inVENTer

# iV-Compact

Installation and operating instructions

## Trademarks, copyrights and property rights



## Disclaimer

This documentation is a translation of the original German 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 and assembly. 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 find the latest version at **www.inventer.eu/downloads**

**Version** 1.1

# Inhaltsverzeichnis

# 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

### Concept of safety instructions

The safety and warning instructions in these 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.

A signal word indicates the severity of the potential hazard unless the preventative measures are taken.

**WARNING** indicates possible danger of serious injury or death.

**CAUTION** indicates possible danger of minor/significant injury.

**NOTE** indicates: Imminent or possible damage to property due to an adverse event/state.

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

### Other symbols and notices 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 the ventilation unit.

A **tool symbol** before an installation sequence lists any additional tools and materials required for the described task.

**Red frame** surrounding: Graphic shows the interior wall.

**Blue frame** surrounding: Graphic shows the exterior wall.

► **Action required:** this requires 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 operation instructions are part of the ventilation unit and must be permanently available. When handing the equipment/system to a third party, the installation and operation instructions must be handed over also. Before performing any work on the system, read the installation and operation instructions carefully and observe all information regarding installation, assembly, operation, cleaning and maintenance contained in this section. 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 inVENTer ventilation units with heat recovery are used to ventilate living rooms and living spaces. They are controlled by a control unit of the inVENTer system.

**General instructions**

- When installing the unit/system, observe the applicable standards, regulations and directives. In particular, the applicable building regulations, fire protection regulations and accident prevention regulations of the employers' liability insurance association.
- Use the unit/system only in accordance with the applications described in this documentation and in the detailed installation and operating instructions and only in conjunction with the components recommended, approved and named in this documentation by inVENTer GmbH.
- Modifications or alterations to the unit/system are not permitted.
- Your ventilation system has been developed exclusively for use in ambient temperatures within -20 – 50 °C.
- Proper and safe operation of the unit/system requires proper transport, storage and installation as well as careful usage and cleaning/maintenance.

**Installation and assembly**

- **CAUTION: The system may only be installed by qualified personnel.**
- Before starting the work, you should have a project plan which shows the number of ventilation units, the position of the ventilation units, the ventilation principle (cross ventilation, single room ventilation, exhaust ventilation) and the corresponding controllers. The exact positioning of the individual ventilation units and control units must be checked by the customer and, if necessary, adapted to the local conditions with the involvement of the responsible construction manager or the user. For optimum functionality, it is recommended that the unit be installed at an appropriate location in the upper wall area.

- **WARNING:** For joint operation with room air-dependent and room air-independent fireplaces, safety measures must be taken to prevent the creation of a negative pressure in the building. The responsible chimney sweep and/or construction manager decides which measures are to be taken.

- **NOTE:** The ventilation unit is not suitable for drying out buildings. Do not put it into operation until the construction work has been completed.
- **NOTE:** Do not install the unit in the vicinity of room air thermostats or in the immediate environment/above sensitive pictures or furniture.
- **NOTE:** Observe the specified minimum distances on both sides of the wall and frontally to avoid unintentional mixing of outside and exhaust air and to ensure access to the unit and its components.
- **NOTE:** The wall mounting sleeve must be integrated into the building envelope (air resistance layer) in such a way that it is open to diffusion on the outside and impermeable to diffusion on the inside, taking account of structural specifications. Material for this must be provided by the customer. After installing the wall installation sleeve, bring the wall structure back up to the

wall installation sleeve and observe the necessary barrier planes to avoid interruption of the thermal insulation composite system. Consult your planner before installation!

- **NOTE:** Install wall mounting sleeves and other air ducts with a gradient of 1 – 2° to the outer wall to ensure drainage of any condensate.
- **NOTE:** Do not install the ventilation system in places where direct contact with spray or splash water is possible.
- **NOTE:** To prevent algae from settling around the external closure, the installation instructions must be observed exactly (attach all sealing strips!). We recommend a biocidal presetting/water-repellent pre-treatment of the facade surface around the external finishes. Ask your planner regarding this!
- **NOTE:** To avoid damaging the walls, attach the inside and outside finish of the unit only to completed and completely dried facades/walls.
- **NOTE:** When installing components in (exterior) walls with insulation, use insulating plugs to ensure that the components are securely fastened. Insulation plugs are not included in the scope of delivery, they are available optionally!
- **NOTE:** The ventilation unit has scratch-sensitive plastic surfaces. In particular, do not touch the inside panel with oily and/or dirty hands. Avoid contact with sharp or pointed objects such as rings.

### Wiring/ Connecting the reversing fan

- **CAUTION: The electrical connection of the system may only be carried out by qualified personnel.**
- **CAUTION:** Lay and connect cables only in a voltage-free state (mains connection disconnected at all poles)!
- **NOTE**: Ventilation systems operated with safety extra-low voltage (SELV) have an operating voltage of 6 – 16 V DC. They must not be connected directly to the 230 V mains, but must always be connected and operated via a controller.
- **NOTE:** Laying cables whose sheath is not resistant to plastering under plaster leads to a short circuit and cable fire! Lay cables without a plaster-resistant cable sheath in the empty conduit.
- **NOTE:** The use of a too small cable cross-section leads to a too high voltage drop and/or contacting is not guaranteed! For the fan BUS, use a cable cross-section of at least 0.75 mm² (strand). Use ferrules with collars to connect the strands.
  When using several ventilation units operated by several controllers, you must ensure that the ventilation units are synchronized with each other. You should connect all controllers via a mains fuse in the house distributor.

## Operation, cleaning and maintenance

- **CAUTION: Operation and/or maintenance of the ventilation unit and its controllers 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 unit.**
- **NOTE:** Your ventilation unit 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.
- Never use the unit without the filters and inner cover.
- Use the sMove controllers exclusively to control inVENTer ventilation units with heat recovery
- Before performing cleaning or maintenance tasks, disconnect the controller's power supply and put on gloves.

If your unit is defective, contact your local factory representative or our technical service.

Any improper use will result in the exclusion of any liability claims.

## Unauthorized use

Any use which is not mentioned in the chapter "Intended use" shall be deemed to be improper (unauthorized) use.

In particular, do not install/operate the device in areas where the following may occur:
- Environment containing a lot of oil or grease.
- Flammable, aggressive and corrosive gases, liquids or vapour.
- Extreme dust exposure.
- Ambient temperatures outside the range of -20 – 50 °C.
- Obstacles blocking access to or removal of components from the ventilation unit.

## Qualified personnel

The unit/system may only be set up and operated in conjunction with this documentation, the documentation of the individual components and the documentation for the controllers.

### Installation, assembly and wiring

Assembly, electrical connection and initial commissioning of the device/system may only be carried out by qualified personnel. Qualified personnel within the meaning of the safety instructions in this documentation are persons who are authorized to assemble, commission and label devices, systems and circuits in accordance with the standards of safety engineering.

## Cleaning and maintenance

Any necessary cleaning or maintenance tasks can be carried out by the user by following the instructions. Operation and/or maintenance of the ventilation unit and controller 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 unit complies with the technical safety requirements and standards for household electrical appliances. It conforms to the applicable directives of the European Union:

- 2014/30/EC: Electromagnetic compatibility
- 2014/35/EC: Low voltage
- 2009/125/EC: Eco design
- 2011/65/EC: RoHS

# 2 System overview

The iV-Compact ventilation system is designed to ventilate living rooms and bedrooms in single- and multi-family houses, hotels and guest houses, rooms in public facilities and work rooms in office buildings. It is designed as an solution for buildings with the special requirements of particularly thin exterior walls, e.g. if no insulation system is installed due to structural conditions.

It is suitable for installation in new buildings as well as for retrofitting in existing buildings. Installation is carried out in the exterior wall.

The ventilation unit iV-Compact comprises a wall sleeve into which a thermal accumulator insert is installed. A closable inner cover conceals the ventilation unit visually discreet on the interior wall side. On the exterior wall a driving rain proof hood covers the unit.

The thermal accumulator insert contains the ceramic thermal accumulator and inVENTron®. inVENTron® consists of two airflow optimising guiding vanes, embedding the Xenion® reversible fan. The guiding vanes on both sides of the fan ensures efficient capacity utilisation and even flow through the thermal accumulator. The unique design of Xenion®'s fan blades reduce sound passage effectively.

The standard length of the wall sleeve is 230 mm. For thicker walls, there is the option of ordering a wall sleeve with a length of 285 mm or 495 mm. Both versions can be trimmed on site.

It is controlled via one of the following inVENTer® system controllers[1)]:

- sMove s4
- sMove s8
- MZ-Home

## Components (see fig. page 9)

- Inner cover incl. dust filter of class G4
- Thermal accumulator insert (thermal accumulator and inVENTron)
- Wall sleeve
- Exterior closure
- Pollen and activated carbon filter options available as accessory
- Sound and wind protection options available as accessory

## Models

- Ventilation unit with compact designed driving rain proof weather protection hood "Compact" (grey/white), guiding vanes inVENTron Slim and thermal heat accumulator with a length of 100 mm. The ventilation unit is particularly suitable for very thin external walls.

1) The installation and operating instructions for the controller do not form part of this documentation and are supplied separately.

## 2.1 Construction

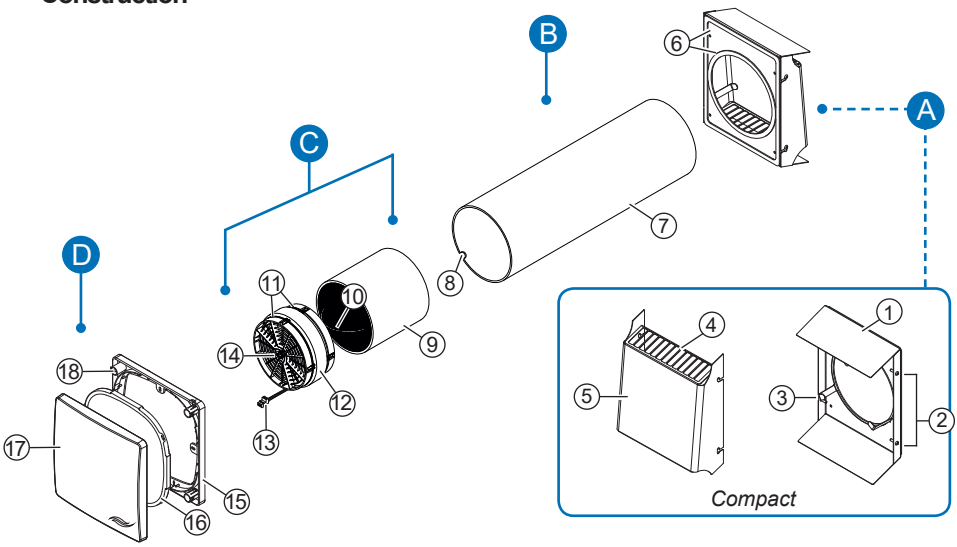



Figure 1: Overview of iV-Compact ventilation unit

### A Exterior closure: Compact weather protection hood

1 Protective hood base plate
2 Fastening screws for cover (4 x)
3 Stop bracket for thermal accumulator
4 Protective grid
5 Protective hood cover
6 Sealing tape

### B Wall sleeve

7 Wall sleeve R-D160
8 Recess for fan BUS (interior wall side)

### C Thermal accumulator insert

(thermal accumulator and inVENTron)

9 Thermal accumulator with insulation
10 Thermal accumulator handle
11 Slim guiding vane (2 x)
12 Xenion reversible fan
13 BUS plug-in connection
14 Guiding vane knob

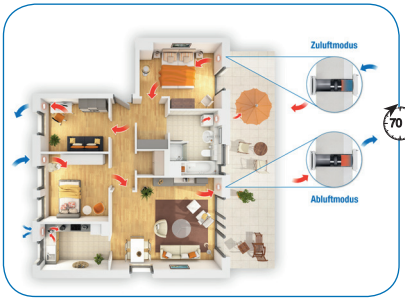
### D Flair inner cover

15 Inner cover base plate
16 Dust filter of class G4[1)]
17 Inner cover panel
18 Spacer (4 x)

1) Pollen- and activated carbon filter optional available.

