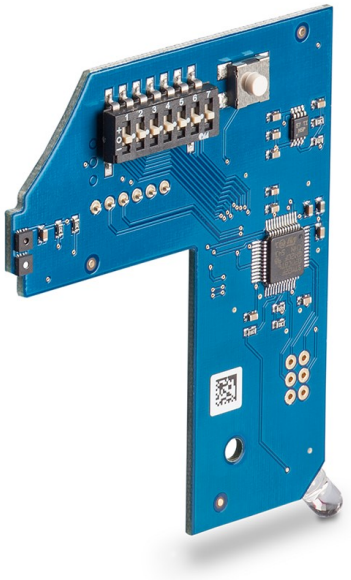
User Information

Comfort+ of the Silvento ec

The new board Comfort+ for the Silvento ec



In addition to the familiar switching, time and configuration options (e.g. switch coupling, time follow-up, interval or humidity sensors), the new Comfort+ (pronounced Comfortplus) board now comes with a brand new VOC sensor. VOC (= volatile organic compounds) are, for example, odorous substances in the room air, but also chemicals such as formaldehyde, cleaning agents or solvents. This sensor is like an "electronic nose" that detects odours and automatically keeps the room air even more pleasant by regulating the fan in a way that these odours are removed as quickly as possible. In addition, an integrated humidity and temperature sensor system or CO_2 equivalence control can be switched on and optionally available motion sensors or radio modules can be integrated.
The CO_2 equivalence control can also contribute to an even more pleasant and better controlled living climate through the additional detection of "stale room air".

Where can the new Comfort+ board be optimally used?

Odour sensors, humidity control and CO_2 equivalence control can be switched on or off individually as desired or required and the control ranges can be adjusted.
Odours, gases or chemicals in the air often arise independently of humidity loads (when cleaning, cooking or in the toilet) and can significantly impair our well-being. The new odour control enables the automatic detection and adjustment of the necessary volume flows for optimal odour removal even without humidity loads by means of the innovative VOC sensor.
In rooms with higher temporary odour loads, the new sensor system is ideally suited to remove odours quickly and as required.
At least one exhaust air system in the residential unit (WC or bathroom) should be equipped with the new control board, but its use in all exhaust air systems is recommended for reasons of comfort.

How does the new odour control work?

The new sensor technology and control system automatically detects odour peaks such as those that occur when cooking or using the toilet. Starting from the configurable so-called basic ventilation level (min. 15 m³/h), the fan is steplessly regulated to the likewise adjustable demand ventilation level (up to max. 90 m³/h) depending on the odour intensity. If the so-called "threshold value" for odour detection is exceeded, based on the average odour level of the appartment (the threshold value is generated fully automatically and can also be set in two stages by the user), the fan starts to eliminate the odours by increasing the volume flow. This is done fully automatically for at least five minutes to ensure optimal odour removal.

If the maximum odour intensity in the room is reached (e.g. during an odour event), a higher airflow volume is generated for at least five minutes and at most one hour, based on the odour intensity reached.
Afterwards, the exhaust air volume flow is reduced again in order not to unnecessarily impair energy consumption and indoor comfort.
The fan automatically generates an average odour value for the home and only detects odour peaks. In this way, scented candles or air deodorants, but also certain 'basic odours' (e.g. pets in the flat) are excluded and continuous ventilation is prevented. If a scented candle is used and its odour triggers the fan control, the airflow volume is automatically reduced again after approx. 60 minutes and odour peaks are still reliably detected in addition to this "new" basic odour.
If the removal or reduction of the basic odours is desired, time functions or an increased basic ventilation level can be set at the fan.

How does the CO_2 equivalence control work?

A so-called CO_2 equivalence is calculated from various sensor data. This is not a direct CO_2 measurement, but measurements of various other gases and components in the room air. The value determined in this way is very precise and enables CO_2-equivalence-based room air control. Here, too, threshold values can be changed by the user or this control can be completely deactivated. The control is e.g. infinitely variable in adjustable ranges of 1200 - 2500 ppm or 1500 - 3000 ppm.
If the limit value of the CO_2 concentration is exceeded, the fan controls steplessly from the set basic ventilation (min. 15 m³/h) to the adjustable demand ventilation (max. 90 m³/h). Unlike in the case of odour control, there is no automatic adjustment of the control range here.
The fan continuously delivers the necessary volume flows until the limit values are no longer reached. Therefore, long and intensive ventilation stages (high exhaust air volume flows) can be the result if there is a corresponding CO_2 concentration in the room, thus renewing the stale room air as quickly as possible.

How does the humidity and temperature control work?

The humidity and temperature control works in the same way as with the familiar comfort board and can also be set in different control ranges. Complete deactivation is also possible. The intelligent control can automatically adjust the control ranges for long and high humidity loads and thus react optimally to the ambient conditions. Humidity peaks, such as when showering or cooking, but also the daily generation of humidity in the room (sweating, drying clothes) are detected just as reliably as a humidity input from outside or low room temperatures.

Can the controls be combined?

Yes, the various control parameters can be combined as desired. The more control parameters are taken into account, the more accurately the room air quality is determined. In the delivery status, however, only odour detection is activated in order to avoid excessively long running times of the ventilation unit. Optionally available motion sensors or radio modules (for APP control or the connection of radio switches and coupling of different units with each other) can also represent a useful functional extension here and can be easily retrofitted at any time.

When and according to which parameters should control be carried out?

Wherever many odours occur (kitchen, HWR or bathroom/WC), the control according to odours is recommended. The odour control can also be combined with heat recovery systems in combined systems without any problems. If additional humidity loads can occur (bathroom or washrooms), an additional humidity control is recommended. If stale air is to be discharged (in living areas or offices), CO_2 equivalence control offers an optimal solution for the best possible room air.

Of course, a combination of several parameters is also possible and often makes sense. However, it should be noted that this causes more air to be removed by the ventilation unit and that a certain amount of noise can be generated at night due to a higher CO_2 concentration.

What other advantages does the new control board have?

Via the direct board configuration or a software tool from LUNOS, which is available free of charge, the control parameters of the sensor system can be fine-tuned in addition to the quick setting via DIP switches on the board, special configurations can be created, DIP switch functionalities can be switched on or off (landlord protection), displays can be configured via the integrated LED or control parameters can be read out. Current control data, switching states, motor speeds, pressures in the exhaust air line or even operating hours, connection times or the number of completed switching cycles of the unit can be displayed. The possibility of creating log data of all control parameters and switching states as well as the direct transmission and access control by LUNOS itself or other specialists (remote maintenance) rounds off the functional diversity of these ventilation systems and enables fast configuration and troubleshooting by specialist personnel.

Your Team from LUNOS Lüftungstechnik GmbH

E411 01.21