LUNOS
energy-efficient

Installation Manual
Gesture Control 5/GS
- Please forward to the user -

About this manual

- This manual describes the installation and the electrical connection of the gesture control 5/GS. A detailed description regarding the programming and the functions of the gesture control can be found at www.lunos.de.

- The gesture control 5/GS must be operated together with the universal control 5/UNI-FT (power supply unit required), the decentralised ventilation unit with heat recovery Ne^{xx}t and/or the Silvento ec ventilation unit; separate operation is not possible. Please refer to the description of the 5/UNI-FT for the ventilation units to be controlled via the 5/UNI-FT.

- Read these instructions carefully and completely before installation. It is essential to observe the general safety instructions and the safety symbols with notes in the text.

- After completion of installation this manual must be passed on to the user (tenant, owner, property management, etc.).

Symbols in this manual:

⚠ This sign warns you against risks of injury

⚡ This sign warns you against risks of injury from electricity

Safety instructions

⚡ **Caution!** Any assembly work may only be carried out after disconnecting the supply voltage!

⚠ **Attention!** The electrical connection may only be made by authorised qualified personnel and according to the applicable version of VDE 0100!

Disposal

The packaging must be sorted before disposal. If you wish to dispose of the device, observe the currently applicable regulations. Pursuant to the German Electrical and Electronic Equipment Act (ElektroG) this device can be returned to your municipal collection point free of charge.

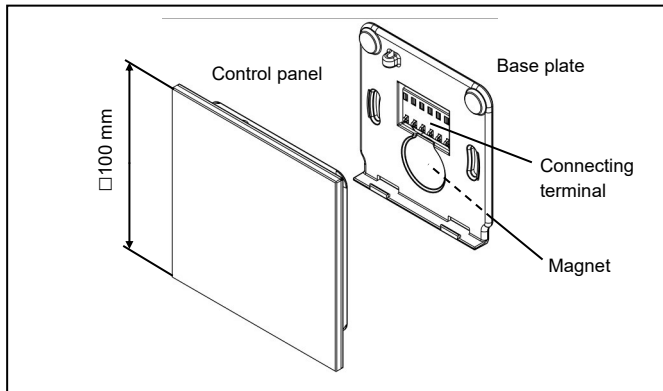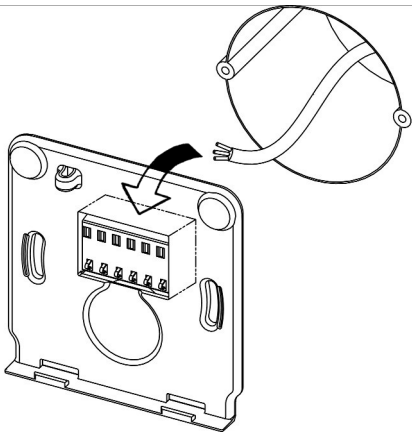|	
Operating voltage:	12 V DC
Power consumption:	0,28 W, maximal 1,5 W
Battery type:	CR1220

All other technical data depend on the connected components (with 5/UNI-FT, Ne^{xx}t or Silvento ec) and can be found in the corresponding descriptions.

Shipping unit

**Please check the delivery for completeness and mint condition!**

①

Prepare the connection cable(s) in the switch box provided for assembling the gesture control (either install 5/UNI-FT or lead cable out of Ne^{xx}t).
Select the connection cable(s) according to the connection diagram (either J-Y (St) Y 2 x 2 x 0.8 (4-core) or J-Y (St) Y 4 x 2 x 0.8 (8-core).
Connect the terminal in the base plate to the connection cable(s) according to the selected connection diagram.

