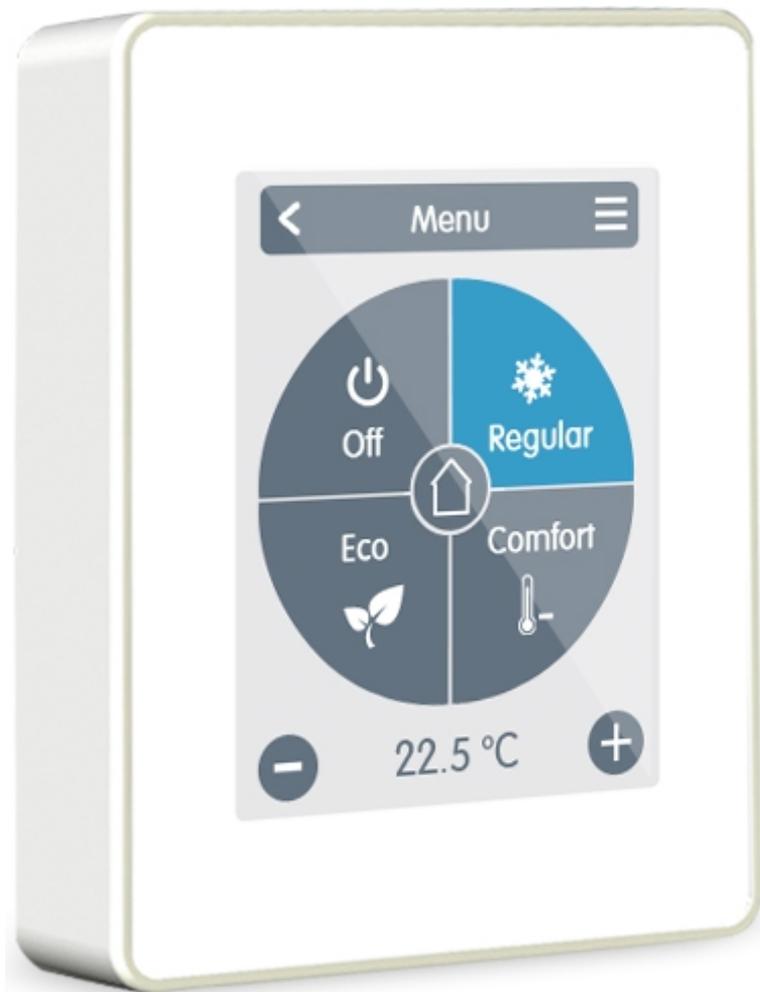


°caleon clima

Installation and operating instruction

°CALEON Clima Smart



Read carefully before installation, commissioning and operation

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SAFETY INSTRUCTIONS

EG-Conformity

By affixing the CE mark to the unit the manufacturer declares that °CALEON Clima Smart conforms to the following relevant safety regulations:

- EU low voltage directive 2014/35/EU
- EU electromagnetic compatibility directive 2014/30/EU

conforms. Conformity has been verified and the corresponding documentation and the EU declaration of conformity are kept on file by the manufacturer.

General Instructions

Please read carefully!

These installation and operating instructions contain basic instructions and important information regarding safety, installation, commissioning, maintenance and the optimal use of the unit. Therefore these instructions must be read and understood completely by the installation

technician/specialist and by the system user before installation, commissioning and operation of the unit.

This unit is an automatic, electrical °CALEON Room Controllers. Install the unit only in dry areas and under the ambient conditions described in "Specifications".

This document contains information specific to the ZWave Plus technology implemented at ° CALEON in order to ensure correct interoperability between third-party devices.

In addition, observe the applicable accident prevention regulations, the regulations of the Association of Electrical Engineering, the local power supply utility, the applicable DIN-EN standards and the installation and operating instructions for the additional system components. Installation, electrical connection, commissioning and maintenance of the device may only be carried out by an appropriately trained specialist.

Users: Make sure that the specialist gives you detailed information on the function and operation of the unit. Always keep these instructions in the vicinity of the unit.

The manufacturer does not take over any liability for damage caused through improper usage or non-compliance of this manual!

 Before working on the unit, switch off the power supply and secure it against being switched on again! Check that there is no power flowing! Electrical connections may only be made by a specialist and in compliance with the applicable regulations. The unit may not be put into operation if there is visible damage to the housing, e.g. cracks.

Changes to the Unit

- Changes, additions to or conversion of the unit are not permitted without written permission from the manufacturer.
- It is likewise forbidden to install additional components that have not been tested together with the unit.
- If it becomes clear that safe operation of the unit is no longer possible, for example because of damage to the housing, turn the Unit off immediately.
- Any parts of the unit or accessories that are not in perfect condition must be exchanged immediately.
- Use only original spare parts and accessories from the manufacturer.
- Markings made on the unit at the factory must not be altered, removed or made illegible.
- Only the settings described in these instructions may be set using the Unit.

 Changes to the unit can compromise the safety and function of the unit or the entire system.

Warranty and Liability

The Unit has been manufactured and tested with regard to high quality and safety requirements. The warranty and liability shall not include, however, any injury to persons or material damage that is attributable to one or more of the following causes:

- Failure to observe these installation and operating instructions.
- Improper installation, commissioning, maintenance and operation.
- Improperly executed repairs.
- Unauthorised structural changes to the unit.
- Use of the device for other than its intended purpose.
- Operation above or below the limit values listed in the 'Specifications' section.
- Force majeure.

Disposal and Pollutants

The unit conforms to the European RoHS 2011/65/EU for the restriction of the use of certain hazardous substances in electrical and electronic equipment.



Under no circumstances may the device be disposed of with the normal household waste. Dispose of the unit only at appropriate collection points or ship it back to the seller or manufacturer.

