

With AERO even the building shell can ensure

fresh air³

AERO window, facade and wall-mounted ventilators: more freedom for intelligent ventilation concepts.

Window systems Door systems Comfort systems

SIEGENIA lets architecture

SIEGENIA window systems, door systems and comfort systems: creating a living space in every room.

The home and working environments of tomorrow will not be created behind modern facades but rather, notably, through them. Because even the building shell can create the space for a healthy indoor environment and a high level of room comfort.

SIEGENIA systems do not only contribute to daylight, compression, comfort and security: the fresh air supply is automatically achieved through the building shell with flexibly integrated, efficient AERO ventilators.

Practically

Act and

invisible

Ventilation technology, which adapts perfectly to the architecture.

All AERO ventilators can be integrated discreetly and almost invisibly into any facade and room, thereby providing significantly more freedom of planning. Because high air throughput and sound absorption are not a question of size, but of interior structure. Whether in the window, concealed in the wall or flush-mounted in the lintel. Whether embedded in the reveal or used as a design feature: do your planning with a product portfolio that is "state of the architecture" in every respect.

Simply Uplifting

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Ventilation technology, which not only brings fresh air into the room, but also enhances the quality of life.



Where classical window ventilation reaches its limits, you have considerable scope for expansion with AERO. Because after 35 years of development, our main focus is on people rather than purely on protecting the building. The humidity and air quality can be controlled to your liking for a quiet and healthy indoor environment. Any room air pollution can be regulated and any environmental pollution can be filtered. Our NOx filter keeps noise and exhaust gases from the street outside, while you keep the majority of heat in the home due to the high level of heat recovery.

Facade ventilators

Window ventilators

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Wall-mounted ventilators

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The ventilator system for all requirements and installation options

The humidity-controlled pressure differential ventilator for concealed adaptation into window or lift and slide elements





Passive pressure differential ventilator with individual regulation of the air throughput.

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AEROMAT VT RS

Motor-operated ventilator with three performance levels.

Page 18



AEROMAT VT WRG

Efficient active ventilator with heat recovery and intelligent comfort functions.

Page 20



AEROMAT flex AEROMAT flex HY AEROMAT flex HY 3F

Perfectly integrated passive ventilator with humidity control.

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AEROMAT VT series More options for modern facades and customised ventilation concepts.

Technically demanding projects require a ventilation system that can be harmoniously and flexibly integrated into any building. Ventilators in the AEROMAT VT series perfectly adapt to the facade and to individual requirements with their versatile installation and equipment options. In this way, you can implement your ventilation concepts more freely and harmoniously. Depending on the ventilator variant, ventilation is accomplished with outstanding sound absorption on the basis of the pressure differential or via a quiet fan, and operation via app is possible together with heat recovery, air filtration and automatic demand-based ventilation. AEROMAT VT ventilators are therefore the optimum building blocks for a healthy and energy-efficient indoor environment.



Installation according to plan.

Installation options for practically every facade.

Many years of working alongside architects and specialist designers has resulted in proposals for almost every installation location – from concealed integration in the facade to targeted inclusion in the design.

- In the lintel flush with the masonry
- Concealed in the wall
- Vertical for ventilation with roller shutters
- In the floor for ceiling-high windows
- Below the ceiling



As much performance as you need.

Efficient heat recovery.

The fresh air supply saves abundant energy in accordance with the EnEV: with an efficiency rate of up to 62%, the AEROMAT VT WRG recovers the majority of heat from the cold exhaust air in order to pre-heat the cold supply air.

Modern NOx filter.

The NOx filter extracts numerous harmful substances and irritants from the air to improve the indoor air quality, even in large cities. It is not only effective against pollen and fine dust, but also against nitrogen dioxides.

Smart control and sensors.

The smart version of AEROMAT VT RS, with numerous additional functions, can also be controlled via the SIEGENIA Comfort app and integrated in a WIFI network. Moreover, the AEROMAT VT WRG also automatically provides demand-based fresh air due to optional humidity and temperature sensors or air quality sensors.



AEROMAT VT WRG 1000 Over the double windows Senior Citizens' Home, Berlin-Mitte Süntel Bau GmbH, Bad Münder

The requirement here was mainly the historic preservation. At the same time, a sound-insulated fresh air supply had to be ensured.





Ventilator Installation Building Architect

AEROMAT VT RS In the lintel and wall

HAMBURG WASSER Administration Building SEHW Architekten GmbH, Hamburg

To prevent the aesthetics of the building from being affected by a ventilation unit, the sound absorbing ventilators were installed, fully concealed, behind the brick facade. In the interior, they are concealed behind a reversible cover.





Ventilator Installation Building Architect AEROMAT VT with heat recovery Vertically next to the window Head Office AOK Nordwest, Dortmund Nattler Architekten, Essen

Two AEROMAT VTs with heat recovery, were to be integrated each time, fully concealed, in the timber transom-mullion construction. For this purpose, the outside ventilators were installed behind a perforated plate with separated supply air and exhaust air. The inside inspection openings and the air outlets were installed in the high-quality wood panelling.





Ventilator Installation Building Architect AEROMAT VT F

ation integrated in the floor ng Residential apartment block, Cologne ect Neering & Partner, Cologne

> Air supply units are necessary in the anthracite-coloured bay windows due to traffic noise. To achieve an undisturbed architecture, motorised AEROMAT VT ventilators were integrated in the floor, behind the horizontal hinges. In this way the fresh air supply is drawn in fully concealed and guided to the inside of the building silently.





AEROMAT VT DS

The passive pressure differential ventilator with individual control of the air flow rate.

The individually controllable air throughput is accomplished via the pressure differential between outside air and indoor air (pressure differential). Without any electricity consumption and thanks to the optimum sound absorption, it provides the fresh air needed for a comfortable and healthy indoor environment without noise pollution. This makes the ventilator ideally suited for use in bedrooms and living rooms.







