



**LIMODOR**  
INNOVATION ON AIR

# **AirVital PRIME**

The whisper single room ventilation  
with high efficiency  
heat recovery

**NEU!**



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### IMPRESSUM

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## Which criteria speak for the AirVital PRIME

### ENERGY EFFICIENCY

- » Savings on heating costs by minimizing the loss of ventilation heat, up to 94.5% heat recovery possible with a highly efficient crossflow- heat exchanger
- » Reduction of CO<sub>2</sub> emissions

### FRESH AIR SUPPLY

- » Supply of preheated, filtered fresh air and removal of odors and pollutants
- » No air draught in the apartment available through windows and / or doors

### EFFECTIVE CONTROL

- » High comfort combined with low energy consumption thanks to fully automatic control with time and humidity control

### HIGH WIND PRESSURE SECURITY

- » According to DIN EN 13141 Part 8 - the device achieves the highest class S1 (sensitivity of the air flow against fluctuations in the pressure difference) - prevents from draughts at strong winds

### HUMIDITY CONTROL

- » Reliable removal of humid room air, thereby significantly reducing the risk of mold growth

### SILENT OPERATION

- » By using a well-sized soundproof cover as well as the use of large volume radial blowers instead of axial blowers, the unit can be mounted in the bedroom without hesitation.

### GOOD HEAT INSULATION

- » Due to 80 mm wall thickness of the Installation box, weakpoints in the masonry are avoided

### EASY HANDLING

- » Standard automatic functions: time-controlled intensive ventilation and summer ventilation, permanent function monitoring with fault message display, damper control, antifreeze protection with antifreeze indicator, filter change indicator

### HEAT RECOVERY

- » Use of the exhaust air heat taking into account the hygienic requirements

### HEALTHY HOME-CLIMATE

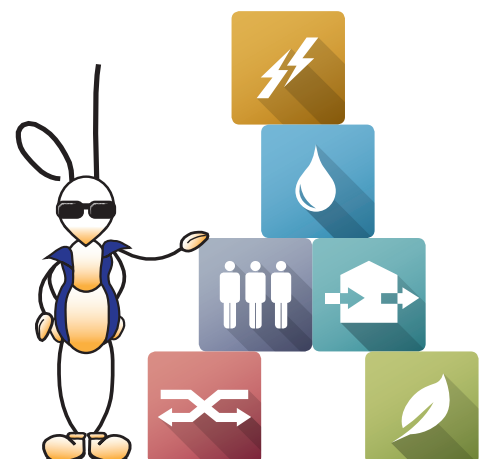
- » Better room climate by filtered fresh air supply and low-emission room air