DESCRIPTION °CALEON CLIMA SMART

Technical Data



| | | |
|---|-----------|--|
|  | Housing | 2-part, ABS plastic 75 mm x 95 mm x 19 mm Glass front |
|  | Display | Capacitive touch panel Color display with 240x320 dots 2.8 inches (7 cm) diagonal |
|  | Operation | Intuitive user guidance |
|  | Language | Deutsch Italiano English Français Español Português |

Electrical specifications:

| | |
|---|---------------------|
| Power Supply | 12 - 24 VDC +/- 10% |
| power consumption | max. 2,5 W |
| Protection Class | IP20 |
| Protection class / overvoltage category | 0/III |

Max. Cable Length

| | |
|------------|---|
| 0-10V/PWM | <3m, if the cable length is >=3m it is necessary to use a shielded twisted pair bus cable and connect the shield on one side to the protective conductor. |
| 1-Wire Bus | Optional, without function |

Permissible Ambient Conditions

| | |
|-----------------------|--|
| during operation | 0 °C - 50 °C, no moisture condensation permitted |
| for transport/storage | 0 °C - 60 °C, no moisture condensation permitted |

Measurement Range

| | |
|--|--|
| Outside the measuring ranges there are larger deviations | |
| Internal temperature sensor | 0 °C - 60 °C Accuracy +/- 1 °C Resolution 0,1 °C |
| Internal sensor for rel. humidity | 0 % - 100 % Accuracy +/- 6 °C Resolution 0,1 % |
| 1-Wire temperature sensors | Optional, without function |

 After switching on or disconnecting from the mains, it takes up to 60 minutes until the temperature is displayed precisely.

Other Specifications

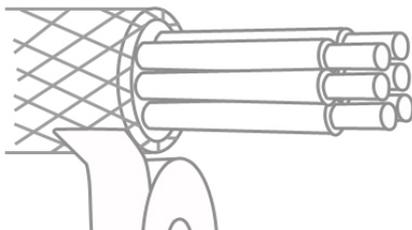
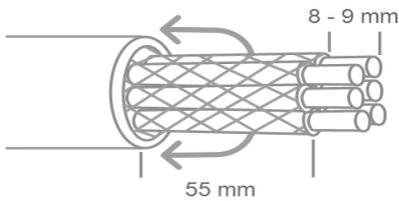
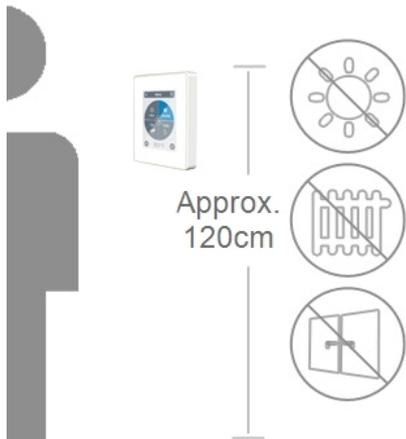
| | |
|----------------------|---|
| Installation Methods | Wall installation, with/without wall socket |
| Real Time Clock | RTC with 24 hour power reserve |

Scope of Supply

- °CALEON Room Controllers
- 2 screws 3,5 x 35 mm and 2 plugs 6 mm for wall installation.
- °CALEON Clima Smart installation guide

INSTALLATION

°CALEON Clima Installation



Mount the unit at a suitable location.



Pay attention to suitable environmental conditions. Direct sunlight, sources of heat and cold, e.g. radiators and windows must be avoided.

When mounting °CALEON's base to the wall the connecting cables must be kept as short as possible. For direct wall mounting a maximum length of 40 mm is recommend. Long wire loops inside the °CALEON's housing may cause problems.

When mounting °CALEON's base to a plastic wall socket the connecting cables must be kept as short as possible (strip cables not more than 55 mm). Also make sure that wire loops are led back to the plastic wall socket, since long wire loops inside the °CALEON's housing may cause problems.

Strip the last 8 - 9 mm of the wires. Isolate shielding and connect it at a suitable location (controller or CAN-box) to the protective conductor.



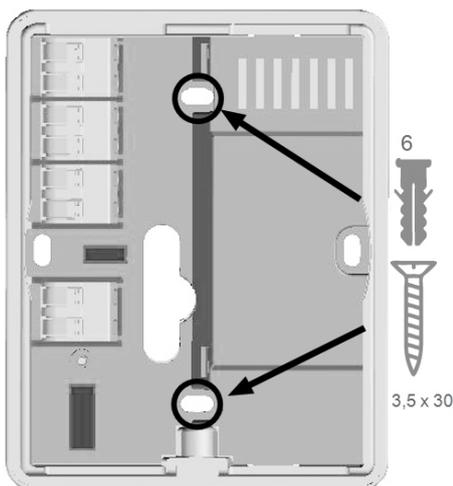
Any contact between protective conductor and circuit board can cause serious damage.

Mounting on plastic wall socket

Fix the base with the screws (3,0 x 16) to the mounting box.

Direct wall mounting

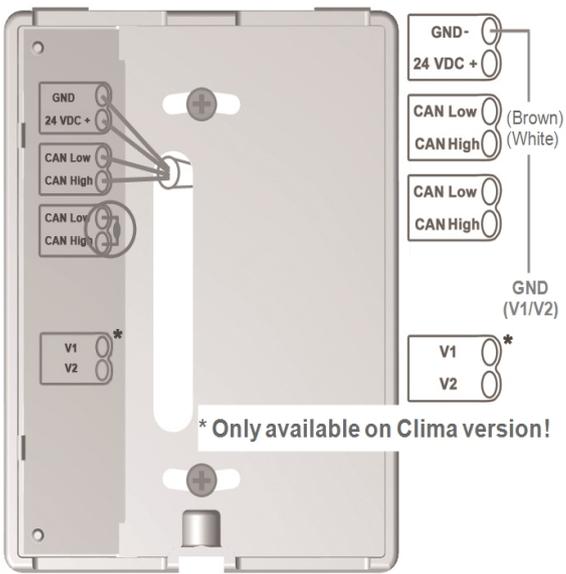
Hold the lower part of the housing up to the selected position and mark the three mounting holes. Make sure that the wall surface is as even as possible so that the housing does not become distorted when screwed on. Using a drill and drill holes at the points marked on the wall and push in the plugs. Insert screws and screw it in slightly. Align the base and tighten the screws.



Open the terminals with the accompanying operating tool and make the electrical connection as described.



Power supply 24 VDC, ensure correct polarity or it may cause damage to the unit!



The first and last unit in the CAN-network in series must be fitted with terminating resistance.



