inVENTer

iV14-MaxAir

Installation and operating instructions

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Disclaimer

This documentation is the original installation and operating instructions. After completion of the installation it must be given to the user (tenant, owner, property management, etc.). The content of this documentation has been checked for compliance with the described hardware and software. Nevertheless deviations may still occur, therefore no guarantee of compliance can be provided. This documentation describes the functionality of the standard scope. The documentation does not purport to cover all details on all types of the product and cannot cover every conceivable scenario for installation, assembly, operation, cleaning and care. The illustrations in this document may differ slightly from the design of the product that you have purchased. The same functionality is ensured despite any design deviations.

This documentation is updated regularly. Necessary corrections and appropriate supplements are always included in subsequent editions. You can also find the latest version at **www.inventer.de/downloads**

Version 1.3

Table of contents

1 User and safety instructions

Thank you for purchasing this high quality product from inVENTer!

This section provides an overview of the basic safety precautions for safe and proper operation of your ventilation unit.

1.1 User information

Safety instructions

The safety and warning instructions in these installation and operating instructions have a uniform structure and are marked with a symbol on the left side of the instruction. A signal word in front of the text also indicates the hazard level. If several hazard levels exist, the highest level safety instruction is always used.

The safety and warning instructions contain the following information:

SIGNAL WORD: Type and origin of the hazard. Possible consequences of the hazard! Measures to avoid the hazard.

The signal word indicates the severity of the potential hazard unless the preventive measures are taken:

WARNING indicates: possible danger of serious injury or death.

CAUTION indicates: Direct danger of minor/significant injury.

NOTE indicates: Indicates a direct or possible risk of property damage due to an adverse event/state.

If you see these signs, ensure you observe the described measures to prevent possible hazards and/or damage.

Other symbols used in this documentation

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

A **TIP** symbol indicates practical and useful tips for handling your ventilation unit.

Before each installation step, any additional tools and materials required for the task are listed.

Red bar over a graphic: graphic shows the interior wall.

Blue bar over a graphic: graphic shows the exterior wall.

► **Action required:** This prompts the user to perform a specific action.
⇨ **Check the results:** this requires you to check the results of the action you have performed.

1.2 Safety instructions

These installation and operating instructions are part of the ventilation unit and must be permanently available. When handing the equipment / system to a third party, the installation and operating instructions must be handed over also. Before performing any work on the equipment / system, read the installation and operating instructions carefully and observe all information in this section regarding installation, operation, cleaning and care. Also note the safety instructions that precede the described handling instructions. Non-observance of safety warnings could result in injury and/or property damage.

Intended use

The ventilation device is designed to ventilate dwellings and similar residential spaces. It is controlled via an inVENTer system control unit.

General information

- Always observe the relevant standards, regulations and guidelines when installing the equipment / system. In particular also applicable building regulations, fire safety regulations and accident prevention regulations of the employers' liability insurance association.
- Use the equipment/system exclusively for the applications that are described in this documentation and only in conjunction with components that are recommended, authorised and described by inVENTer GmbH in this documentation. Changes or modifications to the equipment/system are not permitted.
- Your ventilation unit is exclusively designed for use in ambient temperatures between -20 and 50°C.
- Trouble-free and safe operation of the equipment / system depends on proper transportation, proper storage and installation, as well as careful operation and cleaning / care.

Installation and assembly

- **CAUTION: The system may only be installed by qualified personnel.**
- Before starting work, you should have a project plan showing the number of ventilation devices, the location of the ventilation devices, the ventilation principle (cross ventilation, single room ventilation, extract ventilation) and the associated controllers. The exact positioning of the individual devices and control units must be checked at the installation site and, if necessary, adapted to the local conditions with the involvement of the responsible planner or user. For optimum functionality, it is recommended to install the unit at an appropriate place in the upper wall area.

- **WARNING:** For joint operation with open-flue and balanced-flue fireplaces, safety measures must be taken to prevent a negative pressure from developing in the building. The responsible chimney sweep and/or building planner decides which measures need to be carried out.

- **NOTE:** The ventilation device is not suitable for drying out buildings. Do not put it into operation until the construction work has been completed.
- **NOTE:** Contamination of components, e.g. by plaster residue, will damage the components! Seal the ventilation device/air outlets of the ventilation device so they are dust-tight throughout the construction work. Do not remove the thread locks until final assembly.
- **NOTE:** Do not install the device near indoor air thermostats or in the immediate vicinity of/above sensitive pictures or furniture.
- **NOTE:** Observe the specified minimum clearances on both sides of the wall and frontally to prevent unintentional mixing of different air flows and to ensure access to the device and its components. A minimum distance of 1.2 m must be maintained between adjacent air openings. (🕮, page 12 f.).

- **NOTE:** The wall sleeve must be diffusion-open to the outside and diffusion-tight inside in the building envelope (airtightness level) ("RAL installation"). Material for this is must be provided on site. After mounting the wall sleeve, guide the wall structure back up to the wall sleeve and observe the necessary barrier layers to avoid an interruption of the thermal insulation composite system. Consult your planner before installation!
- **NOTE:** Install the wall sleeve with a slope of 1 - 2° to the exterior wall to ensure the drainage of any condensate that may form.
- **NOTE:** Do not install the ventilation device in places where direct contact with water spray is possible. Observe the specifications of VDE 0100 when choosing the installation location.
- **NOTE:** Store components standing outside the wall sleeve and do not throw them to avoid damage and breakage of the components, especially the thermal accumulator.
- **NOTE:** In order to avoid algae growth around the weather protection hood/flat duct/reveal grille, the instructions for installation must be followed exactly (apply all sealing tapes!). Insulation of at least 10 mm thickness must be applied to the flat duct. We recommend a biocidal pre-treatment/water-repellent pre-treatment of the façade surface around the weather protection hood/flat duct/reveal grille. Consult your planner about this.
- **NOTE:** When installing components in (exterior) walls with insulation, use insulation wall plugs to ensure that the components are securely fastened. Insulation wall plugs are not included in the scope of supply, they are available as an option!
- **NOTE:** Only use permanently elastic sealing compound suitable for outdoor use to seal the joints at all external edges!
- **NOTE:** The device has scratch-sensitive plastic surfaces. Do not touch the components with oily and/or dirty hands. Avoid contact with sharp or pointed objects, e.g. rings.

Cabling / connection of the reversible fan

- **CAUTION: The system's electrical connections may only be carried out by qualified electricians.**
- **NOTE:** If the ventilation unit is operated with safety extra-low voltage, it has an operating voltage of 6 - 16 V DC. It must therefore not be connected directly to the 230 V mains, but rather must always be connected and operated via a controller.
- **NOTE:** Laying cables whose sheathing is not resistant to plastering under plaster leads to short circuits and cable fire! Lay cables without a plaster-resistant cable sheath in the conduit.
- **NOTE:** The use of too small a cable cross-section leads to too great a voltage drop and/or contact is not guaranteed! For the fan BUS, use a cable cross-section of at least 0.75 mm² (stranded wire). Use wire ferrules with collars to connect the strands.
- When using several ventilation devices controlled by several controllers, you must ensure that the ventilation devices are synchronised with each other (see installation and operating instructions for controllers). You should connect all controllers via a mains fuse in the house distribution board.

Operation, cleaning and care

- **CAUTION: Operation and/or care of the device must not be carried out by children and/or persons who are not fully capable of doing so due to their physical, sensory or mental capabilities, inexperience or lack of knowledge. Young children should be supervised to ensure that they do not play with the equipment.**
- **CAUTION:** Before performing cleaning or maintenance work, disconnect the power supply and put on gloves.
- **NOTE:** Your device has scratch-sensitive plastic surfaces. Do not touch the inner cover with oily and/or dirty hands. Avoid contact with sharp or pointed objects, e.g. rings.
- **NOTE:** Do not use strong cleaning agents or solvents. Use a soft, damp cloth to clean the plastic surfaces.

- **NOTE:** Never use the device without the filters and inner cover.
- **NOTE:** Remove/avoid obstacles that hinder access to, or removal of, components of the ventilation device.

If your device has a fault, contact your nearest distributor or our technical service.
Any kind of use other than the intended use will exclude all liability claims.

Improper use

Any use that is not mentioned in the intended use section, is considered to be improper.

Especially do not install / operate the device in areas which the following may occur:
- Environment containing strong oils or lubricants.
- Flammable, aggressive and corrosive gases, liquids or vapours.
- Extreme dust exposure.
- Ambient temperatures outside the range of -20 to 50 °C.
- Prevent obstacles that hinder access to, or removal of, components of the ventilation device.

Qualified personnel

The equipment/system may only be set up, operated and cleaned in conjunction with this documentation and the documentation for the controllers.

Installation, electrical connection and commissioning of the equipment/system may only be performed by qualified personnel. Qualified personnel within the meaning of the safety notices in this documentation are persons who are authorised to install, put it into operation and identify equipment, systems and circuits in accordance with established safety procedures.

Any necessary **cleaning or maintenance work** can be carried out by the user following brief instructions. The cleaning / care of the device must not be carried out by children and/or persons who are not fully capable of doing so due to their physical, sensory or mental capabilities, inexperience or lack of knowledge.

Conformity

The ventilation device complies with the technical safety requirements and standards of electrical appliances for domestic use. It conforms to current European Union directives:
- 2014/30/EC: Electromagnetic compatibility
- 2014/35/EC: Low voltage
- 2009/125/EC: Eco-design
- 2011/65/EC: RoHS

2 System overview

The iV14-MaxAir ventilation unit is designed to ventilate commercial premises, home-like rooms (offices, restaurants, etc.) and residential spaces. It is suitable for installation in new buildings as well as for retrofitting in old buildings. Installation is generally carried out in the exterior wall.

The ventilation device consists of a wall sleeve in which the thermal accumulator insert is mounted. A lockable inner cover conceals the iV14-MaxAir discreetly from the interior. The filter integrated into the inner cover ensures that no pollen or dust from outside enters the interior. Outside, a driving rain-proof cover conceals the components of the ventilation device.

The thermal accumulator insert includes a ceramic thermal accumulator and inVENTron, two guiding vane elements and the Xenion EFP reversible fan. The guiding vanes on both sides of the fan serve to straighten the air flow and ensure more efficient flow through the thermal accumulator. The unique geometry of the Xenion EFP reversible fan effectively reduces sound transmission.

The standard length of the wall sleeve is 495 mm. For thicker walls, a wall sleeve with a length of 745 mm can be ordered as an alternative.
Both versions can be shortened on site.

The ventilation device is controlled via one of the following inVENTer system controllers[1)]:

- sMove
- MZ-Home

Components

- Inner cover incl. dust filter class G4
- Thermal accumulator insert (thermal accumulator and inVENTron)
- Wall sleeve
- Exterior closure
- Pollen and activated carbon filter (optional)
- Sound and wind protection accessories (optional)

Models

- IV14-MaxAir ventilation devices with Flex driving rain-proof weather protection hood (white/grey/north/anthracite/custom colour).

1) The installation and operating instructions for the controllers are not part of this documentation and are enclosed separately.

