar over a graphic: Illustration shows the inner wall.
	Blue bar over a graphic: Illustration shows the outer wall.
	Action focus: To be taken into account in the relevant assembly step.

2 Safety

This section contains all the safety-relevant information. Read all safety information thoroughly before handling the product and observe it during use. The safety information highlights risks of injury and property or environmental damage and contains information about avoiding and preventing hazards.

2.1 Intended use

The Pulsar extractor fan is used to ventilate rooms with a window to the outside. Alternatively, it can be used as a room-to-room transfer fan to ventilate adjoining rooms (for example, if the adjoining room is not heated). It is intended to be permanently installed with permanent wiring. Any other product use constitutes improper use.

Comply with other regulations

In addition to the information in these Installation and operating instructions, always comply with the legal accident prevention and environmental protection regulations and the general accident prevention regulations.

2.2 Improper use

Use of the product for a purpose other than that described in section 2.1 is considered improper use. Examples of improper use include:

- Using the product with components or accessories not approved by inVENTer GmbH,
- Modifying or altering the product in a manner not described in the product documentation,
- Failure to comply with the product's operating/use conditions (see Section 3 "Conditions for use" on page 12).

2.3 Operating personnel requirements

The Pulsar extractor fan is a construction product. It must be installed and set up by appropriately qualified construction personnel in compliance with these Installation and operating instructions. Only those who meet the following requirements may handle the product:

- They have completely read and understood these Installation and operating instructions.
- They are at least 18 years old.
- They are in good health and at full physical and mental strength.

2.4 Hazard sources

When installing, setting up, operating, maintaining, disassembling, and disposing of the product, observe the following safety information to prevent injury and property damage.

Electrical hazards

The product is powered by electricity. Improper installation and maintenance or damaged electrical components may lead to extremely serious injury from electric shock:

→ Work on electrical components may be performed only by a qualified electrician in accordance with electrical regulations.
→ Electrical components must be installed according to local laws and regulations.
→ Prior to work on electrical equipment, disconnect all components from mains and secure them against being switched back on.
→ The device must only be installed outside Protection Area 0 in accordance with VDE 0100.
→ Do not install the device in locations where direct contact with splashing water is possible over a long period of time and/or the device is exposed to direct jets of water.

Mechanical hazards

Rotating fan blades may cause injuries (such as cuts or crushing injuries) to hands and fingers.

→ Do not reach into the fan while it is running.
→ Switch off the device before maintenance and cleaning and secure it to prevent it from being switched back on.

Hazards due to smoke and combustion gases

Ventilation devices may cause backflow of smoke or combustion gases if operated in conjunction with stoves, fireplaces, or other devices that burn gas or fuel. This may harm the respiratory system and lead to carbon monoxide poisoning.

→ After installation, properly qualified personnel must ensure that no smoke or combustion gas backflow is possible.

2.5 Safety devices and safety functions

The system is equipped with various safety devices and safety functions to ensure the safety of people and property. This includes:

→ Fault signalling: Informs the user of faults during device operation and issues instructions for remedying these faults.

3 Conditions for use

Install and use the product only if it is undamaged and in good condition, and use it only with the compatible, approved ventilation ducting while taking into account operating personnel requirements; see Section 2.3 “Operating personnel requirements” on page 10.

Always ensure that the following ambient conditions are met:

- No environment with high oil or grease content,
- No flammable, aggressive, or corrosive gases, liquids, or vapours,
- No extreme dust exposure,
- No environment that allows direct water ingress,
- No environment that allows smoke or combustion gas backflow,
- Only masonry that conforms to the dimensions indicated,
- Obstacle-free access to the product,
- Sufficient air supply.
- Ambient temperatures: +5 – +50 °C.

4 System overview

The following sections describe the product’s function, structure, and scope of delivery.

4.1 Functions

The Pulsar extractor fan has 2 modes:

- **Bathroom mode:** For ventilating damp living spaces (utility/laundry rooms and bathrooms/toilets). A light sensor and a humidity sensor work with the automatic trickle ventilation to provide demand-based ventilation.
- **Heat Mover mode:** For ventilating and heating adjoining rooms, such as rooms without heat. The fan switches on when the selected temperature threshold has been exceeded and switches off when the temperature is back within the desired range. The other sensor signals are not used in this mode.

It is set up and controlled with the “inVENTer Mobile” app.

4.1.1 Light sensor

If the light changes (such as when a light is switched on, shadows change or a person enters the room), the fan starts at the fan speed that is currently set and runs for 15 minutes. The fan then switches off again.

4.1.2 Humidity sensor

If humidity increases greatly (when someone showers, for instance), the air flow increases to a maximum of 95 m³/h. When the humidity has decreased again, the fan switches off.

4.1.3 Run-on function

After the switch-off pulse (with the light sensor or external switching contact acting as the pulse generator), the fan continues to run until the end of the set run-on time.

4.1.4 Switch-on delay

If the fan is activated with an external switching contact (coupled into a light switch, for instance), you can set a switch-on delay. After the switch-on pulse, the fan will not start until the set delay has elapsed.

4.1.5 Trickle ventilation

As needed, continuous ventilation can be enabled. The intensity of the air volume flow can be set in the app.

4.2 Factory settings

The following factory settings are active when the Pulsar extractor fan is commissioned:

- Occupancy detection with an air volume flow of approx. 60 m³/h as soon as the sensor is triggered,
- Humidity monitoring with an air volume flow of approx. 95 m³/h as soon as the humidity sensor is triggered.

4.3 Structure

The following illustrations show the components that are included in the product's scope of delivery. All standard components are also available as spare parts.

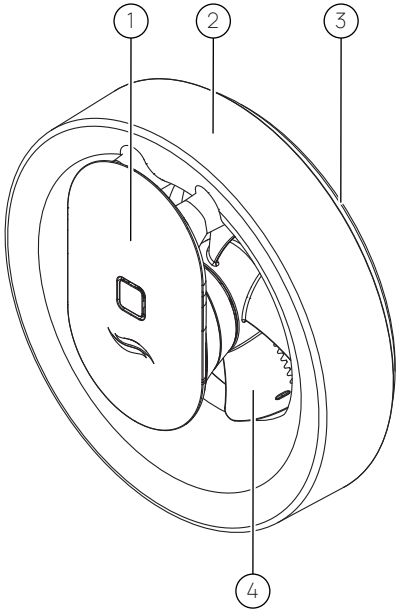


Fig. 1: Pulsar extractor fan structure and scope of delivery

1 Fan unit
2 Fan casing
3 Rubber seal
4 Fan

The Pulsar extractor fan can be connected to 230 V AC or 12 V DC. To connect it to 12 V DC, the NT16 flush-mounted power supply unit (sold separately) is required.

4.4 Electrical connection diagrams

The Pulsar extractor fan can be connected directly to the 230 V AC mains or can be powered by 12 V DC safety extra-low voltage. A power supply unit is optionally available.

4.4.1 230 V AC connection

The terminal for the 230 V AC connection is located on the base plate of the Pulsar extractor fan.

For the specific installation steps, see Section 7.4 “Installing and connecting the Pulsar extractor fan” on page 24.

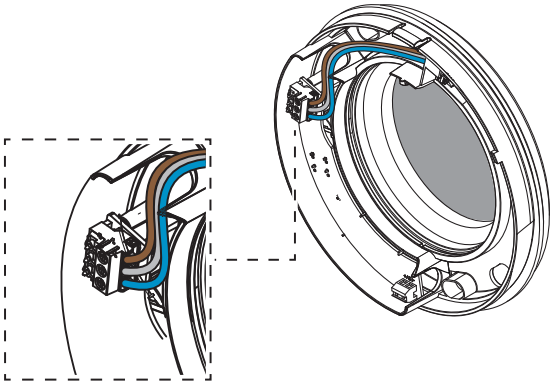


Fig. 2: Position of the terminal for the 230 V AC connection

Terminal layout

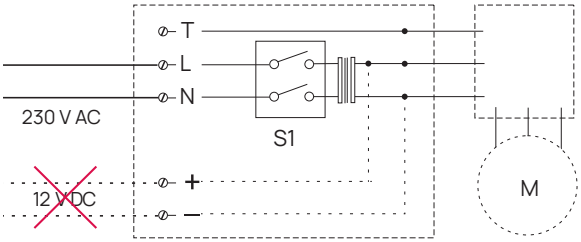
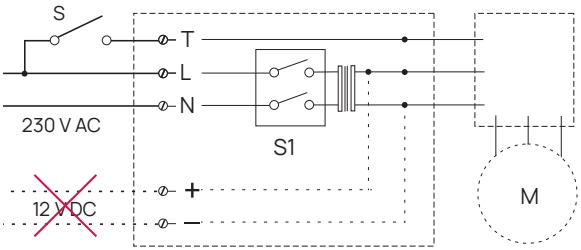
Terminal	Label	Meaning
N	N	Neutral conductor
L	L	Phase
Ls	T	Phase, connected

Connection options

How the Pulsar extractor fan is connected to 230 V AC depends on how the fan is controlled (by the sensors or by a switch).

