

Product information

VELUX ACTIVE with NETATMO indoor climate control KIX 300



Product description

- VELUX ACTIVE with NETATMO is an all-in-one solution for automatic control of the indoor climate.
- The VELUX ACTIVE starter pack consists of a VELUX ACTIVE indoor climate sensor, a departure switch and a gateway.
- The system uses information from the indoor climate sensor (CO₂, humidity, temperature) and online weather forecasts to automatically control ventilation (roof windows) and heat protection (shutters/awnings and blinds).
- VELUX ACTIVE comes with an app from which the system is set up. In daily use, both when being away and at home, the app provides a quick overview of the indoor climate and product operations.
- VELUX INTEGRA® roof windows, blinds and shutters can be controlled from anywhere in the world with the VELUX ACTIVE with NETATMO app.

Connectivity

- VELUX ACTIVE works with all VELUX INTEGRA® io-homecontrol® products.
- iOS: VELUX ACTIVE with NETATMO requires an iPhone, iPad, or iPod touch with iOS 9.0 or later.
- Android: Requires Android 5.0 and higher with access to Google Play.
- VELUX ACTIVE works with Apple HomeKit.
- HomeKit:
 - To control this HomeKit-enabled accessory, iOS 9.0 or later is recommended.
 - Controlling this HomeKit-enabled accessory automatically and away from home requires an Apple TV with tvOS 10.0 or later or an iPad with iOS 10.0 or later set up as a home hub.

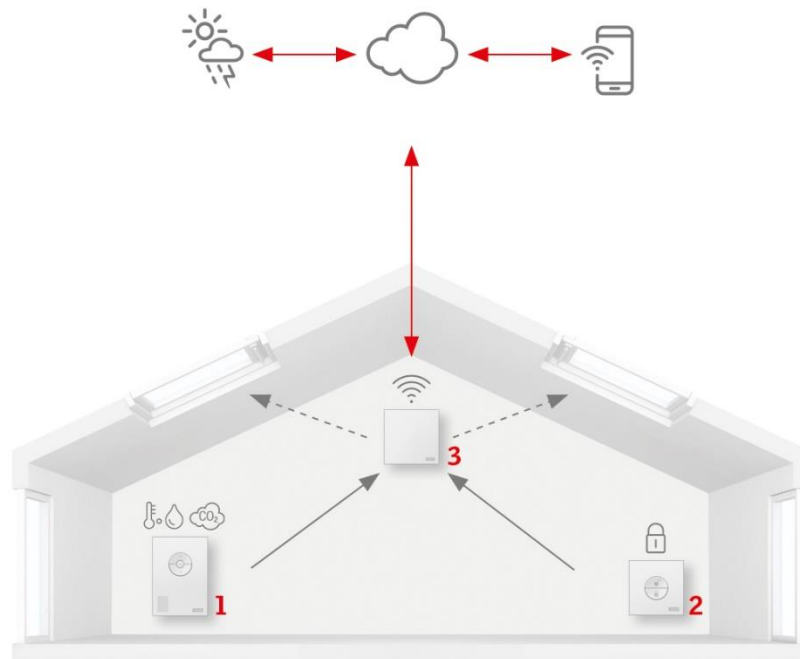
Package includes

VELUX ACTIVE indoor climate sensor, departure switch, gateway, 3 AA batteries for indoor climate sensor, 2 AAA batteries for departure switch, power cable (1.5 m) with plug for gateway. Wall mount bracket with screws and wall plug. 2 x two-sides stickers for wall mounting indoor climate sensor and departure switch. 4 screws and wall plugs as alternative to stickers. Installation instructions.

Downloads

Please visit <https://www.velux.co.uk/help-and-advice/support/velux-active-support> for support and installation instructions.

Function



The VELUX ACTIVE gateway (3) is the 'heart' of the VELUX ACTIVE system. It is connected to both the local WiFi router (internet), to the io-homecontrol® VELUX INTEGRA® products, to the indoor climate sensor (1) and to the departure switch (2). When VELUX ACTIVE is installed, operation of VELUX INTEGRA® products can be performed in 4 different ways in addition to using VELUX INTEGRA® remote controls:

Operation using buttons on departure switch and indoor climate sensor

The indoor climate sensor has 3 buttons which can be used to operate (up/down/stop) all products of the same category within the room (e.g. roof windows). The departure switch can be used to enable and disable 'safe mode' which limits or enables full automatic operation of roof windows (described below).