## 2.2 Function

The iV-Compact ventilation system is used to provide ventilation for living rooms and bedrooms. An integrated thermal accumulator in combination with the Xenion reversible fan and the guiding vanes ensures optimum heat recovery with maximum air flow.




The ventilation unit 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 room's air as it flows to the exterior (extract air). After 70 seconds, each Xenion reversible fan changes direction. When the reversible fan changes direction, it releases the stored heat energy into the incoming outside air (supply air).

For this principle to work correctly and to ensure the room's pressure stability the incoming air and extract air volumes must match, i. e. two iV-Compact ventilation units are required. These are operated in pairs in push-pull operation: One ventilation unit works in supply air mode while the other works in extract air mode at the same time.

Due to the Xenion reversible fan's high pressure built-up and active speed control (integrated wind stabiliser) the air flow within the system is kept nearly constant. Thus, the air flow sensitivity to pressure variation meets the requirements of class S3 according to EN 13141-8 (max. 30 % air flow deviation at ± 20 Pa).

In order to ensure the full functioning of the ventilation system throughout the entire year, an additional, flexible temperature sensor is integrated into the Xenion reversible fan.
This measures the temperature of the air flow. If the temperature 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 drafts. During this phase, the mode that has been set on the controller is ineffective. Subsequently, the controller switches the ventilation nit back to the originally selected mode.

A multi-use dust filter of filter class G4 is integrated discreet and easy of access into the inner cover. It filters off reliably dusts as well as allergenic particles (such as pollen) from the ambient air before it can enter living spaces. Dust filters are season independent. For special requirements pollen and activated carbon filters are available as an option.

A decentralised ventilation system is based on the free movement of air between individual pairs of ventilation units. Therefore, internal doors must not have air-tight seals.
Ensure adequate air transfer measures: 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 unit is controlled via one of the inVENTer system controllers. Depending on the controller, operating modes and functions may be selected.

## 2.3 Control elements

### sMove controller

The controllers from the sMove product range are electronic control units for controlling the iV-Compact ventilation units.
They are characterised by their timeless and slim design and a simple touch-based operating concept.

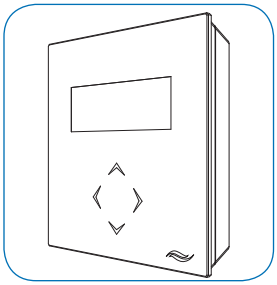
The sMove controller is available in the s4 and s8 versions:
s4 is used to control up to four iV-Compact ventilation units.
s8 is used to control up to eight iV-Compact ventilation units.

Both versions are 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 unit completely.

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

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

### MZ-Home controller



The MZ-Home controller is an electronic control unit for controlling up to 16 iV-Compact ventilation units.

It is characterised by Clust-Air technology (multizone control), simple installation, touch-based operation and its versatility.

The MZ-Home controller consists of a control unit and at least one (optional up to four) Clust-Air module(s). Each Clust-Air module can control up to four iV-Compact ventilation units in different zones within the accommodation unit. This allows the MZ-Home controller to provide varied ventilation for up to four different areas (zones) within the 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
- Continuous 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 separate operating instructions of the controller.

# 3 Preparing for installation

## 3.1 Installation position

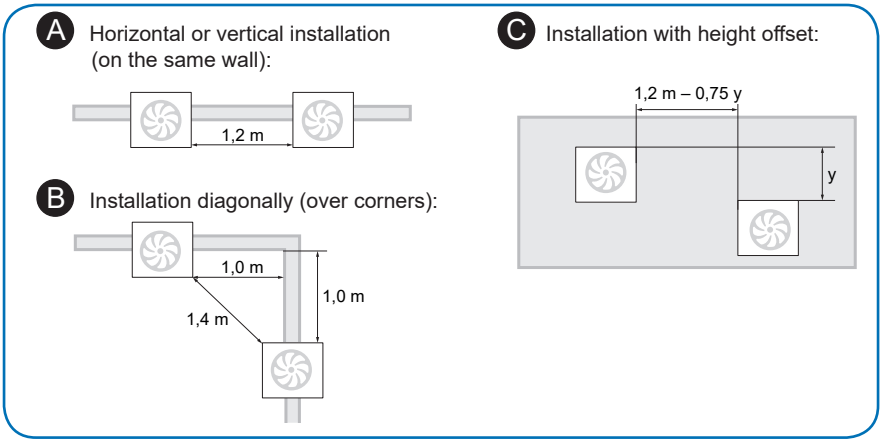
- The exact positioning of the ventilation units and controllers must be determined on-site and, if necessary, adapted to the local conditions. **Consult your planner!**
  Installation is recommended in a suitable position in the upper wall area for optimal operation (approx. room height 1.8 m [top edge of finished floor]).

- Do not place the unit near radiators, room thermostats or in the immediate vicinity/above delicate furniture, surfaces or pictures.

- The ventilation unit must not be installed in areas in which direct contact with water spray is possible.

- Observe the following **minimum distances for the unit's wall opening**:

  1 between two ventilation units in push-pull operation (pair) in the same room to avoid the mixing of outdoor air and exhaust air:

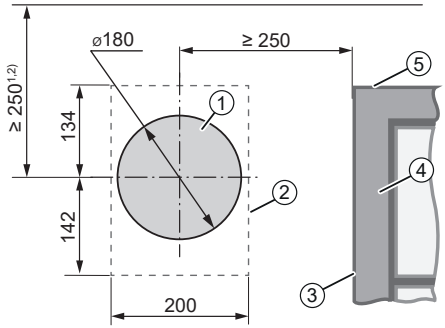



  2 to adjacent components on the exterior wall (observe insulation/shutters):
  Compact protective hood: 250 mm from hole center circumferentially

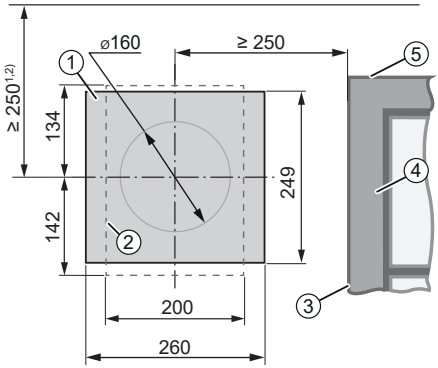
  3 to adjacent components on the interior wall: 250 mm from hole center circumferentially

  4 to frontal adjacent components: 300 mm for maintenance tasks

## 3.2 Position of the wall opening




*Position wall opening (core drilling)*




*Position Simplex wall build-in system*

Figure 2: Dimension drawing: wall opening iV-Compact (Interior view)

1 Wall opening (fig. 2, left)
Simplex installation system (fig. 2, right)
2 Position of protective hood (contour)[3)]
3 Door/window reveal
(insulation with render)
4 Door/window frame
5 Bottom edge of reveal (lintel)[4)]

1) Minimum distance to adjacent components on the interior wall side
2) Minimum distance to adjacent components on the exterior wall side
3) Attach weather protection hood at lintel height
4) Observe insulation and shutters

## 3.3 Dimensions

| Designation | Depth/ length [mm] | Width [mm] | Height [mm] |
|---|---|---|---|
| Wall thickness with render [mm | > 140 | | |
| Wall opening for wall sleeve | Wall thickness[1)] | Ø 180 | |
| Wall sleeve R-D160x230 (285 / 495) | 230 (285 / 495) | Ø 160 | |
| Compact protective hood | 80 | 200 | 276 |
| Flair inner cover V-233x233 | 61[2)] | 233 | 233 |

1) incl. render, insulation, masonry and inner structure.
2) opened

## 3.4 Sectional drawing

### Version Compact

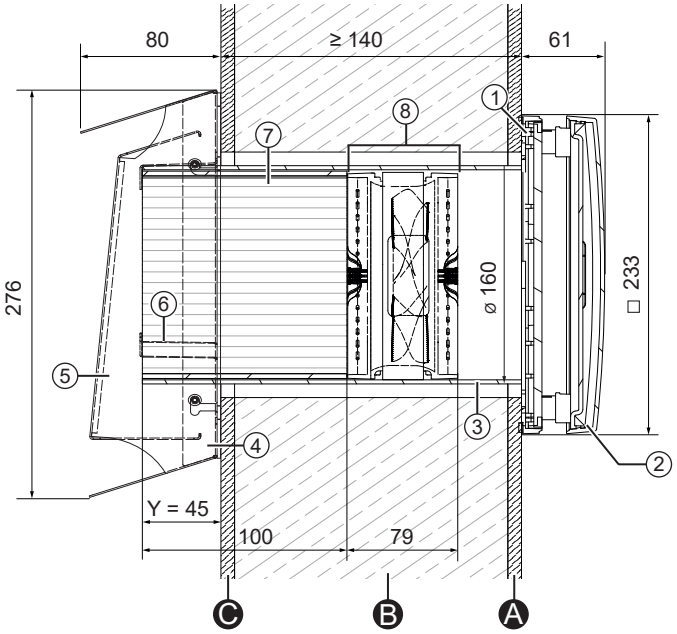


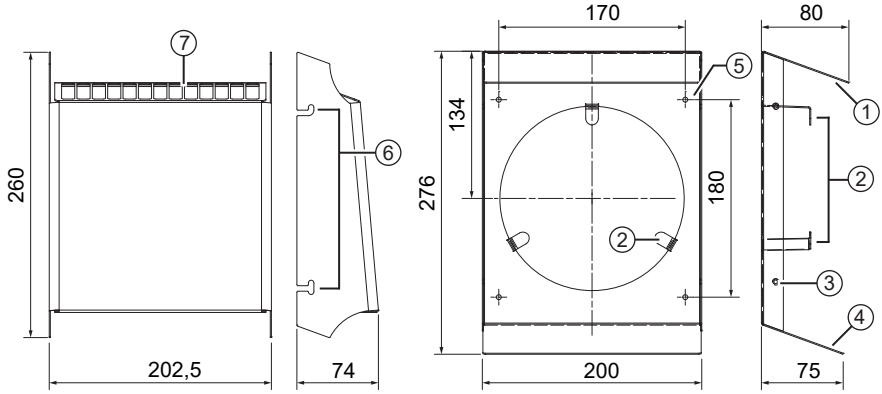

Figure 3: Sectional drawing iV-Compact (side view)