2.1 Construction

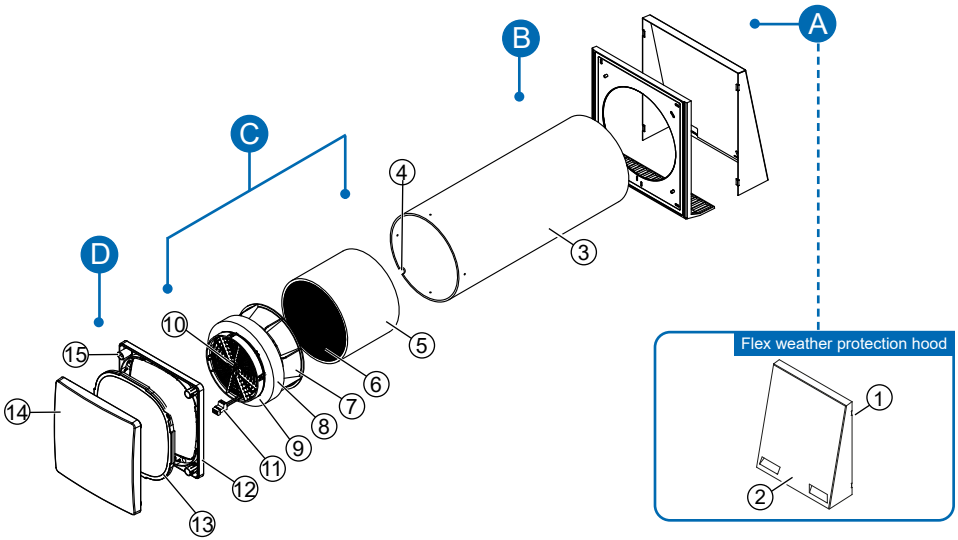


Figure 1: Overview of the iV14-MaxAir ventilation device

Components

A Exterior closure:

Flex weather protection hood
1 Weather protection hood base plate
2 Weather protection hood cover

B Wall sleeve

3 R-D200 wall sleeve
4 Recess for fan BUS cable

C Thermal accumulator insert
(thermal accumulator and inVENTron)

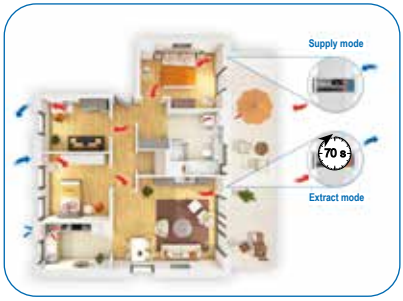
5 Thermal accumulator with insulation
6 Thermal accumulator handle
7 Standard guiding vane (R-D200)
8 Xenion EFP reversible fan
9 Slim guiding vane (narrow)
10 Guiding vane knob
11 BUS plug connection

D Flair inner cover

12 Inner cover base plate
13 Dust filter
14 Inner cover panel
15 Spacer (4 x)

2.2 Function

The iV14-MaxAir ventilation unit is used to provide ventilation for living spaces and living space-like commercial premises. An integrated ceramic thermal accumulator ensures optimum heat recovery.



The ventilation device operates on the principle of heat recovery by changing the direction of the fan. The integrated thermal accumulator charges itself with heat energy from the indoor air as it flows to the exterior (extract air). After 70 seconds, the Xenion EFP reversible fan changes direction. When the fan changes direction, it releases the stored heat energy into the incoming outdoor air (supply air).

For this principle to work correctly and to ensure pressure stability in the room, the supply air volume must always correspond to the extract air volume, i.e. at least two iV14-MaxAir ventilation devices are required. These are operated in pairs in push-pull mode: Another ventilation device is assigned to the ventilation device that delivers supply air and at the same time removes used extract air from the interior to the outside.

Thanks to a high pressure build-up and the active speed control of the motor (integrated wind pressure stabiliser) in the Xenion EFP reversible fan, the air flow in the system is kept almost constant even in the event of weather-related pressure fluctuations. Thus, the sensitivity of the air flow to pressure fluctuations corresponds to class S2 according to DIN EN 13141-8 (max. 20 % air flow deviation at ± 20 Pa).

In order to ensure the full functioning of the ventilation device throughout the entire year, a temperature sensor is integrated into the Xenion EFP reversible fan. This measures the temperature of the air flow an the fan. If the temperature at the fan falls below +5°C, the reversible fan is automatically switched to extract air mode for 4 cycles. This allows the thermal accumulator to heat up again and prevents cooling of the interior due to cold supply air. During this phase, the operating mode that has been set on the controller is ineffective. Subsequently, the controller switches the ventilation device back to the originally selected mode.

As standard, a washable class G4 dust filter is unobtrusively and easily accessible integrated into the inner cover. This filters coarse dust and allergenic particles (such as coarse flower pollen) from the air before they can enter the interior. The dust filters can be used regardless of the season. Optional pollen and activated carbon filters are available for special requirements.

A decentralised ventilation unit is based on the free movement of air between individual pairs of ventilation devices. Therefore, internal doors must not have air-tight seals. Provide suitable air transfer measures to create a room network: an air gap of about 10 mm below the door, unscrew the hinges by 5 mm, use a ventilation grille or similar (cross ventilation).

The ventilation device is operated via an inVENTer system controller. Depending on the controller, different operating modes and functions can be set.

2.3 Control elements

sMove controller

The sMove controller is an electronic programming unit for controlling up to four iV14-MaxAir ventilation devices. It is characterised by a timeless and slim design, easy installation and a simple touch-based operating concept.

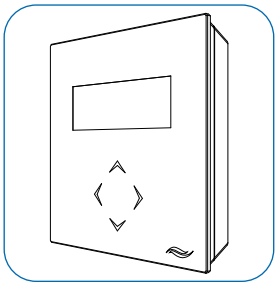
It is available in a flat and standard version:
In contrast to the flat version, in addition to pause mode, the standard version provides the option to switch off the ventilation device completely.

The connected ventilation devices can be controlled in the following modes:

- Heat recovery
- Ventilation
- Pause timer
- Off (only sMove standard version)

MZ-Home controller

The MZ-Home controller is an electronic programming unit for controlling up to eight iV14-MaxAir ventilation devices.



It features Clust-Air technology (multi-zone control), easy installation, touch operation and a wide variety of possible uses.

The MZ-Home controller consists of a programming unit and at least one (optionally up to a maximum of four) Clust-Air module(s). Each Clust-Air module can control up to two iV14-MaxAir ventilation devices per zone within the accommodation unit. This allows the MZ-Home controller to provide individual ventilation for up to four different areas (ventilation zones) within one accommodation unit. For each zone, the operating mode and output level can be set manually or via a 7-day timer.

The connected ventilation devices can be controlled in the following modes:

- Heat recovery
- Ventilation
- Dehumidification
- Off / Pause function

The sMove and MZ-Home controllers can be expanded with additional sensors.
An external interface allows the connection of a potential-free switching contact or integration into an existing home automation system via an analogue input.

For detailed information, see the controller's installation and operating instructions.

3 Preparing for installation

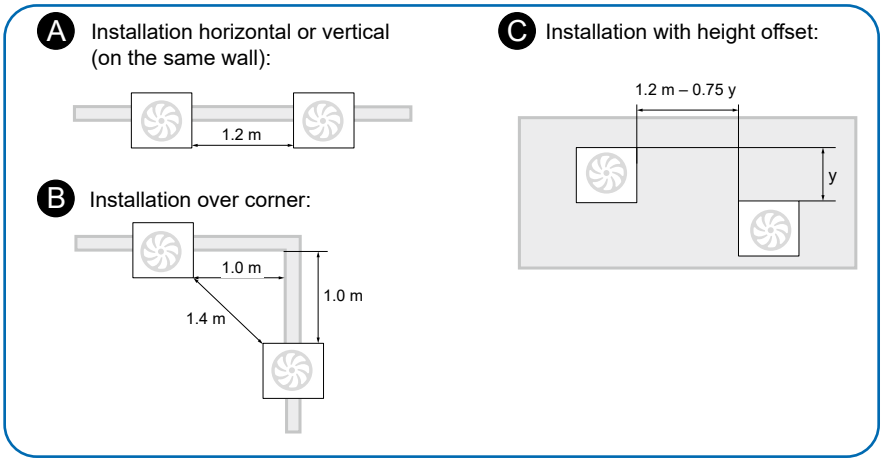
3.1 Installation position

- The installation location can be derived from the position suggested by the ventilation planning. The exact positioning of the individual devices and control units must be checked on site and, if necessary, adjusted. **Consult the responsible planner about this.** For optimum function, it is recommended that the ventilation device is installed at the appropriate point in the upper wall area (e.g. 1.80 m from the upper edge of the finished floor (OKFFB)).

- Do not place the ventilation device near radiators, indoor air thermostats, sensitive furniture or above pictures.

- Do not install the device in places where direct contact with water spray is possible. Observe the specifications of VDE 0100 when choosing the installation location.

- Observe the following **minimum distances of the wall opening for the ventilation device**:
  1 between two ventilation devices (pair of devices) operating in push-pull mode in a room to prevent an airflow short circuit:



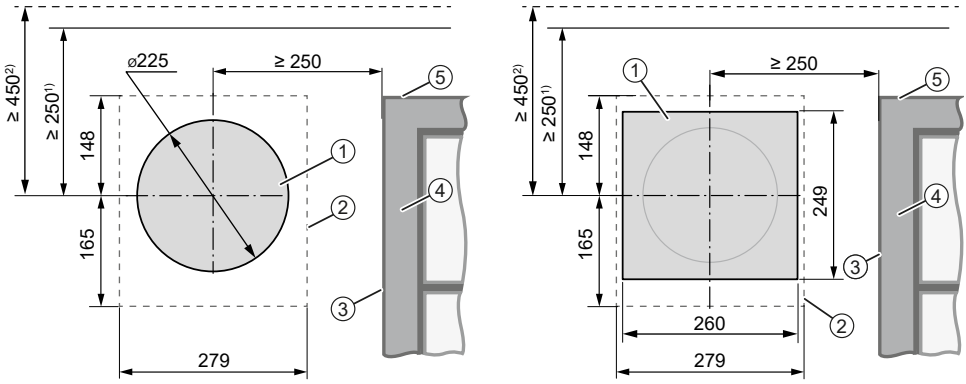
2 to adjoining building components on the exterior wall (note insulation thickness / roller shutters):
Flex weather protection hood: 450 mm from borehole centre/centre axis

3 to adjoining components on the interior wall: 250 mm from borehole centre/centre axis

4 to frontally adjacent components: 300 mm for cleaning work

3.2 Position of the wall opening

With Flex weather protection hood:



Position of wall opening *Position of Simplex wall installation system*

Figure 2: Dimensioned drawing of the iV14-MaxAir wall opening (interior view)

1 Wall opening (Fig. 2, left)
Simplex wall installation system (Fig. 2, right)
2 Contour of weather protection hood[3)]
3 Reveal
4 Door/window frame
5 Bottom edge of lintel[4)]

1) Minimum distance to adjacent components on the interior wall
2) Ensure a minimum distance to adjoining building components on the exterior wall
3) Attach the weather protection hood at lintel height
4) Note insulation thickness and any roller shutters