Technical specifications

AEROMAT VT		DS1	DS2	
Sound absorption ^{1) 3)}		$R_{w1.9} = 49 \text{ dB}$ $D_{n,e,w} = 56 \text{ dB}$	$R_{w1.9} = 49 \text{ dB}$ $D_{n,e,w} = 56 \text{ dB}$	
Heat transition coefficient ²⁾		$U = 0.25 W/m^2 K$	$U = 0.25 W/m^2 K$	
	2 Pa 4 Pa 5 Pa	8 m³/h 11 m³/h 13 m³/h	10 m³/h 15 m³/h 17 m³/h	
Air throughput ³⁾	7 Pa 8 Pa 10 Pa 20 Pa	15 m³/h 16 m³/h 18 m³/h 26 m³/h	20 m³/h 22 m³/h 24 m³/h 35 m³/h	
Ventilator length (LL)		520 - 3,000 mm	1,000 - 3,000 mm	
Overall depth (BT)		200-500 mm	200-500 mm	



The values can vary according to the specific equipment configuration. 1) measured in accordance with DIN EN 10140-2 at 300 mm overall depth 2) mathematically determined in accordance with DIN EN ISO 6946 3) depending on the number of airflow channels Further variants like AEROMAT VT DSg on request

Installation

In the wall









Vertically beside the window



In the lintel









AEROMAT VT RS

The motor-operated ventilator with operator push button for three performance levels.

Equipped with an especially quiet radial fan, the AEROMAT VT RS offers a high, three-level air throughput and effective sound absorption. In this way, in combination with sound absorbent windows, calmness is restored with the healthy fresh air even in times of high noise pollution.

Integration	Functionality	Benefits
Optimal integration in the building Optimal integration in the facade thanks to low overall height Easy installation Concealed and vertical installation is also possible	 Active aeration and ventilation with high air throughput with low inherent noise Optionally with two blowers for simultaneous aeration and venti- lation Operator push button for three levels Passive aeration and ventilation with blower switched off Smart versions: easy operation via the SIEGENIA Comfort app with continuous blower control and filter replace- ment indicator 	 Sound insulation Suitable for bedrooms Optional/accessories: Coarse dust filter App control
entilator AEROMAT VT RS		





Technical specifications

AEROMAT VT	RS1
Sound absorption ¹⁾	$R_{wl9} = 50 \text{ dB}$ $D_{n,e,w} = 57 \text{ dB}$
Air throughput (with filter)	
with blower level 1	approx. 30 m³/h
with blower level 2	approx. 43 m³/h
with blower level 3 (power level)	approx. 56 m³/h
Inherent noise ^{2) 3)}	
with blower level 1	L _{PA} = approx. 16 dB(A)
with blower level 2	L _{PA} = approx. 26 dB(A)
with blower level 3 (power level)	L _{PA} = approx. 33 dB(A)
Ventilator length (LL)	725-3,000 mm
Overall depth (BT)	300-500 mm



The values can vary according to the specific equipment configuration. 1) measured in accordance with DIN EN 10140-2 at 320 mm overall depth 2) measured in accordance with DIN EN ISO 3745 (with room insulation 8 dB) 3) with exhaust air units approx. inherent noise increased by 3 dB(A)

Installation

In the wall







Concealed in the wall with wall duct

Vertically beside the window



In the lintel









AEROMAT VT WRG

Efficient active ventilator with heat recovery and intelligent comfort functions.

AEROMAT VT WRG 1000, AEROMAT VT WRG 1100

Maximum functionality extending to heat recovery and very flexible installation options make the AEROMAT VT WRG the optimum solution for efficient ventilation concepts and elegant facades. With outstanding sound absorption, modern filter technology and integrated humidity, temperatures and air quality sensors, it automatically provides a healthy indoor environment and the smart version can also be operated via an app.

Integration

Functionality

- Optimal integration in the building
- Optimal integration in the facade thanks to low overall height
- Easy installation
- Concealed installation is also possible
- AEROMAT VT WRG 1000 can also be installed vertically
- Simultaneous aeration and ventilation with heat recovery and high air throughput with low inherent noise
- Operating push button with LED status display for three levels
- Optionally with humidity / temperature sensor and air quality sensors for intelligent automatic operation
- AEROMAT VT WRG smart: easy operation via the SIEGENIA Comfort app with continuous blower control and filter replacement indicator



Benefits

Sound insulation

Heat recovery

Fine dust or NOx filter

Suitable for bedrooms

Optional/accessories:

Humidity, CO₂/VOC control

App control

Modern NOx filter.

The NOx filter extracts numerous harmful substances and irritants from the air to improve the indoor air quality, even in large cities, for example. It is not only effective against pollen and fine dust, but also against nitrogen dioxides, which are hazardous to health. These are produced in high concentrations mainly by combustion processes and thus by car exhaust fumes in particular.

Efficient heat recovery.

The integrated heat exchanger recovers the majority of heat from the exhaust air, thus warming the cold supply air. Hence the comfort increases together with the energy efficiency in accordance with the Energy Saving Ordinance EnEV.



AEROMAT VT WRG

Technical specifications

AEROMAT VT WRG	1000	1100
Sound absorption	$R_{w1.9} = 47 \text{ dB}$ $D_{n,e,w} = 54 \text{ dB}^{1)}$	R _{w1.9} = 48 dB D _{n,e,w} = 55 dB ²⁾
Effective air throughput (with filter)		
with blower level 1	approx. 22 m³/h	approx. 21 m³/h
with blower level 2	approx. 38 m³/h	approx. 37 m ³ /h
with blower level 3 (power level)	approx. 52 m ³ /h	approx. 56 m ³ /h
Heat recovery efficiency ³⁾	max. 62%	max. 62%
Inherent noise 4)		
with blower level 1	L _{PA} = approx. 24 dB(A)	L _{PA} = approx. 21 dB(A)
with blower level 2	$L_{pA} = approx. 36 dB(A)$	$L_{PA} = approx. 27 dB(A)$
with blower level 3 (power level)	L _{PA} = approx. 43 dB(A)	L _{PA} = approx. 38 dB(A)

The values can vary according to the specific equipment configuration. 1) Measured in accordance with DIN EN 10140-2 at an overall depth of 320 mm 2) Measured in accordance with DIN EN 10140-2 at an overall depth of 380 mm

3) Based on EN 308

4) Measured in accordance with DIN EN ISO 3745 (with room insulation 8 dB)

SEV class

AEROMAT VT WRG 1000



AEROMAT VT WRG 1100





Dimensions

AEROMAT VT WRG 1000



AEROMAT VT WRG 1100



Installation

In the wall



Concealed in the wall



Concealed in the wall with wall duct



In the lintel











AEROMAT flex The perfectly integrated passive ventilator with humidity control.