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②

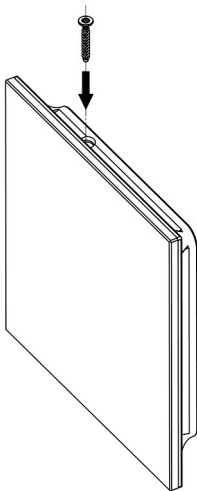For switch boxes Ø 70mm drill into the groove;
Drill Ø 3.5 mm + counterbore
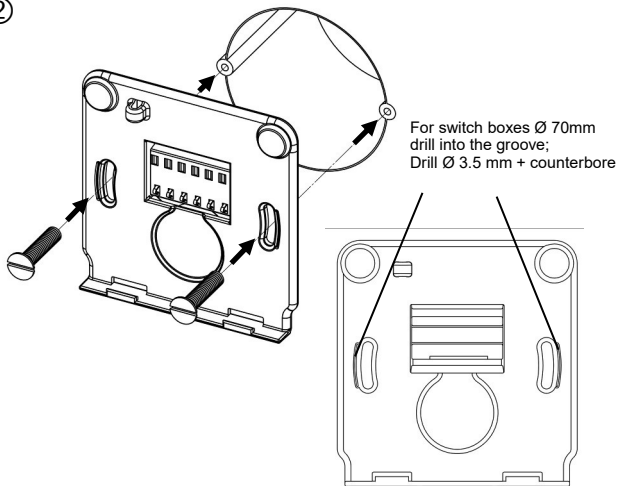
Attach the base plate to the switch box; for switch boxes Ø 70 mm please drill into the groove as shown.

③
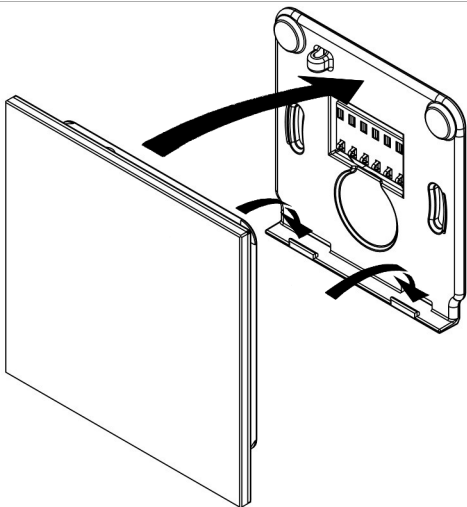
Plug the control panel onto the base plate (magnet attachment).

④

For child safety or in case of increased safety requirements against falling or theft, you can fix the control panel to the base plate using a screw.

Use the DIP switch "D/A" on the back of the control panel to select whether you want to operate the devices connected via the gesture control using digital and/or analogue control.

With digital control you can connect two 5/UNI-FT or Ne^{xx}t to the gesture control. However, it is possible that the connected devices can give feedback signals (e.g. sensor data) to the gesture control and this can adapt the control to the current conditions.

With analogue control, you can connect any number of 5/UNI-FT, Ne^{xx}t or Silvento ec to the gesture control. However, there will be no feedback from the connected devices.
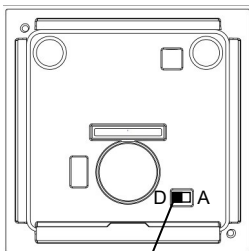
DIP switch – lever left:
digital
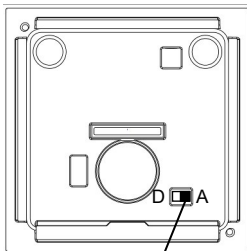
DIP switch - lever right:
analogue
(also for mixed operation digital/analogue)

Factory setting: all DIP switches OFF (as shown)
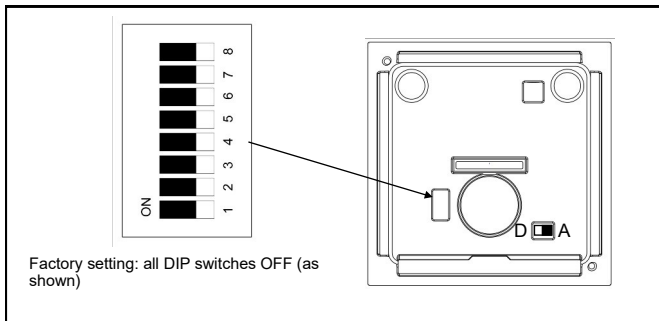
This DIP switch allows you to make important presettings for operation.