3.3 Sectional drawing of the iV14-MaxAir ventilation device

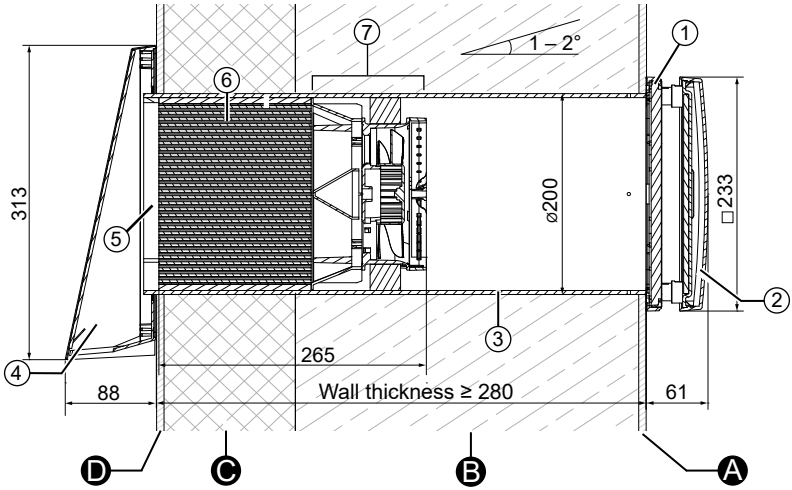


Figure 3: Sectional drawing of the iV14-MaxAir ventilation device with Flex weather protection hood

A Plaster / interior structure
B Masonry
C Insulation
D Render

1 Inner cover base plate
2 Inner cover panel
3 R-D200 wall sleeve
4 Exterior closure:
Weather protection hood
5 End-stop tape
6 Thermal accumulator
7 inVENTron:
Xenion EFP reversible fan embedded in double guiding vane

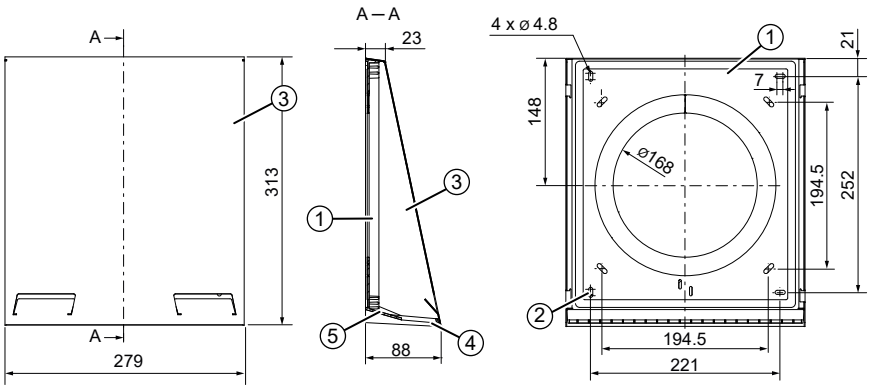
3.4 Dimensions

Designation	Depth/length [mm]	Width [mm]	Height [mm]
Wall opening for wall sleeve	Wall thickness[1)]	Ø225	
R-D200x495 wall sleeve (745)	495 (745)	Ø200	
Flex weather protection hood	23 – 88	279	313
Flair V-233x233 inner cover	61[2)]	233	233

1) Wall thickness with render, insulation, masonry and plaster
2) Open

3.5 Dimensional drawings of components

Flex weather protection hood



Flex weather protection hood cover *Flex weather protection hood base plate*

Figure 4: Dimensional drawing of Flex weather protection hood

1 Wall sleeve base plate
2 Fixing borehole exterior wall Ø 8 mm, min. 50 mm deep (4 x)
3 Weather protection hood cover
4 Protective grid
5 Drip rail

1) Minimum distance to adjacent components on the interior wall
2) Ensure a minimum distance to adjoining building components on the exterior wall
3) Attach the weather protection hood at lintel height
4) Note insulation thickness and any roller shutters

Flair inner cover

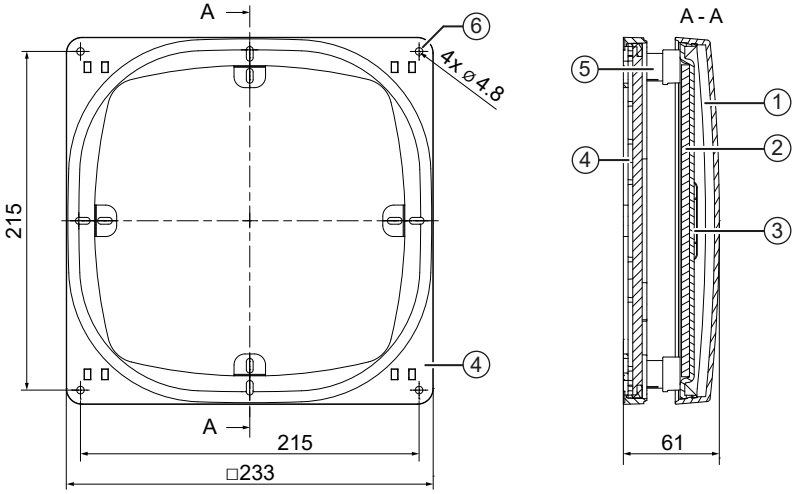


Figure 5: Dimensional drawing of Flair V-233x233 inner cover

1 Inner cover panel
2 SDE sound insulation insert
3 Holding plate
4 Inner cover base plate
5 Spacer (4 x)
6 Fixing borehole interior wall, Ø 6 mm, 40 mm deep (4 x)

4 Installation and assembly

Read the section carefully before installation to avoid installation errors. The installation and connection of the ventilation device must be carried out by qualified personnel.

4.1 Check the scope of supply

Check the delivery for completeness and transport damage upon receipt using the delivery note. Report missing items immediately.

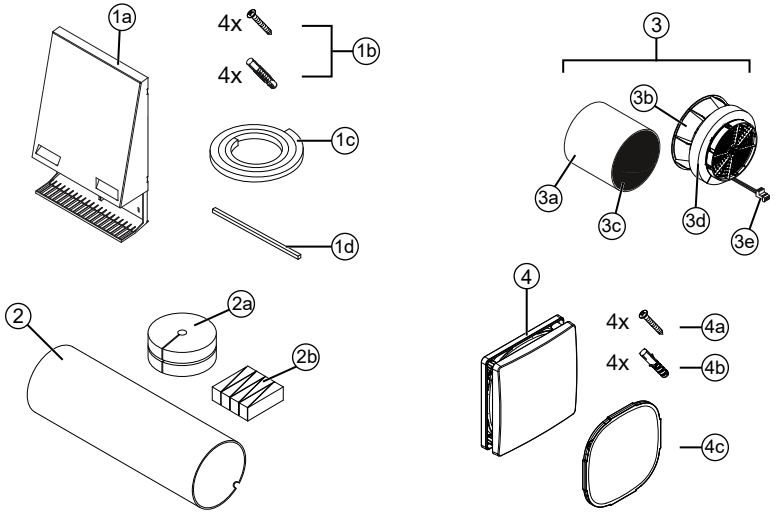


Figure 6: Standard components of the iV14-MaxAir ventilation device

1 Exterior closure
- 1 a: Flex weather protection hood
- 1 b: Exterior wall fixing elements
- 1 c: End-stop tape
- 1 d: Sealing tape

2 R-D200 wall sleeve
- 2 a: Protective discs
- 2 b: Mounting wedge set

3 iV14-MaxAir thermal accumulator insert
- 3 a: Insulated thermal accumulator
- 3 b: R-D200 guiding vane
- 3 c: Xenion EFP reversible fan
- 3 d: Slim guiding vane (16 mm)
- 3 e: BUS plug connection

4 Flair inner cover incl. G4 dust filter
- 4 a: Interior wall fixing screws
- 4 b: Interior wall fixing rawl plugs
- 4 c: G4 dust filter

4.2 Create wall opening

CAUTION

Falling masonry when creating the wall opening can lead to physical injuries and/or damage to property!

- Install protection against falling masonry on building exterior.
- Remove objects from the immediate vicinity of the building's exterior.

Power drill with core drilling attachment or milling drill Ø 225 mm, Simplex option additionally with angle grinder and spirit level

Positioning of the wall sleeve (📖 3.1 - Installation position):

Minimum distance to adjoining building components on the exterior wall (note insulation thickness / roller shutters):

Flex weather protection hood: 450 mm from borehole centre,

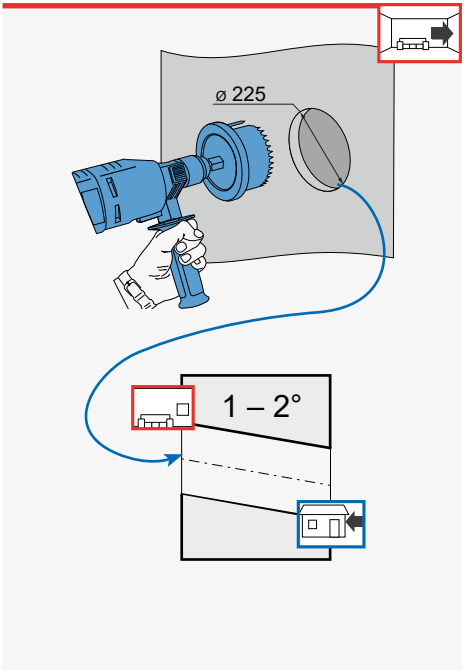
Minimum distance to adjoining components on the interior wall: 250 mm from borehole centre

Minimum frontal distance: 300 mm for cleaning and care work.

Do not install the wall opening near radiators.

In new buildings and buildings with wooden stud construction, we recommend the use of the optional D200 wall installation block or the Simplex wall installation system.

Create the wall opening through core drilling



Requirements:
The masonry must be dry and in a load-bearing condition.
No load-bearing elements in the position of the drill hole.

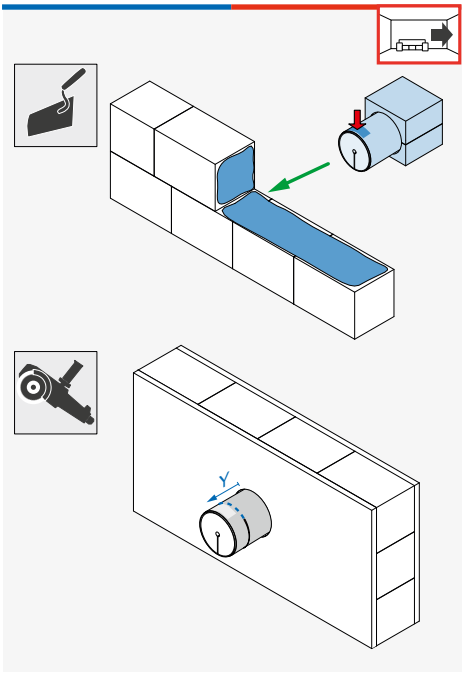
NOTE: Accumulation of condensate in the wall sleeve leads to damage to the brickwork and exterior wall!

- Create the wall opening with a slope of 1° to 2° to the exterior wall.

► Drill a wall opening, Ø 225 mm with a slope of 1° to 2° to the exterior wall.

⇨ The wall opening for the ventilation device has been created.

Using the Simplex wall installation system



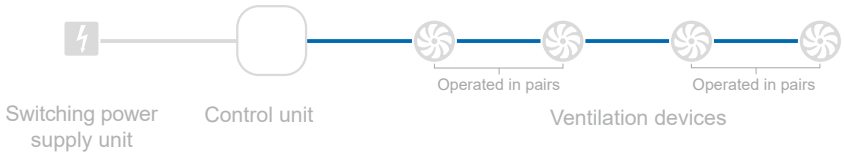
Requirements:
The building project is in the shell construction phase.