AEROMAT flex with rotary switch

AEROMAT flex HY with humidity control

AEROMAT flex HY 3F with humidity control and 3-function switch The AEROMAT flex enables a fresh air supply without interfering with the facade image. Because it simply makes optimal use of the installation space of windows and lift and slide elements. In both versions of the AEROMAT flex HY, the supply air opening is independently regulated by the humidity in the room.

Functionality	Benefits
 Ventilation on the basis of the pressure differential AEROMAT flex HY: regulation of the supply air opening on the basis of the relative room humidity AEROMAT flex HY 3F: rotary switch for humidity-controlled, maximum or minimum ventilation Optional sound insulation modules: increased sound insulation up to 55 dB Ventilation even when roller shutters or shades are closed No effect on the burglar resistance, sound absorption or watertightness of the window 	 Sound insulation Suitable for bedrooms In the AEROMAT flex HY versions: Humidity control
	 Ventilation on the basis of the pressure differential AEROMAT flex HY: regulation of the supply air opening on the basis of the relative room humidity AEROMAT flex HY 3F: rotary switch for humidity-con- trolled, maximum or minimum ventilation Optional sound insulation modules: increased sound insulation up to 55 dB Ventilation even when roller shut- ters or shades are closed No effect on the burglar resistance, sound absorption or watertightness



Installation

Make optimal use of the existing installation space of windows or lift and slide elements:

the AEROMAT flex can be integrated horizontally or vertically, and singly or in pairs, on the element practically completely concealed. The burglar resistance and the sound insulation of the window or lift and slide element remain unaffected and fresh air supply is possible even if the roller shutters or shades are closed.



without sound insulation module







with 3 sound insulation modules



AEROMAT flex



Example of humidity control for AEROMAT flex HY (3F) at 10/20 Pa

20 Pa

10 Pa

10 20 30 40 50 60 70 80 90 100

Volume flow [m³/h]

50

45 40 35

0 10 20 3 Humidity in %

Technical specifications

AEROMAT flex, AEROMAT flex HY, AEROMAT flex HY 3F

	2 Pa	1-	14 m³/h
	4 Pa	2-	20 m³/h
	5 Pa	2-	23 m³/h
Air throughput at ¹⁾	7 Pa	3-	28 m³/h
	8 Pa	3-	30 m³/h
	10 Pa	3-	33 m³/h
	20 Pa	5-	48 m³/h
Number of extension duct sets	0	1	2
Duct depth	125 mm	180 mm	235 mm
Sound absorption D _{n.e.w} ^{2) 3)}			
with 0 sound insulation modules	41 dB	41 dB	42 dB
with 1 sound insulation module	47 dB	48 dB	50 dB
with 2 sound insulation modules	49 dB	50 dB	52 dB
with 3 sound insulation modules	51 dB	53 dB	55 dB

1) measured in accordance with DIN EN 13141-1

2) measured in accordance with DIN EN 10140-2

2) The sound absorption is reduced in conjunction with shorter lengths of the telescopic duct.



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The AEROMAT flex fits elegantly into every room design and every facade. It can be used vertically or horizontally and also in pairs for higher air exchange rates, achieving up to 55 dB sound absorption due to optimum sound insulation modules.



Window ventilators

Facade ventilators

Page 8

Wall-mounted ventilators

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Passive window ventilators for effective humidity protection

Passive window ventilators for all room sizes







AEROMAT mini

Concealed integrated, passive window rebate ventilator with flow control.

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AEROMAT midi

Convenient passive ventilator with double locking mechanism and flow control.

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AEROMAT midi HY AEROMAT midi HY 3F

Humidity-controlled passive ventilator with optional rotary switch and sound insulation module.

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AEROMAT 80 AEROMAT 100

Passive ventilator with variable air throughput and sound absorption with a minimal unit height.

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AEROMAT 150

Efficient passive ventilator for large office and administration rooms.

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AEROMAT mini Concealed integrated, passive window rebate ventilator with flow control.

The passive ventilator concealed in the window rebate uses the natural pressure differential for controlled air exchange, therefore providing effective humidity protection in accordance with DIN 1946-6. The flow control also contributes to a comfortable indoor environment by preventing draughts automatically in the event of high wind pressure. The AEROMAT mini can be easily installed in timber, PVC and aluminium windows so that it is almost invisible.





Technical specifications

AEROMAT mini

	2 Pa 4 Pa 5 Pa	2 m ³ /h ¹⁾ 3 m ³ /h ¹⁾ 3 m ³ /h ¹⁾
Amount of air (approx.) at	7 Pa up to 8 Pa	5 m³/h ¹⁾ 5 m³/h ¹⁾
	oPa	- •
	10 Pa	6 m³/h¹)
	20 Pa	11 m³/h ¹⁾
Dimensions without turn lock (W x H x D)	125 mm x 21.3 mm x 16.4 mm	
Dimensions with turn lock (W x H x D)	125 mm x 18 mm x 22.5 mm	

1) when installed in pairs independently of profile and hardware



Maximum performance data of the AEROMAT mini without influence of the window

Sound absorption in accordance with ISO 140-10:1991-12 Test results: given that the window has a sound absorption of 42 dB, the use of one AEROMAT mini reduces sound absorption by 1 to 2 dB and the use of two AEROMAT mini units reduces sound absorption by 3 dB. The turn lock has no effect on the sound absorption.

Performance data of the AEROMAT mini in the window

Example: PVC window, medium sealing system, RAM: 1,230 x 1,480 mm Volume flow of the AEROMAT mini as independently regulating passive air ventilator (ALD) with upper flow control.



Volumetric flow limiter

AEROMAT midi Convenient passive ventilator with double locking mechanism and flow control.

The AEROMAT midi provides an agreeable, user-independent fresh air supply on the basis of natural pressure differential. It meets high-end comfort requirements with its double locking mechanism, the flow control and the insect screen. It thereby offers a clean appearance without visible fixing screws and is also extremely suitable as an air vent opening for a central exhaust air system.