A Inner plaster/internal structure
B Masonry
C Render

1 Inner cover base plate incl. filter
2 Inner cover panel
3 Wall sleeve R-D160
4 Protective hood base plate
5 Protective hood cover
6 Brackets
7 Thermal accumulator
8 inVENTron: Xenion reversible fan embedded in two Slim guiding vanes

## 3.5 Dimensional drawing of components

### Exterior closure: Compact weather protection hood




*Compact protective hood cover* *Compact protective hood base plate*

Figure 4: Dimensioned drawing of Compact protective hood

1 Upper drip rail
2 Bracket for thermal accumulator (3 x)
3 Fastening screws for cover (4 x)
4 Bottom drip rail
5 Exterior wall attachment with Ø 8 mm, min. 50 mm deep (4 x)
6 Guidance for fastening screws (4 x)
7 Protective grid

### Flair inner cover

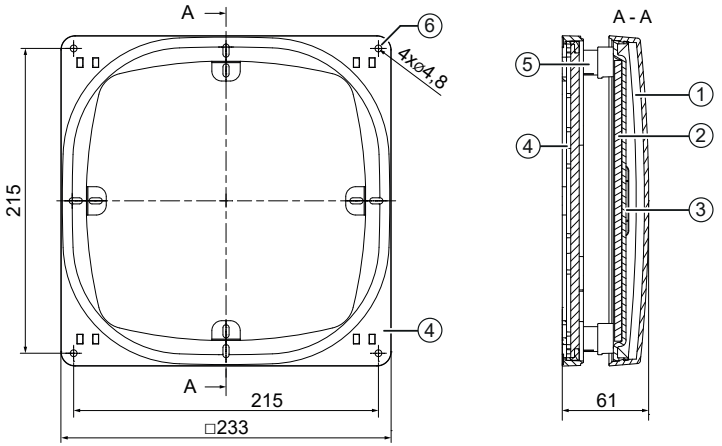



Figure 5: Dimensioned drawing of Flair inner cover V-233x233

1 Inner cover panel
2 Sound insulation (optional)
3 Holding plate IC V-233x233
4 Inner cover base plate
5 Spacer (4 x)
6 Interior wall attachment with Ø 6 mm, min. 40 mm deep (4 x)

# 4 Installation and assembly

Lesen Sie das Kapitel vor dem Einbau sorgfältig durch, um Einbaufehler zu vermeiden. Die Montage und der Anschluss des Lüftungssystems muss durch qualifiziertes Personal erfolgen.

## 4.1 Checking the scope of supply

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

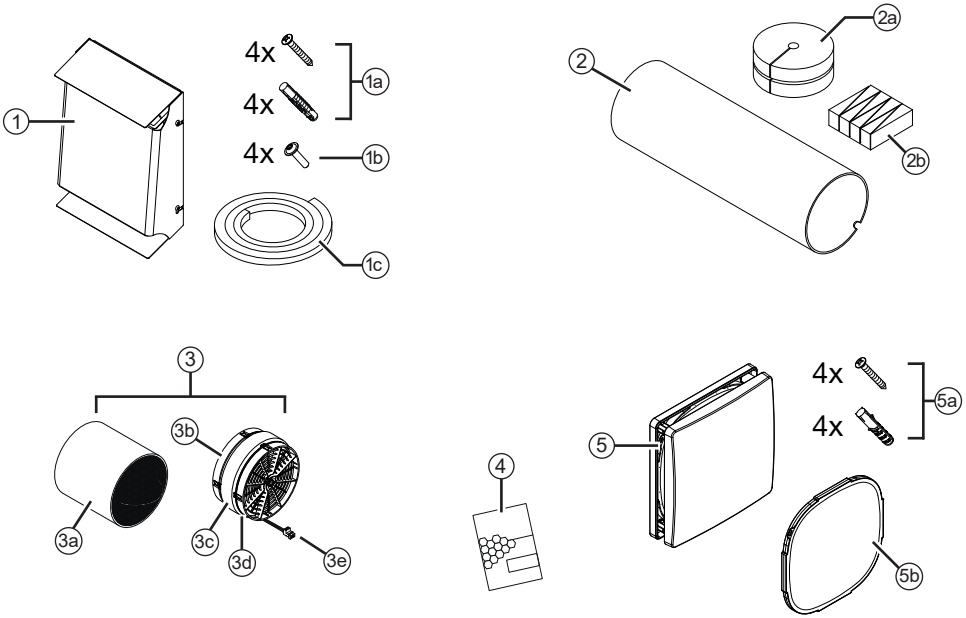



Figure 6: Standard components of ventilation unit iV-Compact

**1 Compact Protective hood**
- 1 a: Fastening elements for exterior wall
- 1 b: Fastening screws for cover
- 1 c: Sealing tape

**2 Wall sleeve R-D160**
- 2 a: Protective discs
- 2 b: Mounting wedges

**3 Thermal accumulator insert**
- 3 a: Thermal accumulator with insulation
- 3 b: Slim guiding vane
- 3 c: Xenion reversible fan
- 3 d: Slim guiding vane
- 3 e: Plug-in connection

4 Installation instructions

**5 Inner cover Flair V-233x233**
- 4 a: Fastening elements for interior wall
- 4 b: Dust filter G4 (preassembled)

## 4.2 Creating the wall opening

**CAUTION**
**Falling masonry while making wall opening.**
Risk of injury and/or material losses!
- Provide protection against falling masonry on the outside of the building.
- Remove objects from immediate vicinity of the building's exterior.

Drilling machine with core drill attachment or milling drill Ø 180 mm, wall slot cutter, hammer, chissel

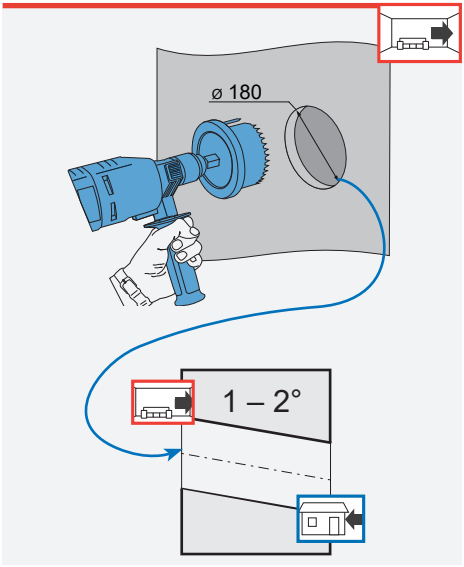
**Positioning of the wall sleeve** (📖 3.1 – Installation position):
Minimum distance to adjacent components on exterior wall (Observe insulation thickness and any shutters):
- Compact weather protection hood 250 mm from hole center circumferentially

Minimum distance to adjacent components on interior wall 250 mm from hole center circumferentially
Minimum distance to the front: 300 mm for cleaning and maintenance tasks
Make sure that the wall opening is not near any radiators.

In new buildings and for timber-frame construction, we recommend the use of the optional D180 wall installation block or the Simplex wall insallation system.

### Creating the wall sleeve using a core drilling

Requirements:
Masonry must be dry and load-bearing.
No load-bearing elements in position of the planned hole.

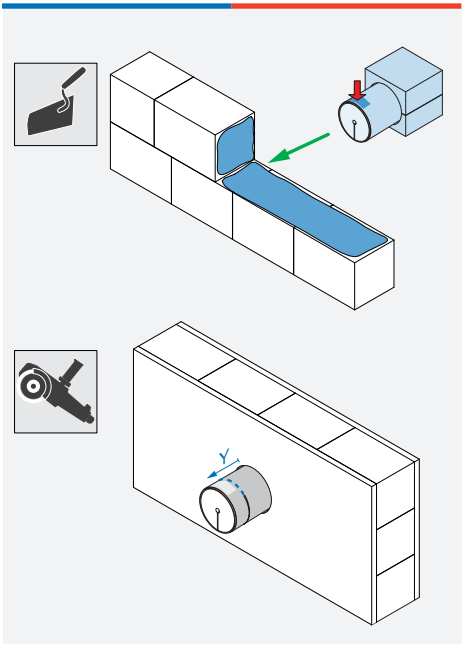



**NOTE: Condenstae collecting in the wall sleeve** leads to damage to the exterior wall and masonry!
- Create wall opening at a slope of 1 – 2° to the exterior wall.

► Drill a wall opening with a diameter of Ø 180 mm at a slope of 1 – 2° to the exterior wall.

⇨ The wall opening for the ventilation unit is created.

### Using the Simplex wall build-in system



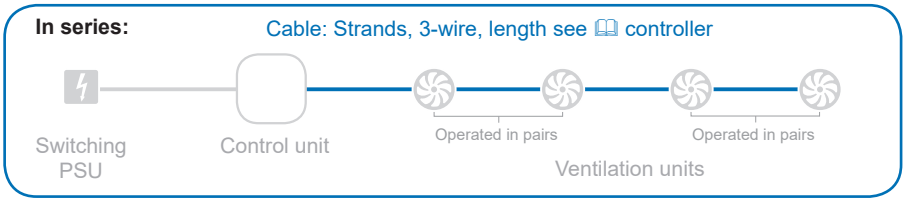

Requirement:
Das Bauvorhaben befindet sich in der Rohbauphase.