With digital control:

DIP switch 1 ON: Ventilation unit 1 is controlled via the sensor values of the gesture control. This setting is optional.

DIP switch 2 ON: Ventilation unit 2 is controlled via the sensor values of the gesture control. This setting is optional.

Set DIP switch "D/A" to "D".

With analogue control:
DIP switch 3 ON: Enable analogue output 1 (T2)
DIP switch 4 ON: Enable analogue output 2 (R2)
Set DIP switch "D/A" to "A".

With digital and analogue control:
Connect the device to be operated via analogue control only to R2!
DIP switch 4 ON: Enable analogue output 2 (R2)
Set DIP switch "D/A" to "A".

If only one device to be digitally controlled is connected:
Connect the device to be digitally controlled to T1 and R1!
Set DIP switch "D/A" to "D".

If only one device to be operated via analogue control is connected:
Connect the device to be operated via analogue control to T2!
DIP switch 3 ON: Enable analogue output 1 (T2)
Set DIP switch "D/A" to "A".

Compatibility

Universal control 5/UNI-FT
- digital control from V4.11 onwards
- analogue control - also older models (no summer ventilation)

Ne^{xx}t series
- digital control from firmware 0.98 onwards
- analogue control from firmware 0.98 onwards (provided at www.lunos.de)

Silvento ec
- from the board version onwards (basic, comfort etc.) V5.0

Safety instructions

⚠️ Caution! Any assembly work may only be carried out after disconnecting the supply voltage!

⚠️ Make sure that the supply voltage of all connection lines is voltage-free (dead)! (Separation from the power supply with a minimum contact opening of 3 mm, e.g. electric fuse).

⚠️ Each electric circuit of this ventilation system must be fitted with a residual current protection (e.g.FI switch).

⚠️ Electrical connection only by a specialist!

Additional installations and electrical components in the ventilation unit are not allowed!

Notes regarding the connection diagrams:

- For reasons of clarity, the connection of 5/UNI-FT, Ne^{xx}t and Silvento ec is shown separately in the connection diagrams; you can, of course, also connect two different devices to the gesture control at the same time.

- Simultaneous digital and analogue control is also possible. Please note that the device to be controlled digitally is connected to T1 and R1 and the device to be operated via analogue control is connected to R2. The DIP switch 4 of the 8-way DIP switch must then be set to ON and the DIP switch "D/A" to the right to "A".

Electrical connection with 5/UNI-FT (digital)
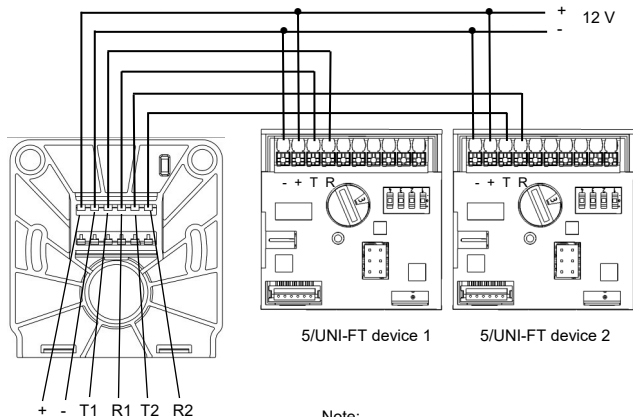
+ 12 V
-

- + T R   5/UNI-FT device 1

- + T R   5/UNI-FT device 2

+ - T1 R1 T2 R2

A connection "T" is always connected to a connection "R"

Note:
With digital connection, a maximum of two 5/UNI-FT or one 5/UNI-FT and one Ne^xt can be connected

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Electrical connection with 5/UNI-FT (analogue)

+ 12 V
-

5/UNI-FT
group 1
(1 to 10 devices)

5/UNI-FT
group 2
(1 to 10 devices)