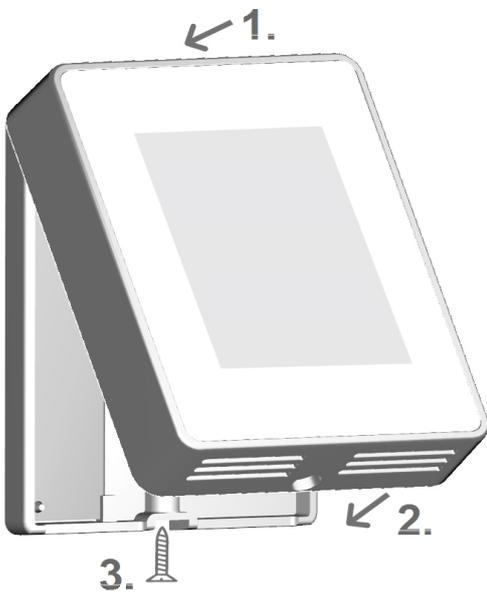
Operating tool

The connection of the opposite side (controller) can be found in the corresponding terminal diagram in the controller manual.

Refit the base and fasten with screw. Switch on mains voltage and place °CALEON in operation.



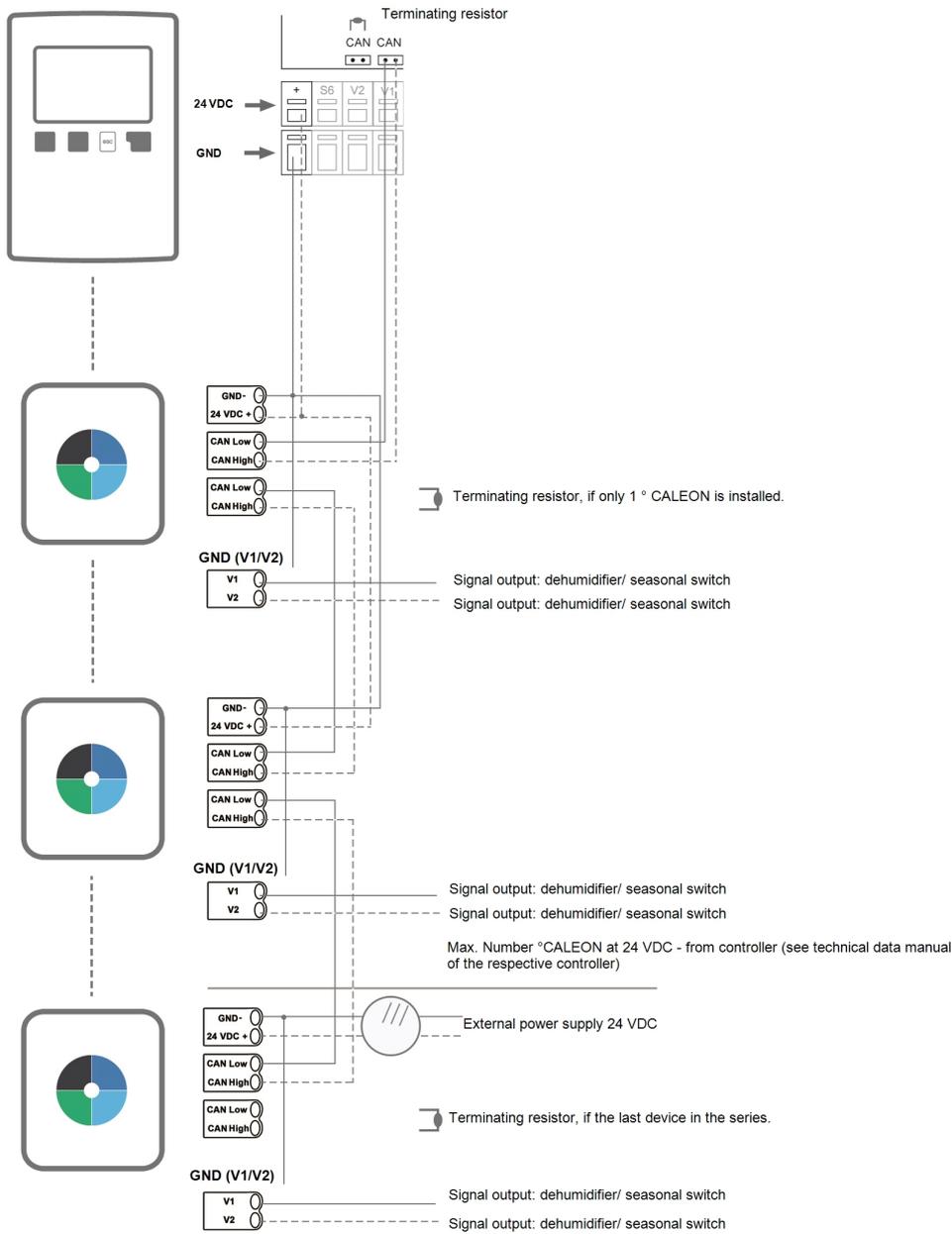
The commissioning can be accessed in the °CALEON menu under Expert at any time.



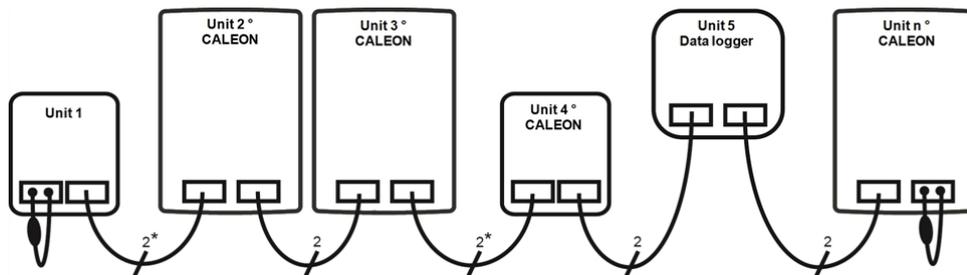
Example Controller-Connection



Do not combine devices for heating only (°CALEON/ °CALEONbox) with devices for heating and cooling (°CALEON Clima/°CALEONbox Clima).