Technical specifications

AEROMAT midi

	2 Pa	13 m³/h	
	4 Pa	18 m³/h	
	5 Pa	21 m³/h	
Air volume ¹⁾ (approx.) at	7 Pa	25 m³/h	
	8 Pa	26 m³/h	
	10 Pa	30 m³/h	
	20 Pa	32 m³/h	
Coefficient of thermal transmittance		1.5 W/m²K	
Standard sound level difference D _{n.e.w}		35 dB	
Standard sound level difference $D_{_{n,e,w}}$ with interior sound absorption		38 dB	
Standard sound level difference $D_{_{n,e,w}}$ with exterior sound absorption		37 dB	
Standard sound level difference $D_{n,e,w}$ with interior and exterior sound absorption		41 dB	
Dimensions of interior sound insulation module		417 mm x 40 mm x 25 mm (L x W x D)	
Dimensions of exterior sound insulation module		417 mm x 42 mm x 30 mm (L x W x D)	
Milling dimensions (centre bar 30 mm)		2 x 172 mm x 16 mm	
P			

1) Measured independently of profile and hardware

Installation

In the frame



In the frame and sash



In the sash



In the attachment profile



AEROMAT midi HY, AEROMAT midi HY 3F Humidity-controlled passive ventilator with optional rotary switch and sound insulation module.

AEROMAT midi HY with humidity control

AEROMAT midi HY 3F with humidity control and 3-function switch The AEROMAT midi HY automatically reacts to changes in the relative humidity by adapting the supply air opening via fabric belts. In this way it enables demand-based ventilation in accordance with DIN 1946-6 solely on the basis of the pressure differential. The versions with rotary switch offer further control options and the optional sound insulation module provides increased sound protection.



AEROMAT midi HY 3F version with rotary switch



Technical specifications



1) Measured independently of profile and hardware

Example of humidity control at a pressure differential of 10/20 Pa





Installation

In the frame and sash



In frame with duct set



AEROMAT 80, AEROMAT 100 Passive ventilator with variable air throughput and sound absorption with a minimal unit height.

AEROMAT 80 with an 80 mm unit height

AEROMAT 100 with a 100 mm unit height

Both ventilator types can be flexibly integrated in any window design. They use the natural pressure differential between the outside and inside air for the fresh air supply and provide convenient sound protection. This creates a healthy indoor environment in bedrooms and living rooms, offices and hospitals – without draughts, without noise and without power consumption.




Technical specifications

		AEROMAT	80			AEROMAT	100
Sound absorption R _{w1.9}		40 dB	36 dB	33 dB	21 dB	42 dB	39 dB
Sound absorption $D_{n,e,w}^{1}$		47 dB	43 dB	40 dB	28 dB	49 dB	46 dB
	2 Pa	7 m³/h	11 m³/h	13 m³/h	38 m³/h	9 m³/h	13 m³/h
	4 Pa	10 m³/h	16 m³/h	18 m³/h	56 m³/h	13 m³/h	18 m³/h
Air throughput ²⁾	5 Pa	11 m³/h	18 m³/h	21 m³/h	63 m³/h	14 m³/h	21 m³/h
measured with 1,200 mm	7 Pa	13 m³/h	21 m³/h	25 m³/h	76 m³/h	17 m³/h	25 m³/h
Ventilator length	8 Pa	14 m³/h	23 m³/h	26 m³/h	80 m³/h	18 m³/h	27 m³/h
-	10 Pa	15 m³/h	26 m³/h	30 m³/h	90 m³/h	20 m³/h	30 m³/h
	20 Pa	23 m³/h	39 m³/h	42 m³/h	132 m³/h	35 m³/h	43 m³/h
Ventilator length		200-3,000	nm			508-3,000 m	ım

1) measured in accordance with DIN EN 10140-2 2) AEROMAT 100 measured with weather grille 911 HW/HS $\,$



Installation

In glazing rebate



In the transom



AEROMAT 150 Efficient passive ventilator for large office and administration rooms.

With its outstanding air throughput of up to 60 m³/h and its high sound absorption, the AEROMAT 150 passive ventilator is ideally suited for larger office and administration rooms. Draughts are completely avoided thanks to the air outlet diffusing the air across the entire length of the ventilator. The passive ventilator can, in principal, be used in all timber, PVC and aluminium windows.







Technical specifications

Specifications for an AEROMAT 150		Type DD
Ventilator length in mm increments		600-3,000 mm
Sound absorption R _w 1.9		44 dB
Sound absorption D _{n,e,w}		51 dB
Air throughput (pressure differential) (measured with 1,200 mm ventilator length and with weather grille 911 CW-1)	2 Pa 4 Pa 5 Pa 7 Pa 8 Pa 10 Pa 20 Pa	29 m³/h 40 m³/h 44 m³/h 51 m³/h 54 m³/h 60 m³/h 82 m³/h



Installation

In the transom



Window ventilators

Wall-mounted ventilators

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Window ventilators

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Cross room pipe wall ventilator system

Efficient wall-mounted ventilators for all requirements

The modern vent duct as an installation option



AEROTUBE WRG smart AEROTUBE AZ smart AEROTUBE DD 110 AEROTUBE DD 160

An efficient, but discreet solution for every room: modern pipe wall ventilators.

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AEROPAC AEROPAC smart AEROPAC DD

Compact, sound absorbing ventilators, as quiet as a whisper, with high air throughput and filter technology.

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AEROVITAL ambience AEROVITAL ambience smart

Modern ventilator with high sound insulation, heat recovery and all comfort functions.

Page 56

AEROVITAL AEROLIFE

Active ventilator with heat recovery humidity control and filter technology.

Page 60

Vent duct EPP

The solution for increased sound absorption and a clean facade appearance.

Page 62

AEROTUBE system An efficient, but discreet solution for every room: modern pipe wall ventilators.

Thanks to the diversity of the AEROTUBE ventilators, projects involving special requirements can be achieved flexibly and easily. As an individual single solution or as a cross room ventilation system: with their different modes of operation and comfort functions, the AEROTUBE unit versions open up all options to you. For example, AEROTUBE WRG smart ventilators can easily be connected via WIFI to operate in pairs, meaning that the devices can coordinate their operation automatically.



One system.

Passive or active - supply air, exhaust air or both.