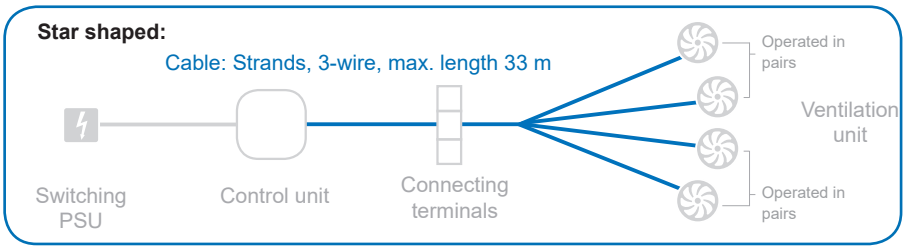
- ► Insert the Simplex wall build-in system into the appropriate place in the masonry.
  **Observe** the designations (red arrow) for installation inside/outside the wall sleeve: The slope inside the wall sleeve leads towards the exterior to ensure the drain of emerging condensate. Observe the minimum distances.
- ► Wall in the Simplex wall build-in system.
- ► Fit insulation and apply inner plaster as well as exterior render.
- ► Cut the wall sleeve with an overhang of Y= 45 mm on the exterior wall side.
- ► Lay the fan-BUS (🕮 4.3).
- ► Proceed with fitting the weather protection hood (🕮 4.5).

⇨ The Simplex wall build-in system is fitted.

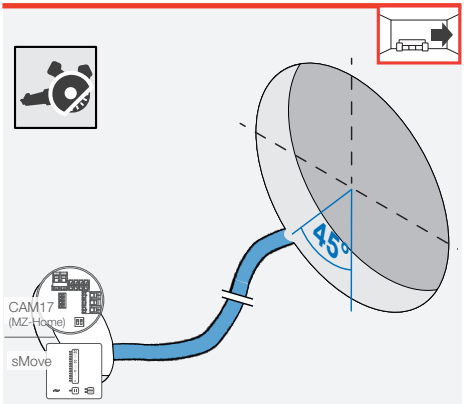
## 4.3 Laying the fan-BUS

### Wiring scheamtich sketches:



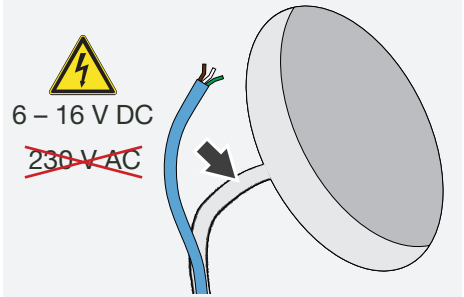
**NOTE:** Only lay and connect the fan-BUS (controller cable) in a voltage-free state. Disconnect the controller's power supply when connecting the cable to the control unit (sMove operating unit or Clust-Air module CAM17).
For information containing the routing and connection of the fan-BUS (e. g. maximum cable length) see the repective controller's installation and operating instructions.




Requirement:
The wall opening is created.

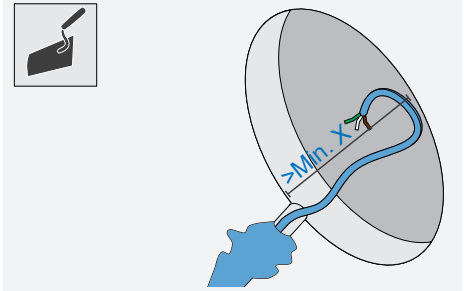
- ► Create the plaster/wall channel between the control unit and wall opening.
  **Make sure that th**e plaster/wall channel for the controller cable is at an angle of 45° to the bottom left.
- ► Close off the wall sleeve inside and out until the wall sleeve is inserted.
  - ⇨ The plaster/wall channel for the cable (fan-BUS) is created.

**NOTE: The use of a too small cable cross-section** results in a too high voltage drop and/or contacting is not guaranteed!
- Use a cable **cross-section of at least 0.75 mm²** for the fan-BUS.




**NOTE: Laying cables whose sheath is not resistant to plastering under plaster** leads to a short circuit and cable fire!
- Lay cables inside an empty conduit if necessary.

- ► Lay the controller cable, three-wire (braided flex) from the control unit to the wall opening for the ventilation unit.



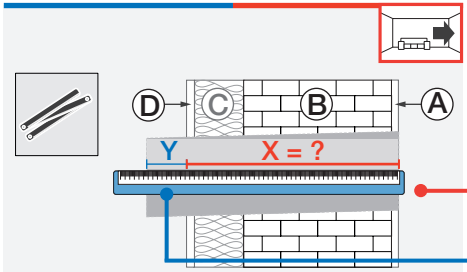

- ► Fill the plaster/wall channel.
  **Make sure** that the cable end protrudes approx. 500 mm into the interior

- ⇨ The fan-BUS (controller cable) is laid.

## 4.4 Fitting the wall sleeve

tape measure, abrasive cutter, spirit level, non-pressurised 2 components expanding foam, cutter

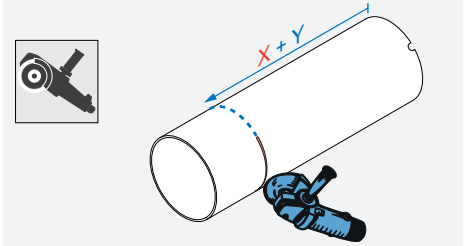
Requirements:
The wall opening Ø 180 mm is finished.
The fan-BUS (controller cable)is in place.



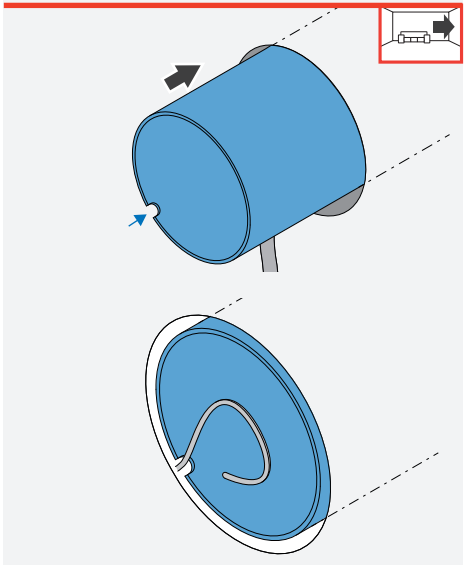

► Determine the exact wall thickness X.
**Be sure to add** the thickness of exterior render (D) and optional insulation (C), masonry (B) and interior plaster (A).

**Y =** 45 mm

**X =** A+B+[C]+D

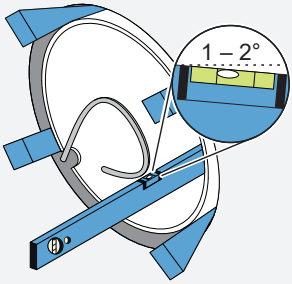



► Cut the wall sleeve to the exact dimension **X + overhang Y** on the exterior wall side.
**Make sure that** you do not cut off the recess for the controller cable.



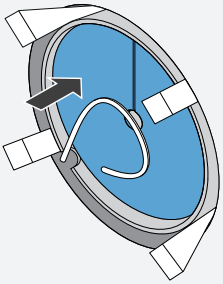
► Remove the protective discs from the wall opening.
► Insert the wall sleeve in a way, that it is flush with the finished interior wall.
Observe the thickness of the interior plaster.
**Make sure that th**e recess for the controller cable is situated in the interior wall side and at an angle of 45° to the bottom left.

► Route the controller cable through the recess into the wall sleeve.



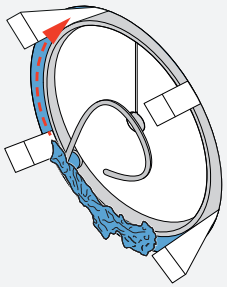

**NOTE: Accumulation of condensate inside the wall sleeve.**
Damage to the exterior wall and masonry as well as the building fabric!
- Fix wall sleeve with a slope of 1 – 2° to the exterior wall.

► Fix the wall sleeve in place inside and outside with mounting wedges to create a slope of 1 – 2° to the exterior wall.
► Check the slope of the wall sleeve using a spirit level.

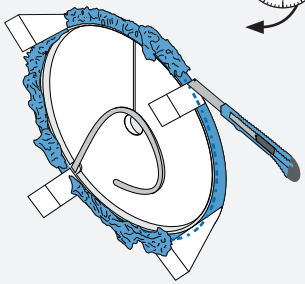


► Insert protective discs into the wall sleeve from outside and inside.

**NOTE: Interruption of the thermal insulation composite system.** Damage to the building fabric!
- After installing the wall sleeve, bring the wall structure back up to the wall sleeve.
- Observe necessary barrier levels.



► Stabilise the wall sleeve before filling with foam by sliding in suitable material to retain the shape.
► Fill the gap between the wall sleeve and masonry all round with non-pressurised 2-part expanding foam suitable for outdoor use.

► Trim the 2-part expanding foam and protruding mounting wedges until they are flush with the external and interior wall.
**Be careful not to** damage the controller cable.

⇨ The wall sleeve is fitted.

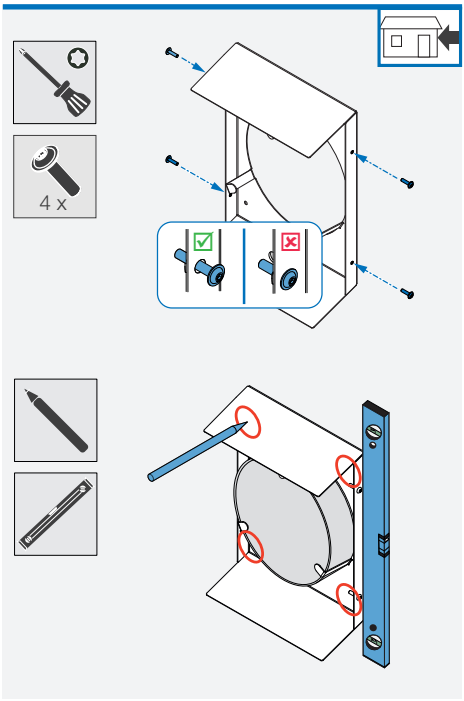
## 4.5 Installing the weather protection hood

**NOTE**
**Installation on an unfinished exterior wall**
results in damage to the exterior wall!
- Only install the weather protection hood (exterior closure) once the exterior wall is finished and completely hardened.

**NOTE**
**Penetration of condensate and/or algae build-up around the weather protection hood**
results in damage to the masonry/exterior wall and/or discoloration of the façade!
- Affix all sealing tapes prior to installing the weather protection hood base plate.
- Carry out a biocide/water-repellent pre-treatment on the render around the weather protection hood in vulnerable areas (Consult your planner for further information!).

Spirit level, pen, drilling machine with drill bit Ø 8 mm, electrical screwdriver, wall plugs (insulation plugs when using Simplex or with insulated exterior walls), permanently elastic outdoor sealant, sealing tape, screws

Requirements:
The exterior wall is finished and level.
The wall sleeve is fitted.

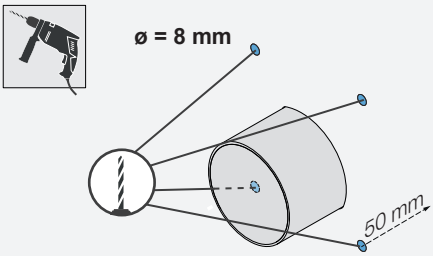



► Remove the protective disc from the wall sleeve on the exterior wall side.