App operation with iOS or Android app

The VELUX ACTIVE with NETATMO app is the new 'remote control' on your smartphone, which, via the internet, can send commands to the VELUX ACTIVE gateway and onwards to the VELUX INTEGRA® io-homecontrol® windows, blinds and shutters. In addition to the operation of individual products using sliders, the app contains shortcuts for good morning/goodnight/safe modes as well as a settings menu where personal preferences for e.g. temperature levels and automatic operations can be adjusted.

Automatic operations performed by algorithms running in the gateway

Smart ventilation: The smart ventilation algorithm is reactive, which means that it improves indoor climate WHEN it is not optimal. Based on measurements of indoor parameters (CO₂, humidity, temperature) measured by the indoor climate sensor and external data received from an online weather forecast service (temperature, wind, humidity) the algorithm calculates whether opening the roof window will improve the indoor climate or not. If opening the roof window will improve the indoor climate the algorithm then calculates to which degree the window needs to open and for how long it needs to stay open. In case of rain when ventilation is needed, the rain sensor integrated in the VELUX INTEGRA® roof window always ensures no opening until it has stopped raining. Example: Internal factors a + b + c and external factors d + b + e and 'no rain' = open roof window 50% for 20 minutes. When roof windows are installed in bathrooms the automatic ventilation can be delayed by e.g. 15 minutes to avoid opening while showering.

Daily ventilation: The daily ventilation algorithm is reactive and makes sure to ventilate the room 3 times per day in case the smart ventilation algorithm has not been triggered to ventilate the room. The purpose of the daily ventilation functionality is to make sure that pollutants not measured by the indoor climate sensor (i.e. smell, dust, chemical fumes) is extracted from the room. In the app, the user can adjust how often the roof window should open daily.

Smart heat protection: The smart heat protection algorithm is proactive, which means that it is not closing heat protection WHEN it is hot but BEFORE it gets hot. Based on external conditions input from an online weather forecast service (temperature, weather conditions and length of the day) it calculates the risk of the room becoming overheated and decides during which hours shutters, awnings and blinds should be rolled down to prevent overheating from taking place. Example: external factors a + b + c = roll down shutters from 11.30 to 14.30.

Operation via the Apple HomeKit app

For Apple users, the products can be operated from the Apple HomeKit app in addition to the VELUX ACTIVE app. The command line is different as the order to operate a product goes from the iPhone to the WiFi router to Home Hub* to VELUX ACTIVE gateway to VELUX INTEGRA® product. Voice control assistant Siri can also be used to operate products when using Apple HomeKit.

*Home Hub is an Apple TV with tvOS 10.0 or later or an iPad with iOS 10.0 or later. Or an Apple HomePod.

With the Home app, the functionalities within HomeKit can be set up.

Design

The VELUX ACTIVE indoor climate sensor, the VELUX ACTIVE departure switch and the VELUX INTEGRA® wall switch are designed to match. However, due to the need for more internal space, the VELUX ACTIVE indoor climate sensor is taller and somewhat deeper than the other two.

Power supply

The VELUX ACTIVE gateway needs to be connected to a regular household socket with the included power-cable like other electrical appliances. The indoor climate sensor uses 3 alkaline size AA batteries and can thus be placed freely on the wall without cables. The departure switch uses 2 alkaline size AAA batteries and can thus be placed freely on the wall without cables.

Range

Check that the gateway can operate the relevant products from the chosen position before final fixing. VELUX ACTIVE indoor climate control is based on two-way RF (radio frequency) communication and marked with the symbol [↔]. This symbol can be found on the data label.

Radio frequency range: 300 m free field. Depending on building construction, the indoor range is approx. 30 m. However, constructions with reinforced concrete, metal ceilings and plaster walls with steel members may reduce the range.

Mounting and positioning

Parts for wall mounting are included for the VELUX ACTIVE gateway, indoor climate sensor and departure switch.

The VELUX ACTIVE indoor climate sensor must be mounted at a typical height of 1.6 m above the floor.

For correct function of VELUX ACTIVE, avoid installation of the indoor climate sensor near air conditioners and heaters, and avoid installation in direct sun light.

