LUNOS
energy-efficient



EXHAUST

Trust in LUNOS

Fresh air for generations

LUNOS is a Berlin-based company and market leader for decentralised residential ventilation systems. The company was founded in 1959 and still has its headquarters in Berlin-Spandau. In 2019, LUNOS established a second location in Brandenburg. With a modern high-bay warehouse and new laboratories, the company has prepared itself for the future. LUNOS products are made in Germany and sold in over 36 countries worldwide. In Germany, the products are sold via the three-stage distribution channel.

LUNOS stands for more than a living climate

The core competencies of LUNOS lie in decentralised controlled residential ventilation with and without heat recovery, as well as in the development and manufacture of energy-efficient fans and outer wall air vents. LUNOS can draw on over 60 years of experience with axial fans. Over the decades, we have continuously developed these special fans used for exhaust air systems. In the first years of the company's history the air could still easily flow in through leaks in the outer walls. Later the first outer wall air vents, then called ZL (for Zuluft = supply air), were developed to bring fresh air into the home in a more controlled manner. With the advent of exhaust air units with pressure-constant radial motors and the publication of new regulations for denser, energy-saving housing construction methods, LUNOS once again launched a new ALD generation onto the market. We have been setting standards by means of this proactive approach - the next generation is always just one decisive development step away.

For decades LUNOS stood for highest quality, functionality and comfort. Ventilation systems, with or without heat recovery, improve the indoor air quality in your home and save energy in everyday life at the same time.

Made in Germany

INFORMATION

On our homepage www.lunos.de/en you will find data sheets, user information and much more.





FOOTNOTES: MEASUREMENT METHODS AND STANDARDS

1) Silvento V are fan inserts that still require a flush-mounted or surface-mounted housing.
2) Silvento KL are complete single-pipe fans that are clamped into pre-wall constructions. Silvento KL single-pipe fans fit into the flush-mounted housings of the LUNOS Skalar series.
3) The specified values are achieved at 20°C, 1013hPa and 1.2kg/m^3 ambient air density and (unless otherwise specified) are achievable between free blowing and 60 Pa disturbance pressure (according to DIN18017-3).
4) When dimensioning the volume flows, please observe the pressure-volume flow characteristics provided by LUNOS and the specifications of the abZ (DIBt approval)
5) Sound power level: The sound power level indicates how "loud" a unit is. The value is independent of the distance.
6) Volume flow of the ALD-SV with an even arrangement of the sound insulation elements.
All data are mathematically rounded.

Controlled home ventilation
Exhaust System

01 EXHAUST SYSTEM

Fans in the bathroom, kitchen, toilet or utility room transport the exhaust air either directly into the open air or via exhaust air shafts. The resulting slight negative pressure "pulls" fresh, filtered air through the outer wall air vents into the living and working areas. Of particular note: With humidity-, CO_2 and VOC-controlled domestic ventilation, a system approved by the building authorities, ventilation heat losses can be saved to a considerable extent.

Silvento ec
Depending on the application or requirement, any Silvento ec-fan can be used. Available as surface-mounted, flush-mounted or clamp fans.



RA 15-60
Radial external wall fan with four ventilation stages and round cross-section. Can be combined with the facade element LUNOtherm.



ALD, ALD-SV and ALD-S
Outer wall air vents with filter, silencer and, if necessary, wind pressure protection.



9/MRD
Wall-mounted housing to accommodate the 160 round duct.
H x W x D: 240 x 210 x 500 mm