► Turn the four lateral screws together with captive washers loosely from the outside into the four threaded holes (blue arrows) on both sides of the base plate.

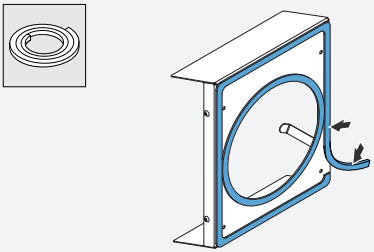
**NOTE: Damage to the masonry/external wall due to misaligned drip rails!**
- Make sure that the slopes on both drip rails are aligned to down-facing.

► Push the base plate onto the protruding wall sleeve. **Observe** the alignment of the drip rails: The slope leads in direction of the ground/bottom.
► Align the base plate using a spirit level.
► Mark out the four bore holes for fastening the base plate.

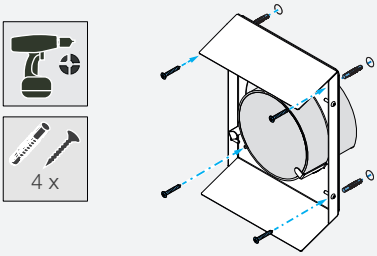



► Drill the four holes with Ø 8 mm to a depth of min. 50 mm.

**TIP:** Apply the sealing tape only immediately before mounting the base plate.
This prevents excessive expanding of the sealing tape and facilitates installation.

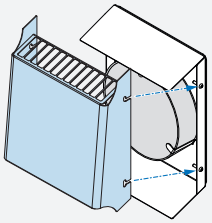


► Affix the sealing tape, 9 mm, on the external wall side and circumferiantally to the base plate:
• around the opening for the wall sleeve.
• at a distance of 5 mm from the outer edge.
**Make sure that** the sealing tape does not protrude over the inside edge of the wall sleeve opening.

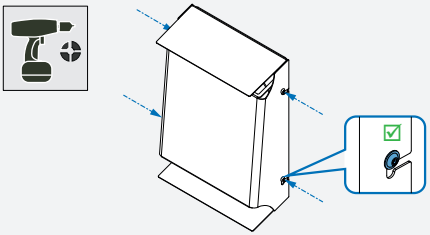



► Insert the wall plugs into the drill holes.
► Secure weather protection hood base plate to the external wall using four screws.

**TIP:** When screwing the base plate of Compact protective hood to external walls with insulation or when using the WEB wall installation block/ Simlex wall build-in system use insulation plugs to ensure safe fastening. These are not part of the scope of supply, but are available as an option.



► Hook the cover of the from the front into the lateral screws (blue arrows) of the base plate.
**Make sure** that the washers are placed between the cover and the screw.
► Pull down the cover until it snaps into place.



► Secure the cover to the base plate using the lateral screws.

⇨ The weather protection hood is installed.

## 4.6 Installing the thermal accumulator insert and connect the fan to the controller

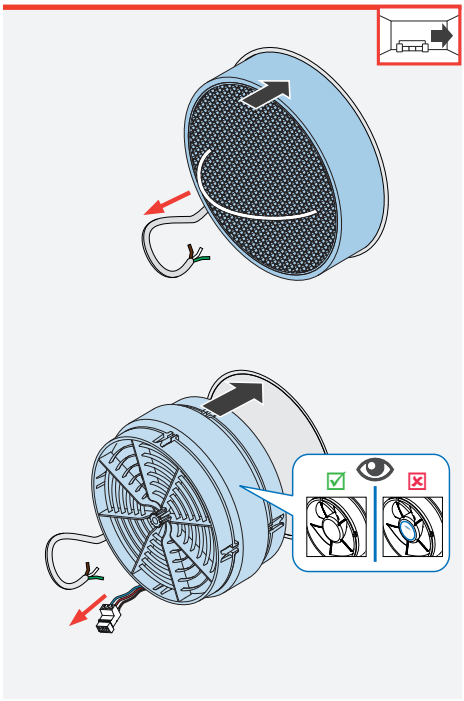
### Installing the thermal accumulator insert

**NOTE**

**Do not store/stack the thermal accumulator outside the wall sleeve.**

This may cause dmage or breakage to the ceramic block!

- Insert the thermal accumulator immediately after removing it from the packaging



Requirement:
The weather protection hood is installed.

► Remove the protective discs from the wall sleeve.
► From the interior, slide the thermal accumulator into the wall sleeve as far as the end-stop.
**Make sure** that the handle is facing towards the interior.
**Make sure** that the controller cable (fan-BUS) is facing towards the interior.

► Insert inVENTron into the wall sleeve so that you can reach the plug-in connection.
**Ensure** that the fan's side **WITHOUT** type plate is directed to the interior room side.

⇨ The thermal accumulator is inserted

### Electrical connection of the reversible fan

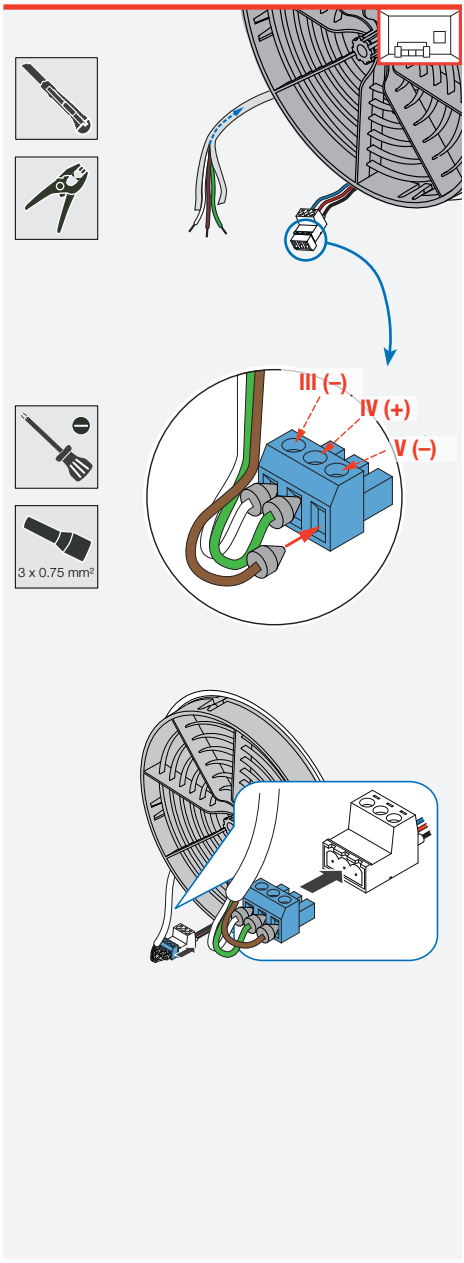
**NOTE**

**Incorrect electrical connection.**

Damage to the fan motor!

- Connect the ventilation unit to the mains via a controller.
- Observe the correct cable colour sequence at the socket and plug. If the colour sequence is wrong, the fans will not start.

Stripping tool, screw driver, scissors or cutter




Prerequirement:
The weather protection hood is installed.

- ► Trim the controller cable, 3-wire, to your determined wall thickness minus 140 mm.
- ► Remove about 7 mm of the contoller cable's sheath.
- ► Remove the green socket from the plug.

**NOTE: Using the wrong wire end ferrules to connect the strands in the socket** leads to a short circuit in the fan-BUS!
- Use ferrules with collar to connect the strands.

- ► Align the socket's locking screws to the top.
- ► Connect the three wires of the fan-BUS (controller cable)to the socket:
  - (White) wire III (–) to the left pole.
  - (Gree) wire IV (+) to the centre pole.
  - (Brown) wire V (–) to the right pole.

- ► Align the locking screws on the plug and socket in the same direction.
- ► Plug the connected socket into the green plug on the fan.
  - ⇨ Extract air mode is adjusted.

⇨ The reversible fan is connected to the controller.

- ► Select continuous ventilation mode (VENT). (see operating instructions for the controller).
- ► Make sure that all reversing fans rotate in the same direction.

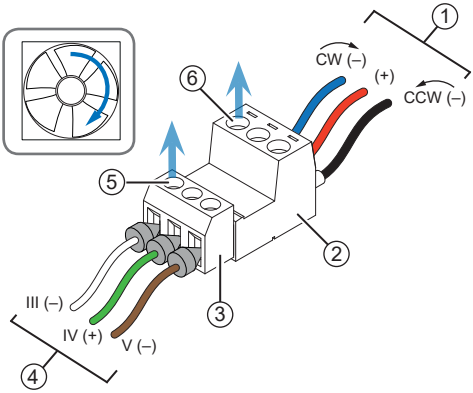
⇨ The functional test has been performed.

## 4.7 Starting the ventilation systemn

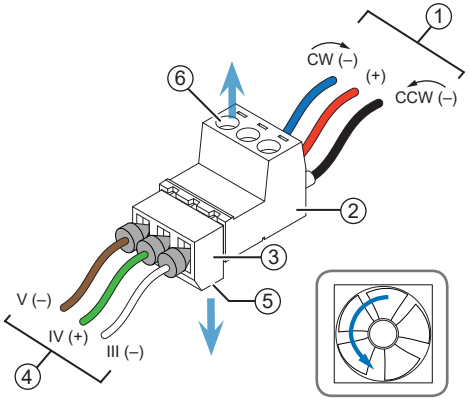
### Setting the start direction of the reversing fan

In paired operation, one reversing fan is set in exhaust air direction, the other reversing fan is set to supplyair direction. After the function test, the socket of the plug-in connection on the fan, which is to start in supply air operation in pairs, must be turned.

**TIP:** Note the starting direction of the respective unit in the connection plan. (Appendix 1) Thus the starting direction is determined for upcoming maintenance tasks and a wrong connection will be avoided.