Example CAN-Connection

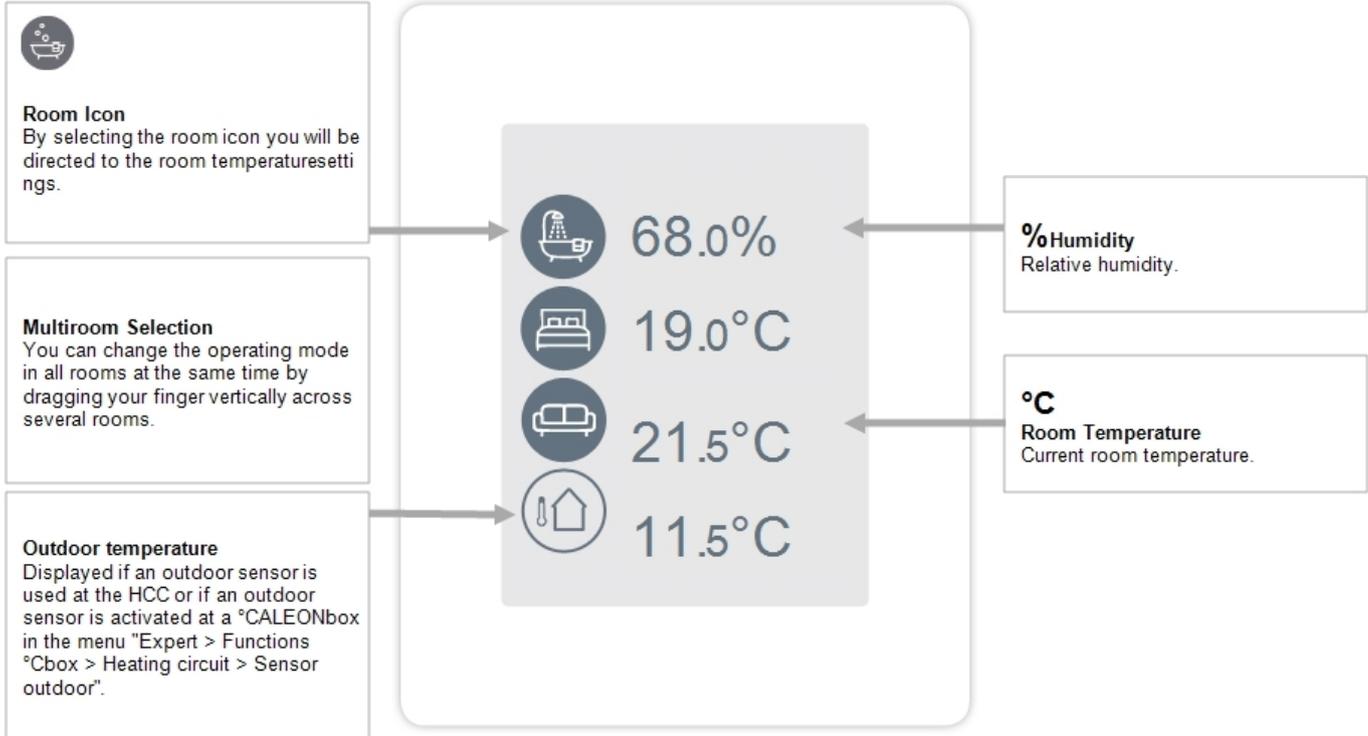


*Only CAN in power supply from 4 cores of the regulator.

The order and the number of devices (max. 50) is arbitrary.

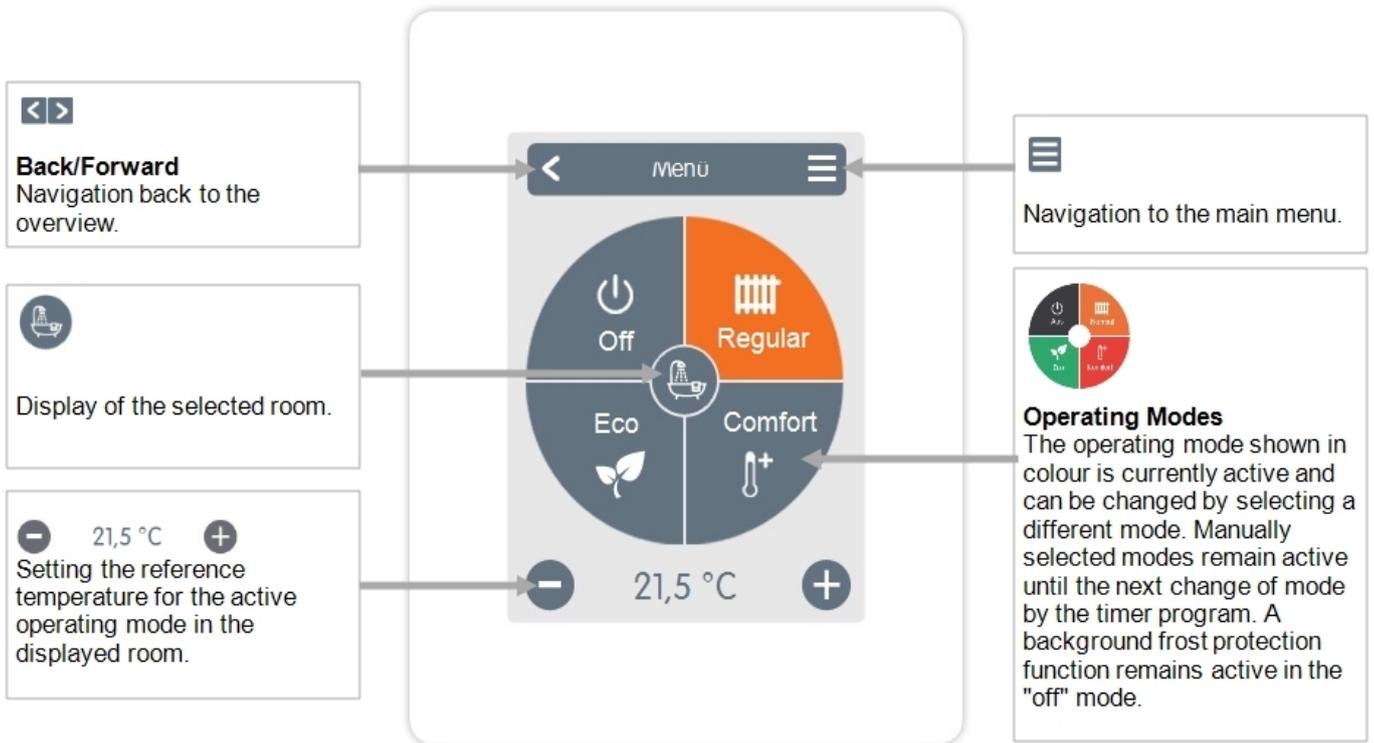
Room Overview

Displays the room temperature, humidity and external temperature once the start screen was activated.