Safety

The VELUX ACTIVE indoor climate control starter kit and mains cable are for indoor and dry environment use only. Use only with the supplied mains cable. VELUX ACTIVE indoor climate control can be used by persons (aged 8 years and above) with sufficient experience and knowledge if they have been given instruction concerning safe use and understand the hazards involved. Children must not play with the VELUX ACTIVE indoor climate control (departure switch, indoor climate sensor and app). If mains cable is damaged, it must be replaced. Caution: Risk of explosion if the battery is replaced by an incorrect type. Use only alkaline AA for indoor climate sensor (NXS01) and alkaline AAA for departure switch (NXD01E).

Security

All elements of the VELUX ACTIVE system have the same high level of security as our io-homecontrol® system used for VELUX INTEGRA® products.

- Both the VELUX ACTIVE app and the departure switch features easy activation of the "Safe mode", closing all windows only allowing safe ventilation through the ventilation flap
- io-homecontrol® guarantees optimum security for your installation. This security is assured by encrypted radio communication.
- io-homecontrol® scans three radio frequencies from 868 MHz to 870 MHz and selects the one that is available to transmit a command or information securely. This ensures proper operation that doesn't interfere with the other electronic equipment in the home (computer, internet box, television set etc.).
- A 128-bit encryption key authenticates the origin of the command. Each installation has its own encryption key thereby offering a security level equivalent to the communication between an ATM and your bank.
- All windows, shutters and blinds operations are controlled by the VELUX drive units. This means that entrapment protection and motor speed are always secure, no matter if the operation is triggered automatically by VELUX ACTIVE, Homekit, etc. or manually.

Technical information

Radio specifications:

Parameters			Model/version			
Radio	Frequency band	Power (mW)	NXG01E	NXG01C	NXS01	NXD01E
io-homecontrol®	868.0 – 870.0 MHz	20	X	–	–	–
	2400 - 2483.5 MHz	25	–	X	–	–
RF sub-GHz	863.0 – 870.0 MHz	15	X	X	X	X
WiFi 802.11 b/g/n	2400 - 2483.5 MHz	100	X	X	–	–


Technical information

Housing material and colour	<p>VELUX ACTIVE gateway: ABS plastic, white (NCS S 1000-N)</p> <p>VELUX ACTIVE indoor climate sensor: ABS plastic, white (NCS S 1000-N)</p> <p>VELUX ACTIVE departure switch: ABS plastic, white (NCS S 1000-N)</p>
Size and weight	<p>Packaging with all products: W x L x H: 145 mm x 133 mm x 181 mm, 981 g</p> <p>VELUX ACTIVE gateway: 94 mm x 94 mm x 29 mm, 126 g</p> <p>VELUX ACTIVE indoor climate sensor: W x L x H including buttons: 80 mm x 116,5 mm x 19 mm, 131 g incl. batteries</p> <p>VELUX ACTIVE departure switch: W x L x H including buttons: 80 mm x 80 mm x 14 mm, 63 g incl. batteries</p>
Power consumption	<p>VELUX ACTIVE gateway: 230/240 V a.c. – 50-60 Hz / 2.5 W</p> <p>VELUX ACTIVE indoor climate sensor: 3 x alkaline AA (1.5 V) batteries, expected battery lifetime min. 2 years.</p> <p>VELUX ACTIVE departure switch: 2 x alkaline AAA (1.5 V) batteries, expected battery lifetime min. 2 years.</p>
Connection	<p>The VELUX ACTIVE gateway is equipped with a 1.5 m 2-core cable with mains plug for connection to the mains supply.</p>
Compatibility	<p>VELUX ACTIVE communicates via radio frequency (RF) technology, 868 MHz band (US version 2.4 GHz), and is compatible with other products with the io-homecontrol® logo.</p>
CE marking	<p>VELUX ACTIVE is CE-marked to indicate that it is in accordance with the EU directives CPD, LVD, MD, R&TTE and EMC for household, trade and light industry.</p>
Note	<p>This sheet describes the VELUX ACTIVE features as of July 2018. For further information on the features and specifications, please see www.velux.com/activeinfo</p> <p>We reserve the right to make technical changes.</p>

www.velux.com/activeinfo

Product upgrades

Upgrading the VELUX ACTIVE starter pack can easily be done with more indoor climate sensors and additional departure switches. This way all rooms with VELUX windows, blinds and shutters can be operated and automated separately. With an extra departure switch, convenient enabling of 'safe mode' is possible from all exits of the home.