*Starting direction – Extract air:*
- *The locking screws of the plug-in connection's plug and socket are pointing to the same direction.*

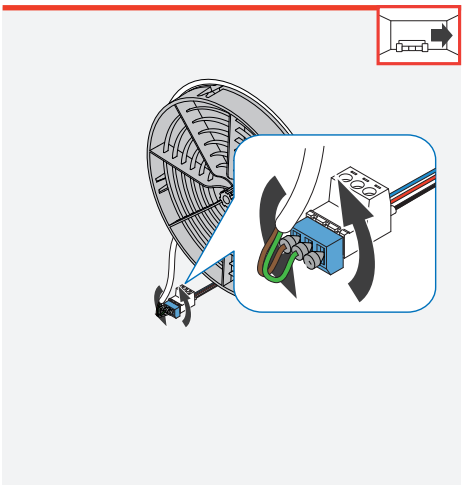



*Starting direction – Supply air:*
- *The locking screws of the plug-in connection's plug and socket are pointing to different directions.*

1 Wire's to fan
2 Plug
3 Socket
4 Fan-BUS (wires to controller)
5 Locking screws on socket
6 Locking screws on plug

| Plug (Cable from controller) | | | | | | Socket (Cable from fan) | |
|---|---|---|---|---|---|---|---|
| Starting direction: Extract air | | | Starting direction: Supply air | | | | |
| **Terminal** | **Signification** | **Colour** | **Terminal** | **Signification** | **Colour** | **Terminal** | **Colour** |
| III (–) | GND (–) | White | V (–) | GND (–) | Brown | CW (–) | Blue |
| IV (+) | Operating voltage | Green | IV (+) | Operating voltage | Green | + | Red |
| V (–) | GND (–) | Brown | III (–) | GND (–) | White | CCW (–) | Black |

**TIP:** When looking from the side, the plug-in connection forms an **"S"** like **"Supply"** when in starting direction Supply air.



Requirement:
The functional test is performed.

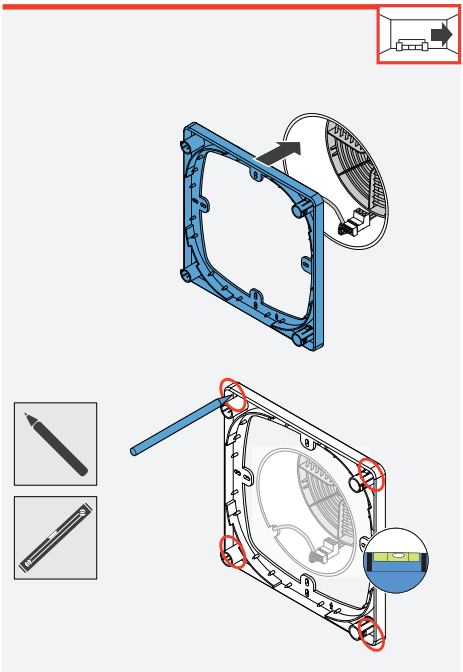
- ► Disconnect the plug of the ventilation unit which is to operate in supply air mode from the socket of each pair of fans.
- ► Rotate the socket by 180°.
- ► Plug in the socket with the locking screws to the opposite side again.
  - ⇨ The plug-in connections locking screws are pointing to opposite directions.

- ► Select heat recovery mode (HR).
  (see operating instructions for the controller).

- ► Slide inVENTron as far as the thermal accumulator.

⇨ The reversible fan is connected to the controller.

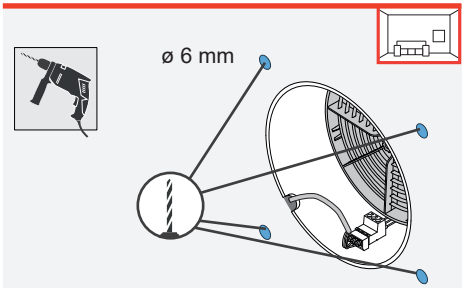
## 4.8 Fitting the inner cover



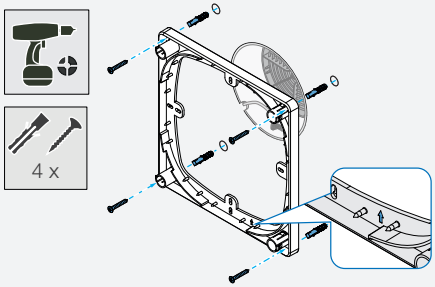
Requirement:
The thermal accumulator is inserted.
The fan's starting direction has been set.

- ► Place the base plate centrically to the wall sleeve on the interior wall.

- ► Align the base plate using a spirit level.
- ► Mark out the four corner drillings for fastening the base plate.



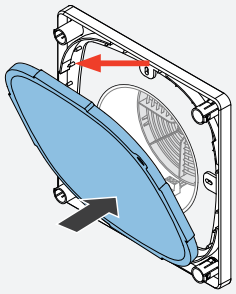

► Drill the four holes with Ø 6 mm to a depth of min. 40 mm.



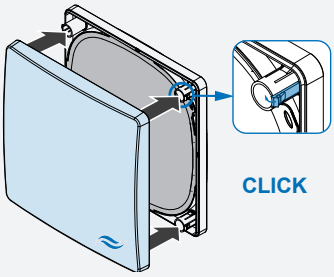

► Insert the wall plugs.
► Secure base plate to the internal wall using four screws.
**Make sure that** the marking arrows on the base plate are pointing to the top

**TIP:** The inner cover's base plate may be screwed to centre tabs as an option, e. g. when using the wall installation block or the wall build-in system Simplex. In this case, use plugs suitabe for insulation.

**TIP:** Make sure that you have correctly fitted the dust filter to prevent the ventilation unit malfunctioning.



► 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 inner cover base plate.
**Ensure** that the tab on the filter ring is pointing towards the interior.




► Place the cover on the four spacers.
**Make sure that** the marking arrows on the cover's rear side are pointing to the top (inVENTer logo on cover's front is located on the bottom right).
► Press the side detent lugs inwards on the inner cover base plate's spacers.
► Slide the inner cover panel onto the spacers.
⇨ All spacers noticeably snap in.

⇨ The inner cover is fitted.

# 5 Operation of the iV-Compact ventilation unit

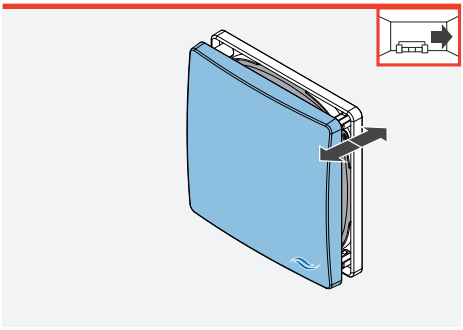
## 5.1 Opening/closing the inner cover

For correct functioning of your ventilation system the ventilation unit's inner cover must be opened.

Close the inner cover if you take the ventilation unit out of operation.
This will prevent an undesired air exchange, i. e. an inflow of cold air into the living room.

In particular situations (i. e. accidents with smoke or leaking gases) it is necessary to close all doors and windows. In these situations your ventilation units must be disconnected from the power supply and inner covers must be closed as well.

Re-open the inner cover before taking the ventilation unit into operation again.



Requirements: The inner cover panel is attached.

**Closing the inner cover:**

► Press the inner cover panel into the base plate in the direction of the interior wall.

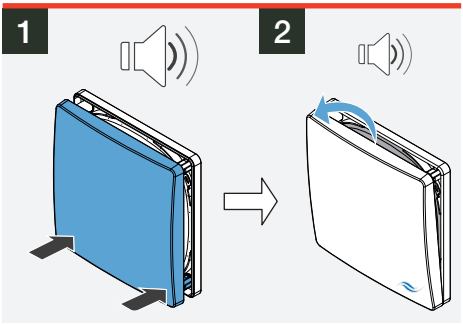
**Opening the inner cover:**

► 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 enable direction of the flow rate, the panel of the Flair inner cover can be tilted upwards and downwards. The inner cover becomes closed at the tilted side, thereby directing the flow rate in the open direction. The sound pressure level is decreased. Also note that the flow rate decreases if the inner cover is only partially open.




Voraussetzung: Die Innenblende ist geöffnet.

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

⇨ You have tilted the inner cover panel downwards (upwards).
⇨ The air flow will now be directed upwards (downwards).
⇨ The sound pressure level is decreased.

# 6 Cleaning and maintenance

**CAUTION**

**Cleaning by children and persons with limited abilities.**

Injury to body parts (rotating fan) and/or malfunction of the ventilation system!

- Cleaning/maintenance of the ventilation unit 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 unit.

The iV-Compact ventilation units and the sMove controller are virtually maintenance-free.
Any necessary cleaning or maintenance work can be carried out by the user by following these instructions.

**TIP:** Before performing cleaning or maintenance tasks, disconnect the controller's power supply and put on gloves.

## Detergents

**NOTE**

**The plastic/glass surface of the inner panel is not scratch-resistant** and may be damaged.

- 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

## Recommended maintenance

The maintenance tasks and intervals listed here are recommended by inVENTer GmbH to maintain the functionality and performance of the iV-Compact ventilation system.

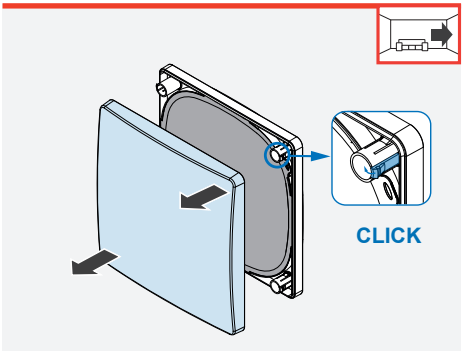
Depending on requirements and/or air quality, your personal maintenance plan may deviate from these recommendations.

| Interval | Assembly | Maintenance activity |
|---|---|---|
| Cleaning from the interior room | | |
| Monthly | Pollen filter | Replace the contaminated pollen filter. |
| | Inner cover | Clean the surface of the panel with a damp cloth. |
| Quarterly | Dust filter | Wash the dust filter with warm water and detergent.<br>**Or** Replace defective dust filters. |

| Interval | Assembly | Maintenance activity |
|---|---|---|
| Half-yearly | Thermal accumulator | Remove the thermal accumulator and clean it under running warm water. |
| | Guiding vanes | Remove the guiding vanes from the fan.<br>Clean the guiding vanes using a soft brush or under warm running water. |
| | Reversible fan | Clean the fan blades with a brush. |
| | Wall sleeve | Clean the surface of the wall sleeve with a damp cloth. |
| | Carbon filter | Replace the activated carbon filter. |
| | Sound protector | Replace the sound protector. |
| | Sound absorbing insert | Gently pat off the sound absorbing insert. |
| 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 exterior | | |
| Yearly | Exterior closure: weather protection hood | Clean the surface of the protective hood with a damp cloth.<br>Clean the protective grid on the upper and bottom air outlet to ensure the fins between the louvres are free. |

## 6.1 Remove the inner cover panel

To clean and maintain the ventilation unit, first remove the panel of the inner cover.




Requirements: The ventilation unit is switched off.

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

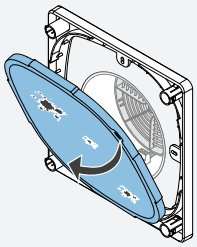
⇨ You have removed the panel of the inner cover.

## 6.2 Cleaning/replacing dust filters

**TIP:** inVENTer dust filters of class G4 are highly durable and can be washed repeatedly. We recommend cleaning the dust filter regularly.
For specific requirements, pollen filter and activated carbon filter are available as accessories. You can find assembly instructions in the filter operating instructions provided.