Make sure to connect the device correctly and select the desired settings during setup. To do so, follow the instructions in Section 8 “Operation and setup” on page 32.

Table 3: Pulsar extractor fan technical specifications

Type of control	Connection diagram
Sensor-controlled: • The fan switches on automatically when the humidity increases or the light in the room changes. • Additional functions such as continuous ventilation or use as a room-to-room transfer fan (“Heat Mover” mode) are configured in the inVENTer Mobile app.	 Fig. 3: Connection diagram for 230 V AC, sensor-controlled
Switch-controled: • The fan is switched on using an external manual switch. • The sensors are disabled. • After the fan has been switched off using the switch, the fan continues to run for the set run-on time and then switches off automatically.	 Fig. 4: Connection diagram for 230 V AC, switch-controlled

4.4.2 12 V DC connection

The terminal for the 12 V DC connection is located on the base plate of the Pulsar extractor fan.

For the specific installation steps, see Section 7.4 “Installing and connecting the Pulsar extractor fan” on page 24.

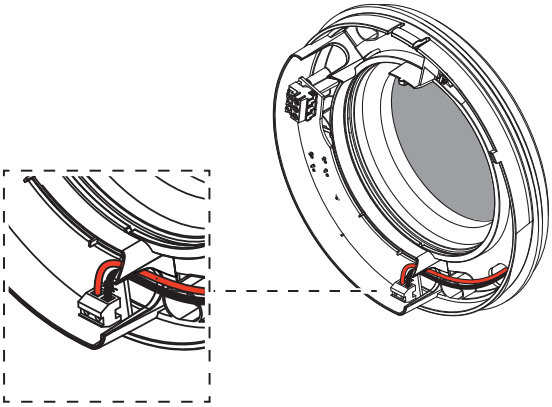


Fig. 5: Position of the terminal for the 12 V DC connection

Terminal layout

Label	Meaning
+	Positive pole
-	Negative pole/earth

Connection diagram

Connect the Pulsar extractor fan to 12 V DC as shown in the connection diagram below. When the 12 V DC connection is used, the fan is always controlled by the sensors.

- The fan switches on automatically when the humidity increases or the light in the room changes.
- Additional functions such as continuous ventilation or use as a room-to-room transfer fan ("Heat Mover" mode) are configured in the inVENTer Mobile app.

Connect the device correctly and select the desired settings during setup. To do so, follow the instructions in Section 8 "Operation and setup" on page 32.

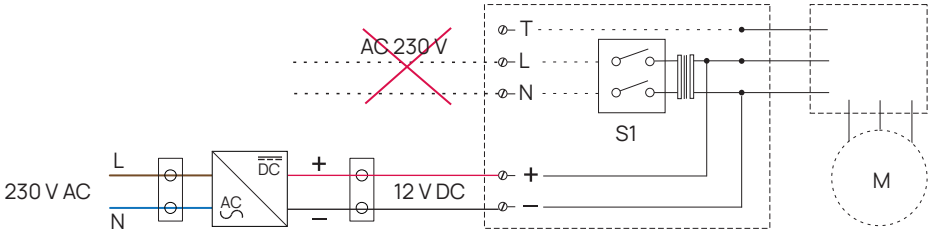


Fig. 6: Connection diagram for 12 V DC

5 Technical specifications

5.1 Pulsar extractor fan

Table 4: Pulsar extractor fan technical specifications

Parameter	Value
Ingress protection	IP44
Protection class	II
Input voltage	230 V/50 Hz (direct connection) 12 V DC (connected via NT16 flush-mounted power supply unit)
Power consumption	4 W
Extract air volume flow (free-blowing)	110 m³/h
Noise emission	17 – 20 dB(A)
Operating temperature	5 – 50 °C
Protection area in accordance with VDE 0100	Outside protection area 0
Dimensions	177 x 81 mm (Ø x D)

This product meets the requirements of Directive 2014/53/EU. The complete EU Declaration of Conformity can be downloaded at the following link:
https://www.inVENTer.de/downloads/#Konformitaeterklaerungen

5.2 NT16 flush-mounted power supply unit

Table 5: NT16 flush-mounted power supply unit technical specifications

Parameter	Value
Ingress protection	IP20
Protection class	II
Input voltage	230 V/50 Hz
Output voltage	12 V DC
Power output	12 W
Operating temperature	5 – 50 °C
Dimensions	54 x 32 mm (Ø x D)

5.3 Dimensions

The following figure shows the dimensions of the Pulsar extractor fan.

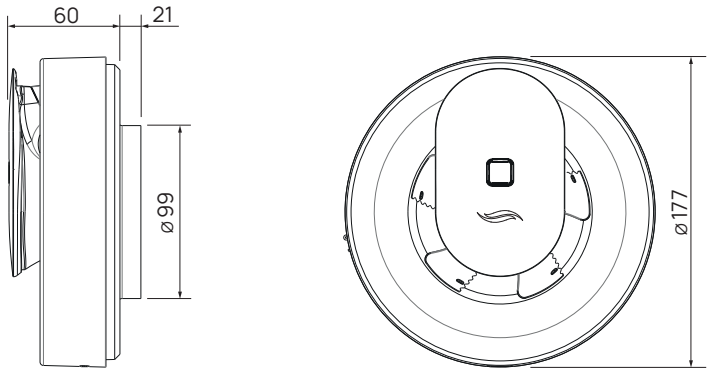


Fig. 7: Pulsar extractor fan dimensioned drawing

Holes

For component	Depth/length	Diameter
Wall mounting sleeve	As per wall thickness	115
False ceiling	As per wall thickness	105
Flush-mounted back box for power supply unit	66	68
Drywall back box for power supply unit	61	68

Other components required for installation

Component	Depth/length	Diameter
Wall mounting sleeve	As per wall thickness	100
Power supply unit (only when powered by 12 V DC)	32	54

Components such as the wall mounting sleeve, power supply unit and back boxes for installation that are not included with the extractor fan can be purchased from the technical service team. See Section 11.2 “Accessories and spare parts” on page 54.

6 Storage and transport

The same conditions apply to storing and transporting the product as for using it (see Section 3 “Conditions for use” on page 12).

7 Installation and assembly

This section contains all information concerning proper product installation and assembly.

Observing operating personnel requirements

To prevent accidents and property damage, comply with personnel qualification requirements and have installation and assembly work performed by specialists as necessary. See Section 2.3 “Operating personnel requirements” on page 10.

7.1 Prerequisites for installation

Before installation begins, the following conditions must be met:

- The wall structure is completed, load-bearing and level.
- There are no load-bearing elements in the position where the hole will be drilled or where a slot will be made in the wall or plaster for the wiring.
- The power to all electrical components and cables that will be worked on has been switched off and secured to prevent it from coming back on.
- Cable cross-sections:
  - Supply line for direct connection to 230 V AC, 50 Hz: 1.5 mm²
  - Supply line between power supply unit and extract air unit for connection to 12 V DC: max. 1.5 mm²

Install the product only when all prerequisites for your specific installation situation are fulfilled.

7.2 Checking the scope of delivery

Upon receipt, check the delivery for completeness and transport damage. Report missing items immediately. The scope of delivery for the product described in these Installation and operating instructions can be found in Section 4.3 “Structure” on page 14.

7.3 Deciding where to install the fan

Electrical protection areas

For safe operation of the device, observe the electrical protection areas in accordance with VDE 0100:

- Install the Pulsar extractor fan outside Protection Area 0.
- Make sure that running water cannot come into direct contact with the Pulsar extractor fan and that the extractor fan cannot be splashed with water repeatedly over a long period of time.
- Install the switch/light switch outside Protection Areas 0 to 2.

