



## Decentralised Residential Ventilation.





Find your inVENTer representative:  
[www.inventer.de](http://www.inventer.de)

# First of all take a deep breath and let us advise you in a relaxed atmosphere.

You have the construction project, we have your ventilation. Uncomplicated, individual and competent, we will work with you to find a ventilation solution that will allow you to breathe a relaxed sigh of relief. inVENTer representatives are there for you from A to Z: with advice, free planning support and construction support.

## Ventilation types

### Open window

Free ventilation refers to ventilation solely via windows and seepage in masonry.

#### DISADVANTAGES

- High heat loss in winter
- Dust and pollen in the living space
- Time consuming
- Draught
- Weather dependency

### Window crease

Here recesses are made in the insulation of the windows through which fresh air can flow into the living space in the event of pressure differences.

#### ADVANTAGES

- + Easy installation
- + Affordable

#### DISADVANTAGES

- Permanent heat loss
- Pressure differences often not realizable
- No monitored control possible
- Cool draught through now unsealed windows
- Moisture protection according to DIN is not achieved

## Controlled ventilation systems

### Centralised

The central ventilation system consists of a large unit with an air duct system to which the ventilated rooms are connected and which centrally combines the supply air and exhaust air flow.

#### ADVANTAGES

- + high heat recovery
- + meets requirements of DIN 1946-6

#### DISADVANTAGES

- Extensive pipeline network required, high construction costs
- Cleaning only possible by a specialist company
- Unsuitable for renovation projects

### Decentralised

Decentralised ventilation systems are made up of several ventilation units arranged specifically in the outer walls, enabling individual ventilation of individual rooms or living areas.

#### ADVANTAGES

- + Easy installation
- + Meets requirements of DIN 1946-6
- + Cleaning and maintenance by user possible
- + Energy efficiency: low power consumption, high heat recovery
- + Suitable for new construction and refurbishment



#### PRODUCTS

- iV-Smart+
  - iV14-Zero
- (see p. 8)



## Fresh air without ambient noise & draughts

The bedroom is one of the places where people most urgently need fresh air. Here we spend 6 to 8 hours a day, the body comes to rest and regenerates. But if you open your windows to get rid of CO<sub>2</sub>, you often let ambient noise, pollen and fine dust, cold and draughts into your room - however, not with the iV14-Zero ventilation unit, which provides whisper-quiet, healthy air.

Example: [iV14-Zero](#)

Note: Wireless control with inVENTer Connect (ventilation profile bedroom, CO<sub>2</sub> sensor)

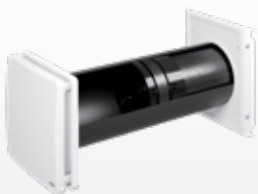


## Perfect living climate to enjoy a breath of fresh air

There's a lot going on in a living room. Here people laugh, read, run riot, relax and above all breathe. Most of all, we prefer oxygen-rich air that keeps us awake and healthy. Which is why we need a powerful ventilation system such as the iV-Smart+, whose heat recovery and sensor technology ensure a great deal of comfort and the perfect indoor climate - both in summer and in winter.

Example: [iV-Smart+](#)

Note: Wireless control with inVENTer Connect (ventilation profile living room, CO<sub>2</sub> sensor)







## Mould-free forever

Kitchen and bathroom - these are the rooms in which the highest air humidity is created in the shortest possible time - during cooking, bathing, showering. And they are also the most susceptible to mould. A strong exhaust air mode is essential for the ventilation system used here, and this is exactly what the iV-Twin+ has to offer. With its double Xenion® power and 94 % heat recovery, it fits perfectly here.

Example: [iV-Twin+](#)

Note: Single room ventilation with Touch&Slide controller sMove



## Basement ventilation

It gets dark, but not necessarily muggy! Cellars have been used for a long time not only for storing supplies, but also as hobby, sports or even living space. Good ventilation is important, it should always have dew point control. This is possible with the inVENTer Connect. This is the only way to effectively regulate humidity and prevent mould.