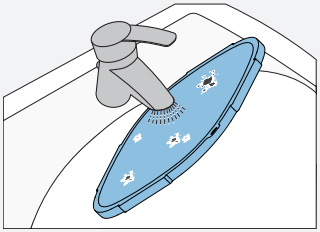
Requirements:
The reversible fan is switched off on the controller.
The inner cover's panel has been removed. (🕮 6.1)

**1**



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

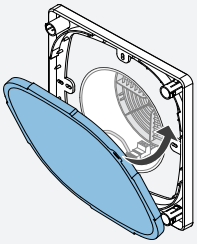
**2**



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

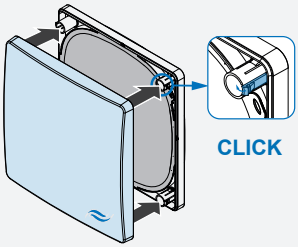
► Dispose of the dust filter if defective.

**3**



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

**4**




► Place the cover on the four spacers.
**Ensure** that the inVENTer logo is located on the bottom right.
► Press the side detent lugs inwards on the inner cover base plate's spacers.
► Slide the inner cover panel onto the spacers.
⇨ All spacers noticeably snap in.

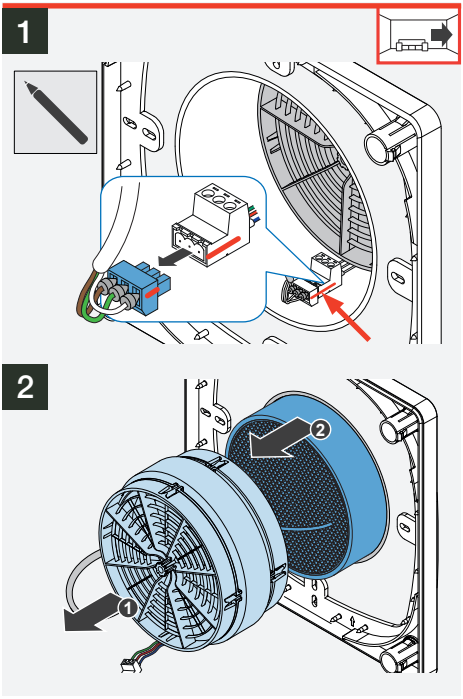
⇨ You have cleaned/changed the dust filter.

## 6.3 Removing the thermal accumulator insert

Pen to mark the connector orientation

Requirements:
The reversible fan is switched off on the controller.
The dust filter has been removed. (📖 6.2)

**TIP:** Before removing, mark the orientation of the green controller plug. This will prevent the reversible fan spinning in the wrong direction after reassembly.




- ► Mark the orientation of the plug-in connection. This will prevent the reversible fan spinning in the wrong direction after reassembly.
- ► Disconnect the plug-in connection.

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

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

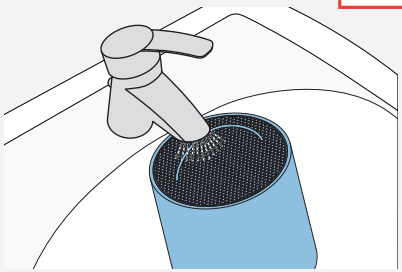
⇨ You have removed the thermal accumulator insert.

## 6.4 Cleaning and reassembling the thermal accumulator insert

Soft brush, lint-free soft cloth and warm water

Requirements:
The thermal accumulator insert has been removed.

1

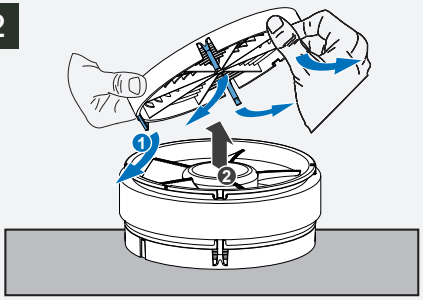


**NOTE: Incorrect cleaning of the thermal accumulator** will result in damage to the insulation on the thermal accumulator.
- Always clean the thermal accumulator under warm running water.
  Never clean it in the dishwasher.

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

⇨ You have removed the thermal accumulator insert.

2

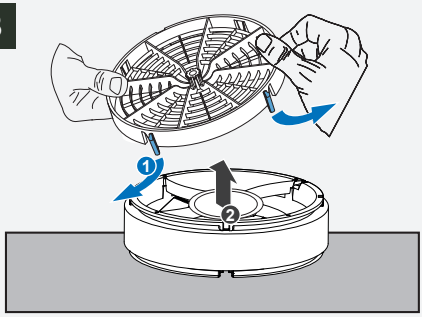


**NOTE: When breaking the attachment strips on the guiding vane,** the guiding vane can no longer be attached to the fan!
- Carefully bend the strips away from the guiding vane.
- If you can feel resistance, stop bending the strips outwards.

- ▶ Place inVENTron on an even surface.
- ▶ Remove the first guiding vane from the fan.

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

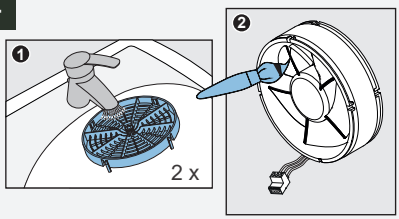
3



Step 2: Lift the guiding vane upwards.

- ▶ Turn the fan, so that the remaining guiding vane is pointing upwards.
- ▶ Remove the remaining guiding vane from the fan.
  ⇨ Remove the remaining guiding vane as previously described.

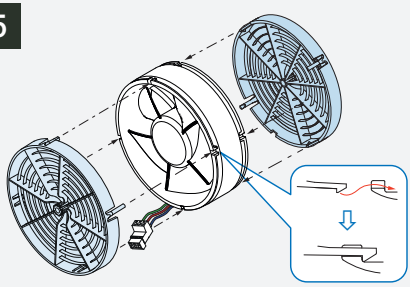
**4**




► 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.

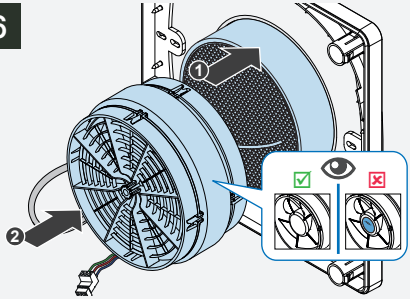
**5**



► Reattach the guiding vanes to the reversible fan.

⇨ You have cleaned the thermal accumulator insert.

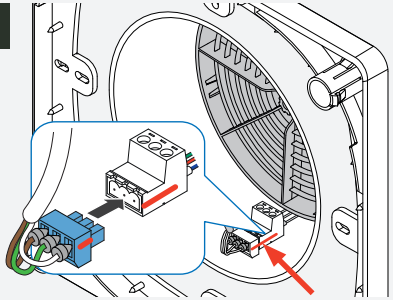
**6**




► Step 1: From the interior, slide the thermal accumulator into the wall sleeve as far as the end-stop. **Make sure** that the handle is facing towards the interior.

► Step 2: Insert inVENTron into the wall sleeve so that you can reach both cables.
**Ensure** that the fan's side **WITHOUT** type plate is directed to the interior room side.

**7**



► Re-connect the plug-in connection.
**Make sure** that the markings on the plug and socket are aligned.

*If there are no markings on the connector start one of the paired fans in extract air direction and the other in supply air direction.*
*(**Appendix 1: Wiring protocol** or 🕮 4.7)*

**HINT:** When looking from the side, the plug-in connection forms an **"S"** like **"Supply"** when in starting direction supply air.

► Slide inVENTron as far as the thermal accumulator.
► Re-attach the filter and the inner cover panel: 🕮 6.2, page 32.

⇨ You have cleaned and re-installed the thermal accumulator insert.

# 7 Specifications

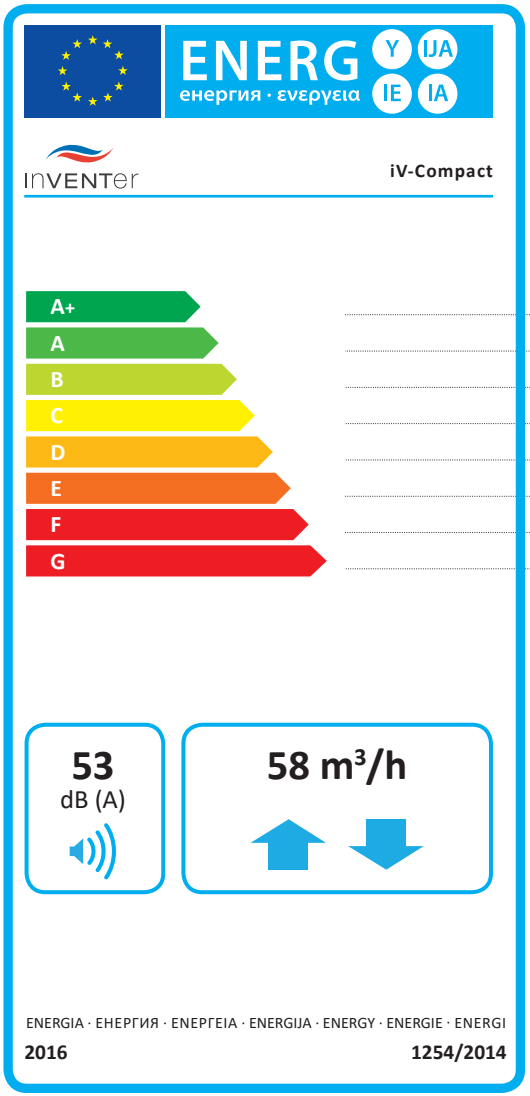
## 7.1 General specifications

| Feature | Value |
|---|---|
| Operating range [°C] | -20 – 50 |
| Extract air/Outdoor air | Without aggressive gases, dusts and oils |
| Air flow in reverse operation (push-pull) per unit [m³/h] | 10.5 – 29 |
| Extract air flow per unit [m³/h] (DIN EN 13141-8) | 21 – 58 |
| Sound pressure level [dB (A)], 2 m | 12 – 37 |
| Standard sound level difference [dB] | 32 |
| Heat recovery [$\eta'_w$] | 0.72 |
| Input voltage [V DC] | 6 – 16 |
| Power consumption [W] | 1 – 3 |
| Flow based electrical fan capacity [W/(m³/h)] | 0.13 |
| Protection class (DIN EN 61140) | III |
| Type of protection (DIN EN 60529) | IP20 |
| Filter class (standard filter) (DIN EN 779:2012) | G4 |
| Air flow sensitivity at ± 20 Pa (DIN EN 13141-8) | S3 |
| Frost protection | Automatically due to push-pull operation (bis -20 °C) |
| Weight [g] | Max. 3.850 |
| Wall thickness (incl. plaster/render) [mm] | > 140 |
| Wall opening [mm] | Ø 180 |
| Wall sleeve | Ø 160 |
| Conformity | CE |