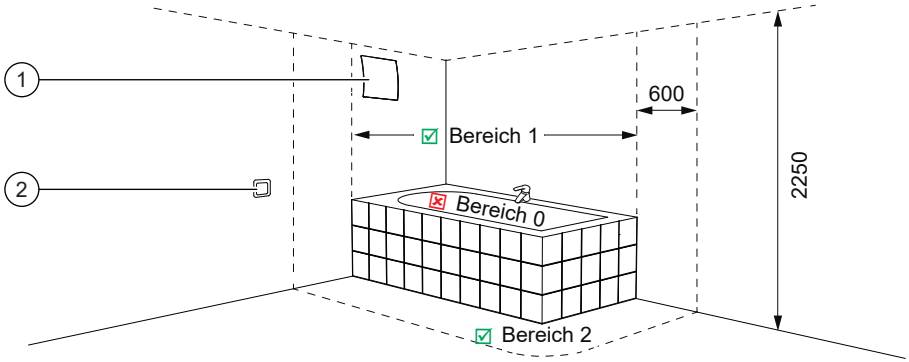


Fig. 8: Installation location in humid room according to VDE 0100

1 Pulsar extractor fan
2 Switch/light switch

Positioning

To ensure that the Pulsar extractor fan is optimally positioned, pay attention to the following:

- For optimum humidity extraction and reliable humidity sensor information, place the Pulsar extractor fan in the room's air flow.
- Do not place the Pulsar extractor fan above radiators, thermostats and/or delicate furniture.
- Leave a minimum distance of 250 mm between the front/sides of the Pulsar extractor fan and other components.
- Make sure that the room is supplied with a sufficient amount of air, such as through a large gap under the door.

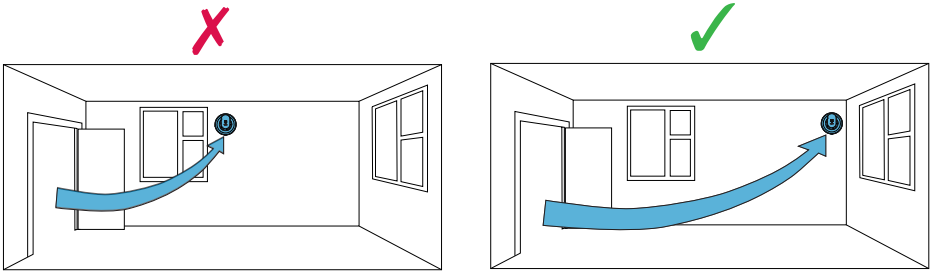


Fig. 9: Positioning for ideal air flow

7.4 Installing and connecting the Pulsar extractor fan

Drill with Ø 115 mm core drill attachment or milling drill, flathead screwdriver, pencil, spirit level

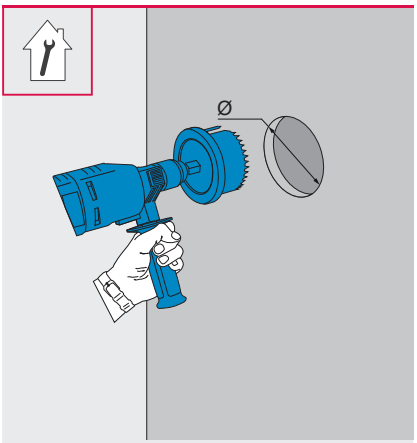
DANGER

Electrical hazards

Failure to properly install electrical components results in mortal danger.

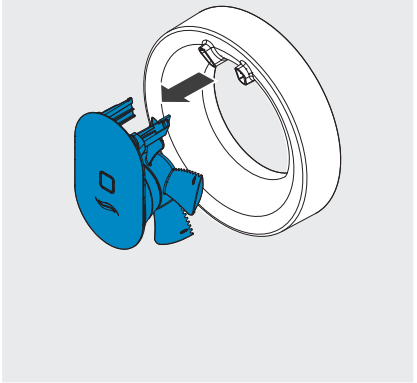
→ Only trained electrotechnical specialists may work on the electrical system and only according to electrical engineering regulations.
→ Prior to work on electrical equipment, disconnect all components from mains and secure them against being switched back on.

7.4.1 Installing the wall mounting sleeve and preparing the cable feed-through



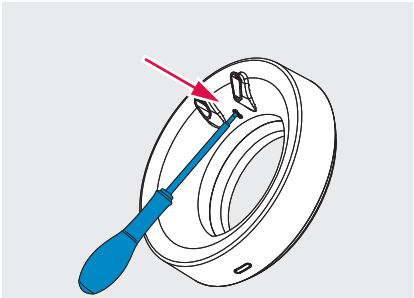
1. Create an opening in the wall with a slope of 1 – 2° down toward the outer wall and with a diameter of Ø 115 mm.
2. Install the wall mounting sleeve and, if necessary, the external cover. To do so, follow the installation instructions for the components used.

► The wall mounting sleeve is installed.

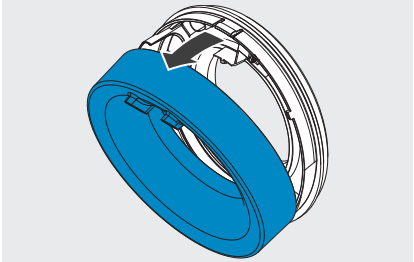


3. Remove the Pulsar extractor fan from the packaging.
4. Reach behind the fan unit with both hands.
5. Pull the fan unit forward to remove it from the fan casing.

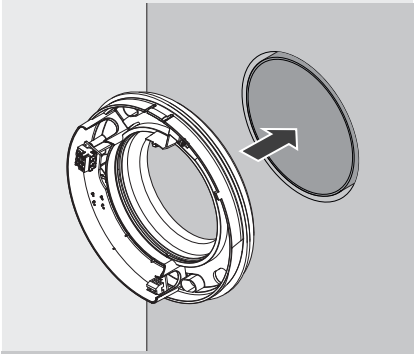
Hold the fan unit tightly so that it does not fall on the floor after being removed.



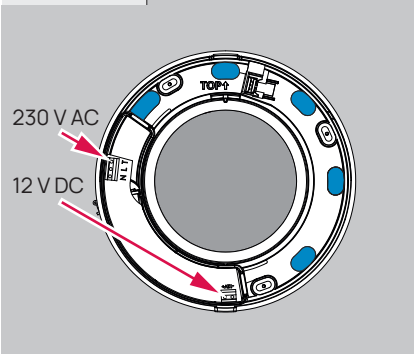
6. Use a screwdriver to press the release button on the fan casing.
7. Loosen the cover of the fan casing.



8. Pull the cover of the fan casing forward from the top to lift it off.



9. Hold the fan casing against the wall mounting sleeve to determine where the cable will be fed through.



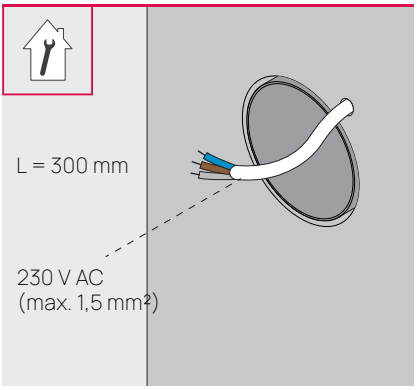
10. Align the fan casing so that the “TOP” marking points upwards.
11. Choose one of the marked openings to feed the cable through.

Use an opening near the terminal for the type of connection you intend to use (230 V AC or 12 V DC).

12. Mark the position of the opening for the cable on the wall.

7.4.2 Laying the cables

Option 1: For 230 V AC connection



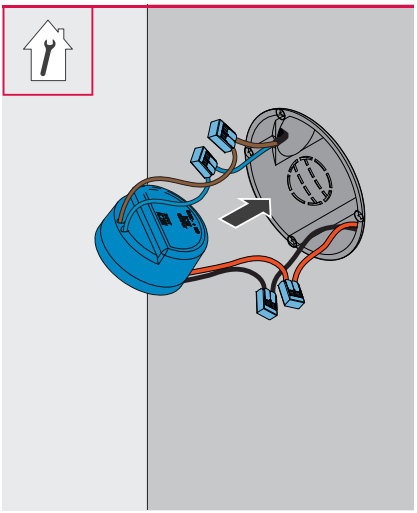
1. At the previously marked position, drill a separate hole for the cable to pass through.
2. Lay the 230 V AC mains cable.
3. Feed the 230 V AC mains cable through the hole.

   ▶ Laying the 230 V AC mains cable has been completed.