### EASY INSTALLATION

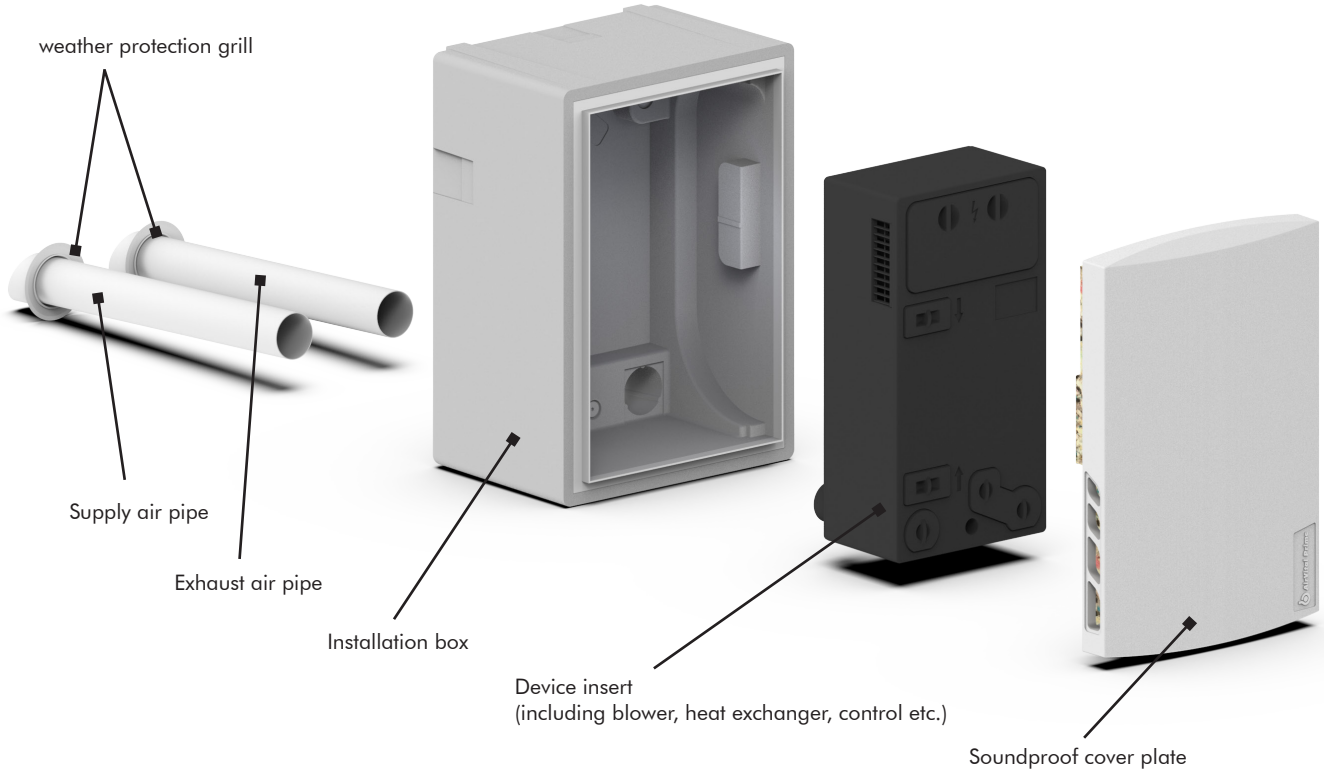
- » No long pipes and ventilation ducts
- » Measuring is not required

### SUMMER VENTILATION

- » With the standard function, the nocturnal coolness can be brought into the living room in summer



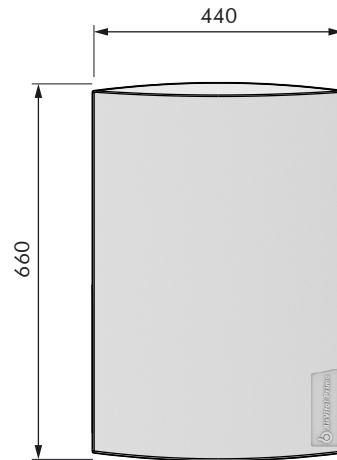
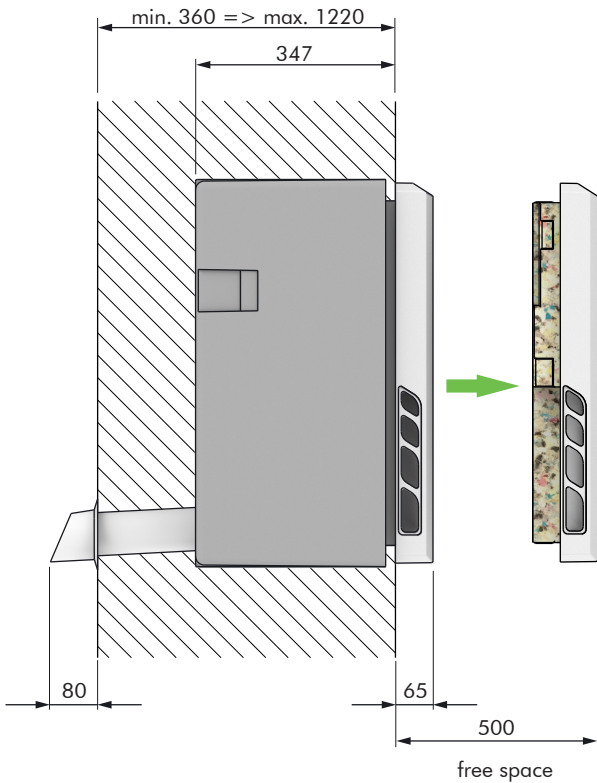
## AirVital PRIME - Single room ventilation with heat recovery System building



### Dimensions

Side view:

Front view:



### Layout and function

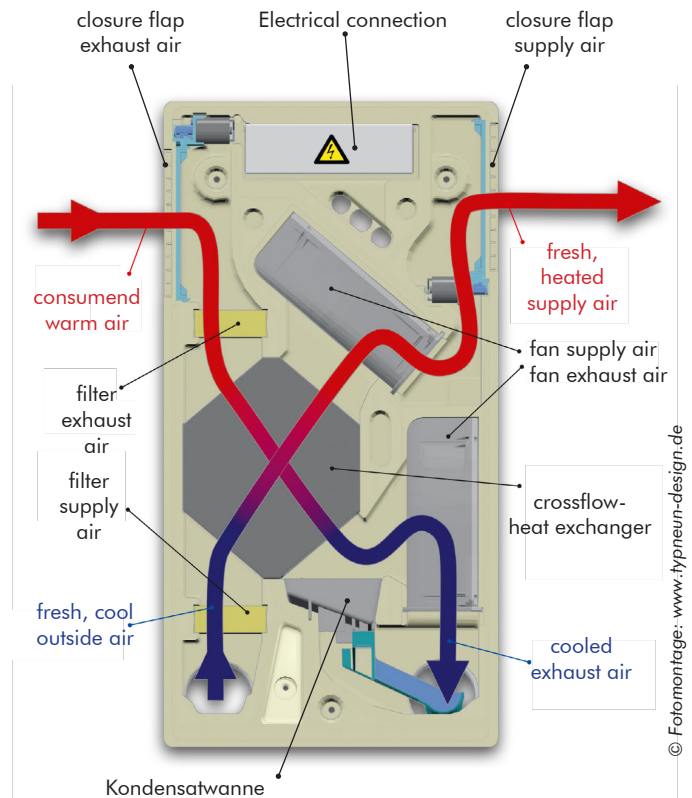
The AirVital PRIME extracts from the warm room air via an energy-saving EC-fan and blows it into the outdoor area via a crossflow- heat exchanger. During this process, the heat exchanger heats up. A second EC- fan extract from fresh, cool outside air via the heat exchanger heated by the exhaust air and blows it into the living space.

In the heat exchanger there is no mixing of the two air streams but a transfer of energy in the form of heat.

Both ventilation ducts supply air and exhaust air are equipped as standard with filters of filter class M5, these serve on the one hand to protect from contamination of the individual components (fans, heat exchangers, etc.) on the other hand, it ensures that only the best filtered fresh air is supplied into the living space.

While transferring energy, condensate water may arise in the heat exchanger at low outdoor temperatures. This is passed through a condensate tray to the exhaust air pipe.

At the end of the exhaust air pipe, the condensate drips from the weather grill, which is mounted on the house facade.



AirVital PRIME device insert - without cover

The AirVital PRIME is suitable for bedrooms, living rooms, eat-in kitchens, and bathrooms.



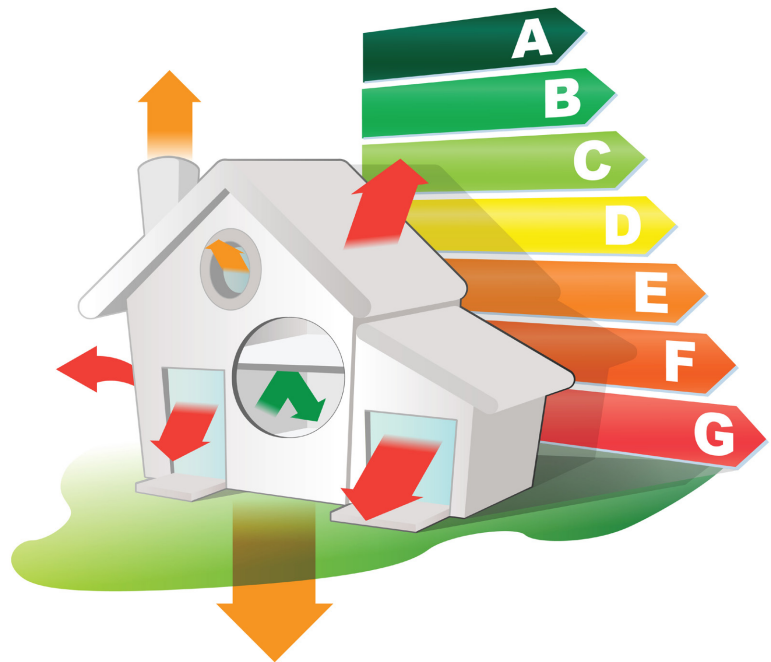
## Ventilate, but energy-efficiently!