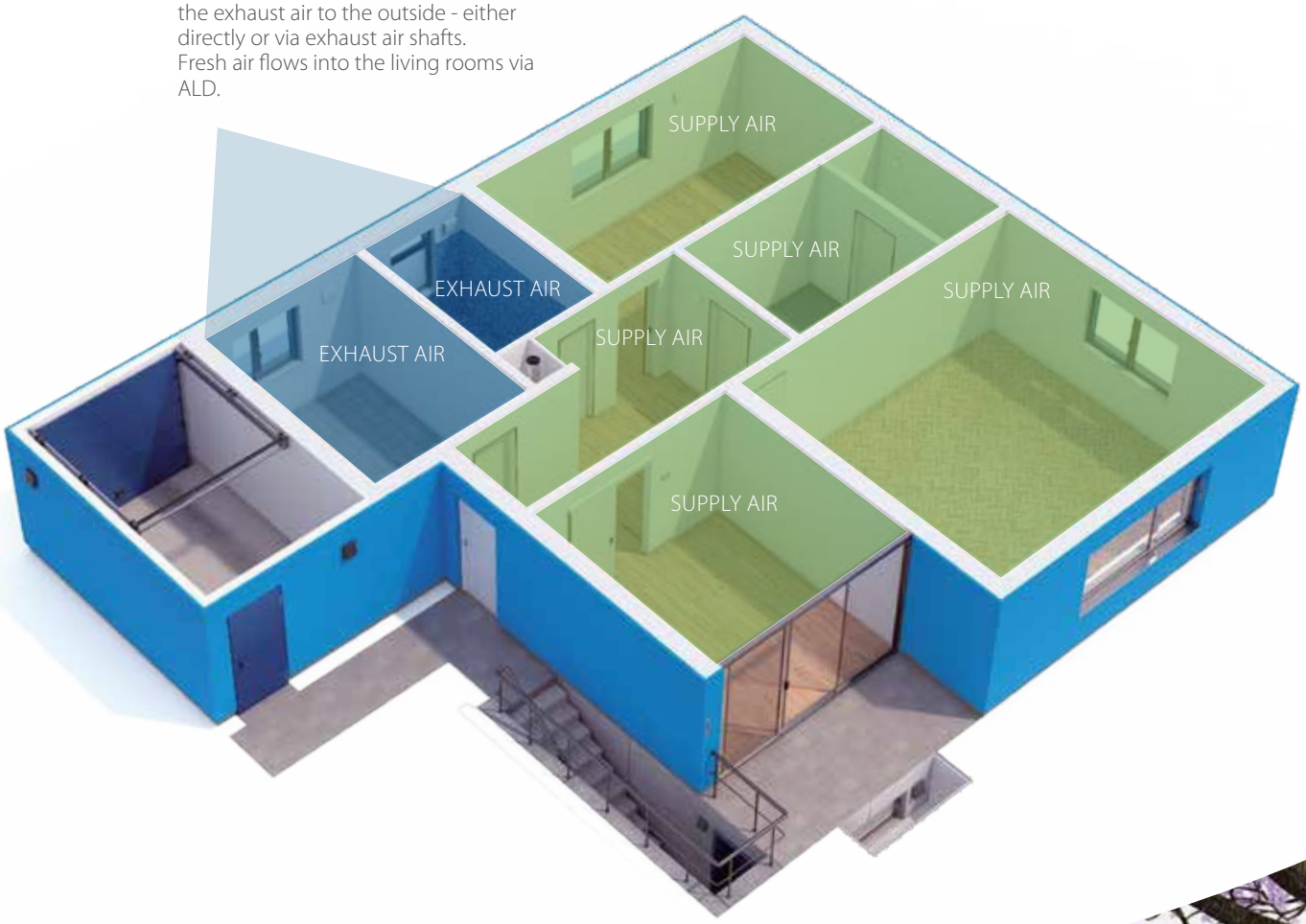


LUNOtherm-S and -S+
Facade element, without disturbing ventilation grille on the facade. Can be combined with ALD, ALD-SV or ALD-S.



01 EXHAUST SYSTEM

Exhaust air systems are highly suitable for functional rooms such as bathrooms, kitchens or utility rooms. They transport the exhaust air to the outside - either directly or via exhaust air shafts.
Fresh air flows into the living rooms via ALD.





Silvento ec



Silvento KL-EC
for a universal
quick installation

Silvento ec

One motor - endless solutions

Determine the functions of the Silvento ec simply by selecting one of seven control boards:

Basic board and basic board 90: Seven ventilation stages from 15 to 90 m³/h with time lag, interval switching and switch-on delay configurable

Comfort board and Comfort board 90: Basic board plus humidity and temperature sensor

Comfort board+ and Comfort board 90+: Comfort board plus VOC sensor for detecting odours in the air

Cellar board: Comfort board with special programming for the requirements of basement rooms

All boards can each be combined with a plug-in expansion module:

Movement sensor module: with radar-based sensor

Wireless module: Control via wireless without further cabling

Dimensions: Surface-mounted with 269 x 269 x 109,5 mm (W x H x D), cover with 260 x 260 x 23 mm and flush-mounted housing with 262 x 262 x 90,5 mm

SILVENTO EC TECHNICAL DATA

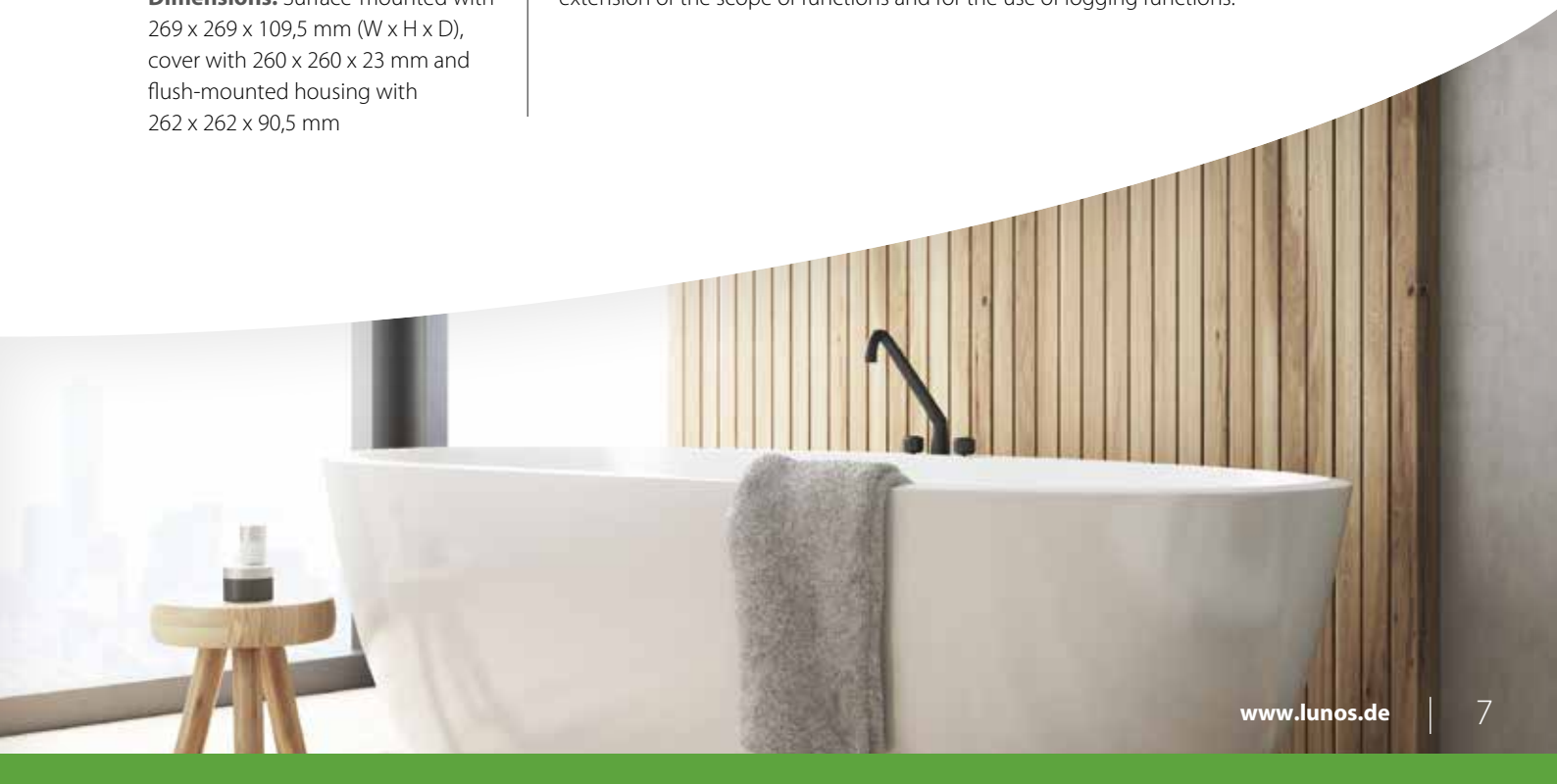
Silvento-Type *V-EC[1] or KL-EC[2]*	Basic board 5/EC-ZI and 5/EC-ZI 90	Comfort board 5/EC-FK and 5/EC-FK 90	Comfort board+ 5/EC-FK+ and 5/EC-FK 90+	Cellar board 5/EC-KE
Volume flow[3) 4)]	0/15/20/30/40/45/ 50/60/(90) m³/h	0 - 60 (90) m³/h	0 - 60 (90) m³/h	0 - 60 m³/h
Sound power level L_W[3) 5)]	from 18 dB(A)			
Power consumption[3)]	1,8 - 6,2 (14,5) W			
Supply voltage	200 - 240 V AC 50/60 Hz			
Control voltage	0 - 10 V			
Protection class	IPX5			