- Passive supply and exhaust air: AEROTUBE DD 110, 160
- Active supply or exhaust air: AEROTUBE AZ smart
- Active supply air or exhaust air or switch between both and with high heat recovery: AEROTUBE WRG smart
- The air direction of smart units can also be assigned via an app after installation

Discreet appearance for clean room concepts.

The functional elements are positioned in the pipe to give the casing a discreet design. All AEROTUBE variants with identical panels can be used to maintain a uniform appearance. The design panel E18 is also available for the AEROTUBE DD passive ventilator.

Countless possibilities.

Smart operation, smarter operation in pairs.

Both smart units can be conveniently controlled via the SIEGENIA Comfort app. This opens up additional modes of operation, timer and control functions. AEROTUBE WRG smart devices can be connected to operate in pairs via the app without wiring effort, meaning that they can automatically interconnect across rooms.

Automatic humidity control.

To automatically control the humidity according to your needs, the AEROTUBE WRG smart is equipped with an effective humidity control as well as the standard WIFI function.

Heat recovery up to 90 %.

For maximum energy efficiency, the AEROTUBE WRG smart recovers the majority of heat from the exhaust air, thus warming the cold supply air.



AEROTUBE WRG smart

Wall-mounted ventilators for automatically alternating supply air and exhaust air with high heat recovery.

The AEROTUBE WRG smart automatically adapts its air throughput to the relative humidity. The economic mode of operation and high rate of heat recovery makes it one of the most energy-efficient devices in its class (A+). The ventilator can be installed to operate in pairs and across rooms and can be controlled via the SIEGENIA Comfort app. As well as the supply air and exhaust air interchanging at minute intervals, pure supply air or exhaust air operation is possible.

Integration	Functionality	Benefits
 Quick installation in the outside wall with a core drill Alternative installation with vent duct EPP, for example, for compos- ite thermal insulation systems Single operation or WIFI-sup- ported operation in pairs without additional wiring Can also be used across rooms 	 Supply and exhaust air operation with heat recovery 3-step operation on device Optional: electric lock Heat recovery up to 90 % Automatic humidity control LED status/filter change indicator Additional functions of the SIEGENIA Comfort app: all modes 	Benefits Image: Benefits Image: Benefits Heat recovery Image: Coarse dust filter Image: Coarse dust filter Image: Benefits Image: Coarse dust filter Image: Benefits Image: Benefits
 Retrofittable even in inhabited rooms 	of operation, continuous air flow regulation, timer, operation in pairs etc.	Sound protection with vent duct





Technical specifications

AEROTUBE WRG smart

Air throughput (active) with blower level 1 with blower level 2 with blower level 3	approx. 15 m³/h approx. 32 m³/h approx. 45 m³/h
Inherent noise 1)	
with blower level 1	$L_{PA} = 25 dB(A)$
with blower level 2	$L_{PA} = 38 dB(A)$
with blower level 3	$L_{PA} = 46 \text{ dB}(A)$
Sound absorption D _{n,e,w} ²⁾	35 dB
Heat recovery efficiency	max. 90%
Technical approval	Z-51.3-387

1) Measured in accordance with DIN EN ISO 3745 with room insulation 8 dB 2) Measured in accordance with DIN EN 10140-2

Weather grille stainless steel or PVC



Installation options with vent duct

Vent duct EPP, type FL







3) Filter G3

4) Axial ventilator5) Pipe inset6) Casing with slider and front panel

Stainless steel weather protection hood



Vent duct EPP, type SFL:





A+

45 m³/h

AEROTUBE AZ smart

The wall-mounted ventilator for supply and exhaust air operation with high air throughput.

Where only supply air or exhaust air is required, the AEROTUBE AZ smart opens up all options with the same ventilator appearance. The air direction can also be assigned via the app after installation. Even cross room operation of supply air and exhaust air units in pairs or in combination with other AEROTUBE versions is also possible without any problems. The ventilator can also be controlled via the SIEGENIA Comfort app thanks to its WIFI function.

vall with a core drill • Th	tive supply air or exhaust air	Coarse dust filter
Iternative installation with vent sid		-
uct EPP, for example, for compos- • 3-	gned via an app after installation step operation on device	-
ingle operation or WIFI-sup- • LE	otional: electric lock D status/filter change indicator	Optional/accessories:
dditional wiringSIcan also be used across roomsofetrofittable even in inhabitedre	Iditional functions of the EGENIA Comfort app: all modes operation, continuous air flow gulation, timer etc. eat recovery can be retrofitted	Sound protection with vent duct





Technical specifications

AEROTUBE AZ smart

Air throughput (information for exhaust air) with blower level 1 with blower level 2 with blower level 3	approx. 24 m³/h approx. 43 m³/h approx. 58 m³/h
Inherent noise ¹⁾ with blower level 1 with blower level 2 with blower level 3	$L_{PA} = 26 \text{ dB}(A)$ $L_{PA} = 39 \text{ dB}(A)$ $L_{PA} = 46 \text{ dB}(A)$
Sound absorption $D_{n,e,w}^{2}$	34 dB
Technical approval	Z-51.5-395

1) Measured in accordance with DIN EN ISO 3745 with room insulation 8 dB 2) Measured in accordance with DIN EN 10140-2



3) Pipe inset 4) Axial ventilator 5) Filter G3

6) Casing with slider and front panel

Stainless steel weather protection hood

Weather grille stainless steel or PVC



Installation options with vent duct

Vent duct EPP, type FL





Vent duct EPP, type SFL:





AEROTUBE DD

Passive ventilator with high sound absorption and flexible equipment options.

AEROTUBE DD 110 with 110 mm pipe diameter

AEROTUBE DD 160 with 160 mm pipe diameter and retrofit options With two pipe diameters and the smart equipment options, the AEROTUBE DD provides maximum flexibility. Both ventilator types can also be used with the discreet E18 inner panel as well as with a stainless steel weather grille or the EPP vent duct. The AEROTUBE DD 160 can be upgraded with up to four sound insulation elements or a wind pressure barrier.