+ - T2 R2
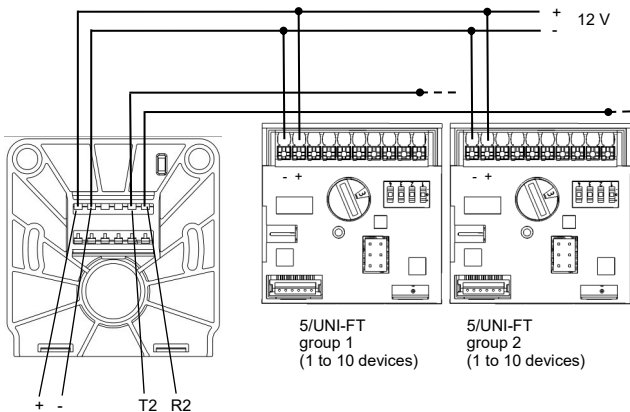
Note:
Number depends on the
power supply unit and
device type used

Electrical connection with Ne^{xx}t (digital)

R1 T1 + -

Ne^{xx}t device 1

R1 T1 -

Ne^{xx}t device 2
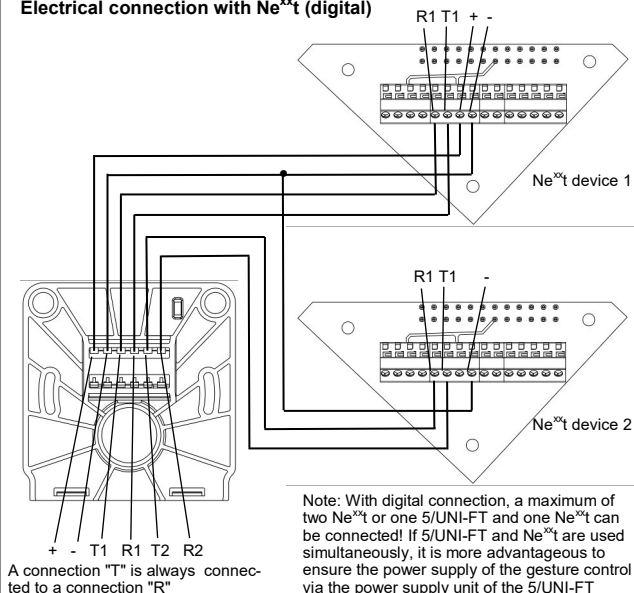
Note: With digital connection, a maximum of two Ne^{xx}t or one 5/UNI-FT and one Ne^{xx}t can be connected! If 5/UNI-FT and Ne^{xx}t are used simultaneously, it is more advantageous to ensure the power supply of the gesture control via the power supply unit of the 5/UNI-FT

+ - T1 R1 T2 R2

A connection "T" is always connected to a connection "R"

Standby

Gesture (green course from right to left) or left operating point

Sleep mode   Rainbow   Filter change indicator   Temp./humi

Switch to fan control (middle operating p

Comfort functions channel 1   Motor contro

Screens

Gesture (green course from left to right) or right
operating point (blue light flashing on the right side)

dity display   Clock   Breathing   Night light
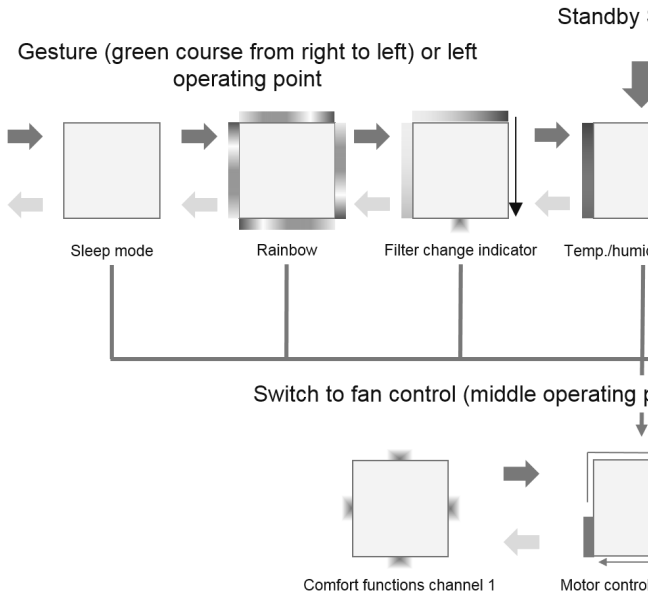
point) possible from any standby display

l channel 1   Motor control channel 2   Comfort functions channel 2

Electrical connection with Ne^{xx}t (analogue)