For footnotes on measurement methods and standards, see page 3.

The sound power level is only 18 dB(A) at 15 m³/h (basic ventilation) and 35 (52) dB(A) at 60 (90) m³/h (demand ventilation).

Recommendation

LUNOS recommends the use of the newly developed diagnostic software as an extension of the scope of functions and for the use of logging functions.



Silvento ec V-EC & KL-EC

the modular system for fan trays and terminal fans

The control boards are integrated in the filter frame and can be easily configured and replaced if necessary by removing the cover. There is a slot on both the Basic board and the Comfort board, which can be equipped with an additional module.



Basic board | Comfort board | Comfort board+ | Cellar board | Wireless module | Movement sensor

Basic board	Comfort board	Cellar board	Comfort board+
Selection of different volume flows for basic ventilation and demand ventilation possible: 15/20/30/40/45/50/60/(90)			
Time delay configurable to 0, 15 or 30 minutes			-
Interval switching: 30 minutes ventilation every four hours or 15 minutes ventilation every two hours			-
Switch-on delay can be set to OFF, 45 or 120 seconds			-
Slot for an additional module: - Radar based motion detector 5/BM or - FM-EO wireless module or - Diagnostic cable			
Filter change indicator			
-	Stepless comfort humidity-temperature control		Stepless comfort humidity-temperature-VOC-control

Comfort ventilation with the PLUS

The new boards Comfort board+ and Comfort board 90+ combines the infinitely variable humidity-temperature control with an additional VOC sensor. Now odours and other volatile hydrocarbon compounds that impair the quality of the room air are also detected by the Comfort board+.

The Silvento ec automatically vents the polluted air.

The result is a constantly pleasant room climate with fresh, clean air. Commissioning is carried out in connection with the boards type 5/EC-FK+ or 5/EC-FK 90+ and the switch type 5/W2 FK.

Cellar ventilation

The Silvento ec with the suitable board is the new, innovative solution for cellar ventilation from LUNOS. It ensures clean and hygienic ventilation of the cellar area. Comfort and a pleasant room climate can thus be easily achieved. Commissioning takes place in conjunction with the Type 5/EC-KE board and the Type 5/W2 FK switch. Thanks to the sensors integrated in the basement board, the fan can draw conclusions regarding the indoor and outdoor humidity and thus adjust the ventilation in a manner similar to dew point monitoring. A permanent voltage is required for this.



Silvento ec

Configuration of the installation housing











Type, dimensions *(H x B x T in mm)*	**Blow-out connection** *Length in mm*	**Fire protection**
Surface-mounted housing 3/AP, 269 x 269 x 109,5	Axially outgoing conical blow-out connection (DN 75 to DN 80), Length 69	–
Surface-mounted housing 3/AP-B 269 x 269 x 109,5	Metallic, axial outgoing blow-out connection (DN 80), length 79	With shut-off device K90-18017, suitable for installation in kitchens, connection diameter DN 80, with leakage airtight non-return valve
In-wall housing 3/UP 262 x 262 x 102,5 Installation depth 90,5 (without blow-out connection)	Radial or axial conical blow-out connection (DN 75 to DN 80), Length 69	–
In-wall housing 3/UP-BR, 270 x 270 x 114,5 Installation depth 102,5	Metallic, radially outgoing blow-out connection (DN 80), Length 64	With shut-off device K90-18017, suitable for installation in kitchens, connection diameter DN 80, with leakage airtight non-return valve
In-wall housing 3/UP-BA 270 x 270 x 114.5 Installation depth 102.5, with blow-out connection 175,5	Metallic, axial outlet blow-out connection (DN 80), Length 73	With shut-off device K90-18017, suitable for installation in kitchens, connection diameter DN 80, with leakage airtight non-return valve