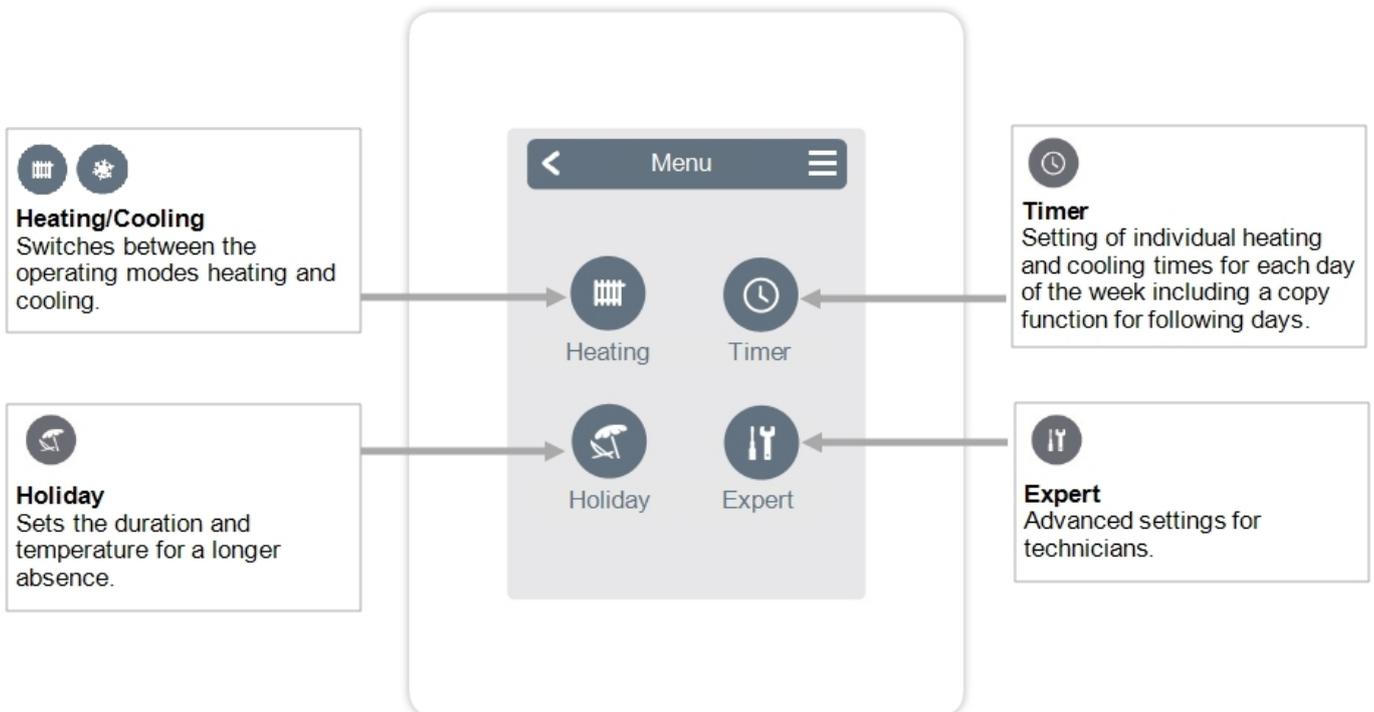
Operating Mode

Overview > Operating Mode



Menu

Overview > Operating Mode > Menu

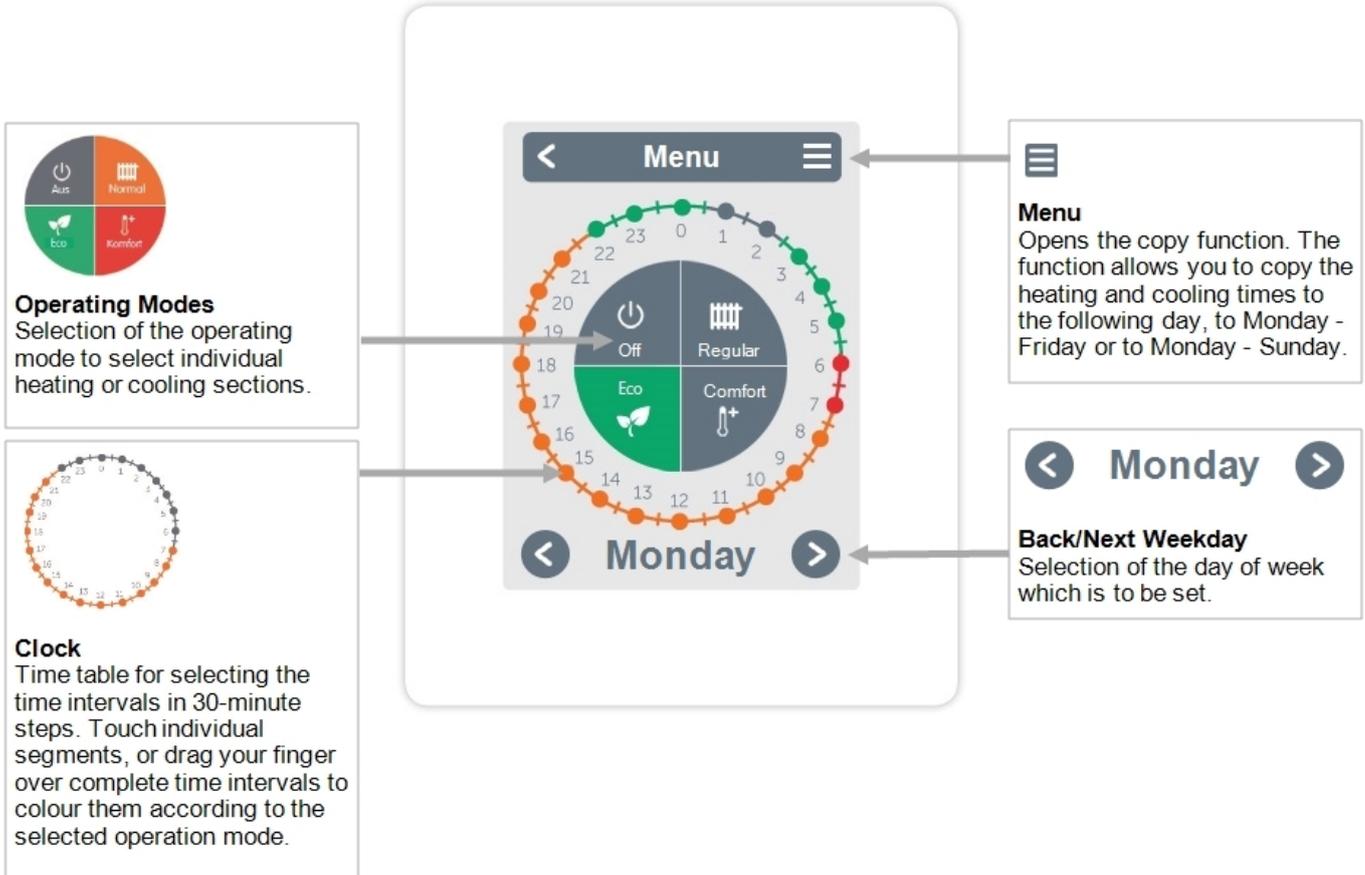


Set Operation Hours

Overview > Operating Mode > Menu > Timer

Setting of individual heating and cooling times for the selected room.

Separate times are set for the heating and cooling modes. To do this, first switch to the heating mode and define the corresponding times for this operating mode under Main menu > Timer. Then change to the cooling mode and define the corresponding times for this operating mode under Main menu > Timer.



Set Operation Hours

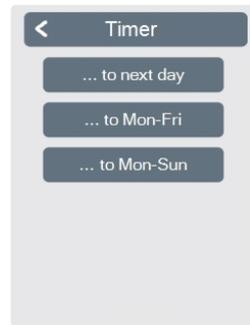
Step 1
Use the arrow keys to select the desired day.