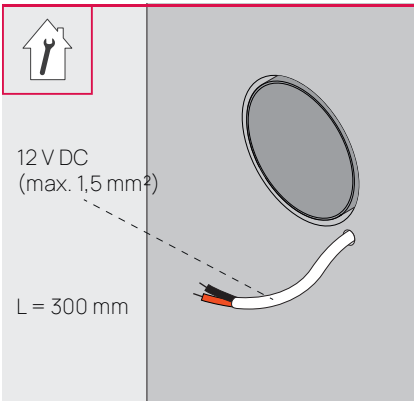
Option 2: For 12 V DC connection

Ø 68 mm milling drill, connection clamps, filling material for plastering in the back box

To connect it to 12 V DC, the NT16 flush-mounted power supply unit (sold separately) is required. It can be purchased from the technical service team. See Section 11.2 “Accessories and spare parts” on page 54.



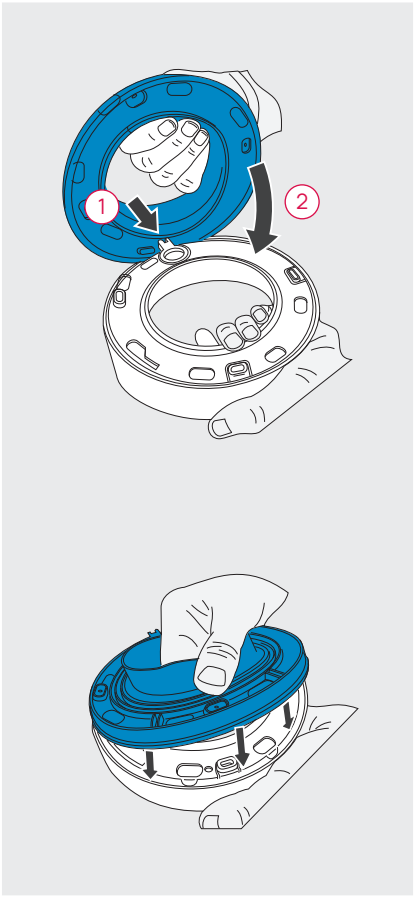
1. Create an opening in the wall for the back box where the power supply unit will be installed.
2. Install the back box.
3. Lay the 230 V AC mains cable to the back box.
4. Connect the power supply unit using the connection clamps:
   - Connect the 230 V AC mains cable to the input cables (N/L).
   - Connect the 12 V DC operating voltage cable to the output cables (red +/black –).
5. Push the power supply unit into the back box.
6. Cover the back box, for instance with a blank cover.



1. At the previously marked position, drill a separate hole for the cable to pass through.
2. Lay the 12 V DC connecting cable to the wall opening.
3. Feed the 12 V DC connecting cable through the hole.

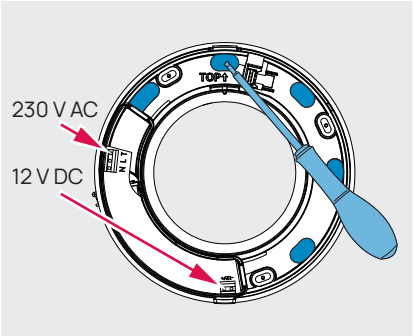
   ► Laying the 12 V DC connecting cable has been completed.

7.4.3 Installing the fan casing



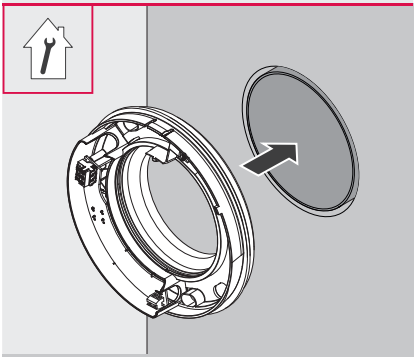
1. Attach the included rubber seal to the back of the fan casing:
   - First insert the integrated switch into the recess (1).
   - Then place the seal onto the fan casing (2).

2. Press the rubber seal firmly onto the base plate of the fan casing.

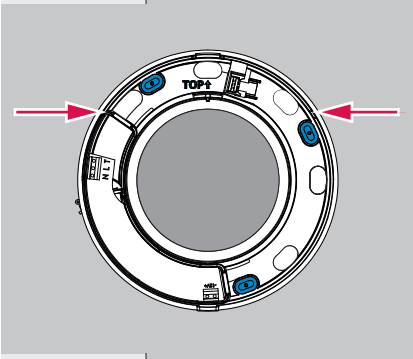


3. At the cable inlet through which you would like to feed the connecting cable, create an opening in the rubber seal.

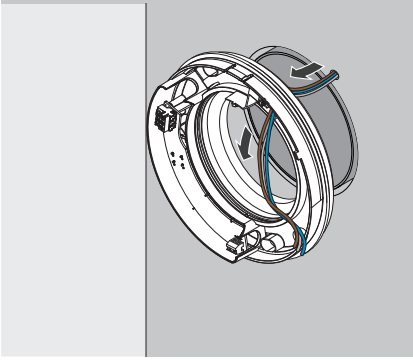
To do so, use a suitable tool, such as a sharp screwdriver.



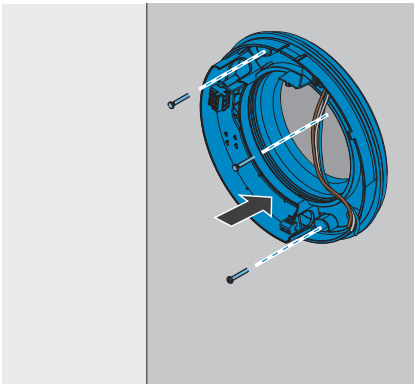
4. Hold the fan casing against the wall mounting sleeve to determine the positions of the fastening holes.



5. Position the word “TOP” at the top.
6. Use a spirit level to align the fan casing horizontally. To do so, place the spirit level on the support points on the fan casing (see arrows).
7. Mark the 3 fastening holes (blue areas).
8. Remove the casing from the wall mounting sleeve and drill the holes in the wall.



9. Feed the connecting cable (230 V AC or 12 V DC) through the cable feed-through opening you have created in the rubber seal.



10. Place the fan casing against the wall mounting sleeve so that the rubber seal is lined up with the fastening holes.
11. Screw the fan casing to the inner wall.

► The fan casing is installed.

The rubber seal must seal the extractor fan completely against the inner wall.

7.4.4 Connecting the cables

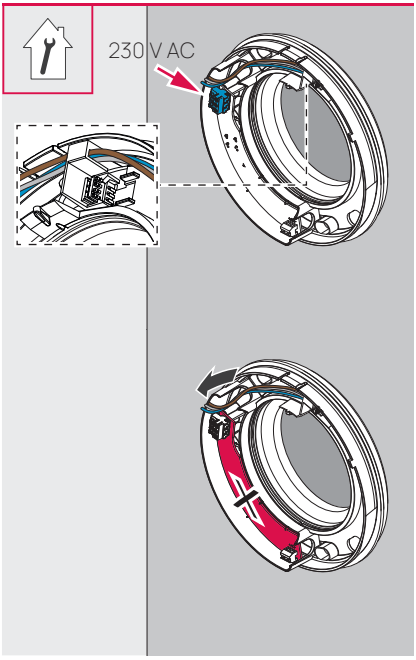
NOTICE

Risk of damage

If you connect cables to the 230 V AC connection and the 12 V DC connection at the same time, the Pulsar extractor fan will be damaged.

→ Only connect the Pulsar extractor fan to **EITHER** 230 V AC **OR** 12 V DC.

Option 1: 230 V AC connection



1. Guide the connecting cable to the terminal (red arrow).

If applicable, use the cable feed-through opening in the upper part of the fan casing.

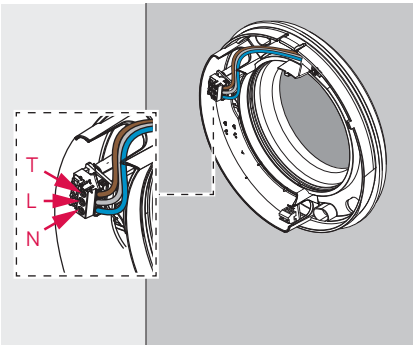
2. Shorten the connecting cable to the required length.

NOTICE

Risk of damage

Laying the connecting cable over the circuit board may cause damage.

→ Do not lay the connecting cable over the circuit board.