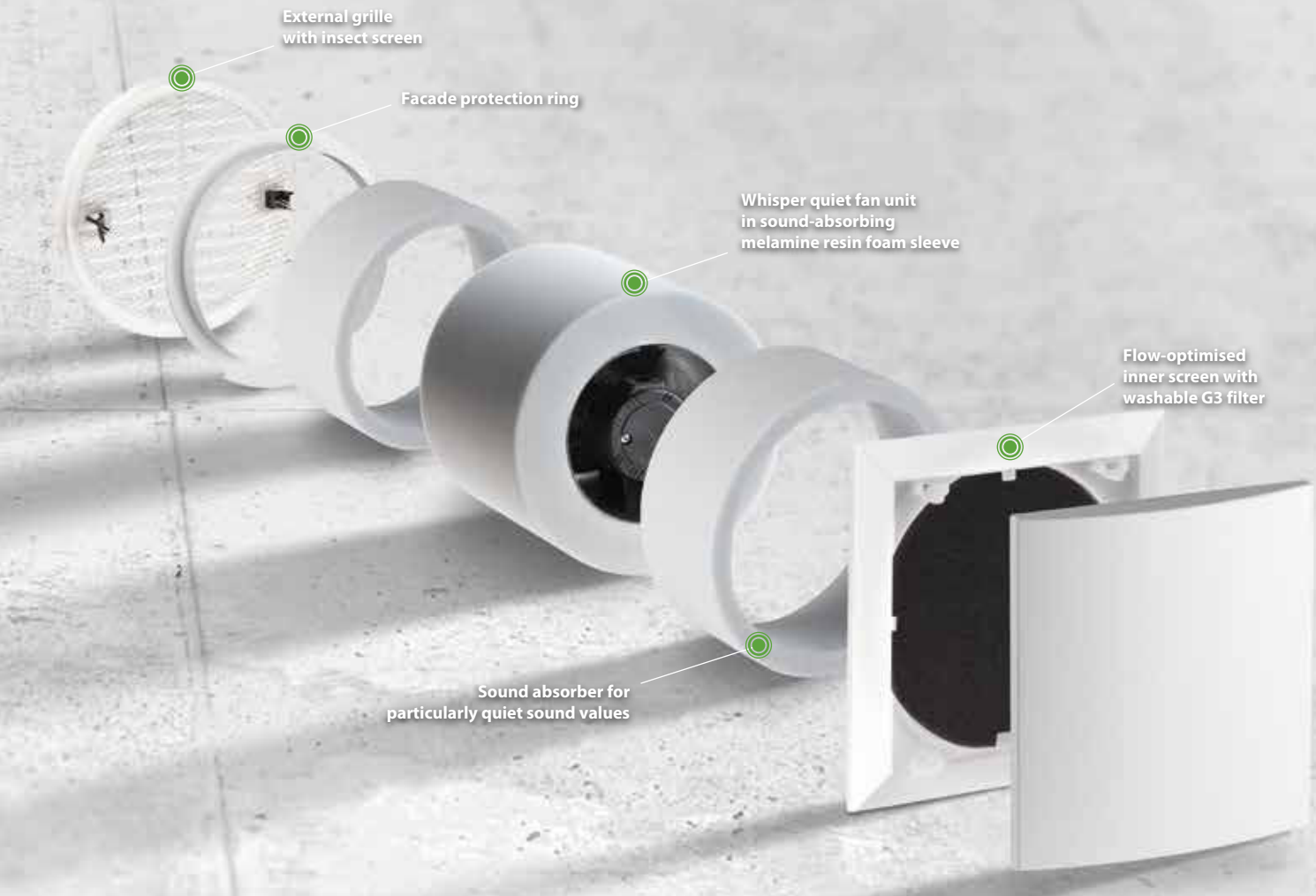
All Silvento in-wall housings are also available as two-room variants.



AB 30/60

Axial fan

Exhaust air unit with ec-motor, can also be combined with the LUNOtherm-S and LUNOtherm-S+ facade element.



AB 30/60

Cost-efficient home ventilation

With its low power consumption, the AB 30/60 is energy-efficient and thus makes an active contribution to environmental protection.

The AB 30/60 axial fan is installed directly into the outer wall. It can be used alone or together with units of the e² series and is used for ventilating functional rooms such as kitchens and bathrooms.

The ec-motor with built-in electronics allows direct connection to the mains supply without additional components.

Computer-optimised fan blades in combination with an efficient flow channel and extensive sound insulation material ensure that the AB 30/60 provides optimum sound insulation from the outside and a very low noise level. Best performance for the environment due to low power consumption.

Can be combined with inner screens of the 160 series



Standard
Inner screen



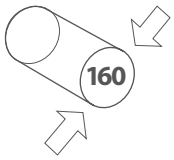
Comfort Inner screen
(plastic design)



Comfort Inner screen
(glass design)



Sound insulation
Inner screen



EXHAUST AIR

TECHNICAL DATA

Volume flow [3)]
35/70 m³/h

Sound power level L_W [3) 5)]
from 36 dB(A)

Power consumption [3)]
1,5/4,9 W

Supply voltage
100-240 V 50/60 Hz

Core drilling
Ø 162 mm

Minimum installation length
170 mm

Dimensions
Ø 154 x 130 mm

Protection class
IP44

For footnotes on measurement methods and standards, see page 3.

RA 15-60

Radial fan

The combination of consistency of pressure and renovation simplicity



RA 15-60

Perfect for outside exhaust air rooms

Exhaust air unit with ec-motor, can also be combined with the LUNOtherm-S und LUNOtherm-S+ facade element.

The RA 15-60 owes its extraordinarily good pressure characteristic curve to the radial ec-motor in combination with a very stable housing. In addition, the multi-surface sound absorbers give the RA 15-60 undreamt-of low running noise as well as optimal sound insulation from the outside.

With the aid of a LUNOS control system it is possible to operate the motor with humidity control and/or time functions.

Can be combined with inner screens of the 160 series



Standard
Inner screen



Comfort Inner screen
(plastic design)



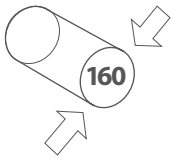
Comfort Inner screen
(glass design)



Sound insulation
Inner screen



Wireless screen with
integrated control system



EXHAUST AIR

TECHNICAL DATA

Volume flow [3]
15 - 60 m³/h

Sound power level L_W [3) 5)]
from 24 dB(A)

Power consumption [3]
0,6 - 7,2 W

Supply voltage
12 V DC SELV

Core drilling
Ø 162 mm

Minimum installation length
180 mm

Dimensions
Ø 154 x 147 mm

Protection class
IP20

For footnotes on measurement methods and standards, see page 3.



Outer wall air vents

For renovation and new construction - sound-optimised and weatherproof



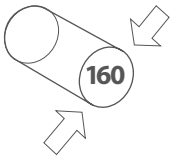
Outer wall air vents

Comfortable climate in tight buildings

Inner and outer city traffic affects our home climate.

For a high level of living comfort, it is essential to integrate well thought-out sound insulation measures in wall construction, windows and fresh air supply.