Step 2
Select the first heating mode (Normal) - with the index finger select the desired length of time. The selected period will be coloured after selecting the colour of the operating mode (normal = orange). Set the times of the other operating modes in the same way.



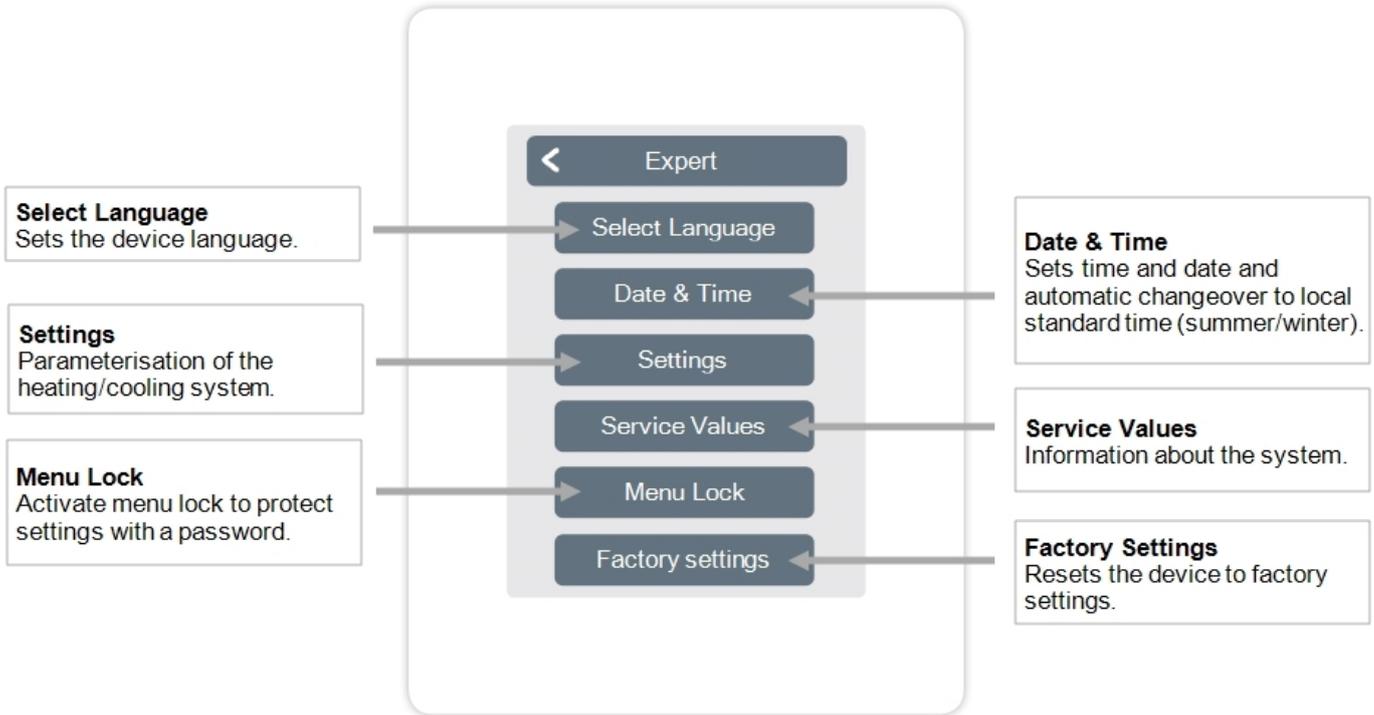
Step 3
After completing the setting of the individual heating and cooling times, you have the option of copying the times via the main menu to the following day, to Monday - Friday or to Monday - Sunday or individually for each weekday.



In the interests of efficient and energy-saving single room control, the operating times should be set specifically for each room.