- ► Insert the Simplex wall installation system into the masonry at the appropriate point. **Observe** the installation markings on/in the wall sleeve (red arrow): The integrated slope is directed towards the exterior wall to ensure that any condensate that may form can drain away.
- ► Build the installation block into the masonry.
- ► Apply insulation, plaster and render.
- ► Shorten the wall sleeve on the exterior wall with a projection Y (🕮 4.4).
- ► Install the fan BUS (🕮 4.3).
- ► Continue with the installation of the weather protection hood (🕮 4.5).
- ⇨ The Simplex wall installation system is installed.

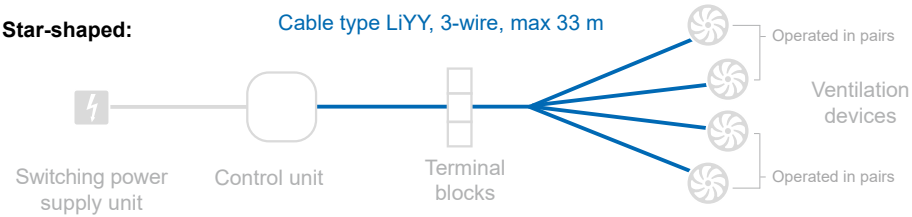
4.3 Installing the fan BUS

Principle sketches for the cabling of the ventilation devices:

One after the other: Cable type LiYY, 3-wire, length see 🕮 Controller

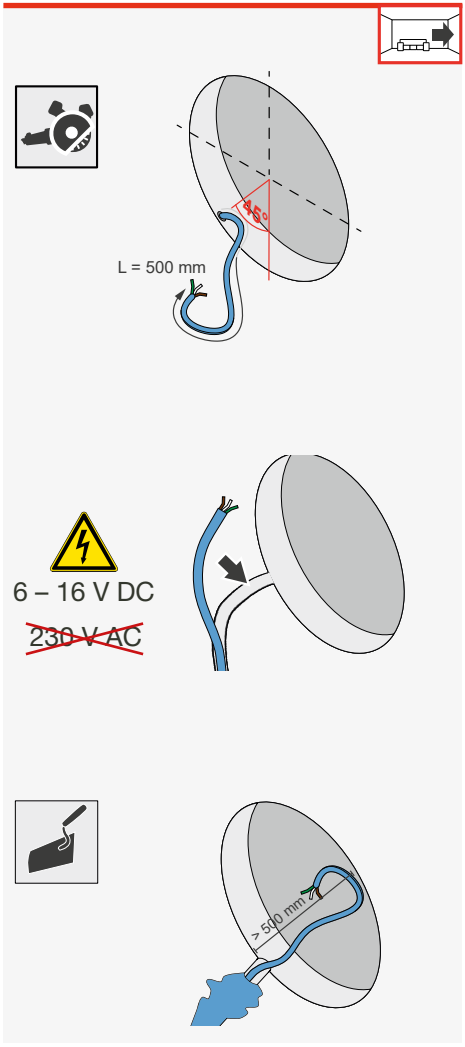


Star-shaped: Cable type LiYY, 3-wire, max 33 m



NOTE: Only install the fan BUS in a de-energised state.
Disconnect the power supply to the controller when connecting the cable to the control unit (sMove programming unit or Clust-Air module CAM17).
Only connect the cable to the control unit when it is de-energised. Instructions for installing the fan BUS (including maximum cable lengths) can be found in the installation and operating instructions supplied with the controller.

Wall slot cutter, hammer, chisel, fan BUS (3-wire)



Requirements:
The wall opening is ready.

- ► Mill the plaster/masonry slot between the control unit and the wall opening.
  Make sure that the plaster/wall slot for the cable to the control unit is positioned at a 45° angle to the bottom left of the wall opening.
- ► Seal off the wall opening from the inside and outside until you are ready to install the wall sleeve.
  - ⇨ The plaster/wall slot for the cable (fan BUS) has been created.

NOTE: The use of too small a cable cross-section leads to too great a voltage drop and/or contact is not guaranteed!
- For the fan BUS, use a cable cross-section of at **least 0.75 mm²**.

NOTE: The cable sheath provides no resistance when laid under plaster.
Short circuit and cable fire!
- If necessary, lay the cable in the conduit.

- ► Route the fan BUS, 3-wire (stranded wire) from the control unit to the wall opening of the ventilation device.

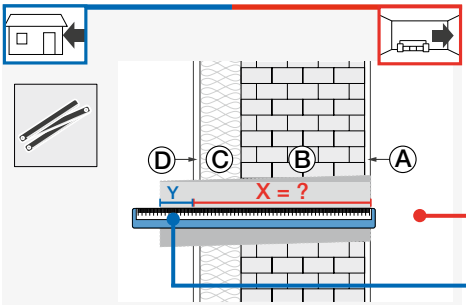
- ► Re-plaster the plaster/masonry slot.
  Ensure that the cable end protrudes approximately 500 mm into the interior space.

⇨ The fan BUS is installed.

4.4 Installing the wall sleeve

Measuring tape, angle grinder, spirit level, non-pressing 2K polyurethane foam, cutter, mounting wedge set and protective discs

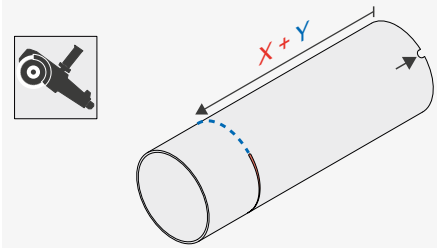
Requirements:
The wall opening Ø 225 mm is finished.
The fan BUS is installed.



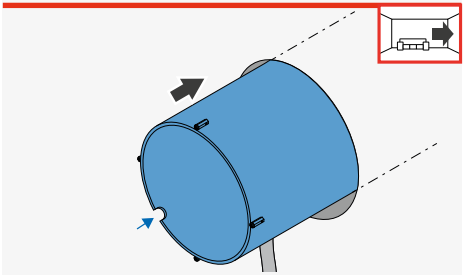
► Determine the exact wall thickness X.
Ensure to add the thickness of the render (D) and insulation (C), masonry (B) and plaster (A).

Y = 10 mm

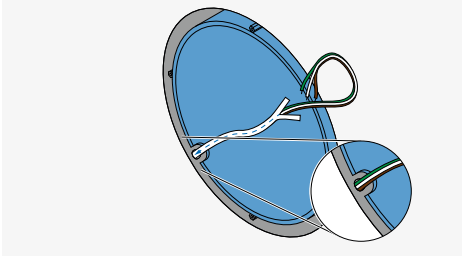
X = A+B+C+D



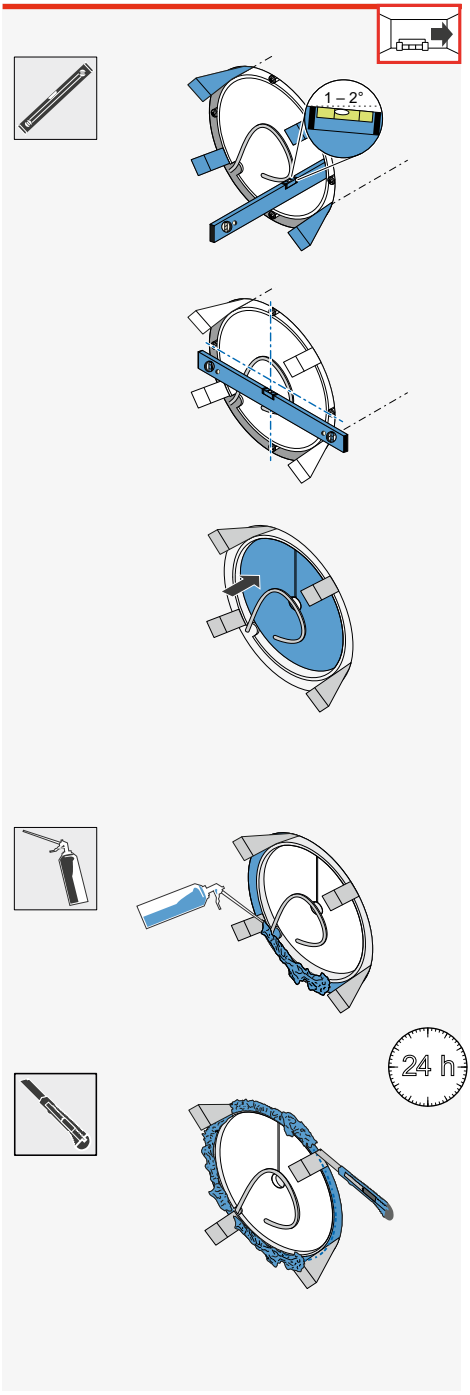
► Cut the wall sleeve to the determined dimension **X + a projection of Y** on the exterior wall.
Be careful not to cut away the cut-out for the fan BUS.



► Remove the protective discs from the wall sleeve.
► Insert the wall sleeve into the wall opening so it is flush with the interior wall.
► Note the thickness of the plaster.
Ensure that the cut-out for the fan BUS is on the interior wall side and near the plaster/masonry slot.



► Guide the fan BUS through the cut-out in the wall sleeve.



NOTE: Accumulation of condensation in the wall sleeve.
Damage to exterior wall and masonry and the building structure!
- Attach the wall sleeve with a slope of 1° to 2° to the exterior wall.

► Attach the wall sleeve inside and outside with the mounting wedges so that there is a slope of 1 – 2° to the exterior wall.
► Check the angle of the wall sleeve using a spirit level.

► Align the two lateral fastening elements of the wall sleeve horizontally.

► Insert the protective discs into the wall sleeve from the inside and outside.

NOTE: Interruption of the thermal insulation composite system.
Damage to the building structure!
- During installation, replace the wall structure as far as the wall sleeve.
- Observe the necessary barrier levels.

► Before foaming, stabilise the wall sleeve by inserting the thermal accumulator or a suitable material to prevent it from deforming.
► Foam-seal the gap between the wall sleeve and masonry all the way around with non-pressing 2K polyurethane foam.

► Trim the 2K polyurethane foam and protruding mounting wedges so they are flush with the exterior and interior wall.
Take care not to damage the fan BUS.

⇨ The wall sleeve is installed.

4.5 Installing the ventilation device's exterior closure

NOTE

Installing on an unfinished exterior wall leads to damage to the exterior wall!

- Only install the exterior closure once the exterior wall is finished and has fully dried.

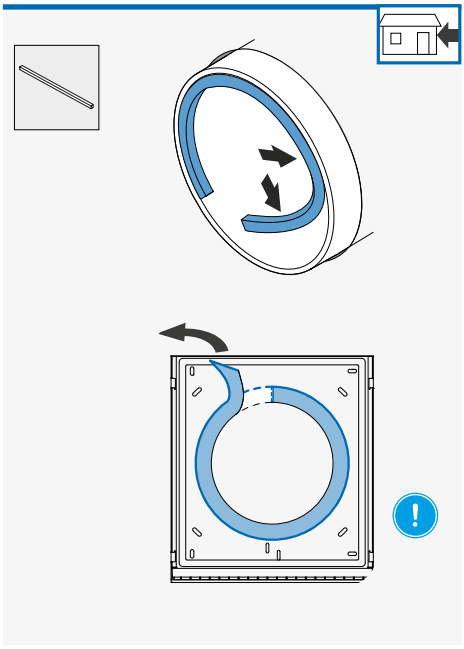
NOTE

Penetration of condensation water and/or algae accumulation around the weather protection hood leads to damage to the masonry/exterior wall and/or discolouration of the façade!