Due to the high sound insulation dimensions, the LUNOS ventilation system achieves an air exchange without significant losses in the quality of living. The outer wall air vents ALD, ALD-SV and ALD-S serve as passive air supply for living rooms and bedrooms. They are mainly used in combination with LUNOS exhaust air units of the Silvento range. A constant negative pressure is created by the exhaust air in the functional rooms, such as the bathroom and kitchen, which transports fresh air into the house via the outside wall air diffusers. When planned in accordance with standards, this ensures user-independent ventilation in accordance with DIN 1946-6.



SUPPLY AIR

ALD
The outer wall air vent suitable for all applications: Proven and efficient for use in living rooms and bedrooms



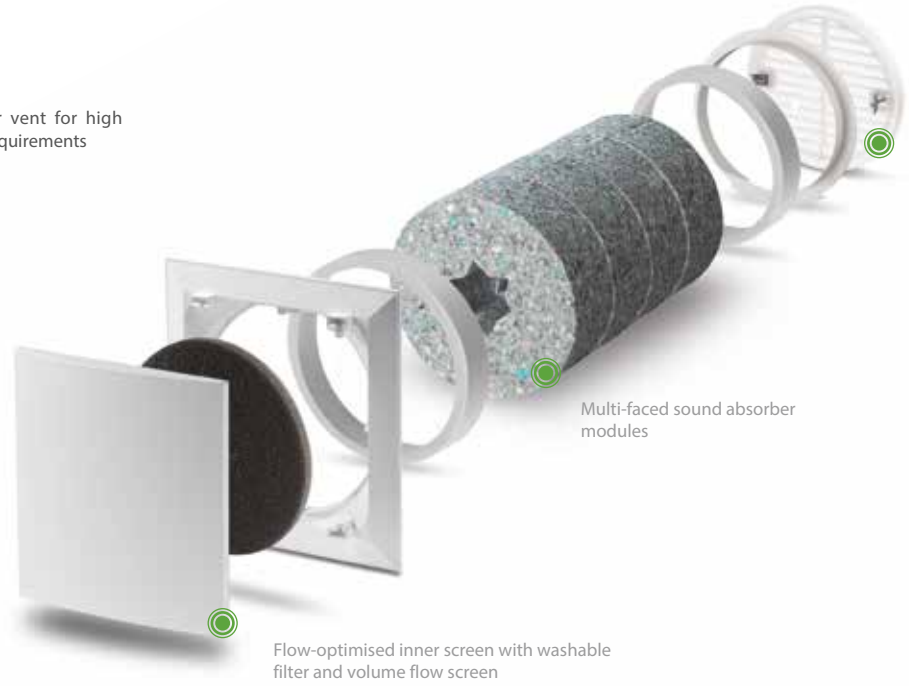
ALD-SV
The outer wall air vent for high air flow rates with increased sound insulation



Outer wall air vents

Comfortable climate in tight buildings

ALD-S
The outer wall air vent for high noise protection requirements



Can be combined with inner screens of the 160 series



Standard Inner screen

Comfort Inner screen (plastic design)

Comfort Inner screen (glass design)

Sound insulation Inner screen

Hygiene Inner screen (glass design) incl. F7* filter

Hygiene Inner screen (plastic design) incl. F7* filter

*Equivalent to 55% according to ISO 16890 ePM1

Outer wall air vents
Technical data

ALD

Length of built-in unit: 360 mm
Ø: 154 mm

$\dot{V}^{3)}$:	at 8 Pa	at 4 Pa
⊠	25 m³/h	18 m³/h
◎	20 m³/h	13,5 m³/h
◎	15 m³/h	10 m³/h

Sound insulation

Dn,e,w	Wall thickness
50 – 65 dB(A)	360 mm
56 – 69 dB(A)	500 mm

ALD-SV

Length of built-in unit: 360 mm
Ø: 154 mm

$\dot{V}^{3)}$:	at 8 Pa	at 4 Pa
⊠	25/30 [6)] m³/h	18 m³/h
◎	20 m³/h	13,5 m³/h
◎	15 m³/h	10 m³/h

Sound insulation

Dn,e,w	Wall thickness
53 – 66 dB(A)	360 mm
61 – 71 dB(A)	500 mm

ALD-S

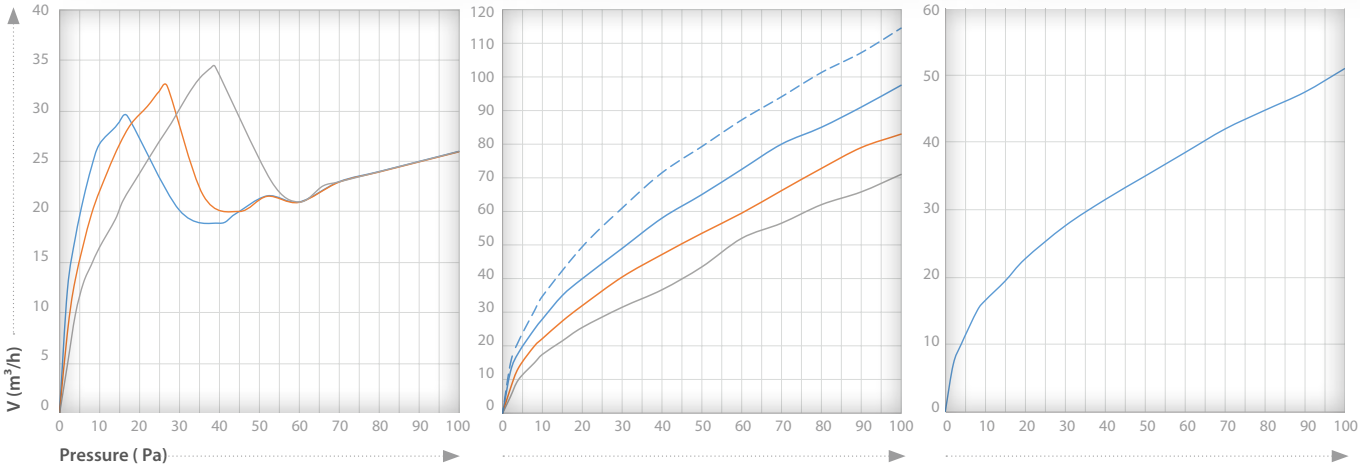
Length of built-in unit: 360 mm
Ø: 154 mm