Expert Menu

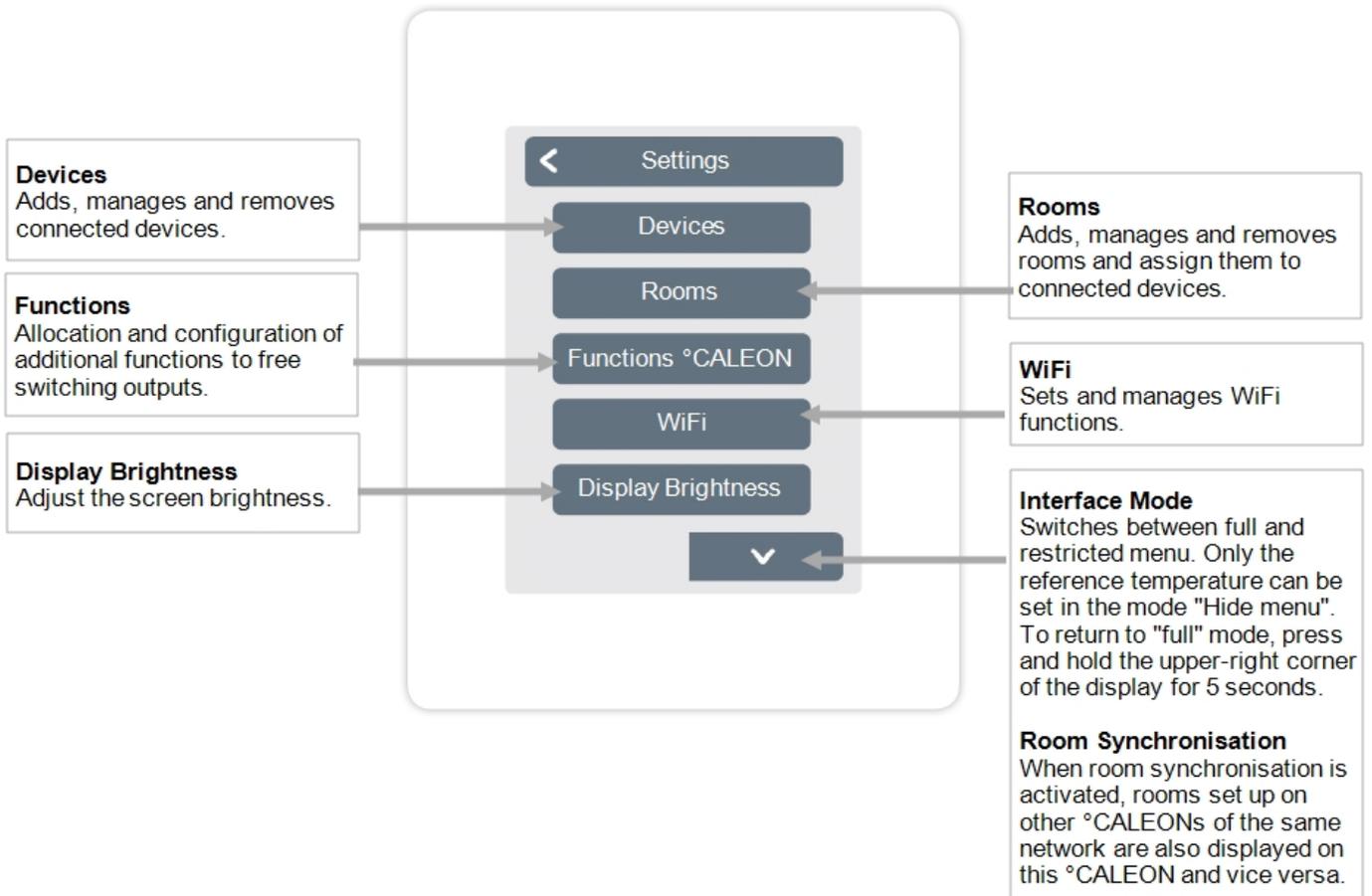
Overview > Operating Mode > Menu > Expert



 The menu structure described here is based on the status at the time of production and may vary due to subsequent software changes.

Settings

Overview > Operating Mode > Menu > Expert > Settings



Devices

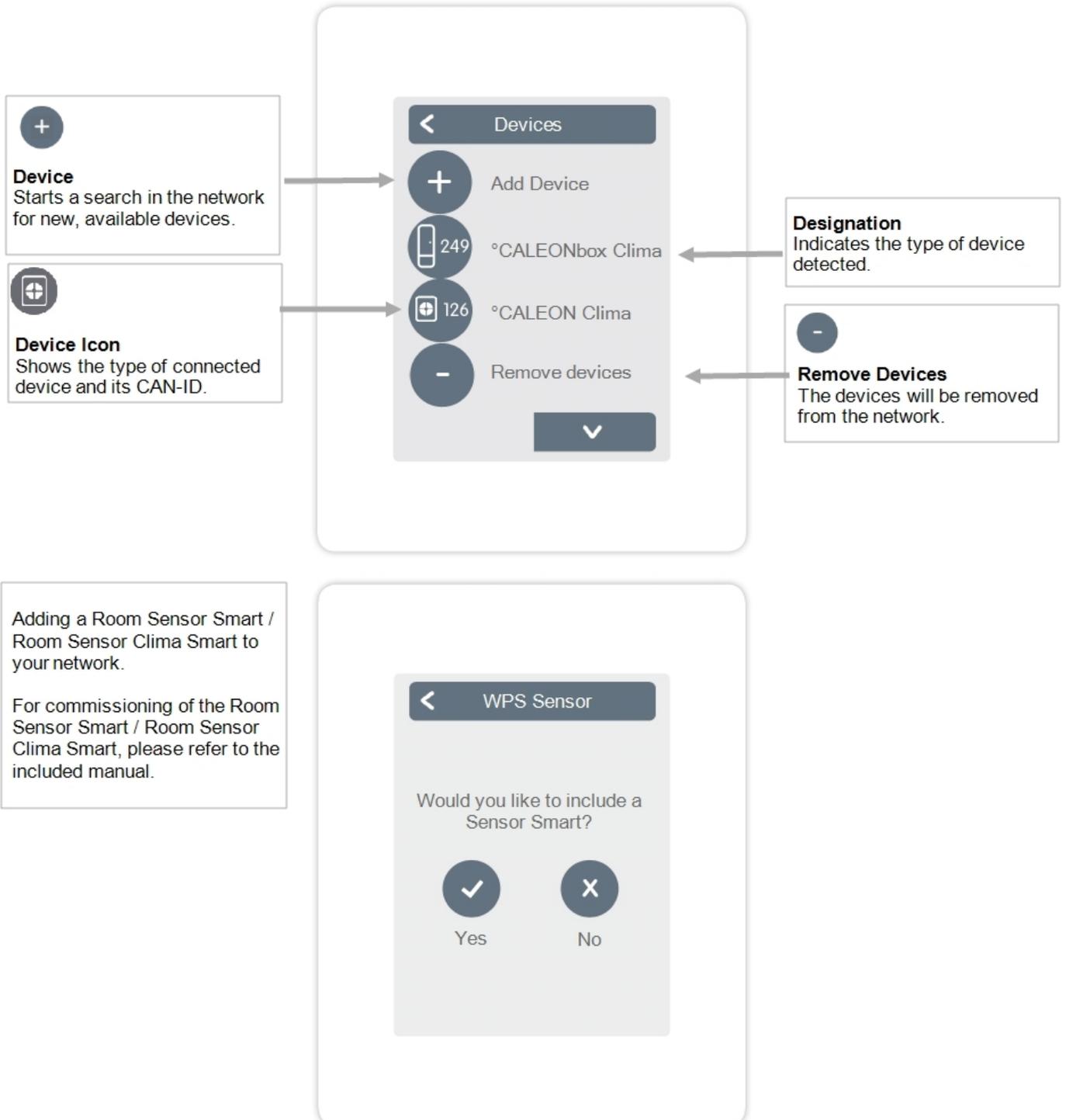
Overview > Operating mode > Menu > Expert > Settings > Devices



Clima systems have to be switched to 'heating' mode before another device can be added to a running system.