Example: [iV-Smart+ Sylt](#)

Note: Wireless control with inVENTer Connect (ventilation profile basement, CO<sub>2</sub> sensor)



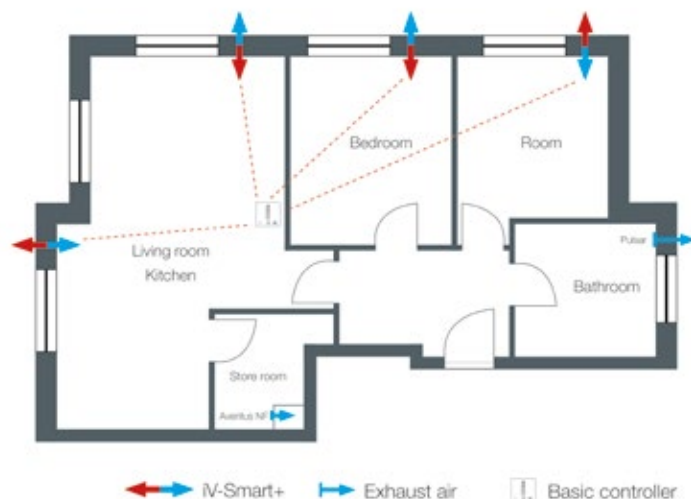
# Energetically efficient

## Apartment / multiple dwelling, 3-room apartment

Decentralised ventilation is also suitable for larger objects in the renovation and new building sector.

Installation is simple using a wall drill or the Simplex wall installation system.

In this example, the compact ventilation system IV-Smart+ was combined with exhaust air units in the bathroom and storeroom. A sMove Basic controller is used for control.



### Example values

AIR VOLUME FLOW PER PERSON: 42.4 m³/h

HEAT SUPPLY LEVEL: 0.86

AUXILIARY ENERGY  $p_{el,Vent}$ : 0.15 W/m³/h

ELECTRICAL ENERGY: 157 kWh per year.

We recommend 30 m³/h as a benchmark.

i.e. 86 % of the heat is recovered, you save the energy you would otherwise need to reheat the fresh air.

Very low energy consumption per cubic metre of air conveyed.

For comparison: a fridge-freezer consumes approx. 250 kWh per year.

## Single-family house from 120 m²

Anyone who builds or renovates a single-family house in an energy-efficient manner attaches great importance to maximum living comfort and long-term value retention. In this example, this is ensured by a decentralised ventilation system with the very quiet IV14-Zero in combination with exhaust air units. Wireless zone control with inVENTer Connect and the "inVENTer Mobile" app is recommended.

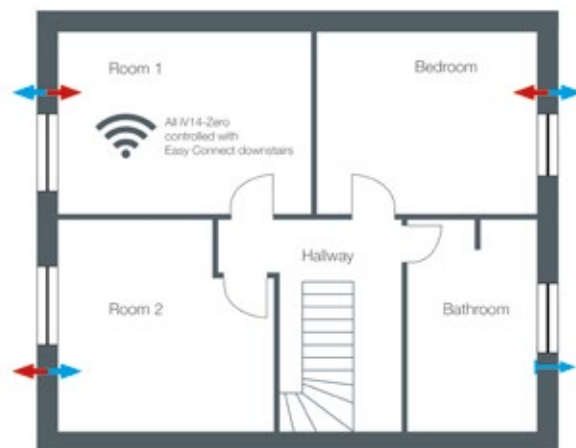
### Example values

AIR VOLUME FLOW PER PERSON: 48.44 m³/h

HEAT SUPPLY LEVEL: 0.85 (85 % heat recovery)

AUXILIARY ENERGY  $p_{el,Vent}$ : 0.15 W/m³/h

ELECTRICAL ENERGY: 233 kWh per year

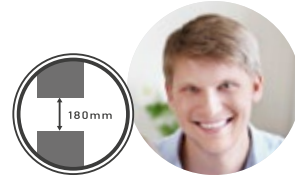


### Your contribution to climate protection:

Ventilation with inVENTer reduces CO<sub>2</sub> emissions. In our examples this is 510 or 720 kilograms per year!

You can obtain a free ventilation concept for your own construction project from us: [planung@inventer.de](mailto:planung@inventer.de).

# I decide on inVENTer



## ... because I can just put it in.

Easy to install in the exterior wall, wireless to control and easy to clean - inVENTer ventilation is uncomplicated. The bonus: the ventilation planning is free of charge and I always have a contact person on site.



## ... because I am an allergy sufferer.

Opening windows in summer is often a torture for allergy sufferers. With inVENTer, the dream of fresh, healthy and above all pollen-free air in the living room comes true - thanks to the effective pollen filters for inVENTer ventilation systems.



## ... because I can sleep better.

At night it's too cold with open windows and there's a draught, with closed windows the air quickly becomes stuffy. Who doesn't know about this conflict? For me, inVENTer's controlled living space ventilation is the solution – insulated ambient noise, very quiet operation and lots of oxygen for a relaxed night's sleep.