$\dot{V}^{3)}$:	at 8 Pa	at 4 Pa
⊠	15 m³/h	10 m³/h

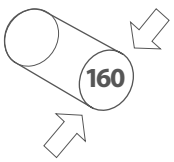
Sound insulation

Dn,e,w	Wall thickness
56 – 71 dB(A)	360 mm
67 – 75 dB(A)	500 mm

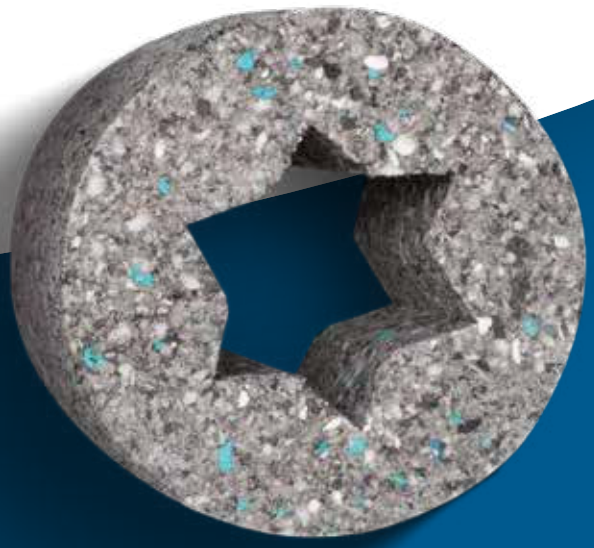
The given sound insulation values apply to the above-mentioned volume flows with a round duct completely filled with sound absorbers.
For footnotes on measurement methods and standards, see page 3.



Without volume flow screen
Volume flow screen Ø 70 mm
Volume flow screen Ø 56 mm



SUPPLY AIR



Inner wall air vent

Active cross-flow element for installation in interior walls



Compatibility

ILD can be combined with all exhaust air systems, ALD, the e² series, as well as ego, Nexxt and LUNOMAT. Synchronized conveying directions and volume flows can be established or independently controllable (ILD) systems can be set up.

ILD Inner wall air vent

Ventilation for previously out-of-reach rooms

Easy ventilation of adjoining rooms in combination with the existing ventilation control or via a separate control with the new ILD from LUNOS

The active cross-flow element ILD is set up using the 160 modular system and can be equipped with sound absorbers and two inner screens in addition to the fan insert ILD.
The application area of the ILD are interior rooms that must be ventilated via another room. If there is no external wall available in a living space, then one or more ILDs can be used to create a coupling with other rooms and thus establish an active air connection.
For example an e² ventilation system can be installed in a bedroom (=primary room) and an adjacent interior side room (=secondary room) can be ventilated by an ILD. The ILD is the ideal supplementary ventilator for cascaded ventilation in a living space.

Can be combined with inner screens of the 160 series.



Standard inner screen



Comfort inner screen (plastic design)



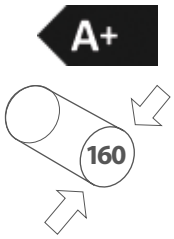
Comfort inner screen (glass design)



Sound insulation Inner screen



Wireless screen with integrated control system



TECHNICAL DATA

Volume flow [3]
26 - 40 m³/h

Sound power level L_W [3) 5)]
from 33 dB(A)

Power consumption [3]
0,7 - 1,5 W

Supply voltage
12 V DC SELV

Core drilling
Ø 162 mm

Minimum installation length
100 mm

Dimensions
Built-in unit Ø 154 x 60 mm

Cascaded ventilation
The term cascaded ventilation is used to describe the interconnection of living spaces that cannot be ventilated independently of each other.
The directly ventilated room (with an installed ventilation system) is called primary room and the cascaded ventilated room (without a directly installed ventilation system) is called secondary room. For example, the bedroom with e² is the primary room and the adjacent dressing room is the secondary room. Only rooms of the same or similar type of use should be connected. Air flows from the primary to the secondary room and should therefore not come from bathrooms, toilets, kitchens or utility rooms to prevent odour transfer.
For example, bedrooms can easily be cascaded with children's rooms, and living rooms can be cascaded with work rooms or storage rooms.

For footnotes on measurement methods and standards, see page 3.



Controls

Whether with gesture or automated

LUNOS offers control systems that can be adapted exactly to the wishes and requirements.

Silvento ec

Switchable via the automatic humidity-temperature sensor system, by switch, radio module, TAC or Gesture Control.

The Silvento ec can be operated in many different ways. Using the FM-EO radio module, it can even be remote-controlled via app in the Smart Home.

AB 30/60

Can be controlled by switch and with external time delay and interval.

Due to its 230 V connection, the AB 30/60 is particularly easy to connect to a switch.

RA 15-60

Can be combined with Universal Control, Smart Comfort, TAC, Gesture Control and wireless screen.

Due to its 12 V radial motor, the RA 15-60 is compatible with all LUNOS 12 V controls and the new wireless screen.





Wireless module
The Silvento ec can be remote-controlled directly via the connected FM-EO. The RA 15-60 can be controlled either with a LUNOS wireless control or an additional UNI-EO wireless module.

More than other ventilation systems, decentralised ventilation is all about effectiveness and sensible supplementation to the system's various fans. For the optimal implementation of energy-efficient ventilation, control systems are required that network the ventilation system in a smart way while ensuring easy operation.
LUNOS provides different types of control: Universal Control, Touch Air Comfort, Smart Comfort and Gesture Control. The universal control as well as the Smart Comfort are also available as LUNOS wireless versions 5/UNI-RF and 5/SC-RF with integrated wireless module. Just like the wireless screen, they can be easily coupled with each other via the LUNOS wireless protocol and also have a slot for the UNI-EO wireless module.
It is also possible to control the connected fans via home automation systems or homee.

The Silvento ec and AB 30/60 fans can also very easily be directly connected to a switch.