+ - S

Ne^{xx}t device 1*
(1st device group 1)

- S

Ne^{xx}t group 1
(1 to 9 devices)

- S

Ne^{xx}t group 2
(1 to 10 devices)

+ -   T2 R2
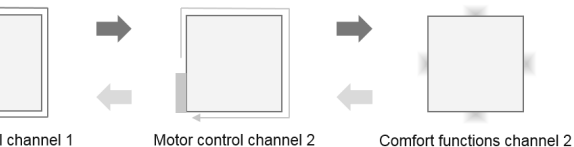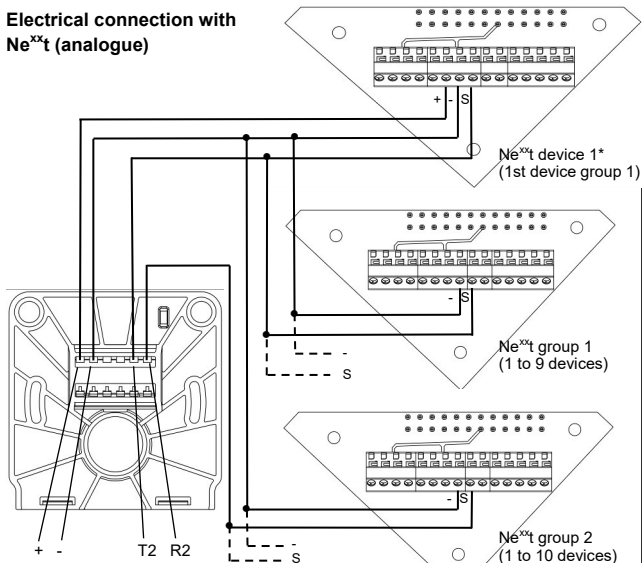
Via Ne^{xx}t device 1 the gesture control is supplied with voltage; with simultaneous operation of 5/UNI-FT and Ne^{xx}t it is more advantageous to ensure the voltage supply of the gesture control via the power supply unit of the 5/UNI-FT

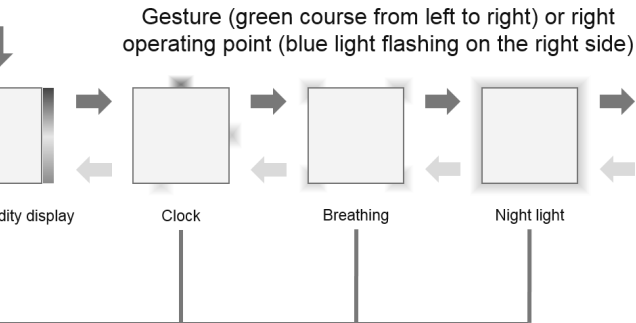**Electrical connection with Silvento ec (analogue)**

+ 12 V*
-

L2 L1 L N F+ F−

Silvento ec
group 1
(1 to 10 devices)

L2 L1 L N F+ F−

Silvento ec
group 2
(1 to 10 devices)