Nowadays, new builds and refurbished buildings are generally equipped with the latest in insulation and ventilation technology - "sealed tight", so to speak. Despite this, buildings always lose energy via the walls, windows, roofs, cellars, etc. The greatest cause of energy loss, however, is leaving windows open to air the building. In buildings with medium to good insulation, this accounts for approximately 45% of total energy loss.

### Heat loss in buildings without a home ventilation system:

- approximately 10% via the roof
- 10% via the cellar
- 15% via the walls
- 20% via the windows
- approximately 45% is lost to ventilation via open windows

This clearly demonstrates the enormous savings potential of alternative ventilation solutions. Reliable, efficient and energy-saving: AirVital PRIME, a home ventilation unit with heat recovery, is the ideal solution, providing optimum ventilation in every room.



Electricity costs of  
approximately  
€ 9.22/year

### AirVital PRIME electricity costs

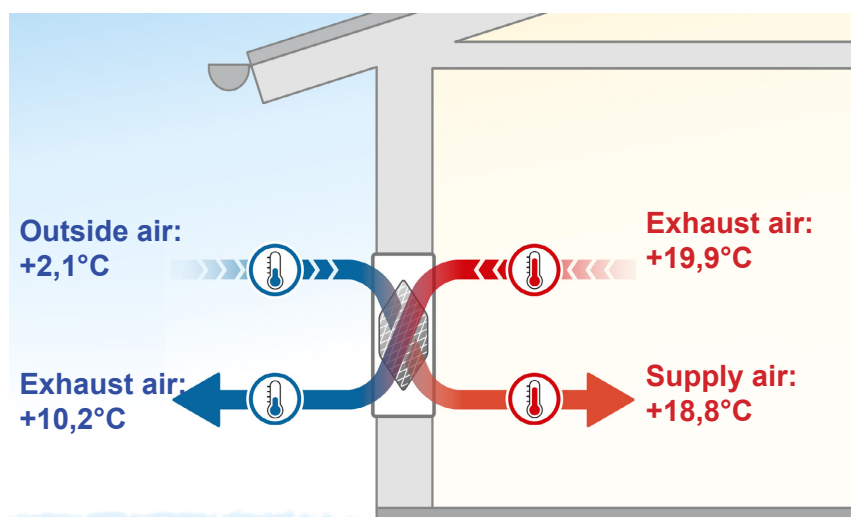
Based on an electricity price of € 0.27/kWh (current estimate), the estimated electricity costs for constant basic ventilation of 12m<sup>3</sup>/h (depending on the size of the room) 24 hours a day, 365 days a year, are only approximately € 9.22 per unit per year (depending on your energy supplier).

### Temperature example

The cold outside air (2.1°C) is heated to 18.8°C by the heat exchanger of the home ventilation system using only the thermal energy of the exhaust air – no additional energy is needed.

#### The result:

Ventilation with the AirVital PRIME home ventilation unit at a volume flow of 10m<sup>3</sup>/h (in accordance with DIN EN 13141-8 at 2°C) results in a heat recovery rate of 94.5%.