 Quick installation in the outside wall with a core drill Pipe diameter of 110 mm or 160 mm Alternative installation with vent duct EPP, for example, for composite thermal insulation systems Passive cross ventilation is possible, even across rooms Retrofittable even in inhabited rooms Ventilation on the basis of the natural pressure differential Optional: electric lock Optional: discreet inner panel EI8 and stainless steel weather grille AEROTUBE DD 160: optionally available with wind pressure barrier or up to four sound insulation elements and can also be successively retrofitted to AEROTUBE WRG smart or AEROTUBE AZ smart Sound insulation 	Integration	Functionality	Benefits
 or 160 mm Alternative installation with vent duct EPP, for example, for composite thermal insulation systems Passive cross ventilation is possible, even across rooms Retrofittable even in inhabited rooms Optional: discreet inner panel E18 and stainless steel weather grille AEROTUBE DD 160: optionally available with wind pressure barrier or up to four sound insulation elements and can also be successively retrofitted to AEROTUBE WRG smart or 	wall with a core drill		Sound insulation
Alternative installation with vent duct EPP, for example, for compos- ite thermal insulation systemsand stainless steel weather grille • AEROTUBE DD 160: optionally available with wind pressure barrier or up to four sound insulation elements and can also be successively retrofit- ted to AEROTUBE WRG smart orSuitable for bedroomsValue Suitable for bedrooms• AEROTUBE DD 160: optionally available with wind pressure barrier or up to four sound insulation elements and can also be successively retrofit- ted to AEROTUBE WRG smart or• Suitable for bedrooms	-		Coarse dust filter
	duct EPP, for example, for compos- ite thermal insulation systems • Passive cross ventilation is possi- ble, even across rooms • Retrofittable even in inhabited	and stainless steel weather grille • AEROTUBE DD 160: optionally available with wind pressure barrier or up to four sound insulation elements and can also be successively retrofit- ted to AEROTUBE WRG smart or	Suitable for bedrooms

Optional equipment of the AEROTUBE DD 160: with wind pressure barrier or with up to four sound insulation modules







AEROTUBE DD 160 with 160 mm pipe diameter



Installation options with vent duct

Vent duct EPP, type FL





Vent duct EPP, type SFL:





AEROTUBE DD 110



Technical specifications

AEROTUBE DD 110		E18 7.5 mm tilt gap	E18 15 mm tilt gap	
	at 2 Pa	7 m³/h	8 m³/h	
	at 4 Pa	9 m³/h	11 m³/h	
	at 5 Pa	11 m³/h	12 m³/h	
Air throughput 1)	at 7 Pa	12 m³/h	14 m³/h	
	at 8 Pa	13 m³/h	15 m³/h	
	at 10 Pa	16 m³/h	17 m³/h	
	at 20 Pa	21 m³/h	27 m³/h	
	with pipe length 270 mm	54 dB		
Sound absorption D _{n,e,w}	with pipe length 340 mm	55 dB		
n,e,w	with pipe length 500 mm	58 dB		

1) Measured with PVC weather grille 2) Measured in accordance with DIN EN 10140-2

with E28 inner panel and weather protection hood or grille



with E18 inner panel and weather protection hood or grille



AEROTUBE DD 160



Technical specifications

AEROTUBE DD 160		E18 7.5 mm parallel-action gap	E28 open
	at 2 Pa	8 m³/h	13 m³/h
	at 4 Pa	12 m³/h	20 m³/h
	at 5 Pa	14 m³/h	22 m³/h
Air throughput 1)	at 7 Pa	17 m³/h	27 m³/h
	at 8 Pa	18 m³/h	30 m³/h
	at 10 Pa	22 m³/h	31 m³/h
	at 20 Pa	32 m³/h	49 m³/h

1) Measured with stainless steel weather grille

hood

AEROTUBE DD 160		E18 7.5 mm	tilt gap	E18 7.5 mm	parallel-action gap	E28 open	
Pipe length		340 mm	270 mm	340 mm	270 mm	340 mm	270 mm
Sound absorption $D_{n,e,w}^{(1)(2)}$	without SK SK2 SK3 SK4	57 dB 62 dB 63 dB 65 dB	53 dB 56 dB 57 dB 59 dB	54 dB 59 dB 60 dB 62 dB	50 dB 53 dB 54 dB 56 dB	54 dB 59 dB 60 dB 62 dB	50 dB 53 dB 54 dB 56 dB

1) Measured with stainless steel weather grille hood

2) Measured in accordance with DIN EN 10140-2

with E28 inner panel and weather protection hood or grille



with E18 inner panel and weather protection hood or grille



AEROPAC

Compact, sound absorbing ventilators, as quiet as a whisper, with high air throughput and filter technology.

AEROPAC active sound absorbing ventilator with filter technology AEROPAC smart additionally with WIFI for operation via the app AEROPAC DD passive sound absorbing ventilator The highly effective sound absorption of the tried and tested AEROPAC ensures quiet and peaceful sleep. In combination with sound-insulating windows, it is even effective against aircraft or rail noise and can also filter nitrogen oxides, fine dust and pollen through the optional NOx filter. Both active filters are suitable for large rooms due to their high, whisper-quiet air throughput.

Integration

Functionality

- Quick installation in the outside wall with a core drill
- Installation on the jamb wall is also possible
- Alternative installation with vent duct EPP, for example, for composite thermal insulation systems
- AEROPAC, AEROPAC smart: active supply air and sound absorption with low inherent noise
- Continuously controllable air outlet
- Multi-level air throughput and timer functions through LCD display
- AEROPAC smart: easy, intuitive operation via the SIEGENIA Comfort app is possible
- AEROPAC DD: ventilation on the basis of the pressure differential
- Easy filter replacement with display info



Benefits

Sound insulation

Coarse dust filter

Suitable for bedrooms

Optional/accessories:

App control

Fine dust/pollen filter, active carbon filter or NOx filter

Smart control.

Thanks to the integrated WIFI module, the AER-OPAC can also be simply operated via the SIEGENIA Comfort app: either via a direct device connection or via a WIFI network. The SSL encryption prevents access by third parties.





Modern NOx filter.

The NOx filter extracts numerous harmful substances and irritants from the air to improve the indoor air quality, even in large cities, for example. It is not only effective against pollen and fine dust, but also against nitrogen dioxides, which are hazardous to health. These are produced in high concentrations mainly by combustion processes and thus by car exhaust fumes in particular.

Especially maintenance-friendly.

