



# Installation instructions

## Ventilation unit expansion module VC-EXT 1.1

The software version of the required ventilation unit is at least 531. To update, connect the device to the Internet network, after which the update will take place automatically.

Setting up and using the expansion module is possible only through the mobile application (the ventilation unit requires an Internet connection).

# Contents

Installation instructions	1
Connecting a communication cable	1
Connecting a pump, drive or valve	1
Connecting the ON/OFF control unit	1
Connecting a 0-10V control unit	2
Connecting the channel sensor	2
Connecting to the mains	2
Initial setup	3
Specifications	4
Support and contact	5

# Installation instructions

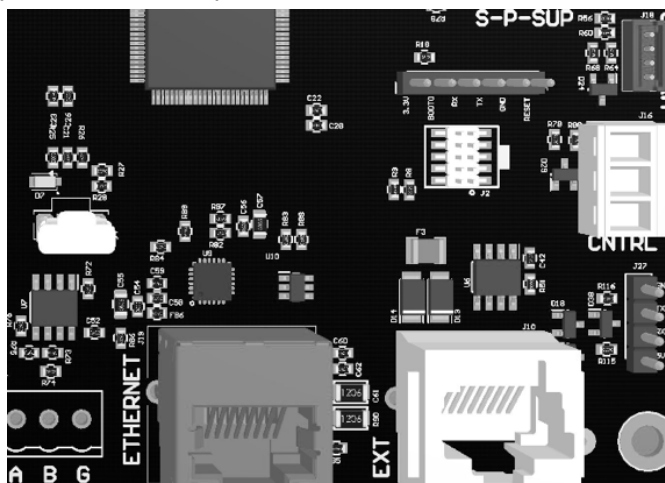
**Warning!** The risk of electric shock. 230 V electrical work can be carried out only by specialists with appropriate

The expansion module only works with the software version of the ventilation unit from 531

The expansion module should be installed near the ventilation unit. It is recommended to attach it to the wall using the DIN rail included in the kit, or place it fixed on top of the ventilation unit

## Connecting a communication cable

- Unplug the ventilation unit from power supply.
- Open the door of the electrical switchboard of the ventilation unit
- Connect the expansion board communication cable (with the end of the RJ45) to the EXT marked connector of the ventilation unit. Use only the special cable included in the package, cable extension is not allowed, as this may interfere with the quality of communication.

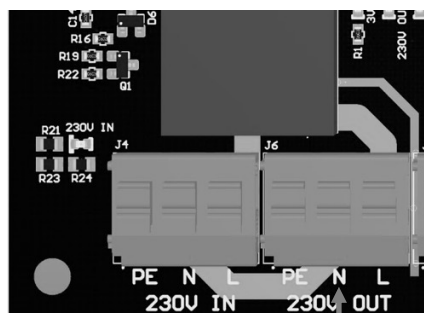


## Connecting a pump, drive or valve

### Connecting the ON/OFF control unit

The expansion module supplies a circulation pump or magnetic valve (system control unit) powered by 230 V. This allows the calorifer to be turned on and off, but does not provide accurate supply air temperature control during cooling or heating. The minimum switching interval is 1 minute. It is recommended to set the exact desired temperature directly from the heating source.

A pump or valve of the 230 V ON/OFF type should be used, which must be connected to terminals with a 230 V OUT designation, following the indications PE / N / L. On demand for heating or cooling, the expansion module activates the relay, which turns on the control unit.



Control unit (drive or valve) 230 V

## Connecting a 0-10V control unit

### Solution 1: Circulation pump 230 V powered, 0-10 V controlled.

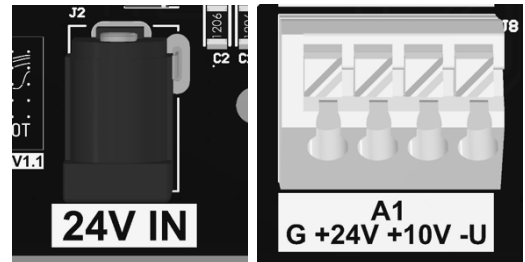
- Remove the power cord of the expansion module 230 V IN (not required).
- Connect the electrical power supply to the circulation pump from an external power source, not an expansion module.
- Connect 0 -10 V cables to the expansion module's 0-10 V OUT / A1 terminals +Ve (+10V) and -Ve (G) connectors.

### Solution 2: Valve drive 24V, 0-10V controlled

This solution is recommended because it allows you to precisely adjust the air temperature during cooling or heating

Only extension module VC-EXT 1.1 (updated, produced from 09.2024)

- Remove the power cord of the expansion module 230 V IN.
- Connect the 24V power supply cord to the "24V IN" connector
- Connect the valve to the A1 marked connector according to the manufacturer's instructions



## Connecting the channel sensor

A channel sensor can be connected to the expansion module, which measures the air temperature, for example, before or after the calorifer. The auxiliary sensor is available as an option and should be plugged into the connector with the SNS1 designation.