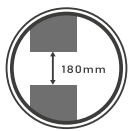


## ... because I can save so much.

Actually, tight windows and good insulation should save a lot of heating energy. But much of it would be lost if I would ventilate all the time. Open the window, get the heat out - at least 7 times a day! My inVENTer ventilation system does this smarter now. It ventilates continuously and fully automatically in the background, preserves the precious heat and I will save.

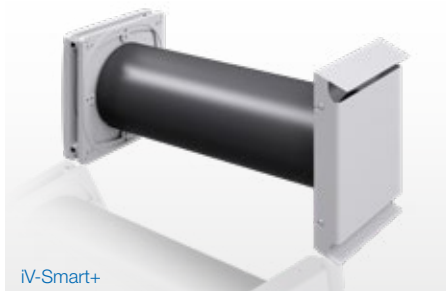


# Quick & simple installation



## Freehand drilling

For the installation of inVENTer ventilation units, a round wall opening is required, which is often made with a core drilling. For the compact systems of the **iv-Smart+** series, a 180 mm hole is sufficient, which can be made freehand without a frame.

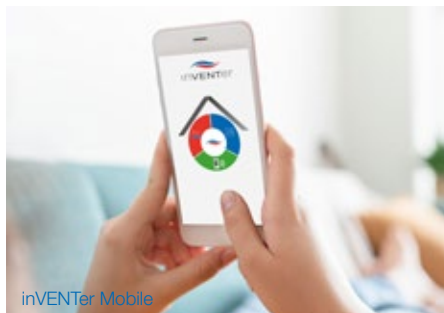


iv-Smart+

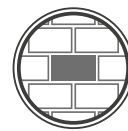


## Wireless control

With the inVENTer Connect control platform, wiring from the ventilation unit to the controller is no longer necessary. Control is via a radio network (868 MHz), fully automatic with different ventilation profiles. The **"inVENTer Mobile" App** has an overview of the entire ventilation system. Additional wireless sensors complete the system.



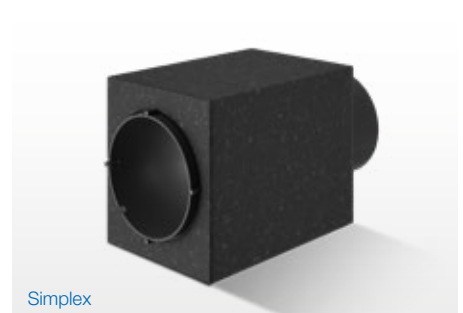
inVENTer Mobile



## Installing Simplex

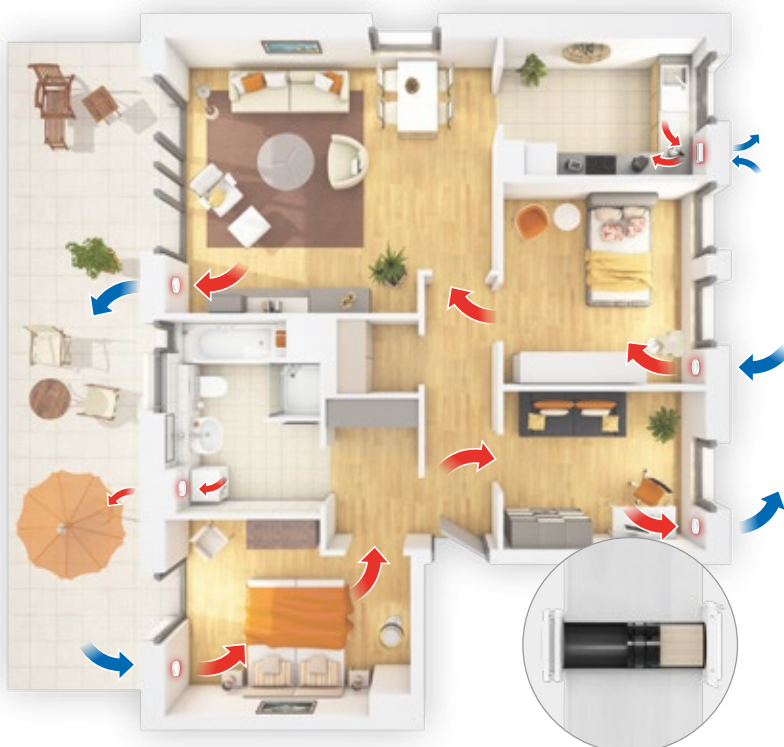
Sounds simple as it is:

Where a inVENTer ventilation unit is to be installed in a new building, any building owner can replace the brick with **the Simplex wall installation system**. The wall opening is now fully prepared and the pipe with slope is already integrated.