The easy maintenance of the AEROPAC is limited to replacing the filter. The integrated filter change indicator specifies the right time for this. The front panel that can be opened by hand and the use of filter cassettes enable the filter to be changed quickly and conveniently without any tools.



Technical specifications

AEROPAC	SN / smart	DD
Air throughput (active)		
with G3 filter	approx. 30–180 m³/h	
with F5 filter	approx. 15-160 m³/h	
with active carbon filter	approx. 15-160 m³/h	
Air throughput (passive with G3 filter)		
at 4 Pa		approx. 17 m³/h
at 8 Pa		approx. 26 m³/h
at 10 Pa		approx. 31 m³/h
at 20 Pa		approx. 59 m³/h
Inherent noise (at 60 m ³ /h) ¹⁾	$L_{PA} = 20 dE$	3(A)
Sound absorption D _{new} (with G3 filter) ²⁾		
2 sliders opened	50 dB	
1 slider opened	53 dB	
0 sliders opened	57 dB	
With sound absorption pipe ³⁾	55 dB	
Dimensions (W x H x D)	270 mm x 467 mn	n x 132 mm
Technical approval	Z-51.5-2	06

1) Measured in accordance with DIN EN ISO 3741 with room insulation 8 dB 2) Measured in accordance with DIN EN 10140-2 3) Two sliders opened



Installation options with vent duct



Vent duct EPP, type SFL:





PVC weather grille, white or brown





Aluminium weather grille



AEROVITAL ambience

Modern ventilator with high sound absorption, heat recovery and all comfort functions.

AEROVITAL ambience modern high-end wall-mounted ventilator with humidity control **AEROVITAL ambience smart** also with WIFI and air quality sensors

With effective sound absorption, filter technology and high standard of comfort, both ventilators provide a well controlled and healthy indoor environment. The simultaneous aeration and ventilation is quiet but efficient and recovers the majority of heat. With its recessed installation, the ventilator fits even more elegantly into every room design.

Integration

Functionality

- Quick installation in the outside wall: 2 x 80 mm core drill
- Recessed installation is possible
- No wet drilling required
- Can also be used with vent duct, for example, for composite thermal
- insulation systemsFor wall thicknesses from 100 mm onwards
- Can be retrofitted at any time
- Simultaneous aeration and ventilation with high air throughput and sound absorption with low inherent noise
- 5-step operation on device
- Heat recovery up to 85 %
- Summer / winter mode (bypass function)
- Automatic temperature and humidity control

- Status and filter change indicator
- AEROVITAL ambience smart: easy operation via the SIEGENIA Comfort app with automatic air quality sensor for VOC and CO₂ control as well as further additional functions



Heat recovery up to 85 %.

For maximum energy efficiency and a cosy indoor environment, the AEROVITAL ambience recovers the majority of heat from the exhaust air, thus warming the cold supply air. The functions can simply be deactivated in the warm weather season in order to use the ventilator for night cooling.



Benefits

Sound insulation

- Heat recovery
- Fine dust / pollen filter
- Suitable for bedrooms
- Humidity control

Optional/accessories:

- NOx filter
- App control
 - Air quality control

Modern NOx filter.

The NOx filter extracts numerous harmful substances and irritants from the air to improve the indoor air quality, even in large cities, for example. It is not only effective against pollen and fine dust, but also against nitrogen dioxides, which are hazardous to health. These are produced in high concentrations mainly by combustion processes and thus by car exhaust fumes in particular.

Smart sensors and control.

The smart variant measures the air quality and controls it automatically. Thanks to the integrated WIFI module, the ventilator can also be operated via the SIEGENIA Comfort app: either via a direct device connection or via the home WIFI network and with clever additional functions.

Automatic temperature and humidity control

Continuous regulation of the amount of air

Individual timer function

AEROVITAL ambience



Technical specifications

	AEROVITAL ambience	AEROVITAL ambience smart
Inherent noise (measured in accordance with DIN EN ISO 3741 with 8 dB room insulation)	Level 1 $L_{pA} = 20 \text{ dB}(A)$ Level 2 $L_{pA} = 22 \text{ dB}(A)$ Level 3 $L_{pA} = 25 \text{ dB}(A)$ Level 4 $L_{pA} = 30 \text{ dB}(A)$ Level 5 $L_{pA} = 31 \text{ dB}(A)$	Level 1 $L_{PA} = 20 \text{ dB}(A)$ Level 2 $L_{PA} = 22 \text{ dB}(A)$ Level 3 $L_{PA} = 25 \text{ dB}(A)$ Level 4 $L_{PA} = 30 \text{ dB}(A)$ Level 5 $L_{PA} = 31 \text{ dB}(A)$
Air throughput	Level 1 25 m³/h Level 2 30 m³/h Level 3 42 m³/h Level 4 55 m³/h Level 5 60 m³/h	Level 1 25 m³/h Level 2 30 m³/h Level 3 42 m³/h Level 4 55 m³/h Level 5 60 m³/h
Heat recovery efficiency	Up to 85%	Up to 85%
Sound absorption 1)	$D_{n,e,w} = 54 \text{ dB}$	$D_{n,e,w} = 54 \text{ dB}$
Sound absorption with sound absorption pipe 1)	$D_{n,e,w} = 58 \text{ dB}$	D _{n,e,w} = 58 dB

1) measured in accordance with DIN EN 10140-2



618 mm

690 mm



185 mm





Installation

On-wall / in-wall installation



Optional installation with vent duct EPP, type FL



Optional solution for installation on the ceiling



AEROVITAL, AEROLIFE Wall-mounted ventilator with heat recovery, humidity control and filter technology.

AEROLIFE energy-saving ventilator with pollen protection and heat recovery **AEROVITAL** additionally with remote control and enhanced ease of use With effective sound absorption, heat recovery and filter technology, both ventilators enable quiet and energy-efficient aeration and ventilation with windows closed. They do not only help to save energy, they also allow allergy sufferers to breathe easily again. The integrated humidity control allows constant demand-based and comfortable automatic operation.