Wireless screen with 5/UNI-RF

The complete technology under one screen

The wireless screen combines elegant design for the living room with the control technology of the universal control. The built-in 5/UNI-RF with humidity and temperature sensors has an integrated wireless module that allows communication with other 5/UNI-RF controls and wireless screens without additional wiring. In automatic mode, outdoor temperature and outdoor humidity are included in the intelligent control system and the volume flows are adjusted according to the differences in humidity between inside and outside.
Other LUNOS wireless products or smart home controls with UNI-EO wireless module can be connected.

Functions

- Including power supply unit for direct connection to 230 V, 50/60 Hz.
- Built-in 5/UNI-RF with integrated wireless module for connection with further 5/UNI-RF controls and wireless screens
- UNI-EO radio module can be connected
- Automatic humidity control
- Three different humidity control ranges adjustable
- Manual control via pushbutton on the screen (four-stage) or optional connection of external switches possible
- Integrated delay time and interval operation
- 0 - 10 V input for connection to the TAC or to the home automation system

Optional device combinations

All 12-volt fans* of the LUNOS 160 series can be controlled with the wireless screen 9/IBF-RF.







*except e⁹⁰

Wireless technology

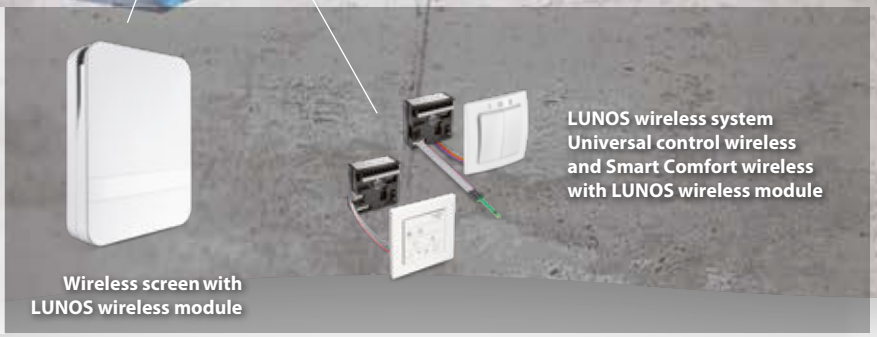
For easy smart home connectivity

A wireless technology that meets the high requirements of LUNOS must be extremely energy efficient and safe.



LUNOS wireless system

The LUNOS wireless system is a stand-alone system that transmits bidirectionally at 868 MHz. 5/UNI-RF, 5/SC-RF and the wireless screen 9/IBF-RF are equipped with LUNOS wireless modules and can be connected to the homee Smart Home central unit or to other Smart Home systems via the UNI-EO wireless module.



LUNOS wireless system & Smart Home:
An EnOcean module makes the LUNOS wireless system smart.



LUNOS UNI-EO with homee Brain Cube and EnOcean Cube

The bidirectional wireless technology transmits reliable signals with very small amounts of energy.
For the connection of LUNOS wireless products to the Smart Home, it is enough to equip them with an EnOcean module.
The transmitters with EnOcean modules can be operated partly without batteries and therefore with low maintenance. The necessary energy is generated by the piezoelectricity of switches or solar cells. In order to control the ventilation system via smartphone, tablet or computer, LUNOS recommends the use of the homee Smart Home central unit, which already has a WLAN interface as standard and thus provides for the connection to the Internet. With the EnOcean extension module from homee the LUNOS wireless modules are integrated into the smart home control center.

Wireless technology

Products for ventilation in the smart home



Remote control RC-EO

The RC-EO remote control is battery-free, shock and splash-proof and is therefore suitable for all areas of everyday life. Coupled with the UNI-EO module or the FM-EO wireless module, all connected devices can be controlled by radio command. Via the two available channels, volume levels can be switched and special functions activated and deactivated.



Flush-mounted module UPM-EO

The UPM-EO flush-mounted module is a transmitter and receiver for wireless signals. Connected to a simple push-button or series switch, such as our 5/W2T, switching commands can be transmitted by radio. This is how a simple fan, such as the AB 30/60, becomes wireless. Especially during renovation work, this allows the fan to be operated manually at a later date without the need for complex cable laying.



External Humidity Temperature Sensor SFT-EO

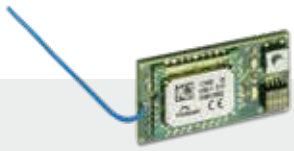
The external humidity temperature sensor SFT-EO can be installed almost anywhere and does not require any additional power supply. If you have coupled the SFT-EO as an indoor sensor to the UNI-EO or FM-EO modules, the values of the wireless sensor and internal sensors are compared and ventilation is based on the climatic conditions thus transmitted. When coupled as an outdoor sensor with the UNI-EO module, the intelligent control unit compares the absolute values of indoor and outdoor climate and adjusts the ventilation accordingly.



Wireless screen 9/IBF-RF and wireless controls 5/UNI-RF & 5/SC-RF

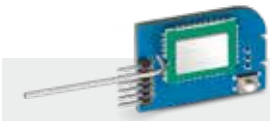
The wireless screen **9/IBF-RF** combines elegant design for the living room with the control technology of the universal control. It is equipped as standard with the 5/UNI-RF with humidity and temperature sensor and the integrated LUNOS wireless module and a power supply unit for direct connection to 230 V, 50/60 Hz.

The wireless controls **5/UNI-RF** and **5/SC-RF** have all the functions of the proven 5/UNI-FT and 5/SC-FT. Thanks to the wireless module integrated as standard, it enables communication with LUNOS wireless products. Communication with EnOcean products or Smart Home controls is possible via the En-Ocean wireless module UNI-EO without additional wiring.



Wireless module UNI-EO for universal Control

The UNI-EO wireless module is used for universal Control and Smart Comfort and ensures constant communication with the coupled LUNOS wireless components. This includes both the processing of received sensor values and switching commands as well as the transmission of system states. Automatic modes can be extended and optimized. The control system can also adapt the operation of the connected devices to linked ventilation components. For example, it is possible for connected e^2 devices to actively supply supply air when an exhaust fan transmits a switched demand ventilation by a wireless command.