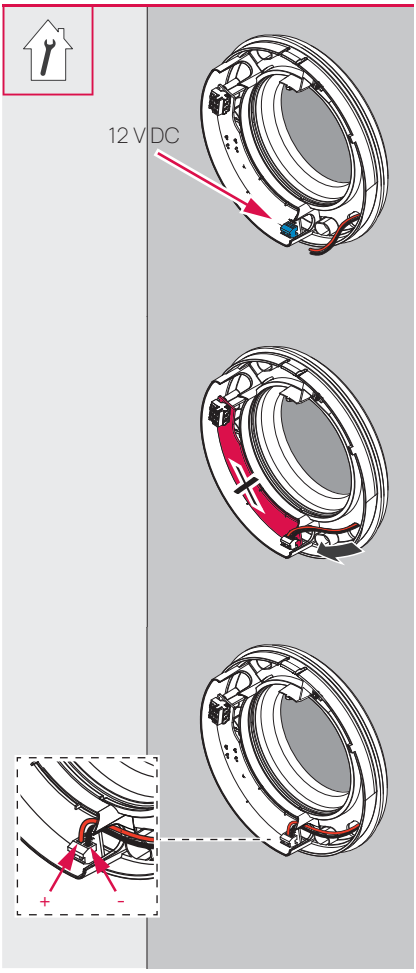


3. Attach the connecting cable to the terminal on the base plate as shown in the connection diagram.

See the connection diagrams in Section 4.4.1 “230 V AC connection” on page 15.

► The electrical connection is completed.

Option 2: 12 V DC connection



1. Guide the connecting cable to the terminal (red arrow).

If applicable, use the cable feed-through opening in the upper part of the fan casing.

2. Shorten the connecting cable to the required length.

NOTICE

Risk of damage

Laying the connecting cable over the circuit board may cause damage.

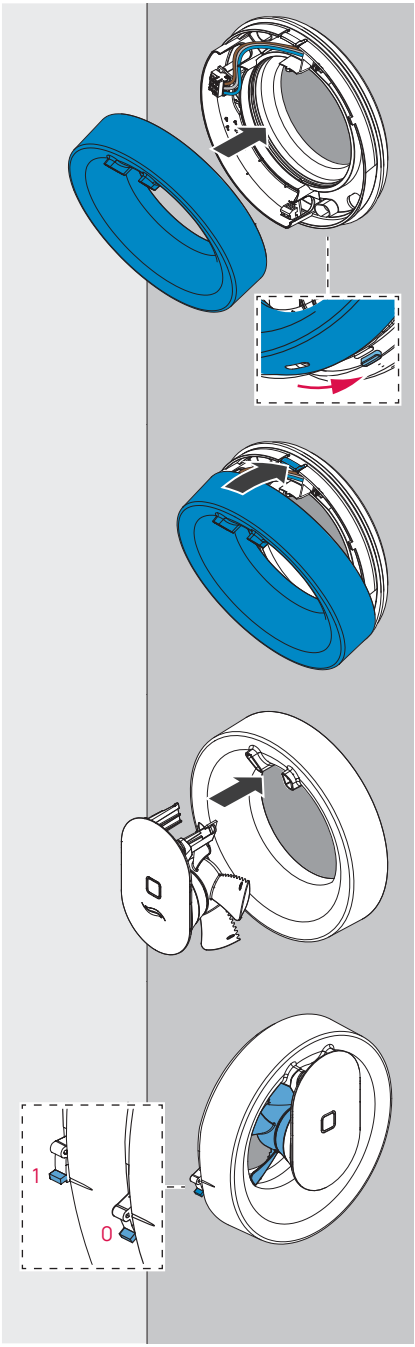
→ Do not lay the connecting cable over the circuit board.

3. Attach the connecting cable to the terminal on the base plate as shown in the connection diagram.

See the connection diagram in Section 4.4.2 “12 V DC connection” on page 17.

► The electrical connection is completed.

Installing the cover and fan



1. Bring the cover close to the fan casing.
2. Latch the hook at the bottom of the base plate into the corresponding opening in the bottom of the cover.

3. Press the upper part of the cover onto the latch on the base plate.
   - ► The release button audibly snaps into place between the guides.
   - ► The cover is installed.

4. Carefully insert the fan unit into the guides on the fan casing.

   The fan unit must not jam while being inserted, otherwise the contacts could be damaged.

   - ► An audible click confirms that the fan unit has been placed correctly.
5. Make sure that the fan can rotate freely.
6. Switch on the power supply.
   - 12 V DC: When the power supply is switched on, the fan begins to run.
   - 230 V AC: Switch on the switch on the left side of the casing by pressing it up into position “1”.

   - ► The Pulsar extractor fan is fully installed and connected.

8 Operation and setup

8.1 LED indicator

An LED is located on the fan unit.

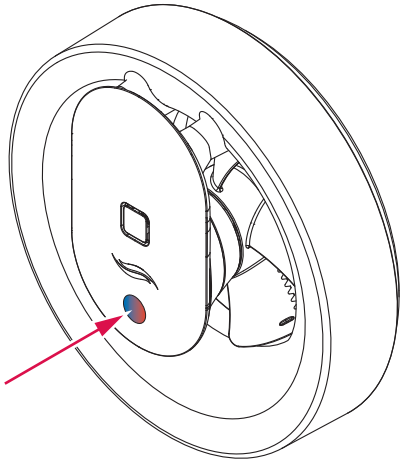


Fig. 10: Position of the LED on the fan unit

The LED indicates the various states of the extractor fan:

Table 6: LED states

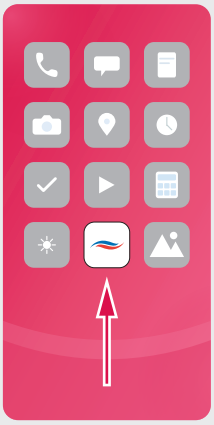
Colour	Meaning
/ Blue / White	The device is actively connected to a mobile device via Bluetooth. The blue or white LED must be illuminated in order for you to operate or configure the Pulsar extractor fan.
Red	Error indicator: The LED indicates an interruption to the power supply when the smart pause function is set up. To reset the error indicator, start the connection with the app (see Section 8.2.1 “Connecting the app to the Pulsar extractor fan” on page 33).

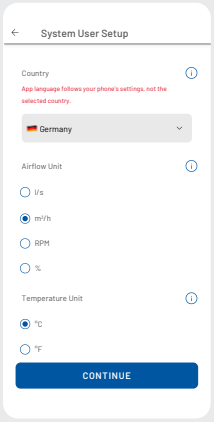
8.2 Operation with the app

The Pulsar extractor fan can be conveniently operated with the “inVENTer Mobile” app on a mobile device. If the Pulsar extractor fan is not connected to the app, the device operates with factory settings (see Section 4.2 “Factory settings” on page 13).

To use the app, Bluetooth must be activated on the mobile device and the app must have permission to access location. **inVENTer does not collect, process or store any location data from the app.** Transferring data over Bluetooth Low Energy requires location access on Android/iOS.

8.2.1 Connecting the app to the Pulsar extractor fan





1. Download the “inVENTer Mobile” app to your mobile device (mobile phone or tablet with Android or iOS operating system):

   ANDROID APP ON Google play

   Download on the App Store

   ► After the app is successfully installed, the corresponding icon appears on the display screen.

2. Tap the “inVENTer Mobile” app icon on the screen of your mobile device.

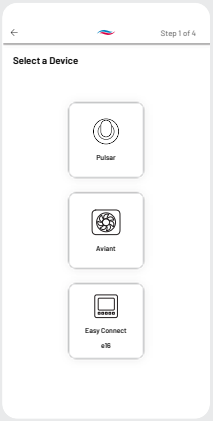
   ► The first time you open the app, the setup screen appears.

3. Select your country and your preferred airflow and temperature units and tap “CONTINUE”.

   ► The start screen opens.

4. Tap “ADD A PRODUCT”.

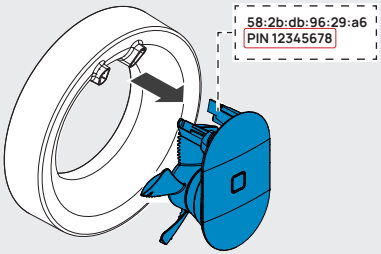
   ▶ A window appears showing the devices that can be controlled with the app.



5. Tap the “Pulsar” button.

   ▶ The display screen shows the request to connect with the product.

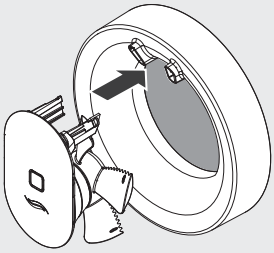
Before the app can be used, a Bluetooth connection between the Pulsar extractor fan and the mobile device must be established. Make sure that the Pulsar extractor fan and the mobile device are within Bluetooth range of each other.