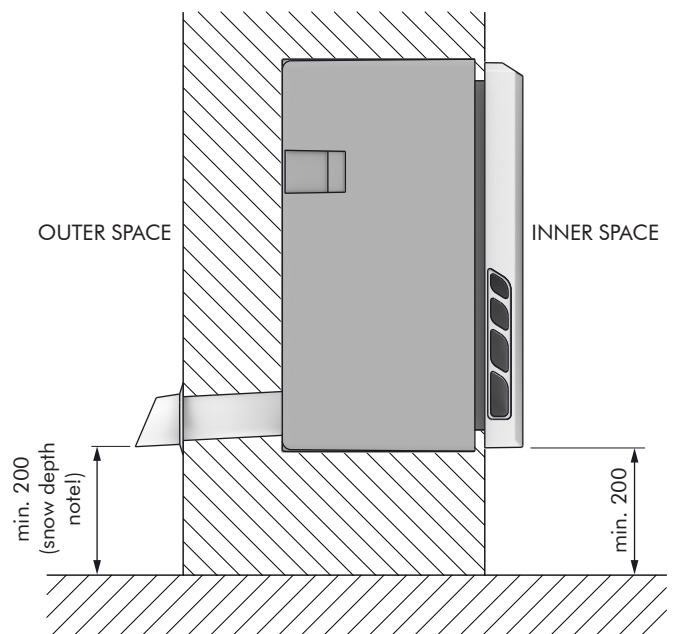
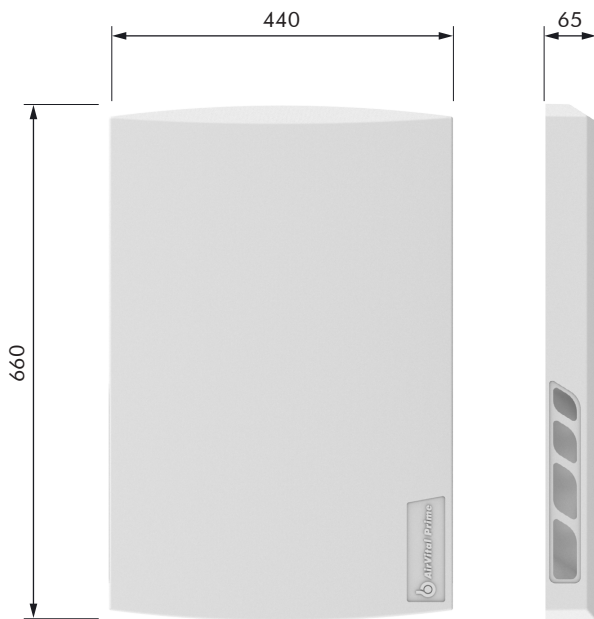


## Placement indoors

The AirVital PRIME is placed in the interior on an exterior wall. If there are several mounting options in the room, our recommendation is to choose the place where there is no noise or odor on the outside of the building, e.g. through busy roads, nearby tram or train tracks, garbage dumps or the like.

When placing the device, the following distances are recommended:

- » at least 100 mm to the adjacent ceiling
- » at least 200 mm to the finished floor
- » at least 200 mm to adjacent walls, radiators, closet, curtains, etc.



Dimensions of the apparent cover in the living room

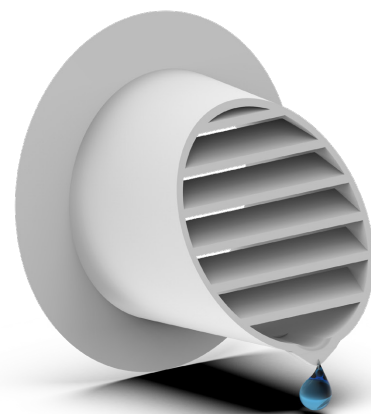
## Placement outdoors

If several units are installed on one side of a building, they should, if possible, be aligned along the outside wall at the same height for a more harmonious visual effect.

covering, especially in the case of wooden decks and balconies (which can become a slip hazard and may not be resistant to moisture or freezing), but also for public thoroughfares (pavements, etc.).

The condensation water escaping along with the exhaust air tends to freeze at low temperatures, causing icicles to form on the ventilation grille, which may then fall onto the areas below. Please take this into account when deciding where to install the units. Remove these icicles carefully in hazardous areas and as necessary during the winter months. The user/builder-owner is responsible for removing the icicles. Installing our ventilation grille heating unit can also help eliminate the problem.

On cold days, condensation can seep out of the ventilation grilles and drip onto the ground, where it freezes when temperatures drop below zero. This tendency should be taken into account when selecting your outdoor floor



## AirVital PRIME fan unit incl. cover

Art.Nr. 45209

### AirVital PRIME – installation unit:

The installation unit contains all the components necessary for efficient ventilation, exhaust air extraction, and heat recovery:

- » A highly efficient plastic cross counterflow heat exchanger with a maximum heat supply rate of 94.5%
- » Two energy-saving EC centrifugal fans, one for supply air, one for exhaust air
- » A multifunction controller
- » A condensation tray from which the accumulated condensate is discharged outside via the exhaust air duct
- » Electronic vents for supply air and exhaust air which close automatically when the unit is switched off
- » Maintenance openings (for cleaning) for the intake pipe, condensation tray, supply air filter, exhaust air filter and for the controller



### Indoor cover:

The indoor cover panel is white (similar to RAL 9016 Traffic white), very flat, and the visible area has a fine plaster-like texture. The lower half of the cover has four openings on either side for supply and exhaust air (left = exhaust air; right = supply air).