Simplex

## The Function Principle



The inVENTer decentralised ventilation system consists of units arranged in pairs. The integrated Xenion® fans bring fresh air to the inside and remove stale air in a coordinated manner. They change their direction of rotation every 70 seconds. The heat is absorbed by the ceramic accumulator and released again. A large part of the heat is retained and you save valuable heating energy.

### Good to know:

Decentralised ventilation is eligible for funding through KfW and regional funding programmes. Ask your inVENTer representative!

## Ventilation units - What do I have to pay attention to?

Before you decide on your ventilation units, you should make sure that they meet the requirements of your building project. Also pay attention to the technical specifications.

### STANDARD SOUND LEVEL DIFFERENCE

The higher the value, the higher the sound insulation and the lower the external noise. Sound insulation can be improved by additional measures. The patented sound insulation concept of the iV14-Zero already enables high sound insulation values in the standard unit without additional measures.

### SOUND PRESSURE LEVEL

This is the natural noise of the devices. The lower the value, the quieter the fan. Important: The level of the natural noise depends on the set air volume flow and the distance to the unit. The inVENTer units were measured at a distance of 1 m and over all power levels by external institutes.

### AIR VOLUME FLOW

How much air can be exchanged per hour? This value is given for oscillating operation with heat recovery and for inVENTer refers to one unit. The exhaust air volume flow applies to ventilation without heat recovery.

### HEAT RECOVERY

How much heat can be stored by the ceramic core? The requirements have become more stringent due to new measurement and correction methods. New high-performance devices can also recover more than 85% of their heat with these methods:

- iV-Smart+ and iV14-Zero: 87 %
- iV-Twin+: 94 %

## Compact ventilation



	iV-Smart+	iV-Smart+ Corner	iV-Smart+ Sylt	iV-Light
	The powerful compact fan	Concealed outer termination	Under ground level	Basic ventilation
AIR VOLUME FLOW [m³/h]	8.5 – 29	8.5 – 29	8.5 – 29	5 – 21
EXHAUST AIR VOLUME FLOW [m³/h]	17 – 58	17 – 58	17 – 58	10 – 42
SOUND PRESSURE LEVEL [dB (A)]	21 – 36	21 – 36	21 – 36	18 – 36
HEAT RECOVERY [%]	87	87	87	84
STANDARD SOUND LEVEL DIFFERENCE [dB]	38 – 49	53 – 59	--	34 – 47
ENERGY EFFICIENCY CLASS	A+ / A	A+ / A	A+ / A	A+ / A

The compact fan from inVENTer shows high performance. The air volume flow of the iV-Smart+ is raised to the level of much larger units by the integrated inVENTron® technology with the new Xenion® fan. Thanks to its small diameter of 160 mm, it requires only a 180 mm small hole, which can be drilled freehand.

The patented double air control unit causes an optimal and targeted flow through the ceramic heat accumulator - for a heat recovery of 87 %. The integrated sensor system protects against strong wind pressure and cooling in winter.



## Individual room ventilation

Supply air and return air in one unit: The iV-Twin+ is ideal for ventilating individual rooms. The two airflows of the adapted Xenion® fans are consistently separated by vertical elements in the inner screen, wall mounting sleeve and weather protection hood. The classic application locations of the iV-Twin+ include bathrooms, kitchens and utility rooms. The iV-Twin+ can be installed quickly and easily in a prepared wall opening of 225 mm or with the Simplex wall installation system. It achieves a high heat recovery of 94% with one of the largest ceramic heat storage tanks on the market.



iV-Twin+

AIR VOLUME FLOW [m³/h]	5 – 23
EXHAUST AIR VOLUME FLOW [m³/h]	10 – 45
SOUND PRESSURE LEVEL [dB (A)]	20 – 44
HEAT RECOVERY [%]	94
STANDARD SOUND LEVEL DIFFERENCE [dB]	45 – 56
ENERGY EFFICIENCY CLASS	A+ / A



iV14-Zero



iV14-Zero  
Corner

## Sound insulation ventilation

	Sound insulation	Concealed outer termination
AIR VOLUME FLOW [m³/h]	8.5 – 29	8.5 – 29
EXHAUST AIR VOLUME FLOW [m³/h]	17 – 58	17 – 58
SOUND PRESSURE LEVEL [dB (A)]	13 – 29	13 – 29
HEAT RECOVERY [%]	87	87
STANDARD SOUND LEVEL DIFFERENCE [dB]	48 – 56	55 – 60
ENERGY EFFICIENCY CLASS	A+ / A	A+ / A