Integration	Functionality	Benefits		
Quick installation in the outside wall with a 120-mm core drill	• Simultaneous aeration and ven- tilation with high air throughput	Sound insulation		
On-wall or in-wall mounting possible	and sound absorption with low inherent noise	Heat recovery		
	Humidity controlHeat recovery	Fine dust / pollen filter		
	Integrated cover flapsBacklit LCD display	Suitable for bedrooms		
	 AEROLIFE: 3 levels AEROVITAL: 10 levels, remote con- 	Humidity control		
	trol and additional programming functions	Accessories:		
		NOx filter		





Technical specifications



Installation

On-wall installation

In-wall installation

Weather grille







Vent duct EPP The solution for increased sound absorption and a clean facade appearance.

In this way you will gain an undisturbed view of the facade and increased sound absorption up to 72 dB. The EPP vent duct can be combined with a wide range of AERO wall-mounted ventilators, flexibly adapted to the structural conditions and optimally integrated architecturally. The vent duct fits elegantly into any facade due to the simple integration in composite thermal insulation systems and the possibility of positioning the wall-mounted ventilator both next to and sideways over the window.

Integration	Functionality	Benefits
 Undisturbed view of the facade: due to virtually concealed instal- lation Optimal adaptation to the building situation: easy to crop and position for individual wall thicknesses Flexible wall-mounted ventilator position next to or inclined above the window (type FL and SFL) Easy plastering: plaster cover to protect the duct Different weather grille variants: perforated grille or lamella Also suitable for renovations 	 Increased sound absorption of up to 72 dB Low weight High durability – no corrosion Suitable for: AEROVITAL ambience AEROPAC AEROTUBE DD AEROTUBE WRG smart AEROTUBE AZ smart 	Sound insulationSuitable for bedrooms



Type FL

Type SFL

Sound insulation values in combination with AERO ventilators

AEROPAC

Sound absorption $D_{n,e,w}^{1}$ vent duct EPP, type FL

58 dB

AEROTUBE		AZ smart, WRG smart	DD 110 ²⁾	DD 160 ²⁾			
Sound insulation element (SK)			without SK	SK2	SK3	SK4
Sound absorption $D_{n,e,w}^{1}$ Vent duct EPP, type FL with pipe length	270 mm 340 mm	47 dB 47 dB	63 dB 64 dB	64 dB 65 dB	67 dB 69 dB	68 dB 71 dB	71 dB 73 dB
Sound absorption D _{new} ¹⁾ Vent duct EPP, type SFL with pipe length	270 mm 340 mm	51 dB 52 dB	67 dB 67 dB	66 dB 71 dB	69 dB 73 dB	69 dB 75 dB	72 dB 75 dB

AEROVITAL ambience

Sound absorption D _{n,e,w} ¹⁾ 2 vent ducts EPP, type FL	63 dB
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1) Measured in accordance with DIN EN 10140-2 2) Measured with inner panel E18; 7.5 mm tilt gap

Vent duct EPP, type FL: in the window reveal



Vent duct EPP, type FL: installation at the side of the window reveal





Cropping area

V.

Penetration area, e.g. for screws or insulation fixings

SIEGENIA Comfort Room comfort made to measure thanks to modern ventilation.

The SIEGENIA Comfort app allows you to operate all SIEGENIA "smart" products remarkably conveniently and intuitively - either via a direct device connection or via the home WIFI network. An additional wireless or infrared remote control is no longer needed. On the contrary, the app raises the ease of use to a completely new level with a wide range of additional and automatic functions. In combination with smart ventilation units, it allows one feature in particular: a healthy indoor environment that can be controlled and individually automated even more easily.





More convenience.

Providing a healthy indoor environment with smart additional features.

The clever additional features of the SIEGENIA Comfort app allow user-independent ventilation that can be flexibly adapted to personal requirements depending on the smart device:

- Automatic temperature and humidity control
- Freely selectable mode of operation
- Continuous regulation of the amount of air
- Individual timer function
- Feedback on device and command status and automatic filter replacement indicator
- Display of the room temperature and the relative air humidity
- Coupling of smart ventilators with smart sensors and window drives
- Secure SSL encryption

All in one app.

Operate and network all SIEGENIA smart devices with one app:

- Smart facade and wall-mounted ventilators
- Smart drives for windows and sliding doors
- Smart access control

Extremely easy commissioning.

The WIFI module is integrated as standard in SIEGENIA smart devices. For control via app, the app is simply integrated in the home WIFI network like a smartphone. If no WIFI network is available, the "smart" device can also be directly connected to the smartphone or tablet. In this stand-alone operation it provides its own network like a router.

Smart SIEGENIA ventilation units. AEROMAT VT WRG smart AEROTUBE WRG smart and AEROTUBE AZ smart AEROPAC smart

AEROVITAL ambience smart

More freedom for architects: SIEGENIA window systems, door systems and comfort systems.

SIEGENIA is room comfort.

A room has three dimensions but countless ways of looking at it. Here are ours: security and design, convenience and accessibility, indoor air quality and energy efficiency. These are our most important benchmarks and, from our experience, the right viewpoint for supporting you. Because this is how you can create what we call room comfort, with the interplay of proportions, materials and technology, daylight and fresh air.

Giving people a sense of well-being.

Intelligent ventilators which react to the quality of the indoor air and recover precious heat. Secure windows in perfect design, which can be controlled or monitored via an app.

Bluetooth-controlled multi-point locks for entrance doors and large sliding doors with totally free-flow-ing transitions.

SIEGENIA brings spaces to life and gives people a sense of well-being.

TITAN window hardware for timber/PVC ALU window hardware for aluminium PORTAL sliding door hardware KFV door hardware AERO ventilation technology DRIVE building technology



Easier planning with SIEGENIA BIM data.

With our Building Information Modelling data, you have full access to all relevant product and construction data. In this way, you can reduce your expenditure, accelerate your projects and coordinate more easily. The BIM data of our window, door and comfort systems are also available to you at any time on the BIMobject platform and are constantly updated and expanded to include new solutions.

architekten.siegenia.com

What can we do for you? Optimum support.

The requirements of modern residential and building construction range from intelligent ventilation concepts and barrier-free room design to modern security solutions. Especially flexible and holistic solutions are called for. With SIEGENIA, you can obtain this from one source, be optimally supported by qualified consultation and obtain individual support.

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Here you will find complete and constantly updated technical specifications: **downloads.siegenia.com**



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