We have used EPP, which has excellent thermal insulation properties, on the front of the cover and lined the back with special soundproofing material to fulfil the high sound and heat insulation requirements for domestic ventilation units.

The cover is also available in several different colours.

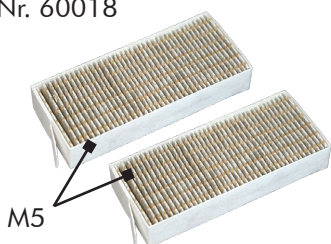
## AirVital PRIME – replacement filter:

To provide the best possible protection for people suffering from allergies, the supply air duct of the AirVital PRIME single room ventilation unit is fitted with a class M5 filter. The exhaust air duct has also been fitted with a class M5 filter to protect the technical equipment from contamination and thus prolong the service life of the heat exchanger, fans and electronics.

However, for the protection to remain effective, the filter must be replaced at regular intervals. The integrated filter clogging indicator (displayed on the multifunction controller) is designed to help the user monitor the filter. Replacing the filter units is very straightforward and can be easily undertaken by the user. In addition to the standard M5 filter, activated carbon filters or class F7 fine dust filters can also be used in the supply air duct. These filter out even smaller particles from the supply air.

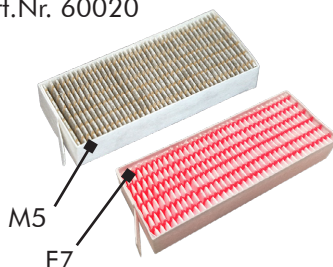
### replacement filter AirVital PRIME M5

Art.Nr. 60018



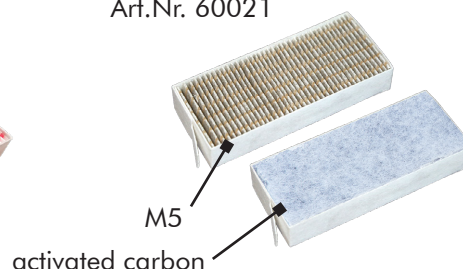
### replacement filter AirVital PRIME F7/M5

Art.Nr. 60020



### replacement filter AirVital PRIME activated carbon

Art.Nr. 60021





### AirVital PRIME standard wall box

Art.Nr. 45212

When installing the AirVital PRIME single room ventilation unit in a new building, the polystyrene wall box is an important component that helps you integrate the unit into the external wall with optimum precision. The wall box ensures that the unit is fitted into the facade correctly. The ventilation unit cannot be properly inserted into the wall box until all the brickwork and plastering has been completed. This helps protect the unit from contamination and damage. It also facilitates easy removal of the unit for maintenance and servicing. The wall box is simply bricked into the external wall and sealed tightly from the inside and outside using the plaster lids provided.

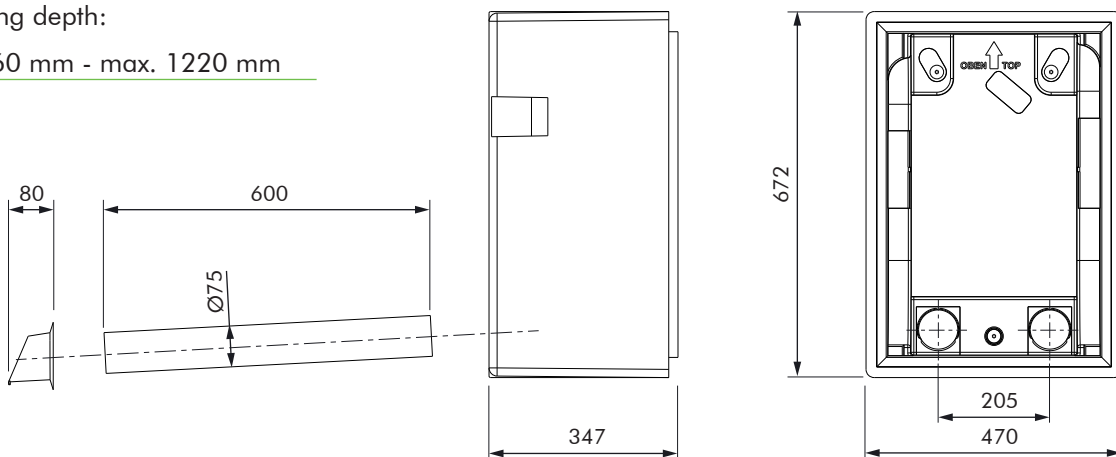


The grey wall box is made of a special material configuration of EPS (polystyrene), which has insulation properties 7% better than those of conventional EPS insulation material. The insulation layer on the back of the wall box is 80 mm thick.