+ − T2 R2
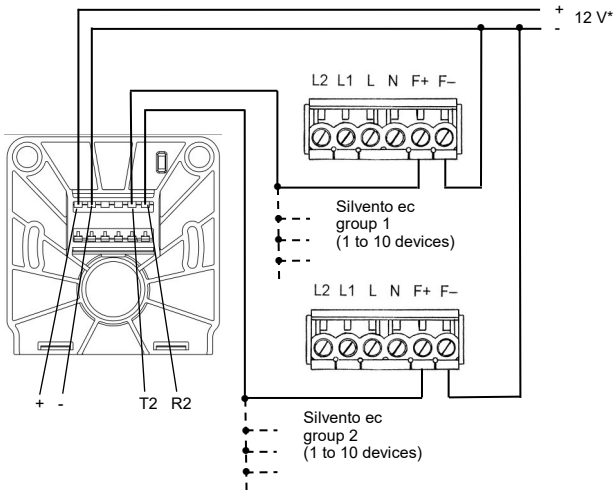
* separate power supply necessary
- e.g. NT18

1   Connect all devices according to the selected circuit diagram
2   Remove the touch field from the base plate
3   Check the setting of the DIP switches
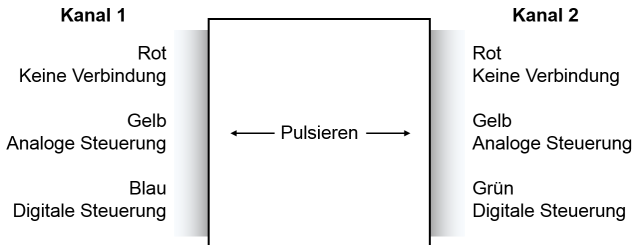4   Switch on the power supply to the gesture control and the devices connected to it
5   Plug the touch field onto the base plate

If the connection is successful, the LEDs on the left and right side of the gesture control will light up as follows during the startup process:

- Left side blue for digital connection to T1 and R1
- Right side green for digital connection to T2 and R2
- Left side yellow for analogue connection to T2
- Right side yellow for analogue connection to R2

| **Kanal 1**		**Kanal 2**
Rot Keine Verbindung		Rot Keine Verbindung
Gelb Analoge Steuerung	← Pulsieren →	Gelb Analoge Steuerung
Blau Digitale Steuerung		Grün Digitale Steuerung

Basic operation

The gesture control is operated with gestures or via the defined operating points.

The term gesture means that the hand or finger wipes from left to right or right to left (horizontal gesture) or from top to bottom or bottom to top (vertical gesture) past the control panel. Do not touch the control panel (distance approx. 3cm).

Vertical gestures

Horizontal gestures
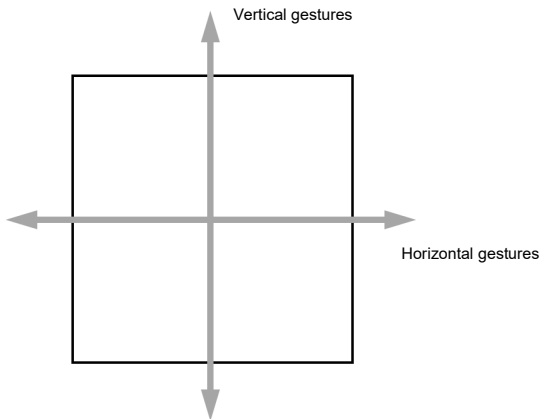
The control panel has five fixed operating points. There is one operating point in the middle of each of the four sides. The fifth is in the middle of the control panel.
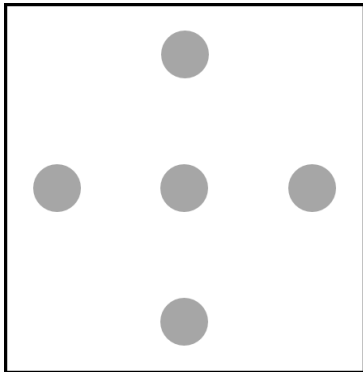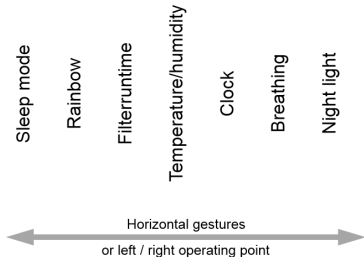

If the control has not been operated for 10 seconds, it will be locked to prevent accidentally triggered gestures. To unlock the control unit, it must be touched.