6. In order to connect to the app, you need a PIN code. This can be found on the fan unit:

   ⚠ **Caution! Risk of injury due to rotating fan blades.** Switch off the power supply before removing the fan unit.

   - Reach behind the fan unit with both hands.
   - Pull the fan unit forward to remove it from the fan casing.
   - Note the PIN code printed on the circuit board.

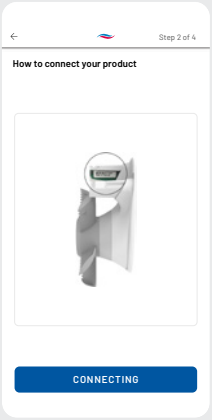


7. Carefully insert the fan unit back into the fan casing.

The fan unit must not jam while being inserted, otherwise the contacts could be damaged.

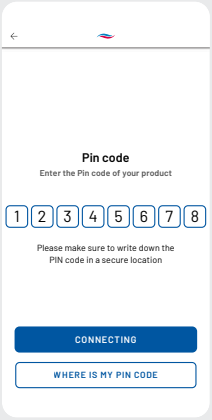
► An audible click confirms that the fan unit has been placed correctly.

8. Switch the power supply back on.

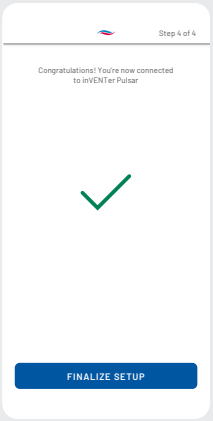


9. On your mobile device, tap “Connecting”.

► The PIN screen opens.

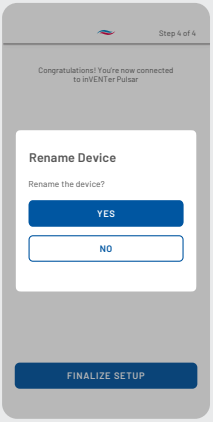


10. Enter the PIN code and tap “CONNECTING“.



11. Tap “FINALIZE SETUP”.

    ▶ The “Rename Device” pop-up opens.

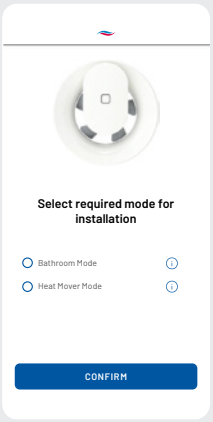


Optional: Rename device

12. When the “Rename Device” pop-up appears, tap “YES”.
13. Enter the new name.
14. Tap “SAVE”.

    ▶ The app is now connected to the controller.

    ▶ The selection screen for the mode of installation opens.



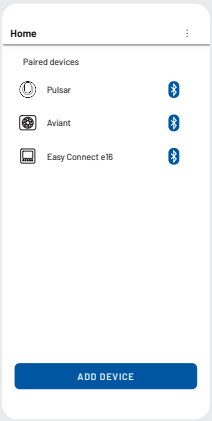
15. Select the desired mode of installation:

    - “Bathroom Mode” for sensor-controlled operation to ventilate rooms as needed.
    - “Heat Mover Mode” to distribute warm air between 2 rooms.

    ▶ The system overview is displayed.

8.2.2 Overview of the app

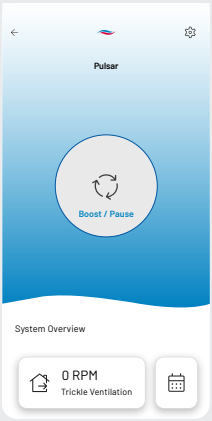
Home



- When the app starts, the home screen is shown.
- Here you can select which system you would like to control with the app.
- To control the Pulsar extractor fan, tap “Pulsar”.

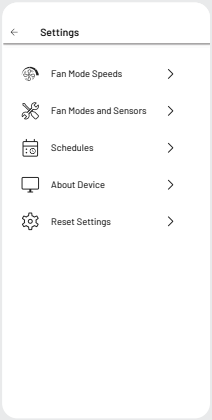
For information on controlling the Aviant ventilation device and the Connect system, refer to the relevant documentation.

System overview



- After the Pulsar extractor fan is selected, the system overview is displayed.
- The current ventilation mode and rate are displayed in the lower part of the screen.
- Tap the calendar symbol to access the schedule settings.
- Tap the temperature symbol to access the temperature threshold settings (“Heat Mover” mode only).

Settings



- You can use the “Settings” menu to set up and configure the Pulsar extractor fan.
- From the system overview, you can use the ⚙ icon to call up the screen.

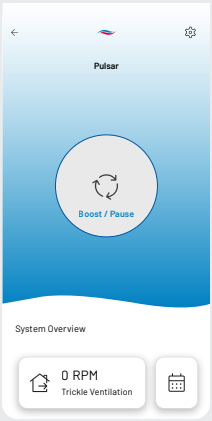
See the following sections for more details about the settings.

8.2.3 Activating the boost/pause functions

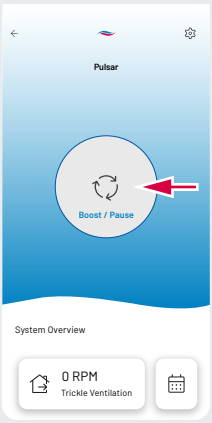
The Pulsar extractor fan can operate entirely under sensor control.

In addition, you can manually activate the boost function or pause function for 15 minutes to pause ventilation or run the fan at a higher speed.

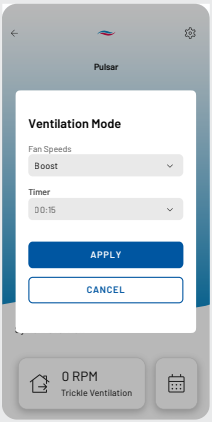
After the 15 minutes have elapsed, the system returns to sensor-controlled operation.



1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.



2. Tap “Boost / Pause”.

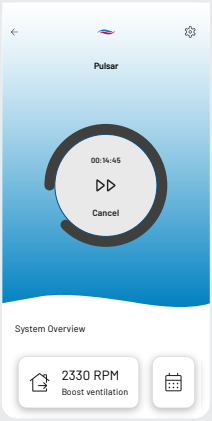


► The “Ventilation Mode” pop-up opens.

3. In the “Fan Speeds” drop-down menu, select the desired mode.

The duration is set to 15 minutes.

4. Tap “APPLY”.



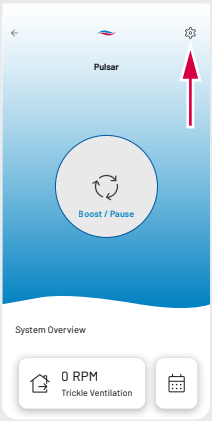
► The selected ventilation mode starts.
► The remaining time until sensor-controlled operation begins again is displayed.

If you wish to end manual ventilation mode early and return to sensor-controlled operation, tap the “Cancel” button.

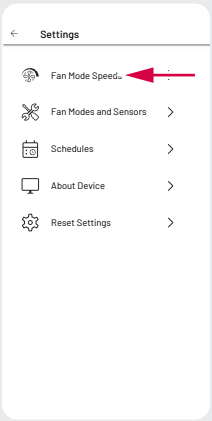
8.2.4 Adjusting fan speeds

You can adjust the preset fan speed for each switch-on type (in “Bathroom” mode) or temperature (in “Heat Mover” mode) as required.

The fan speed can only be adjusted for the activated switch-on types (in “Bathroom” mode) or via the preset temperature threshold (in “Heat Mover” mode). If needed, change these switch-on type or temperature threshold settings before adjusting the fan speed. To do so, see Section 8.2.5 “Setting fan modes and sensors” on page 42.

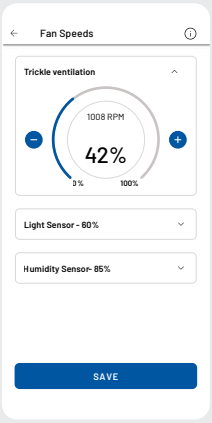


1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.
2. Tap the ⚙ symbol to open the Settings menu.



3. Tap “Fan Mode Speeds”.
   ▶ The “Fan Mode Speeds” screen opens.

Option 1: “Bathroom” mode

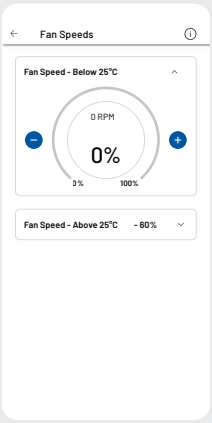


4. Tap a switch-on type and set the desired fan speed for that type.
5. Repeat the process as necessary for the remaining types.