Additional indoor climate sensor	KLA 300	
Additional departure switch	KLN 300	



All VELUX INTEGRA® windows, blinds and shutters can be connected to VELUX ACTIVE.



Most centre pivot top operated VELUX windows, (GGL, GGU, GZL, GLL) can easily be upgraded with a VELUX solar motor upgrade kit for electric operation of roof windows and automation with VELUX ACTIVE.

Exceptions for upgrading:

V22 size codes below roof windows height 04: CK02, CK01, SK01, MK27, PK25
V22 GZL B and GLL B variants (B in the end of the variant code)
V2 2 GGL -K-- with variant --62 and --64 and ----Q
V21 Roof windows with size codes M27, P25, 425
V21 GZL (with size code with one letter and two digits)
GZR, GLR, GLP

The obvious upgrade choice is the solar motor kit for electrical operation.

Solar powered window without wiring		
V22 (Size codes having a "K", e.g. GGL SK06)	KSX 100K	
V21 (Size codes without "K", but with a letter and a number e.g. GGL S06)	KSX 100	

Mains powered window with wiring		
V22 (Size codes having a "K", e.g. GGL SK06)	KMG 100K	
V21 (Size codes without "K", but with a letter and a number e.g. GGL S06)	KMG 100	

Mains powered window needs power supply to work	KUX 110 EU/UK	
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For further check of compatibility, please check www.velux.com/activeinfo

Cleaning and maintenance

The VELUX ACTIVE indoor climate control requires a minimal amount of maintenance. The surface may be cleaned with a soft, damp cloth. Disconnect mains or battery supply before carrying out any maintenance or service work. Expected battery lifetime: Min. 2 years.

Certifications

We herewith declare that VELUX ACTIVE indoor climate control KIX 300 (gateway 3LG E01/ NXG01E, indoor climate sensor KLA 300/3LA E06/NXS01 and departure switch KLN 300/3LN E01/NXD01E) is in conformity with the Radio Equipment Directive 2014/53/EU and the RoHS Directive 2011/65/EC and has been manufactured in accordance with the harmonised standards EN 62368-1(2014), EN 300220-2 v3.1.1, EN 300220-1 v3.1.1, EN 300328 v2.1.1, EN 301489-1 v2.2.0, EN 301489-3 v2.1.1, EN 301489-17 v3.2.0, EN 55032(2015), EN 55024(2010) +A1(2015), EN 61000-3-2 (2014), EN 61000-3-3 (2013), EN 61326-1(2013), EN 62311(2008), EN 62479(2010) and EN 50581(2012). The notified body LCIE, identification number 0081, performed the tests and the reports on the products and issued the EU-type examination certificate number RED_86, RED_87, RED88.

Visible features



1 Departing home

Activation of "Safe mode". All windows close to secured opening still allowing background ventilation.

2 Coming home

Enables VELUX ACTIVE to run automatic ventilation.

3 Open a group of products

Opens all products of the same category in the room where the sensor is positioned. Default setting is a group of windows.

4 Close a group of products

Closes all products of same category in the room where the sensor is positioned. Default setting is a group of windows.

5 Stop opening or closing

During opening or closing of a group of products eg. windows, the operation can be stopped at any time.

6 Indoor sensor

The VELUX ACTIVE indoor climate sensor is here - besides CO₂, humidity and temperature, measuring light and correcting sensor inputs to further optimise the indoor climate.

7 Reset/configuration

Among other things, this button is used for resetting the gateway.

8 Light indicator

Indicates installation and operation status.

9

The app

Use the app for setup, quick overview of the indoor climate and product operations.

Legal Notice:

Use of the "Works with Apple HomeKit" logo means that an electronic accessory has been designed to connect specifically to iPod, iPhone or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. iPhone, iPod and iPad are registered trademarks of Apple Inc, registered in the US and other countries. HomeKit is a trademark of Apple Inc. App Store is a service mark of Apple Inc. Android, Google Play and the Google Play logo are trademarks of Google Inc.