- Secure all sealing tapes on the weather protection hood circumferentially before installing the exterior closure.
- In the wall sleeve, attach end-stop tape toward the exterior wall and place the cut-out in the end-stop tape at the bottom in the centre of the wall sleeve.
- Before installation, carry out a biocidal pre-treatment/water-repellent pre-treatment of the surface around the weather protection hood (consult your planner regarding this).

Installing the Flex weather protection hood

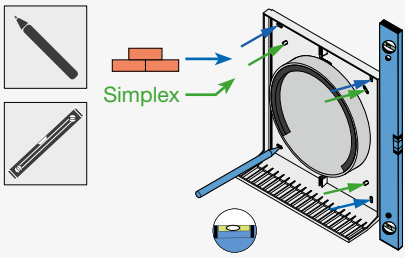
Spirit level, pen, power drill with Ø 8mm drill bit, cordless screwdriver, rawl plugs (wallplugs for insulation for insulated exterior walls), permanently elastic external sealant, sealing tape, screws



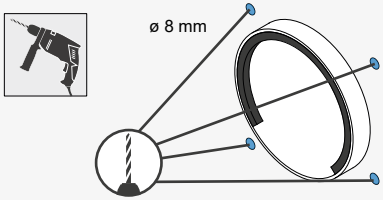
Requirements:
The exterior wall is completed and even.
The wall sleeve is installed.

► Remove the protective discs from the wall sleeve on the exterior wall side.
► Attach the end-stop tape, 380 x 15 mm, on the exterior wall side in the upper area of the wall sleeve. **Make sure** that the cut-out in the circumferential end-stop tape is placed in the lower area of the wall sleeve.

► Break the pre-punched ring out of the base plate.

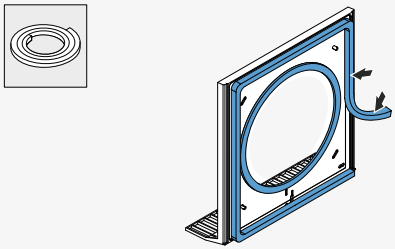


► Slide the base plate onto the projecting wall sleeve.
► Level the base plate using a spirit level.
► Mark the four boreholes:
Outer boreholes (blue arrow): Masonry.
Inner boreholes (green arrow): Simplex.

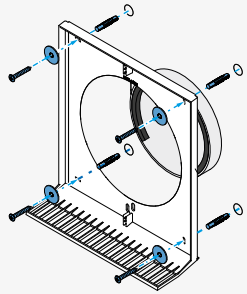


► Create the four boreholes with Ø 8 mm, min. 50 mm deep.

TIP: Do not apply the sealing tape until immediately before installing the base plate. This prevents the sealing tape from swelling too much and makes installation easier.

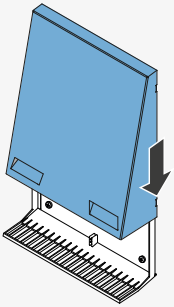


► Fix the sealing tape, 9 mm, on the exterior wall side and all around
• Along the guide on the base plate.
• Flush to the opening for the wall sleeve.
Be careful not to seal the fixing holes.



► Insert the rawl plugs into the boreholes.
► Screw the weather protection hood base plate into the rawl plugs using 4 screws and washers.

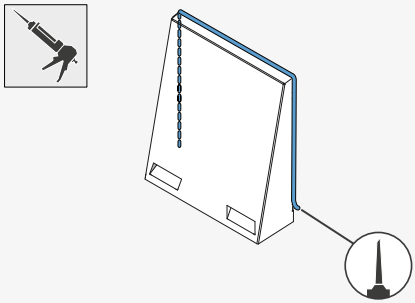
TIP: When attaching the base plate of the Flex weather protection hood to exterior walls with insulation or when using the wall installation block/Simplex wall installation system, use wallplugs for insulation for fixing purposes. These are not included in the scope of supply, they are available as an option.



NOTE: If the joint between the base plate and façade is sealed incorrectly, the cover cannot be fitted.

- After fitting the cover, seal the joints between the cover and façade using permanently elastic exterior sealant on both sides and at the top.

► Place the cover onto the base plate from the top.
► Slide the cover downwards as far as the stop.
Ensure that the guides on the cover hook in behind the base plate.



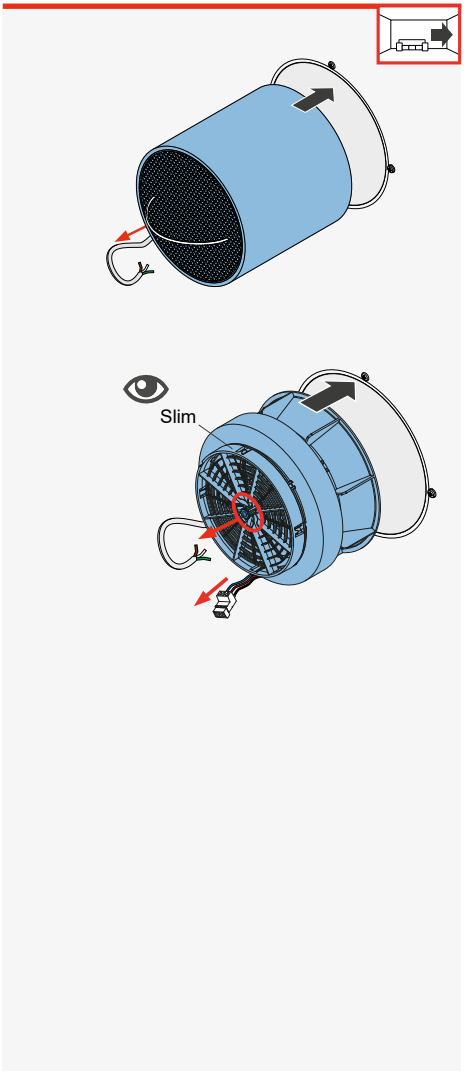
► Seal the joint between the cover and the exterior wall at the sides and top with a permanently elastic exterior sealant.

⇨ The Flex weather protection hood is installed.

4.6 Inserting the thermal accumulator insert

NOTE
Do not store/stack the thermal accumulator insert outside the wall sleeve,
as doing so will damage the thermal accumulator's ceramic.
- Insert the thermal accumulator immediately after removing it from the packaging.

Requirements:
The exterior closure is fitted.



► Remove the protective disc from the wall sleeve.
► From the interior, slide the thermal accumulator towards the weather protection hood as far as the end-stop tape.
Make sure that the handle is pointing towards the interior.
Ensure that the fan BUS protrudes into the interior.

► Insert the inVENTron from the interior into the wall sleeve so that you can reach the plug-in connector.
Make sure that the narrow Slim guiding vane [16 mm] is directed towards the interior.

⇨ The thermal accumulator insert has been inserted.

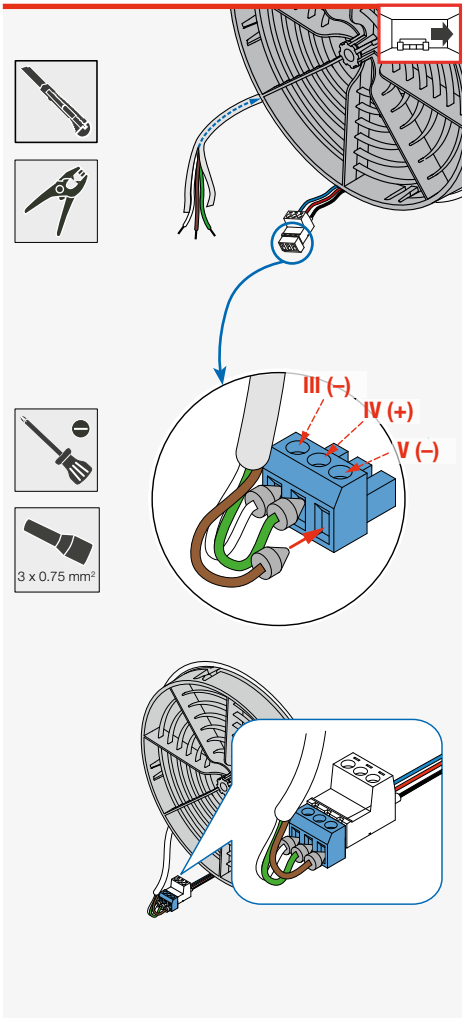
4.7 Connect the reversible fan to the controller and check its function

NOTE

Incorrect electrical connection will damage the fan motor.

- Always connect the ventilation device to the mains supply via a controller.
- Ensure the correct sequence of the wire colours so that the fans start.

Stripping tool, screwdriver, scissors or cutter



Requirements:
The inner cover base plate is fitted.

- ► Shorten the fan BUS, 3-wire, to your determined wall thickness minus 200 mm.
- ► Remove approx. 7 mm of the cable insulation on the fan BUS.
- ► Loosen the plug connection.

NOTE: Using the wrong wire ferrules to connect the strands leads to a short circuit in the fan BUS.

- Use wire ferrules with collars to connect the strands.

- ► Alight the clamping screws on the socket upwards.
- ► Secure the three fan BUS cables in the socket:
  - (White) cable III (-) in the left pole.
  - (Green) cable IV (+) in the middle pole.
  - (Brown) cable V (-) in the right pole.

- ► Align the clamping screws on the connector and socket in the same direction.
- ► Plug the connected socket into the green connector on the fan.
  - ⇨ Extract air mode is set.

⇨ The reversible fan is connected to the controller.

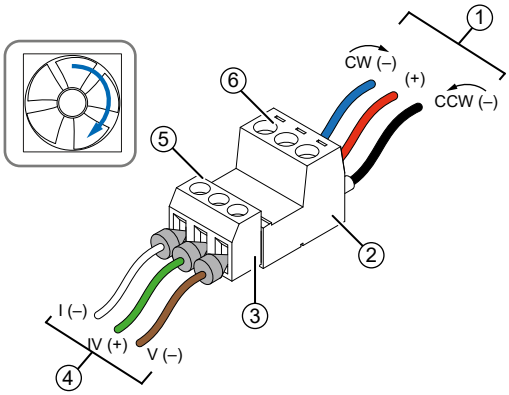
- ► Set ventilation operating mode (DL) on the connected controller.
  (see the controller's installation and operating instructions)
- ► Make sure that all reversible fans rotate in the same direction.

⇨ The functional test has been performed.

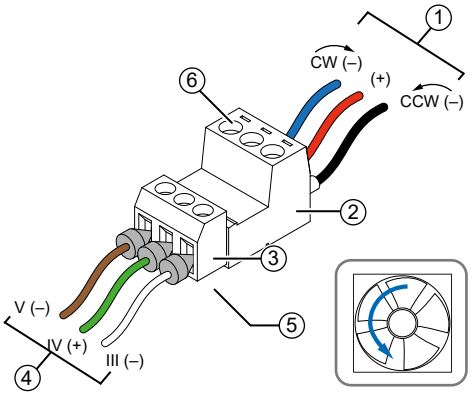
4.8 Starting ventilation unit

Set the starting direction of the reversible fan

In paired mode, one reversible fan runs in extract air mode and the other reversible fan runs in supply air mode. After the functional test, the white and brown cable on the socket of the fan, which is to start in supply air mode when operating in pairs, must be swapped over.