► The fan speeds are adapted.

The minimum value for each fan speed is 42%.

Option 2: “Heat Mover” mode



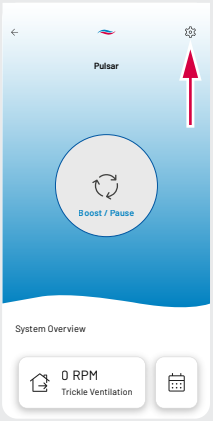
4. Tap a temperature range and set the desired fan speed for that temperature range.
5. Repeat the process as necessary for the second temperature range.

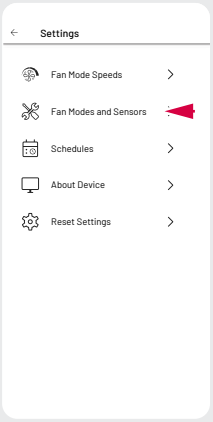
► The fan speeds are adapted.

The minimum value for the upper temperature range is 42%.

8.2.5 Setting fan modes and sensors

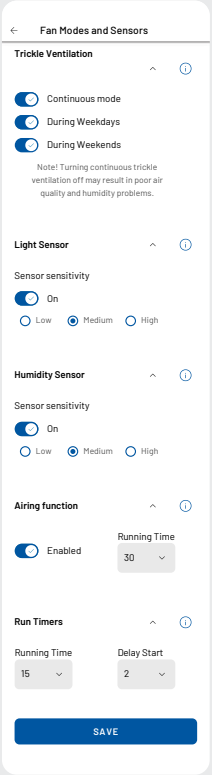
You can individually set the fan modes, sensor sensitivities and the run-on time (“Bathroom” mode) or the temperature threshold (“Heat Mover” mode).





1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.
2. Tap the ⚙ symbol to open the Settings menu.
3. Tap “Fan Modes and Sensors”.
   ► The “Fan Modes and Sensors” screen opens.

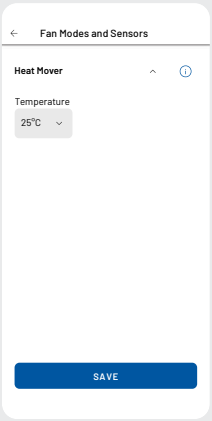
Option 1: “Bathroom” mode



4. Make the desired adjustments:
   - **Trickle Ventilation:** continuous ventilation at the set fan speed.
   - **Light Sensor:** enabled when the light is switched on.
   - **Humidity Sensor:** enabled when humidity rises.
   - **Airing function:** enabled for the set run time if the sensors have not detected any changes in the past 12 hours.
   - **Run Timers:** run-on time after activation by means of the light sensor.
5. Tap the “SAVE” button.

   ► The settings are applied.

Option 2: “Heat Mover” mode

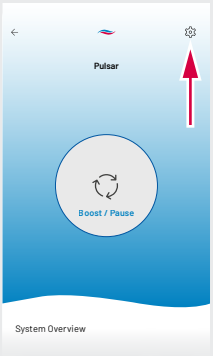


4. Set the desired temperature threshold.
5. Tap the “SAVE” button.

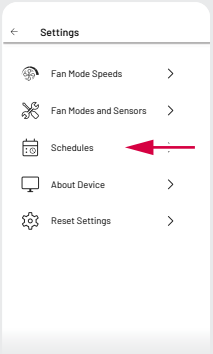
   ► The settings are applied.

8.2.6 Managing silent hours

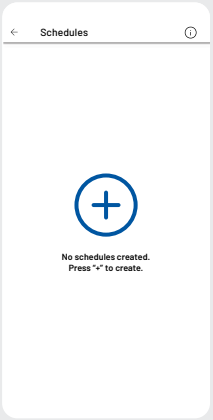
You can define and adjust the silent hours in which the Pulsar extractor fan does not respond to the sensor signals.



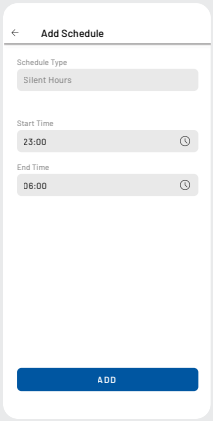
1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.
2. Tap the ⚙ symbol to open the Settings menu.



3. Tap “Schedules”.
   ▶ The “Schedules” screen opens.



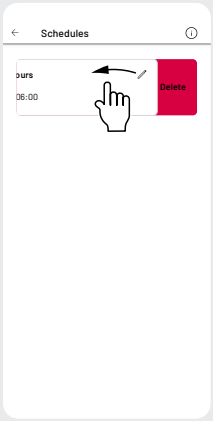
4. Tap + to create a new schedule.
   OR
   Tap the ✎ symbol to edit an existing schedule.



► The “Add Schedule” or “Manage Schedule” screen opens.

5. Enter the start time in the “Start Time” field.
6. Enter the end time in the “End Time” field.
7. Tap “ADD”.

► The schedule is saved.
► The Pulsar extractor fan will not respond to the sensor signals within the set period of time.



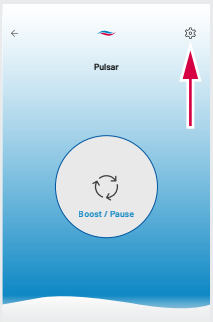
8. If you would like to delete the schedule, swipe left on the entry and tap “Delete”.

► The schedule is deleted.

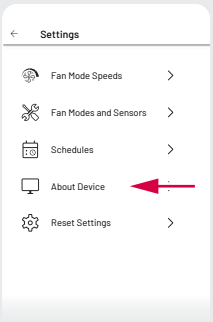
8.2.7 Calling up device information

On the “About Device” screen, you can call up information about your Pulsar extractor fan. You can also change its device name.

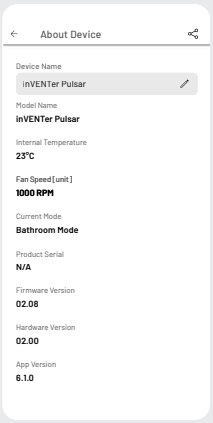
Opening device information



1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.
2. Tap the ⚙ symbol to open the Settings menu.

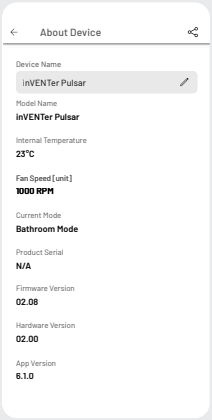


3. Tap “About Device”.

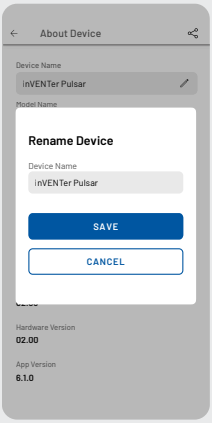


► The “About Device” screen opens.

Renaming the device



1. Tap the ✎ icon in the “Device Name” field.
   ► The “Rename Device” pop-up opens.
2. Confirm by tapping “YES”.



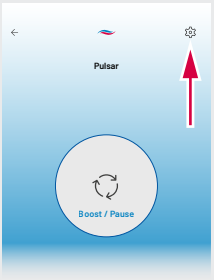
3. Enter the desired device name.
4. Tap “SAVE“.
   ► The system name is updated.
   ► On the app home screen, you can find the system under the new system name.

8.2.8 Resetting to default values/resetting the system

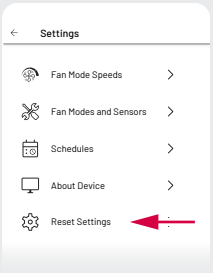
If needed, you can restore factory settings or reset the system.

- **Reset to default values:** The user-defined settings will be reset. The mode of installation (“Bathroom”/”Heat Mover”) will be retained.
- **Reset system:** All user-defined settings, including the mode of installation (“Bathroom”/”Heat Mover”), will be reset.

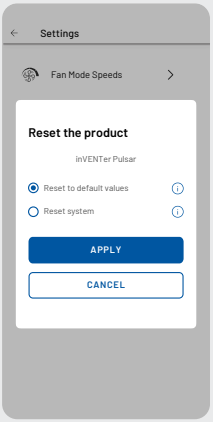
Opening the “Reset Settings” menu



1. Open the system overview:
   - From the home screen: Select the Pulsar extractor fan.
   - From a different screen: Tap the ← symbol until the system overview appears.
2. Tap the ⚙ symbol to open the Settings menu.