The wall box also includes both the supply and exhaust air ventilation ducts (colour: white) and the UV-resistant weather protection grilles (colour: light grey, similar to RAL 7035 - Light grey).

Mounting depth:

min. 360 mm - max. 1220 mm



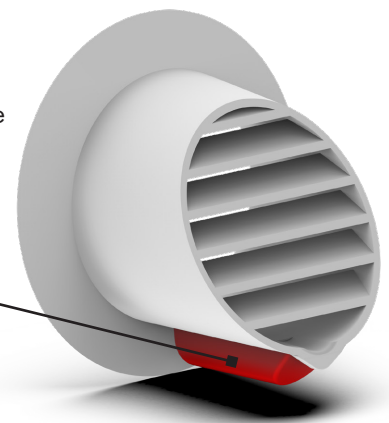
### AirVital PRIME premium wall box

Art.Nr. 45213

The only difference between this and the standard wall box (Item No. 45212) is that in this version the weather protection grille on the exhaust air duct is fitted with a ventilation grille heater. This helps to prevent icicles from forming on the weather protection grille and falling on the pavements, roads, driveways, gardens or similar below.

The ventilation grille heater consists of a heating element with a temperature sensor, which is only activated when there is a risk of temperatures dropping below zero. With an input power of 2.6 watts, it is extremely energy efficient.

Heating element with integrated temperature sensor and cable to connect it to the ventilation unit (original colour: grey, similar to RAL 7035 - Light grey)



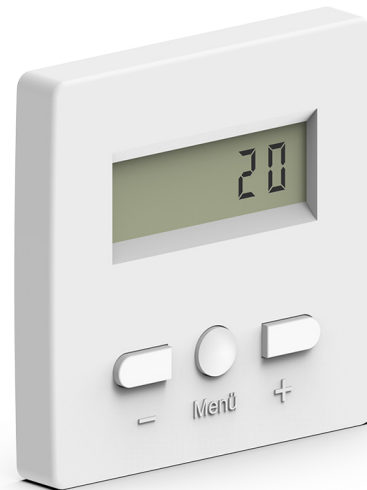
### AirVital PRIME standard multifunctional controller

Art.Nr. 55045

The standard controller (colour: white, similar to RAL 9016 - Traffic white) for the AirVital PRIME can be installed in an ordinary switch box. The controller is generally mounted near the unit, but it can also be placed further away (max. 100m).

The standard multifunctional controller provides the following features:

- » The following air volume level options:  
10/12/20/30/45 m<sup>3</sup>/h incl. heat recovery
- » Fully automatic anti-freeze function
- » Filter replacement indicator
- » Monitoring function with error display
- » Automatic condensate drain
- » Operating hours meter
- » Automatic air vent control



A time limit (min. 10 minutes to max. 9 hours and 50 minutes) must be set for the following functions:

- » High-intensity ventilation at 60m<sup>3</sup>/h
- » Summer ventilation (continuous supply air), can be set from 10m<sup>3</sup>/h - 45m<sup>3</sup>/h
- » Continuous air extraction, 10m<sup>3</sup>/h - 45m<sup>3</sup>/h

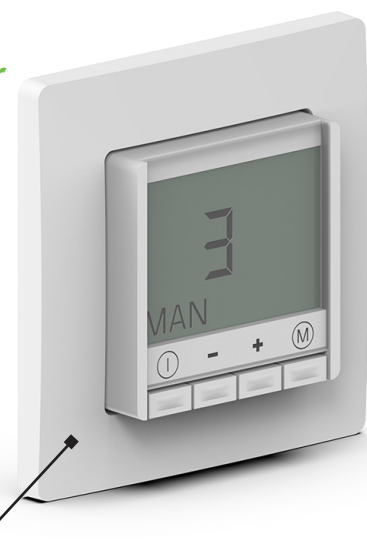
### AirVital PRIME premium multifunctional controller

Art.Nr. 55046

The premium controller (colour: white, similar to RAL 9010- Pure white) for the AirVital PRIME can be installed in an ordinary switch box. The controller is generally mounted near the unit, but it can also be placed further away (max. 100m).