The gestures and operating points can be extensively tested in the learning mode. Read more about this on page 26.

Standby displays

After startup, the gesture control changes to the standby display. In the standard version, the display of temperature and humidity appears first.

You can switch between the standby displays by horizontal gestures or by touching the left or right control point in the order shown below. The scrolling of the displays takes place in a rolling manner, i.e. after the sleep mode the ambient light returns and vice versa.

Sleep mode   Rainbow   Filterruntime   Temperature/humidity   Clock   Breathing   Night light

Horizontal gestures

or left / right operating point

Sleep mode
When the sleep mode is displayed, all the LEDs light up circumferentially at the lowest brightness level. The brightness can not be adjusted here.

Rainbow
A flowing rainbow, a colour play of the RGB LEDs is displayed circumferentially.

Filter runtime

The displayed channel (blue channel 1 or green channel 2) is signalled centrally at the lower edge. A vertical gesture can be used to switch channels.

Starting from the bottom left (green), more and more LEDs are activated as the filter runtime increases. The maximum is reached at the bottom right side (red).

Temperature and humidity (standard)

The recorded values of temperature and humidity of the integrated sensor are displayed on a scale. The left side of the control (from green to yellow and red) displays the temperature level from 15°C to 30°C; the right side shows the relative humidity (blue) from 30% to 90% RH. The more LEDs light up, the higher is the measured value.

Time

The time is displayed via a three-colour LED display. The colour dots move clockwise around the control panel. The seconds are displayed in white, the minutes in green and the hours in blue. By default, the device automatically switches between summer and winter time.

Breathing

The LEDs in the corners pulse and change colour with each pulse.

Night light

When night light is displayed, all LEDs light up circumferentially. The colour of the light display can be changed here using vertical gestures.

The brightness of the displays can be adjusted. To do this, make a circular movement with one finger above the centre of the control panel (do not touch). When turning the finger clockwise, the brightness level will increase, when turning it counter-clockwise, it will decrease.

Fan control

The change to the fan control level is made from the standby display by activating the middle operating point. For each available channel there is a display for manual setting of the airflow volume and one for activating and deactivating comfort functions. Control channel 1 is shown in blue and appears first, control channel 2 is shown in green. In the following, the functions are explained using channel 1 as an example, but they apply identically to channel 2.

You can switch between the displays of the level using horizontal gestures in the order shown below.

After 20s without operation, the control returns to the standby mode.

Comfort functions ch. 1   Motor control ch. 1   Motor control ch. 2   Comfort functions ch. 2

Horizontal gestures
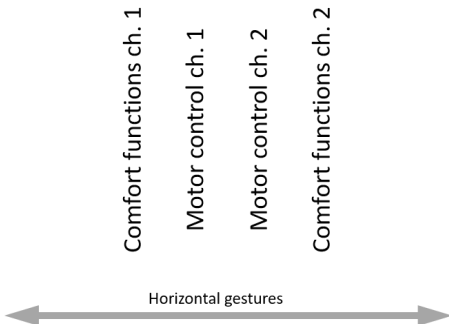
Change of the airflow volume

In the motor control display, the ventilation stage of the connected ventilation system can be changed for the selected channel. The executed stage is indicated by the circumferential LEDs. Each side stands for two stages, i.e. half a side for one stage, starting at the bottom left side, over the top and right side, up to the bottom left side. If automatic humidity control is activated, manual changes to the ventilation stage are valid for one hour.

Rough setting

Vertical gestures can be used to make a rough setting of the stage. An upward wiping movement increases the executed stage, a downward movement decreases the executed stage. This switches between the stages 0, 1, 4 and 8.

Fine setting

The upper and lower operating points can be used to fine-tune the stage. An operation at the top increases the executed stage by one, an operation at the bottom reduces the stage by one.

The minimum and maximum stages can be activated directly via the left (minimum) and right (maximum) operating points.