The location of the sensor installation depends on the position of the heating or cooling calorifer in the ventilation duct:

Calorifer is located in the outdoor air duct

No need to connect an additional sensor

The calorifer is located in the supply air duct

An additional sensor is mandatory and should be installed in the supply air duct, at a distance of 1 meter after the calorifer

## Connecting to the mains

Connect the expansion module to the mains only after all previous connections have been made. Make sure that the electrical switchboard of the ventilation unit is properly closed.

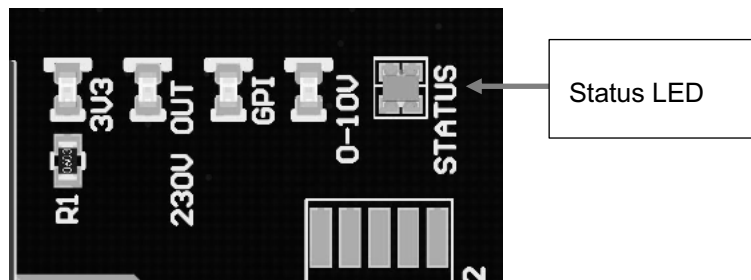
The expansion module is powered by a ventilation unit. To power the system control unit, connect either 24V or 230V power, depending on the solution.

# Initial setup

## Step 1: Connection check between the expansion module and the ventilation unit

Check if a connection has been established between the expansion module and the ventilation unit. The STATUS LED light must be lit permanently green. If the connection is unsuccessful, the LED light will turn red or will not be on at all.

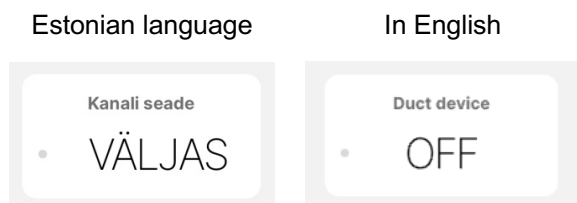
**Important!** Use only the cable included in the package and make sure that the software version of the ventilation unit is at least 529.



## Step 2: Setup in the mobile app

Make sure you're using the latest version of the mobile app. Check the app update via Google Play or the App Store. If no update is offered, you already have the latest version.

After all the connections have been made according to the installation instructions, and the ventilation unit has been restarted, the successfully connected additional module should appear in the view of the mobile application:



## Step 3: Setup

Click on the "Channel device" module and select the following option. Make sure that the choice is correct, as the wrong choice can harm the device or calorifer.

Estonian language

In English

Kanali jahuti / soojendi asend
Välisõhu kanal
Sissepuhkeõhu kanal

Duct cooler / heater position
Outside air duct
Supply air duct

Valige kanaliseadme paigutus, lugege enne valikut kindlasti kasutusjuhendit. Vale valik võib seadmeid kahjustada.

Choose the duct device positioning, make sure you read the user manual before selection. Wrong selection may harm the devices.

### Choice – channel cooler / heater

#### In the outside air duct

The calorifer is located in the outside air intake duct, before the ventilation unit

#### In the supply air duct

Calorifer is located in the supply air duct, after the ventilation unit

**Step 4: Control the operation of the system:** Activate the cooling or heating mode (according to the season) by pressing the OFF button. The connected drive, pump or valve must start within 3 minutes after the mode is activated. Make sure that the ventilation unit is working and ventilated.

- Cooling: if the outside temperature is lower than 6 °C then the cooling mode cannot be activated
- Cooling: the desired temperature must be lower than the exhaust air temperature of the ventilation unit

## Specifications

Power supply	From the outlet, max. 1 A. Length 1.8 m
Connectivity to the ventilation unit	1 meter CAT5e cable (included in the package)
Relay output for controlling the pump, drive or valve	230 VAC
24V power supply	24V DC 12W, external EU plug power supply
IP protection class	IP 20
Product dimensions	157 x 95 x 40 mm

# Support and contact

Due to software updates, changes may occur in the manual, the updated version can always be found on the help portal [www.airobothome.com/abi](http://www.airobothome.com/abi).

We are grateful for any feedback on the use, characteristics, etc. of the device [info@airobothome.com](mailto:info@airobothome.com).

## **Manufacturer details**

AIROBOT TECHNOLOGIES AS

Reg. No. 16405978

Suur-Sõjamäe 37a, Rae parish, 75322, Estonian

[info@airobothome.com](mailto:info@airobothome.com)

## **Help portal and guides**

[www.airobothome.com/abi](http://www.airobothome.com/abi)



Version of the user manual 11.2023