Wireless module FM-EO for Silvento ec and Ne^{xx}t

The FM-EO wireless module is compatible with all Silvento ec and Ne^{xx}t models. In the exhaust air system, the Silvento ec and the ventilation behaviour can also be optimised with the coupled outdoor sensor SFT-EO. In conjunction with e^2 fans on a universal control unit with UNI-EO module, sensor values can be exchanged and the ventilation operations of the systems can be coordinated. The same applies to the combination Ne^{xx}t and Silvento ec. If several Ne^{xx}t units are operated in one utilisation unit, a temperature-controlled ventilation operation can be achieved by targeted cross-ventilation of the units among themselves. It is also possible to react efficiently to varying outside temperatures and to keep the inside temperature constant.

Inner screens

160 series

Comfort inner screen

The direct sound impact on the resident is reduced - the result is a more pleasant living experience. The glass variants also impress with their elegant and modern design.



In plastic design
(H x W x D) 191 x 180 x 60 mm
Designation: **9/IBK**



In plastic design
incl. F7 filter for cleaning the fresh air from pollen and fine dust, increased hygiene protection
(H x W x D) 191 x 180 x 77 mm
Designation: **9/IBK-H**



In glass design
(H x W x D) 197 x 185 x 66 mm
Designation: **9/IBG**



In glass design
incl. F7 filter for cleaning the fresh air from pollen and fine dust, increased hygiene protection
(H x W x D) 197 x 185 x 83 mm
Designation: **9/IBG-H**

Standard inner screen

Simple screen with timeless elegance for universal use in the 160 series.



(H x W x D) 180 x 180 x 35 mm
Description: **9/IBE**

Wireless screen

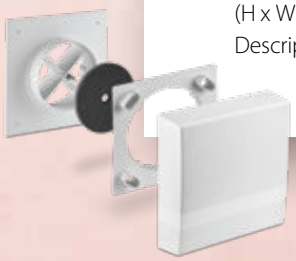
Elegant design screen including wireless control and power supply unit for all 12V units of the 160 series.



(H x W x D) 230 x 185 x 53 mm
Description: **9/IBF-RF**

Sound insulation inner screen

Increase of the standard sound level difference by up to 6 dB, reduction of the inherent noise, incl. washable filters, one piece each of filter class G2 and G3



(H x W x D) 250 x 250 x 78 mm
Description: **9/IBS**

External grille & Outer hoods

Round, square & soundproofed



Plastic grille Ø 180 mm
for round ducts Ø 160 mm
with facade protection ring,
Claw fastening and insect protection
Designation: 1/BE 180 sanded
Designation: 1/WE 180 white
Designation: 1/AZ 180 anthracite



Metal grille Ø 175 mm
for round ducts Ø 125 - 160 mm,
Insect screen, pluggable
Designation: 1/RME 175 stainless steel
Designation: 1/RMK 175 copper



Plastic grille Ø 115 mm
for round ducts Ø 90 - 100 mm,
Insect screen, with claw fastening
Designation: 1/BE 115 sanded
Designation: 1/WE 115 white
Designation: 1/AZ 115 anthracite



Metal grille □228 mm
for round ducts Ø 160 mm,
Insect screen, pluggable
Designation: 1/QME 228 Stainless steel
Designation: 1/QMK 228 copper



Metal grille Ø 150 mm
for round ducts Ø 80 - 125 mm,
Insect screen, pluggable
Designation: 1/RME 150 Stainless steel
Designation: 1/RMK 150 copper



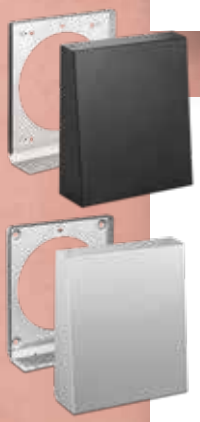
new

Universal hood
Suitable for all one- and two-channel units of the 160 series and Ne^{xx}t, recyclable plastic, (H x W x D) 235 x 213 x 74 mm, UV-resistant, for round ducts Ø 160 mm, insect screen, with sound insulation, for screwing.
Increase of the standard sound level difference by up to 6 dB.
Description: 1/KAZ anthracite
Description: 1/KWE white

For one- and two-channel units



Outer hood aluminium
(H x W x D) 170 x 140 x 72 mm
for round ducts up to Ø 105 mm, insect screen, with sound insulation, to screw.
Increase of the standard sound level difference by up to 6 dB.
Description: 1/HWE 115 white*
Description: 1/HAZ 115 anthracite*



Outer hood aluminium and stainless steel
(H x W x D) 235 x 205 x 72 mm
for round ducts Ø 160 mm, insect screen, with sound insulation, to screw. Increase of the standard sound level difference by up to 6 dB.
Description: 1/HWE white*
Description: 1/HAZ anthracite*
Description: 1/HES stainless steel brushed

*powder-coated

Representatives
Germany



- Baden-Württemberg
- Bavaria
- Berlin, Brandenburg
- Franconia
- Hamburg, Schleswig-Holstein
- Hesse, Western Franconia, North Baden
- Lower Saxony, northern North Rhine-Westphalia
- Mecklenburg-Western Pomerania
- Rhineland-Palatinate, Saarland
- Saxony
- Saxony-Anhalt
- Southern North Rhine-Westphalia
- Thuringia



Representatives
International



- Australia
- Austria
- Canada
- Chile
- China
- Cyprus
- Czech Republic
- Denmark
- Great Britain
- Greece
- India
- Ireland
- Italy
- Latvia
- Lithuania
- Malta
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Romania
- Switzerland
- Slovakia
- South Korea
- Spain
- Thailand
- USA

LUNOS Lüftungstechnik GmbH & Co. KG
für Raumluftsysteme
Wilhelmstraße 31 · 13593 Berlin
PO Box 20 04 54 · 13514 Berlin

Phone +49 30 362001-0
Fax +49 30 362001-89

info@lunos.de
www.lunos.de

P055803 04.24 Design: www.peerneumann.com

WWW.LUNOS.DE