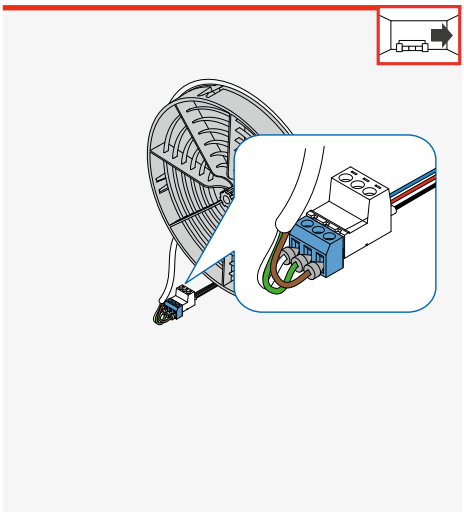
Start in extract air mode direction



Start in supply air mode direction

1 Wires on the connector [to the fan]
2 Connector
3 Socket
4 Fan BUS [to controller]
5 Clamping screws on the socket
6 Clamping screws on the connector

Socket (cable coming from controller)			Connector on the fan cable			
			Extract air start direction		Supply air start direction	
Terminal block	**Description**	**Colour**	**Terminal block**	**Colour**	**Terminal block**	**Colour**
III (–)	GND (–)	White	CW (–)	Blue	CCW (–)	Black
IV (+)	Operating voltage	Green	+	Red	+	Red
V (–)	GND (–)	Brown	CCW (–)	Black	CW (–)	Blue



Requirements:
You have completed the functional test.

► Swap the positions of the white and the brown cable with each other.

► Set heat recovery operating mode (WRG) on the controller.
(See the controller's installation and operating instructions).

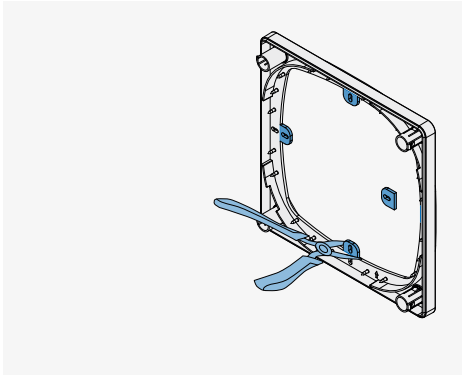
► Push the connected inVENTron as far as the thermal accumulator.

⇨ The fan is connected to the controller.

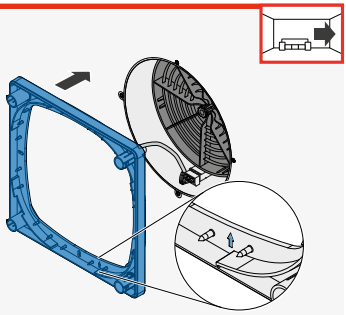
4.9 Installing the inner cover

Spirit level, pen, hex key, rawl plug, pliers

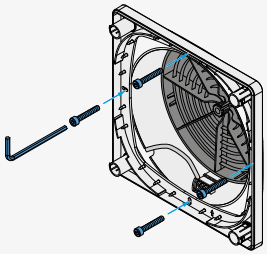
Requirements:
The thermal accumulator insert has been installed.
The start direction of the reversible fan is set.



► **Break** out the four tabs on the inner cover base plate with pliers at the predetermined breaking points.

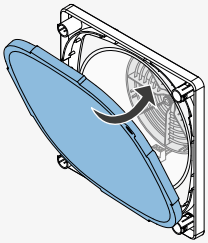


► Remove the thread locks from the fixing elements of the wall sleeve.
► Place the inner cover base plate on the interior wall so that it covers the fixing elements of the wall sleeve.
Make sure that the marking arrow (red arrow) on the inner cover base plate is pointing upwards.

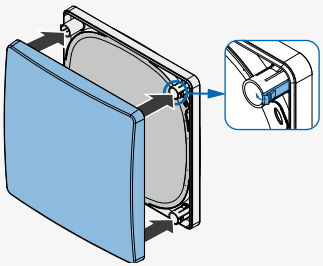


► Screw the inner cover base plate to the wall sleeve's fixing elements using a hex key.

TIP: Ensure you install the dust filter properly to avoid a malfunction of the ventilation device.



► Insert the dust filter into the inner cover base plate.
Ensure you push the filter ring firmly between the fixing projections (red arrow) and the inner edge of the inner cover base plate.
Ensure that the tab on the filter ring is pointing towards the interior.



► Place the inner cover panel on the four spacers.
Ensure that the marker arrows on the back of the inner cover panel are pointing upwards.
Ensure you push the detent lugs on the spacers inwards.
► Slide the inner cover panel onto the spacers.
⇨ All spacers noticeably snap in.

⇨ The Flair V-233x233 inner cover is installed.

5 Operation

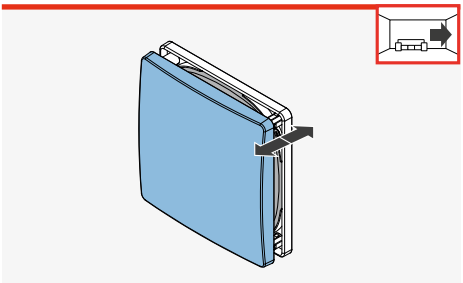
5.1 Opening/closing the inner cover

For the ventilation unit to function correctly, the inner cover of your ventilation device must be open.

Close the inner cover if you take the ventilation device out of operation. Sealing prevents unwanted air exchange, e.g. cold air flowing into the living area.

In certain situations, e.g. accidents involving smoke or escaping gases, it is necessary to lock windows and doors. In this case, your ventilation devices must also be disconnected from the power supply and the inner covers closed.

Open the inner covers again before you switch on the ventilation device.



Requirements: The cover is fitted.

Closing the inner cover:

► Push the inner cover panel towards the interior wall up to the bas plate.

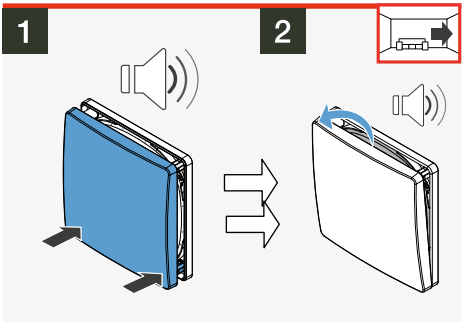
Opening the inner cover:

► Pull the inner cover panel forwards until you feel all four spacers snap into place.

⇨ You have opened/closed the inner cover.

5.2 Tilting the inner cover

To reduce noise and direct the air flow, the Flair inner cover panel can be tilted up or down. The inner cover is closed on the tilted side and the air flow is directed in the open direction. This causes the sound pressure level to decrease. The air flow is reduced if the inner cover is only partially opened.



Requirements: The inner cover is open.

► Slide the inner cover panel onto the lower (upper) spacers in the direction of the base plate.

⇨ The inner cover panel is tilted downwards (upwards).

⇨ The flow rate will be directed upwards (downwards).

⇨ The sound pressure level is reduced.

6 Cleaning and maintenance

CAUTION
Cleaning/care by children and persons with limited abilities.
Injury to persons and/or incorrect functioning of the ventilation unit!
- No cleaning or care activities may be performed on the ventilation unit by children or persons who are not fully capable of safely doing so due to their physical, sensory or mental capabilities, inexperience or lack of knowledge.

The iV14-MaxAir ventilation unit is virtually maintenance free. Any necessary cleaning or care work can be carried out by the user after brief instructions.

TIP: Before performing cleaning or care work, disconnect the ventilation device's power supply and put on gloves.

Detergents

NOTE
Due to the scratch-sensitive plastic surface of the inner cover, damage may occur to the surface.
- Do not use sand, soda, acid or chlorine-based cleaning agents.

A commercially available detergent in warm water can be used for cleaning. The following tools may be used for cleaning:

- lint-free, soft cloth
- soft brush
- vacuum cleaner

Cleaning recommendations

The measures and intervals listed here are recommended by inVENTer GmbH to maintain the functionality and performance of the iV14-MaxAir ventilation unit.

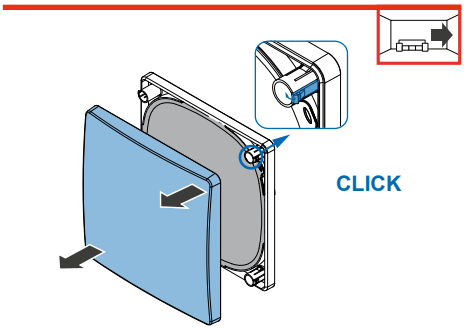
Depending on requirements and/or air quality, your personal cleaning plan may deviate from these recommendations.

Interval	Assembly	Cleaning measure
Cleaning from the interior room		
Monthly	Pollen filter	Replace the used filter.
	Inner cover	Clean the surface of the cover with a damp cloth.
Quarterly	Dust filter	Wash the dust filter in warm water. **Or** Replace worn dust filters.

Interval	Assembly	Cleaning measure
Half-yearly	Thermal accumulator	Remove the thermal accumulator and clean it under running warm water.
	Guiding vane	Remove the guiding vane from the fan. Clean it with a soft brush or under warm running water.
	Reversible fan	Clean the fan blades with a brush.
	Wall sleeve	Wipe the interior of the wall sleeve with a damp cloth.
	Activated carbon filter	Replace the activated carbon filter.
	Sound protector	Replace the sound protector.
	Sound absorbing mat	Gently pat off the sound absorbing mat
Yearly	Wind protection insert	Wash the wind protection insert with warm water and detergent.
	Inner cover base plate	Clean the surface of the base plate with a damp cloth.
Cleaning from the outside		
Yearly	Exterior closure of the weather protection hood	Clean the surface of the cover and the protective grid at the outlet opening with a damp cloth.

6.1 Remove the inner cover panel

To clean and check the components of the ventilation device, first remove the inner cover panel.



Requirements:
The ventilation device is disconnected from the power supply.

- ► Open the inner cover (🕮 5.1).
- ► Press the side detent lugs inwards on the inner cover's spacers.
- ► Pull the inner cover panel forwards.
  Ensure that all the spacers disengage.
- ► Remove the inner cover panel from the front.

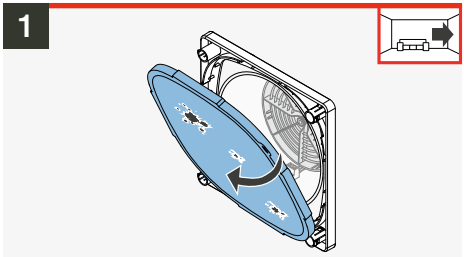
⇨ You have removed the panel of the inner cover.

6.2 Cleaning / replacing the dust filter

TIP: inVENTer® class G4 dust filters are highly durable and can be washed repeatedly. We recommend cleaning the dust filter regularly and replacing worn filters. Pollen and activated carbon filters are available as accessories for special requirements. You can find installation instructions for each filter in the filter operating instructions.

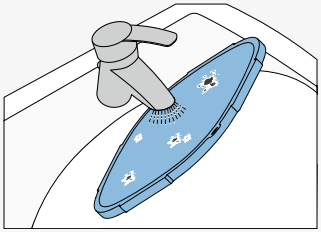
Requirements:
The ventilation device is disconnected from the power supply.
The panel of the inner cover has been removed. (📖 6.1)

1



► Pull the dust filter out of the inner cover base plate by the tab.
⇨ The dust filter has been removed.

2

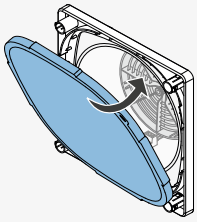


► Clean the dust filter under warm running water.
► Wait until the dust filter is completely dry.