When we talk about sound insulation ventilation, we mean the inVENTer iV14-Zero. The patented soundproofing concept with the high-performance insulating material Inventin® reduces external and inherent noise to a minimum. Its standard sound level difference is up to 56 dB. With the aid of the Xenion® fan and inVENTron® technology, the ceramic heat accumulator is effectively flowed through and a heat recovery of up to 87 % is achieved; the integrated sensor system protects against cooling in winter and strong wind pressure. The Simplex wall installation system facilitates installation in new buildings.

## Micro apartments

The inVENTer PAX is the ventilation solution for hotel rooms, student residences, nursing homes and retirement homes. The unit is installed in the exhaust air room (e.g. in the interior bathroom) and can ventilate several rooms simultaneously from there. The PAX is a particularly low-noise device that is also suitable for projects with increased sound insulation requirements. Various operating modes can be set individually and changed by remote control, including the preheating coil, which prevents the rooms from cooling down in winter when outside temperatures are low.



inVENTer PAX

AIR VOLUME FLOW [m³/h]	30 – 78 (90 exhaust air)
HEAT RECOVERY [%]	Ø 77 / max. 80
SOUND PRESSURE LEVEL [dB (A)]	19 – 29 (35 exhaust air)
STANDARD SOUND LEVEL DIFFERENCE [dB]	47 exhaust air space 77 air inlet space
ENERGY EFFICIENCY CLASS	A



## Controller

	Controller sMove s4/s8	Controller Easy Connect e16	Inner cover Connect
CONTROLLABLE DEVICES [piece]	s4: 4 / s8: 8	16	1
MAINS VOLTAGE [V AC], [Hz]	230, 50	230, 50	230, 50
INPUT VOLTAGE [V DC]	24	5	24
POWER CONSUMPTION [W]	s4: max. 11 / s8: max. 20	0,6	5
STANDBY [W]	0,5	0,4	0,8
PROTECTION CLASS	II	II	II
RADIO NETWORK [MHz]	--	868	868
RANGE RADIO NETWORK [m]	--	inside: 30, outside: 100	inside: 30, outside: 100

The inVENTer ventilation systems are operated intuitively with suitable controllers. Depending on the type, the settings include ventilation intensity, different operating modes as well as pause functions and rest periods. By means of sensors, the systems can run in the background as required. Choose between the sMove basic controller or the wireless control with inVENTer Connect.



## Exhaust air systems

	Aviant	Pulsar Basic / Pulsar	Aventus
EXHAUST AIR VOLUME FLOW [m³/h]	95	110	max. 100
POWER CONSUMPTION [W]	2 – 5	4	7 – 24
SOUND PRESSURE LEVEL [dB(A)]	17 – 20	17 – 20	30 – 46
INNER PANEL [mm]	B 185 x H 160 x T 40	Ø 177	260 x 260
WEATHER PROTECTION COVER [mm]	154 x 157 (aV100)	154 x 157 (aV100)	154 x 157 (aV100)
PROTECTION TYPE/CLASS	IP44 / II	IP44 / II	IPX5 / II

Ideal for rooms in which a lot of moisture is generated in a short time: automatic ventilation with our quiet and powerful exhaust air systems, available as a basic version, with app control or for ventilation of interior rooms, depending on your requirements.



# The inVENTer Principle

## VALUABLE EXPERIENCE

We have been producing decentralised ventilation in our factory in the heart of Germany since 1999 and are the first on the market with a ceramic core - experience that pays off.



## CONTINUOUS PROGRESS

inVENTer units are equipped with innovative technology: unique Xenion® fan, patented sound insulation, wireless control, reliable sensors.



## COMPETENT SERVICE

Our factory representatives and the inVENTer service department are there for you. We supply you with the appropriate ventilation proposal according to DIN, have partners for installation and know all the answers to your questions about ventilation with inVENTer.



## STRAIGHTFORWARD INSTALLATION

The inVENTer ventilation system is simply installed in the outer wall, without any further piping. This is where you can easily carry out cleaning and maintenance yourself.

## TESTED QUALITY

We trust our tested products "Made in Germany". That's why we grant you a 5-year manufacturer's warranty.

## Always the right ventilation

Whether new construction, refurbishment, modernisation, single or multiple dwelling, hotel or office building - we will be happy to assist you.





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