The premium multifunctional controller provides the following features:

- » The following air volume level options:  
10/12/20/30/45 m<sup>3</sup>/h incl. heat recovery
- » Fully automatic anti-freeze function
- » Filter replacement indicator
- » Monitoring function with error display
- » Automatic condensate drain
- » Operating hours meter
- » Automatic air vent control
- » Time control
- » Humidity control
- » Child-proof lock
- » Displays: Time, room temperature, ambient air humidity, exhaust air temperature



Standard frame  
(various switch ranges are available on request)

A time limit (min. 10 minutes to max. 23 hours and 50 minutes) must be set for the following functions:

- » High-intensity ventilation at 60 m<sup>3</sup>/h
- » Summer ventilation (continuous supply air), can be set from 10 - 45 m<sup>3</sup>/h
- » Continuous air extraction, 10 - 45 m<sup>3</sup>/h

### Technical data

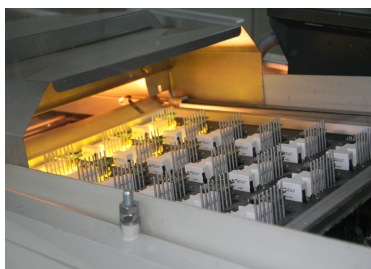
Mounting:	Flush mounting
Heat exchanger:	Crossflow-heat exchanger
Fan supply air / exhaust air:	EC- centrifugal blower
Outdoor and exhaust air pipe:	DN 75, length 600 mm (optional 1000 mm available)
Air power: (ventilation levels)	10 - 12 - 20 - 30 - 45 m <sup>3</sup> /h, intensive ventilation 60 m <sup>3</sup> /h (with filter type: M5/M5)
Heat recovery rate at the above ventilation levels:	94,5 - 90,9 - 83,3 - 76,4 - 71,3 - 68,4 % according to DIN EN 13141-8 at 7°C - supply-side temperature ratio
Power consumption at the above ventilation levels:	3,8 - 3,9 - 5,0 - 7,1 - 12,3 - 22,5 W according to DIN EN 13141-8 at 7°C (with filter type: M5/M5)
Power consumption in standby mode:	0,45 W
Power consumption optional heating ventilation grille:	2,6 W
Current consumption:	max. 0,17 A
Operating voltage / mains frequency:	230 VAC, 50/60 Hz
Sound power level $L_{wA}$ : 1)	25,6 - 26,7 - 28,3 - 31,4 - 36,1 - 42,1 dB (with filter type: M5/M5)
Sound pressure level $L_p$ : 1) (at 10 m <sup>2</sup> sound absorption surface)	21,6 - 22,7 - 24,3 - 27,4 - 32,1 - 38,1 dB(A) (with filter type: M5/M5)
Sound pressure level at a distance of 1m: 1)	14,6 - 15,7 - 17,3 - 20,4 - 25,1 - 31,1 dB(A) (with filter type: M5/M5)
Normalized level difference $D_{n,e,w}$ : 1)	46 - 49 dB (closing flaps open) or 46 - 52 dB (closing flaps closed)
Energy efficiency class / specific energy consumption:	with multifunction controller „Standard“: B - 26,7 kWh/(m <sup>2</sup> a) with multifunction controller „Comfort“: A - 36,6 kWh/(m <sup>2</sup> a)
Standard features:	Filter change indication, antifreeze protection, function monitoring with fault message display, automatic condensate drainage, Operating hours counter, automatic damper control
Optional functions: (only possible with multifunction control „Comfort“)	Time- and humidity control
Filter class supply and exhaust air (standard):	M5
Filter class supply air (optional)	F7 or activated carbon filter C
Protection:	IP24
Protection class:	I
Safeguarding:	B16A
FI-protection circuit:	30 mA
Weight:	about 12 kg

1) Own measurements Fa. Limot

**LIMODOR**  
**AirClean**  
**AirOdor**  
**AirOnova**  
**AirVital**  
**AirVital PRIME**  
**AirBase**  
**AquaVent**  
**Limax**

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In previous years, LIMOT demonstrated technical innovation-strength, which reflects on our LIMODOR products. LIMODOR - products are made of superior material and rigorously tested before distribution. The test results are monitored externally by TÜV, ÖVE and VDE.



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