OR

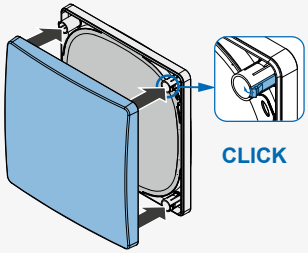
► Dispose of the dust filter if it is defective.

3



► Insert the cleaned **or** a new dust filter into the base plate.
Ensure you push the filter ring firmly between the fixing projections and the inner edge of the base plate.
The tab on the filter ring faces the interior.

4



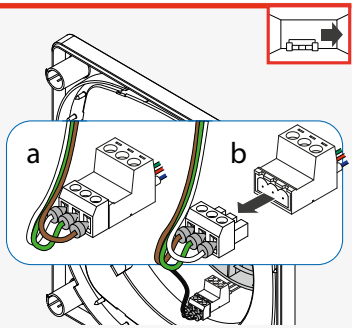
► Replace the cover on the four spacers.
Make sure that the inVENTer logo is located at the bottom right-hand corner.
► Press the detent lugs inwards on the spacers.
► Slide the cover onto the spacers.
⇨ All spacers noticeably snap in.

⇨ You have cleaned / changed the dust filter.

6.3 Removing the thermal accumulator insert

Requirements:
The ventilation device is disconnected from the power supply.
The dust filter has been removed. (🕮 6.2)

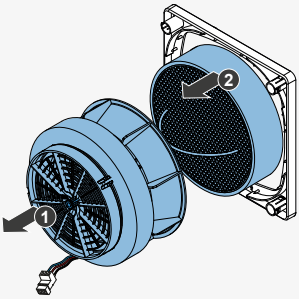
1



► Loosen the BUS plug-in connector.

NOTE: In case of damage to the ceramic thermal accumulator
The thermal accumulator will no longer function!
- Do not throw the ceramic thermal accumulator.
- Store the ceramic thermal accumulator in the standing position outside the wall sleeve.

2



► Step 1: Remove the inVENTron insert from the wall sleeve by using the knob.
► Step 2: Remove the thermal accumulator from the wall sleeve by the handle.

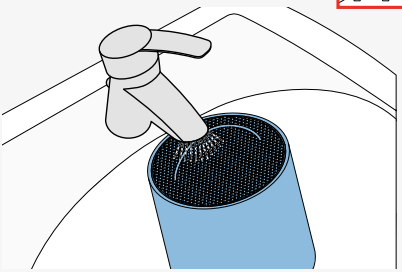
⇨ You have removed the thermal accumulator.

6.4 Cleaning and installing the thermal accumulator insert

Soft brush, lint-free soft cloth and warm water

Requirements:
The thermal accumulator insert has been removed.

1

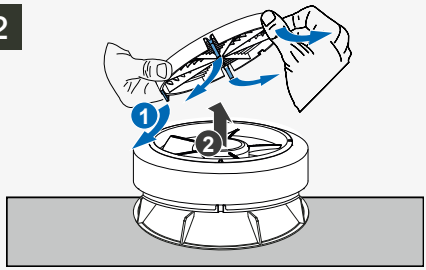


NOTE: Incorrect cleaning of the thermal accumulator leads to damage to the insulation on the thermal accumulator.
- Always clean the thermal accumulator under warm running water. Never clean it in the dishwasher.

► Clean the thermal accumulator under warm running water.
► Let the thermal accumulator drip dry.
► Wait until the thermal accumulator is completely dry.

⇨ You have cleaned the thermal accumulator.

2



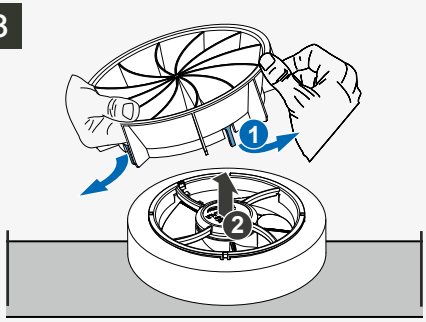
NOTE: If the fixing strips on the guiding vane are broken off, the guiding vane can no longer be fixed to the fan.
- Carefully bend the strips away from the guiding vane.
- If you can feel resistance, stop bending the strips outwards.

► Place the inVENTron on an even surface.
► Remove the narrow guiding vane from the fan:

Step 1: Carefully bend the side strips on the guiding vane one after the other away from the fan.
Hold the first detached strip in its current position with one hand until the guiding vane is completely removed.
⇨ The guiding vane is freed from the fan.

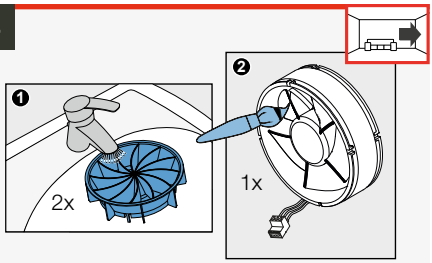
Step 2: Lift the guiding vane upwards.

3



► Turn the fan so that the remaining guiding vane is pointing upwards.
► Remove the guiding vane as described previously.
⇨ The guiding vanes are separated from the fan.

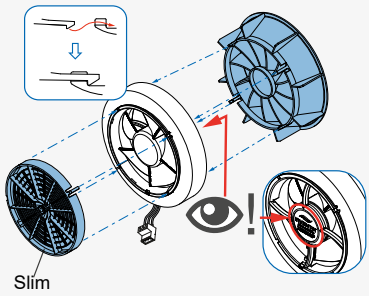
4



► Step 1: Clean both parts of the guiding vane carefully with a soft brush or under warm flowing water.
► Let the guiding vane drip dry. Wait until the guiding vane is completely dry.

► Step 2: Clean the reversible fan carefully with a soft brush.

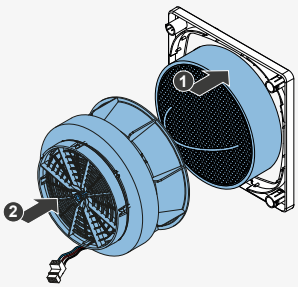
5



► Reattach the guiding vanes to the reversible fan. **Ensure** that the narrow Slim guiding vane is located on the fan side **WITHOUT** the device nameplate/label.

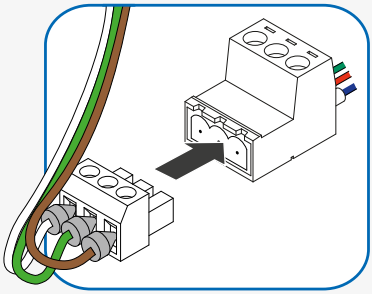
⇨ You have cleaned the thermal accumulator.

6



► Step 1: From the interior, slide the thermal accumulator towards the exterior closure until it stops. **Make sure** that the handle is pointing towards the interior.
► Step 2: Insert the inVENTron from the interior into the wall sleeve so that you can reach both cables. **Make sure that the narrow Slim guiding vane is facing the interior.**

7



► Reassemble the plug connection.

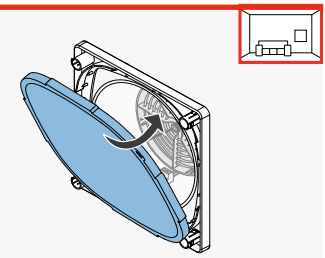
► Slide the inVENTron as far as the thermal accumulator.

⇨ You have cleaned the thermal accumulator insert.

6.5 Attaching the inner cover panel

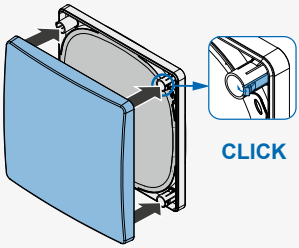
Requirements:
The thermal accumulator insert has been installed.

1



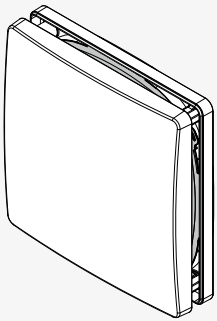
► Insert the dust filter into the base plate.
Ensure you push the filter ring firmly between the fixing projections and the inner edge of the base plate.
The tab on the filter ring faces the interior.

2



► Replace the cover on the four spacers.
Make sure that the inVENTer logo is located at the bottom right-hand corner.
► Press the detent lugs inwards on the spacers.
► Slide the cover onto the spacers.
⇨ All spacers noticeably snap in.

3



⇨ You have attached the inner cover.

7 Specifications

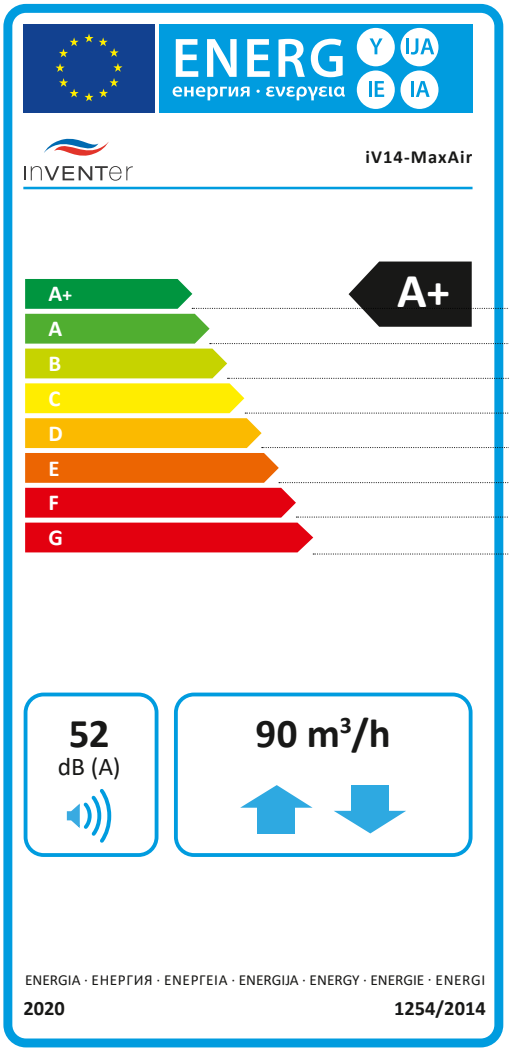
7.1 General specifications

Feature	Value
Operating range [°C]	-20 – 50
Extract air/outdoor air	Free from aggressive gases, dust and oils
Flow rate in reversed mode [m³/h]	10 – 45
Extract airflow [m³/h] (DIN EN 13141-8)	20 – 90
Sound pressure level [dB (A)]	22 – 51
Standard sound level difference [dB]	38 – 45
Thermal efficiency of heat recovery (η'_w)	0.88
Input voltage [V DC]	6 – 16
Power consumption [W]	1 – 5
Specific fan power input [W/(m³/h)]	0.14
Protection class (DIN EN 61140)	III
Type of protection (DIN EN 60529)	IP20
Standard filter filter class (DIN EN 779:2012)	G4
Sensitivity of the air flow at ± 20 Pa (DIN EN 13141-8)	S2
Electrical protection area (in accordance with VDE 0100)	Outside protection areas 0 – 2
Frost protection	Automatic by reversing operation (down to -20 °C)
Weight	Max. 7000
Conformity	CE

7.2 IV14-MaxAir energy label according to ErP Directive, Regulation 1254/2014

On the energy label you will find the following information from the product data sheet:

- Energy efficiency class (SEC class)
- Sound power level L_{wa}
- Maximum air flow (supply air)