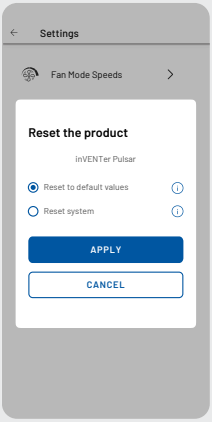
3. Tap “Reset Settings”.



► The “Reset the product” pop-up opens.

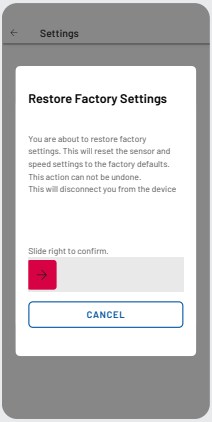
Reset to factory settings

The “Reset to default values” function resets all sensor and speed settings. The mode of installation (“Bathroom” or ”Heat Mover” mode) will be retained.



1. In the “Reset the product” pop-up, select “Reset to default values”.
2. Tap “APPLY”.

   ► The confirmation pop-up opens.

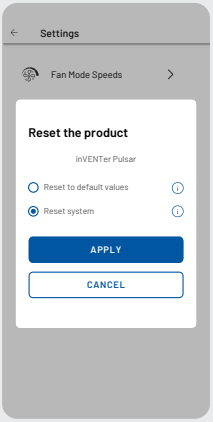


3. To confirm, swipe the slider all the way to the right.

   ► The factory settings are restored.

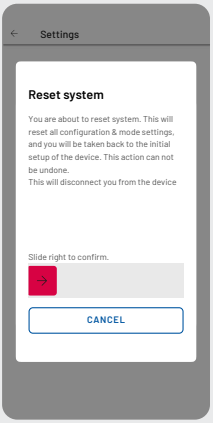
Reset system

The “Reset system” function resets all user-defined settings, including the mode of installation (“Bathroom” or “Heat Mover” mode).



1. In the “Reset the product” pop-up, select “Reset system”.
2. Tap “APPLY”.

   ▶ The confirmation pop-up opens.



3. To confirm, swipe the slider all the way to the right.

   ▶ The system is reset.

9 Cleaning and care

9.1 General information

CAUTION

Risk of injury due to rotating parts

There is a risk of injury during fan maintenance and cleaning.

→ Switch off the power supply to the Pulsar extractor fan before maintenance and cleaning.

The Pulsar extractor fan is virtually maintenance-free. The service work can be carried out by the user after a short instruction.

Cleaning supplies

NOTICE

Damage from improper cleaning

- Do not submerge the fan in water or spray it with water.
- Do not use cleaning agents containing sand, soda, acid or chlorine, since they can damage the surface.

A soft, lint-free cloth, a soft brush and a commercially available detergent in warm water can be used for cleaning.

Service guidelines

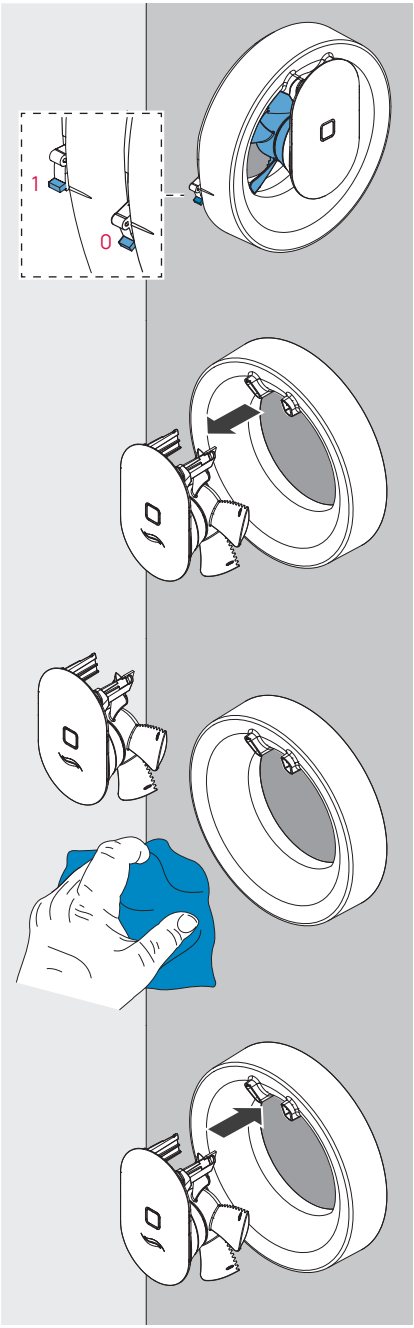
The service measures and intervals listed here are recommendations by inVENTer GmbH to maintain your product's functionality and performance.

Depending on your needs, your personal plan may differ from these recommendations.

Table 7: Pulsar extractor fan servicing guidelines

Interval	Module	Maintenance activity
Monthly	Fan casing	Clean surfaces with a damp cloth.
Half-yearly	Fan unit	Remove the fan unit from the fan casing and clean it with a damp cloth.

9.2 Cleaning the fan unit



1. Switch off the power supply.
   - 12 V DC: Disconnect the power supply at the mains fuse.
   - 230 V AC: Switch off the switch on the left side of the casing by pressing it down into position “0”.

   ► The Pulsar extractor fan is switched off.

2. Reach behind the fan unit with both hands.
3. Pull the fan unit forward to remove it from the fan casing.

Hold the fan unit tightly so that it does not fall on the floor after being removed.

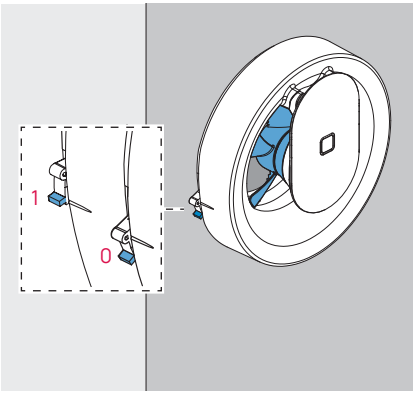
4. Clean the wall mounting sleeve, the fan casing and the fan unit with a damp cloth.

The fan must remain attached to the fan unit during cleaning. Do not remove the fan from the fan unit!

5. Carefully insert the fan unit into the guides on the fan casing.

The fan unit must not jam while being inserted, otherwise the contacts could be damaged.

► An audible click confirms that the fan unit has been placed correctly.



6. Switch on the power supply.
   - 12 V DC: When the power supply is switched on, the fan begins to run.
   - 230 V AC: Switch on the switch on the left side of the casing by pressing it up into position "1".

   ► Cleaning is completed.

10 Warranty and guarantee

In the event of a warranty or guarantee claim, contact the dealer or factory representative responsible for you. In any case, send the complete unit back to the manufacturer.

10.1 Warranty

Outside Germany, the national warranty regulations of the country in which the system is sold apply. Contact the dealer for your home country. The warranty covers all defects that were present at the time of purchase. Use the device as intended in order to maintain the warranty claim.

10.2 Manufacturer's guarantee

inVENTer GmbH grants a 5-year guarantee on all electronic components. This covers premature product wear. The warranty claim is an additional offer by the manufacturer and does not affect applicable law in any way.

For information on the guarantee provisions, see:
www.inVENTer.eu/inVENTer-manufacturer-guarantee

11 Service

11.1 Complaints

Upon receipt, use the delivery note to check the delivery for completeness and transport damage. Report missing items immediately (within 14 days) to your supplier, dealer, or factory representative.

11.2 Accessories and spare parts

To order components for your product, contact your factory representative or our service team. All components are also available as spare parts.

Technical customer service

For technical advice, please contact our technical service staff:

Phone: +49 (0) 36427 211-0
E-mail: info@inventer.eu
Website: www.inventer.eu

12 Disposal

The products described in these Installation and operating instructions contain valuable materials that can be reclaimed and recycled. Separating waste materials of different types facilitates reusable material recycling. Contact your local disposal company for environmentally sound recycling and disposal of your old system. It will dispose of the product in accordance with applicable national regulations. Also dispose of product packaging correctly.

You will find disposal recommendations in the following table.

Table 8: Disposal recommendations

Component	Material	Disposal
Housing components	ABS and PP plastic	Recyclable waste
Fan assembly	Various electrotechnical materials	Electronic waste

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Version: 4.0 – 02/2026
009-500014H

Download these instructions and other manuals in a digital format:
www.inventer.eu/downloads