## 7.2 Label according to EC Directive for energy related products, regulation 1254/2014 [Germany]

On the energy label you can find the following information from the product fiche:

- Energy efficiency class (Specific energy consumption class)
- Sound power level $L_{wa}$
- Maximum air flow (supply air)




| Local demand control | Manual control |
|---|---|
| MZ-Home sMove w/ sensors | sMove w/o sensors |
| A | A |

## Specifications according to EC Directive for energy related products, regulation 1254/2014 [Germany]

### iV-Compact, local demand control:

| Product fiche iV-Compact according to VO 1254/2014 EU, dated 2014-07-11 | | | | |
|---|---|---|---|---|
| Pt. | Description | | Data | |
| a | Supplier's name | | inVENTer GmbH | |
| b | Supplier's model identifier | | iV-Compact | |
| c | SEC class / Specific energy consumption [kWh/(m²a)] | cold | | -81.498 |
| | | average | A | -40.735 |
| | | warm | | -17.383 |
| d | Typology | | BVU | |
| e | Type of drive installed | | 2 | |
| f | Type of heat recovery system | | regenerative | |
| g | Thermal efficiency of heat recovery $\eta_t$ [%] | | 72 | |
| h | Maximum flow rate (supply air) [m³/h] | | 58 | |
| i | Electric power input [W] | | 6 | |
| j | Sound power level $L_{wa}$ [dB (A)] | | 53 | |
| k | Reference flow rate [m³/h] | | 40.6 | |
| l | Reference pressure difference [Pa] | | 0 | |
| m | Specific power input (SPI) [W/m³/h] | | 0.13 | |
| 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 | Regulated supply and exhaust grilles in the facade (one-direction devices only) | | no | |
| s | Internet | | www.inventer.de | |
| t | Airflow sensitivity [%] | | 29.3 | |
| u | Indoor and outdoor air tightness [m³/h] | | n. a. | |
| v | Annual electricity consumption [kWh/(m²a)] | | 0.76 | |
| w | Annual heating saved [kWh/(m²a)] | cold | 83.39 | |
| | | average | 42.63 | |
| | | warm | 19.28 | |

## iV-Compact, manual control:

| Product fiche iV-Compact according to VO 1254/2014 EU, dated 2014-07-11 | | | | |
|---|---|---|---|---|
| Pt. | Description | | Data | |
| a | Supplier's name | | inVENTer GmbH | |
| b | Supplier's model identifier | | iV-Compact | |
| c | SEC class / Specific energy consumption [kWh/(m²a)] | cold | | -72.195 |
| | | average | A | -34.715 |
| | | warm | | -13.245 |
| d | Typology | | BVU | |
| e | Type of drive installed | | 2 | |
| f | Type of heat recovery system | | regenerative | |
| g | Thermal efficiency of heat recovery $\eta_t$ [%] | | 72 | |
| h | Maximum flow rate (supply air) [m³/h] | | 58 | |
| i | Electric power input [W] | | 6 | |
| j | Sound power level $L_{wa}$ [dB (A)] | | 53 | |
| k | Reference flow rate [m³/h] | | 40.6 | |
| l | Reference pressure difference [Pa] | | 0 | |
| m | Specific power input (SPI) [W/m³/h] | | 0.13 | |
| n | Control factor | | 1 | |
| o | Internal/external leakage rate [%] | | n. a. | |
| p | Mixing rate [%] | | n. a. | |
| q | Position of visual filter warning | | Controller | |
| r | Regulated supply and exhaust grilles in the facade (one-direction devices only) | | no | |
| s | Internet | | www.inventer.de | |
| t | Airflow sensitivity [%] | | 29.3 | |
| u | Indoor and outdoor air tightness [m³/h] | | n. a. | |
| v | Annual electricity consumption [kWh/(m²a)] | | 1.79 | |
| w | Annual heating saved [kWh/(m²a)] | cold | 76.67 | |
| | | average | 39.19 | |
| | | warm | 17.72 | |

# 8 Scope of supply

To order parts for your ventilation unit or controller, contact your nearest factory outlet or our service staff.

## Standard components

All standard components are available as spare parts.

| Component | Order number |
|---|---|
| Exterior closure: Weather protection hood incl. sealing tapes | |
| Protective hood Compact, grey – RAL 9006 | 1508-0094 |
| Protective hood Compact, white – RAL 9016 | 1508-0111 |
| Wall sleeve incl. protective discs and mounting wedges | |
| Wall sleeve R-D160x230 | 1506-0051 |
| Wall sleeve R-D160x285 | 1506-0081 |
| Wall sleeve R-D160x495 | 1506-0068 |
| Thermal accumulator insert | |
| Thermal accumulator insert Compact | 1507-0016 |
| Inner cover | |
| Inner cover Flair V-223x223, white | 1505-0036 |
| inner cover Flair V-223x233, white, incl. sound insulation SDE | 1505-0037 |

# 9 Accessories and spare parts

## Accessories

| Component | Order number |
|---|---|
| Dust filter G4 IC Flair V-233x233 (2 x) | 1004-0175 |
| Pollen filter IC Flair V-233x233 (2 x) | 1004-0143 |
| Carbon filter IC Flair V-233x233 (2 x) | 1004-0158 |
| Sound absorbing insert R-D160 | 1004-0148 |
| Sound protector SPR R-D160 | 1004-0154 |
| Wind protection insert WSE R-D160 | 1004-0151 |
| $CO_2$ sensor CS1 | 1004-0145 |
| Hygrostat/ Humidistat HYG12 | 1002-0015 |
| Hygrostat/ Humidistat HYG18 | 1002-0044 |

## Spare parts

| Component | Order number |
|---|---|
| Thermal accumulator R-D160 [100 mm] | 2002-0055 |
| inVENTron R-D160 Slim | 2007-0030 |
| Guiding vane inVENTron R-D160 Slim incl. knob | 3006-0278 |
| Base plate WPH-Compact, RAL 9006 | 3006-0282 |
| Cover WPH-Compact, grey – RAL 9006 | 2004-0115 |
| Base plate WPH-Compact, RAL 9016 | 3006-0302 |
| Cover WPH-Compact, white – RAL 9016 | 2004-0118 |
| Base plate IC Flair V-233x233 | 2003-0223 |
| Panel IC Flair V-233x233 | 2003-0221 |
| Panel IC Flair V-233x233 w/ sound insulation | 2003-0222 |
| Spacer for base plate IC, 25mm, white | 3006-0151 |

# 10 Troubleshooting and disposal

## Troubleshooting

| Fault | Possible cause | Remedy |
|---|---|---|
| Fan failure | No electrical power. | Check fuse. |
| | Installation error. | Check wiring for correct polarity.<br>Check all connectors for correct fit.<br>Check usage of wire end ferrules. |
| | Fan defective. | Replace fan. |
| | Controller/power supply defective. | Replace controller/power supply. |
| Fan does not switch off. | Faulty controller. | Replace controller. |
| Low air flow | Inner cover closed. | Open inner cover panel. |
| | Dust filter heavily soiled. | Clean/replace dust filters. |
| | Pollen filter/Activated carbon filter inserted/ heavily soiled | Inserted pollen or activated carbon filter reduces the air flow. Only use filters for special requirements during periods of heavy pollution.<br>Replace filter if heavily soiled. |
| | Fans are not operating in paired mode. | Connect the first fan in extract air and the second fan in supply air direction. |
| | Fan speed 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.<br>Clean the ventilation unit. |
| | Fan blades contaminated. | 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.<br>Slide the thermal accumulator into the wall sleeve as far as the joint tape. |
| | Fan speed very high. | Set a lower output level on the controller. |
| Supply air is cold | Installation error. | Make sure that the type plate on the Xenion fan is directed towards the heat accumulator. |
| | | Check the connector plug on the controller. The connector plug must be sitting firmly in the connector housing. |
| | The controller is operating in continuous ventilation mode. | Select heat recovery mode on the controller. |

## Disassembly

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

## Disposal

Dispose of the product in compliance with the applicable national regulations.

The products described in these installation instructions are largely recyclable due to their low-pollutant processing. Contact an electronic appliance disposal company to arrange environmentally friendly recycling and disposal of your old system. Ensure that each product's packaging is sorted correctly for disposal.

Recommendations for disposal can be found in the table below.

| Product | Material | Disposal |
|---|---|---|
| Compact protective hood: | Powder-coated stainless steel / Neopor / Anodised aluminium | Scrap metal collection / Recyclable material collection |
| Reversible fan | PBTP / PA | Drop-off center for electronic equipment |
| Guiding vanes | PC | Recyclable material collection |
| Wall sleeve | PPs | Recyclable material collection |
| Flair inner cover V-233x233 | PS-SZ | Recyclable material collection |
| Thermal accumulator | Ceramics | Household waste |
| Dust filter | TPU/PES | Household waste |
| Pollen filter | PES | Household waste |
| Activated carbon filter | Polyester non-woven enriched with activated carbon | Household waste |

# 11 Guarantee and warranty

## 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 refers to the defect-free condition of the product at the time of purchase and 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 guarantee for all electrical components and the wall sleeve, as well as a thirty-year guarantee on the heat accumulator ceramic.
This covers premature product wear. It affects in no way the applicable law.

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

# 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, return the complete ventilation unit to the manufacturer.
The guarantee is an additional offer by the manufacturer and in no way affects the applicable law.

## Accessories and spare parts

To order parts for your controller, contact your nearest factory outlet or our service staff.

## Technical customer service

For technical support contact our service staff.

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

# Appendix 1: Wiring protocol

| Ventila-tion unit | Floor | Area/room and position | Ventilation zone (CAM) | 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 | | | | | |

# Appendix 2: Cleaning protocol

We recommend to document all cleaning tasks in the following table. Further information concerning cleaning intervals can be found in chapter 6: cleaning and maintenance, page 30.

| Date | Cleaned units | Cleaning/ Control measure[1)] | | | Remarks | Name/ Signature |
|---|---|---|---|---|---|---|
| | | Component | | | | |
| | | A | B | C | | |
| | | | | | | |
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| | | | | | | |

1) Cleaning/ Control measure: Controlled (C) / Cleaned (R) / Changed (W)

| Component | Designation / Scope | Action |
|---|---|---|
| A | Inner cover / Filter | Inner cover: Cleaning Filter: Check, clean or change if necessary (depending on filter type) Filter: Check, clean or change if necessary (depending on filter type) |
| B | Thermal accumulator, Xenion reversible fan, guiding vanes, Wall sleeve | Cleaning |
| C | Accessories | Check, clean or change if necessary |

## COMPANY DETAILS

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