Comfort functions

A horizontal gesture (a wiping movement to the left) switches to the available comfort functions of channel 1. The menu item is displayed by faint illumination of the edges in the respective colour of the channel.

The familiar comfort functions are available, which can be activated or deactivated by touching the respective operating point. An activated comfort function is indicated by a pulsing of the middle LEDs on the respective side.

Automatic humidity control
 Activated
 Ventilation stage 1-6 (depending on relative humidity)
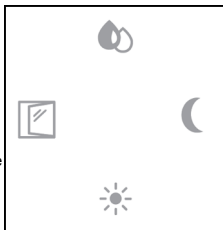 Control range 40 % - 75 % r.H.

Comfort functions with the respective factory settings

Intensive ventilation
 Deactivated
 Maximum ventilation stage
 Runtime 30 minutes

Night-time reduction
 Deactivated
 Minimum ventilation stage
 Runtime 8 hours

Summer ventilation
 Deactivated
 Reversing time 8 hours

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The individual parameters of the comfort functions can be adapted to your own requirements. To do this, hold down the operating point of the corresponding comfort function for 2-5 s. During operation, the control pulses every second.

Automatic humidity control
The humidity limit values are displayed on the upper side and can be set via the operating points on the left (lower switching threshold) and right (reaching the maximum level).
On the left side, vertical gestures or the operating points at the top and bottom can be used to set the minimum level when humidity control is activated.

Night-time reduction and intensive ventilation
The runtime shown on the upper side is roughly set by horizontal gestures and finely adjusted via the operating points on the left and right. One LED stands for about half an hour. The maximum runtime is eight hours.
The stage performed is shown on the left side (not for summer ventilation). It can be adjusted using vertical gestures or the operating points at the top and bottom. LED at the bottom means low stage, LED at the top means high stage.

Summer ventilation
The runtime shown on the upper side is roughly set by horizontal gestures and finely adjusted via the operating points on the left and right. One LED stands for about half an hour. The maximum runtime is eight hours.

Modified settings are accepted when the middle operating point is activated for 2-5 s.

Resetting the filter runtime

The gesture control will switch automatically to the "Filter runtime" standby display when the runtime for filter change has been reached for one of the two channels.

The filters of the ventilation component(s) of the corresponding channel should be changed or cleaned. Please refer to the installation manual for the respective device.

To reset the filter change indicator, hold down the lower operating point for 2-5 s. The circumferential LED display goes out.

If necessary, repeat the procedure for the other channel and the connected ventilation components.

Lock control, Learning mode

To lock the control, the operating point in the middle must be held down for 10s. During pressing, the control pulses every second. If an operation or gesture is made while the control is locked, the blocking is signalled by a double red light.

If the operating point in the middle of the control is pressed for another five seconds, the lock is maintained and the control switches to the learning mode. The stored gestures and operating points can be extensively tested here. A successful gesture or operation is clearly indicated.
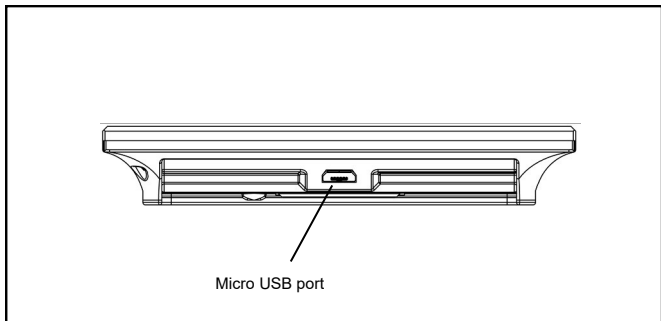
To unlock the control, press and hold the operating point in the middle for 10 seconds. In that respect, it does not matter in which of the modes described above the control is currently active.

USB connection, Firmware update

There is a micro USB port located at the bottom of the gesture control. Please use a commen micro USB cable to connect the gesture control to a PC.

For a communication no additional drivers are required.

New firmware versions and the corresponding software for updating are available in the Downloads section at www.lunos.de.

Micro USB port