Demand-controlled	Manually controlled
MZ-Home sMove with sensor technology	sMove without sensor technology
A+	A

7.3 Specifications according to ErP Directive, Regulation 1254/2014

iV14-MaxAir ventilation unit, demand-controlled:

Product data sheet inVENTer GmbH (according to Regulation 1254/2014 EU of July 11, 2014)				
No.	Description		Parameters	
a	Supplier´s name		inVENTer GmbH	
b	Supplier's model identifier		iV14-MaxAir	
c	SEC class / Specific energy consumption (SEV) [kWh/(m²a)]	cold		-88,481
		average	A+	-44,234
		hot		-18,886
d	Typology		BVU	
e	Type of drive installed		2	
f	Type of heat recovery system		regenerative	
g	Thermal efficiency of heat recovery [%]		88	
h	Maximum flow rate [m³/h]		90	
i	Electric power input [W]		9	
j	Sound power level [dB(A)]		49	
k	Reference flow rate [m³/h]		52	
l	Reference pressure difference [Pa]		0	
m	SPI [W/m³/h]		0.14	
n	Control factor		0.65	
o	Internal / external leakage rate [%]		n.a.	
p	Mixing rate [%]		n.a.	
q	Position of visual filter warning		Controller	
r	Regulatetd supply and exhaust grills in the facade		no	
s	Internet address		www.inventer.de	
t	Airflow sensitivity [%]		17.8	
u	Indoor and outdoor air tightness [m³/h]		6.3	
v	Annual electricity consumtion [kWh/(m²a]]		0.82	
w	Annual heating saved kWh/(m²a)]	cold	90.61	
		average	46.32	
		hot	20.94	

iV14-MaxAir ventilation device, manually controlled:

	Product data sheet inVENTer GmbH (according to Regulation 1254/2014 EU of July 11, 2014)			
No.	Description		Parameters	
a	Supplier´s name		inVENTer GmbH	
b	Supplier's model identifier		iV14-MaxAir	
c	SEC class / Specific energy consumption (SEV) [kWh/(m²a)]	cold		-82.817
		average	A	-39.977
		hot		-15.435
d	Typology		BVU	
e	Type of drive installed		2	
f	Type of heat recovery system		regenerative	
g	Thermal efficiency of heat recovery [%]		88	
h	Maximum flow rate [m³/h]		90	
i	Electric power input [W]		9	
j	Sound power level [dB(A)]		49	
k	Reference flow rate [m³/h]		52	
l	Reference pressure difference [Pa]		0	
m	SPI [W/m³/h]		0.14	
n	Control factor		1	
o	Internal / external leakage rate [%]		n.a.	
p	Mixing rate [%]		n.a.	
q	Position of visual filter warning		Controller	
r	Regulatetd supply and exhaust grills in the facade		no	
s	Internet address		www.inventer.de	
t	Airflow sensitivity [%]		17.8	
u	Indoor and outdoor air tightness [m³/h]		6.3	
v	Annual electricity consumtion [kWh/(m²a]]		1.93	
w	Annual heating saved kWh/(m²a)]	cold	87.78	
		average	44.87	
		hot	20.29	

8 Scope of supply

Standard components

All standard components are also available as spare parts.

Components	Item number
iV14-MaxAir	1001-0214
Exterior closure	
Flex weather protection hood, white – RAL 9016	1508-0157
Flex weather protection hood, grey – RAL 9006	1508-0158
Flex weather protection hood, north – RAL 7011	1508-0159
Flex weather protection hood, anthracite – RAL 7016	1508-0160
Flex weather protection hood, custom colour	1508-0161
Wall sleeve with protective discs and mounting wedges	
Wall sleeve R-D200x495	1506-0070
Wall sleeve R-D200x745	1506-0071
Thermal accumulator insert	
iV14-MaxAir thermal accumulator insert	1507-0030
Inner cover	
Inner cover Flair V-223x223, white	1505-0036
Flair V-223x233 inner cover, white, incl. SDE	1505-0037

9 Accessories and spare parts

Contact your local distributor to order components for your ventilation unit.

Accessories

Components	Item number
G4 IB Flair V-233x233 dust filter (2 x)	1004-0175
Pollen filter IB Flair V-233x233 (2 x)	1004-0143
Activated carbon filter IB Flair V-233x233 (2 x)	1004-0158
R-D200 / V-177x177 sound absorbing mat	1004-0170
Sound protector SPR R-D200	1004-0153
Wind protection insert WSE R-D200	1004-0149
Round cable LiYY-O 3x0.75 (33m)	1004-0020
Assembly wedge set (block with 16 wedges)	3009-0012
R-D196x30 protective disc (for wall sleeve)	3007-0088
Simplex 365 incl. R-D200 wall sleeve	1506-0090
Simplex 490 incl. R-D200 wall sleeve	1506-0091
D230 V-280x249x120 wall installation block	3008-0078
R-D230x30 protective disc (for wall installation block)	3007-0106
WEH R-D200 extension set	1004-0176
Wallplug set for insulation	1004-0067

Spare parts

Components	Item number
R-D200 thermal accumulator [150 mm]	2002-0083
inVENTron R-D200	2007-0041
inVENTron Slim R-D160 guiding vane incl. knob	3006-0278
inVENTron R-D200 guiding vane	3006-0393
Base plate IB Flair V-233x233	2003-0223
Cover IB Flair V-233x233	2003-0221
Cover IB Flair V-233x233 SDE	2003-0222
Spacer base plate IB 25 mm white	3006-0151
Base plate WSH-Nova R/ WSH-Flex, white – RAL 9010	3006-0272
Base plate WSH-Nova R/ WSH-Flex, grey – RAL 7004	3006-274
Cover WSH-Flex, white – RAL 9016	2004-0202
Cover WSH-Flex, grey – RAL 9006	2004-0203
Cover WSH-Flex, north – RAL 7011	2004-0204
Cover WSH-Flex, anthracite – RAL7016	2004-0210
Cover WSH-Flex, custom colour	2004-0205

10 Troubleshooting and disposal

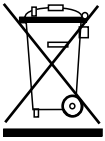
Troubleshooting

Fault	Possible cause	Remedy
Fan failure	No electrical power.	Check fuse.
	Installation error.	Check wiring for correct polarity. Check all connectors for correct fit. Check the use of wire ferrules.
	Fan defective.	Replace fan.
	Controller/power supply defective.	Switching controller/power supply.
Fan does not switch off.	Faulty controller.	Replace controller.
Low flow rate	Cover closed.	Open cover.
	Dust filter heavily soiled.	Clean/replace dust filter.
	Pollen filter/activated carbon filter inserted.	An inserted pollen or activated carbon filter reduces the air flow. Only use a filter during periods of heavy pollution. Replace filter if heavily soiled.
	Fans are not operating in paired mode.	Connect the first fan in extract air mode and the second fan in supply air mode.
	The rotational speed of the fan is too low.	Increase the output level.
	Thermal accumulator is soiled.	Clean the thermal accumulator.
Noises	Foreign body in the fan.	Remove foreign body from the fan. Clean the ventilation unit.
	Fan blades soiled.	Clean fan blades.
	Thermal accumulator is not correctly positioned in the wall sleeve.	Slide the thermal accumulator out of the wall sleeve. Insert it again. Slide the thermal accumulator into the wall sleeve as far as the end-stop tape.
	The rotational speed of the fan is very high.	Set a lower output level on the controller.
Supply air is cold	Installation error.	Make sure that the device label on the Xenion EFP fan is directed towards the thermal accumulator.
		Check the connector plug on the controller. The connector must be sitting firmly in the connector housing.
	The controller is operating in Ventilation mode.	Select heat recovery mode on the controller.

Disassembly

Disassemble the ventilation device in the opposite sequence to the assembly sequence. You can subsequently dispose of your old device. Please note the disposal recommendation outlined below.

Disposal



The products described in these installation and operating instructions contain valuable materials which can be recovered and recycled. The separation of waste materials into different varieties facilitates recovery of the recyclable materials. Contact an electronic appliance disposal company to arrange environmentally friendly recycling and disposal of your old system. They will dispose of the product in compliance with the applicable national regulations. Ensure that the product's packaging is sorted correctly for disposal.

The table below contains disposal recommendations.

Product	Material	Disposal
Flex weather protection hood	Powder-coated stainless steel / ASA	Waste metal collection / collection of recyclables
Reversible fan	PBTP/PA	Collection point for electrical appliances
Guiding vane	PC	Recyclable material
Wall sleeve	PPs	Recyclable material
Flair V-233x233 inner cover	PS-SZ	Recyclable material
Thermal accumulator	Ceramic	Domestic waste
Dust filter	TPU/PES	Domestic waste
Pollen filter	PES	Domestic waste
Activated carbon filter	Polyester fleece with activated carbon	Domestic waste

11 Warranty and guarantee

Warranty

Outside Germany, the national warranty provisions of the country in which the system is sold apply. Please contact the distributor for your country.

The warranty covers all defects that were present at the time of purchase. Failure to observe the intended use will invalidate all warranty claims.

Manufacturer guarantee

inVENTer GmbH provides a five-year warranty for all electrical components and the wall sleeve, as well as a 30-year warranty on the ceramic component of the thermal accumulator. This covers premature product wear.

Further information about the warranty is available at www.inventer.de/garantie

12 Service

Claims

Check the delivery for completeness and transport damage upon receipt using the delivery note. Report missing items immediately, and at the latest within 14 days to your supplier, distributor or factory representative.

Warranty and guarantee claims

In the case of a warranty or guarantee claim, contact your local distributor or factory representative.

In all cases, please return the complete device to the manufacturer.
The warranty is an additional offering by the manufacturer and in no way affects the applicable law.

Accessories and spare parts

To order components for your ventilation device, contact your nearest factory outlet or our service staff.

Technical customer service

For technical support contact our service staff:

+49 (0) 36427 211-0
+49 (0) 36427 211-113
info@inventer.de
http://www.inventer.de

Annex 1: Connection log

Ventilation device	Floor	Room name and position	Ventilation zone	Starting direction	
				Supply air	Extract air
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Annex 1: Connection log

Ventilation device	Floor	Room name and position	Ventilation zone	Starting direction	
				Supply air	Extract air
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Annex 2: Cleaning log

We recommend documenting the cleaning measures carried out in the following table. Recommendations on the cleaning intervals can be found in section 6: Cleaning and care - Cleaning recommendations, page 45.

Date	Number of devices inspected	Cleaning/control measure[1)]			Comment	Name/Signature
		Components				
		A	B	C		

1) Cleaning/control measure: Control (K) / Cleaning (R) / Change (W)

Components	Description / Scope	Measure
A	Inner cover / Filter	Inner cover: Clean / Filter: Check, clean or replace if necessary (depending on filter type)
B	Ceramic thermal accumulator, Xenion EFP reversible fan, double guiding vane, wall sleeve	Clean
C	Accessories	Check, clean or replace if necessary

Date	Number of devices inspected	Cleaning/control measure[1)]			Comment	Name/Signature
		Components				
		A	B	C		

1) Cleaning/control measure: Control (K) / Cleaning (R) / Change (W)

Components	Description / Scope	Measure
A	Inner cover / Filter	Inner cover: Clean / Filter: Check, clean or replace if necessary (depending on filter type)
B	Ceramic thermal accumulator, Xenion EFP reversible fan, double guiding vane, wall sleeve	Clean
C	Accessories	Check, clean or replace if necessary

COMPANY INFORMATION

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