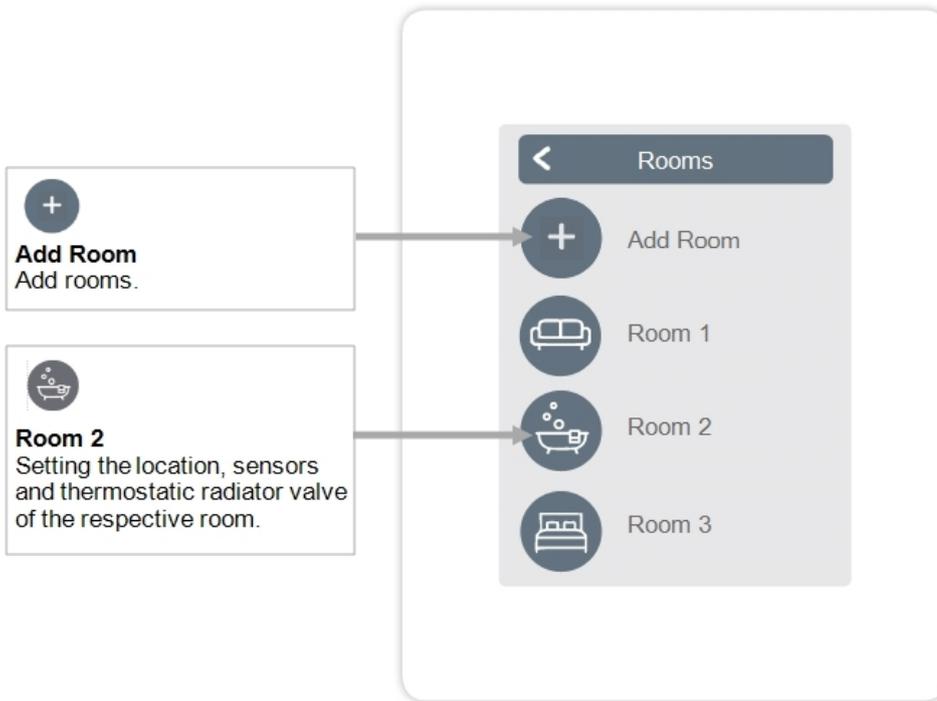


Do not combine devices for heating only (°CALEON/ °CALEONbox) with devices for heating and cooling (°CALEON Clima/°CALEONbox Clima).

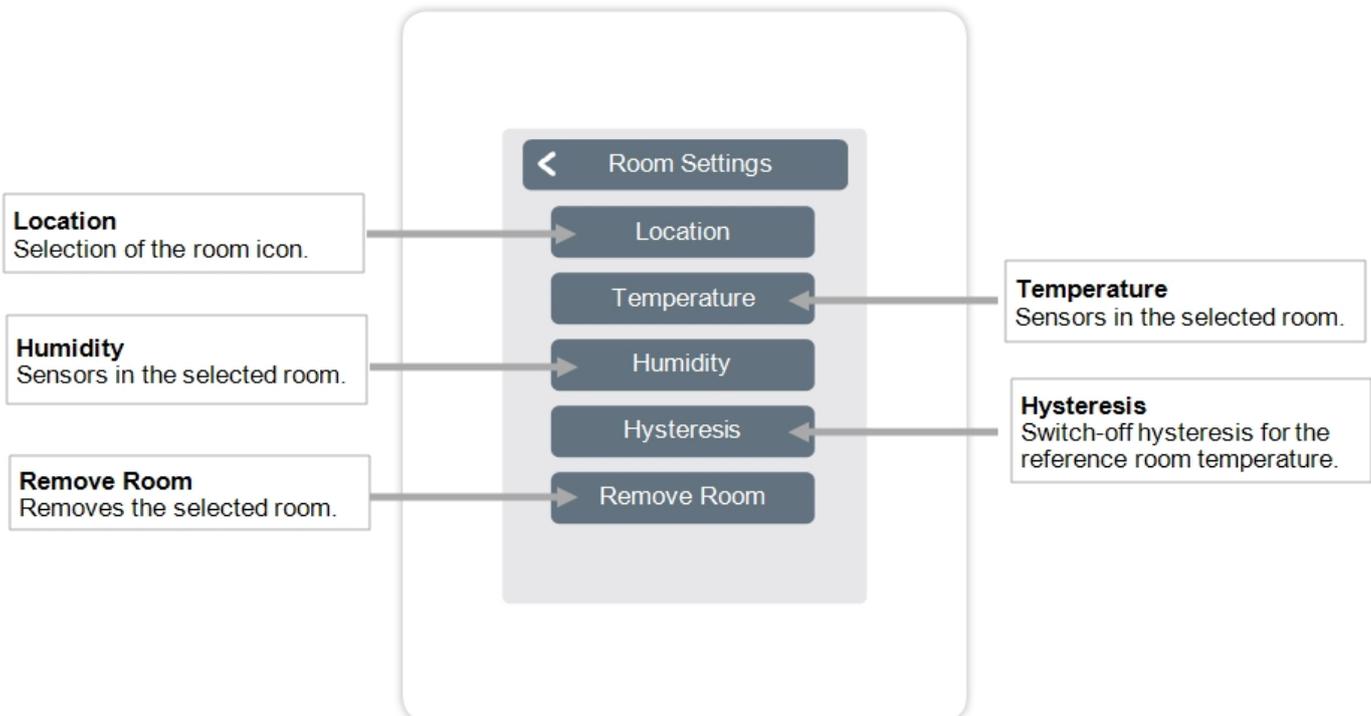


Rooms

Overview > Operating mode > Menu > Expert > Settings > Rooms

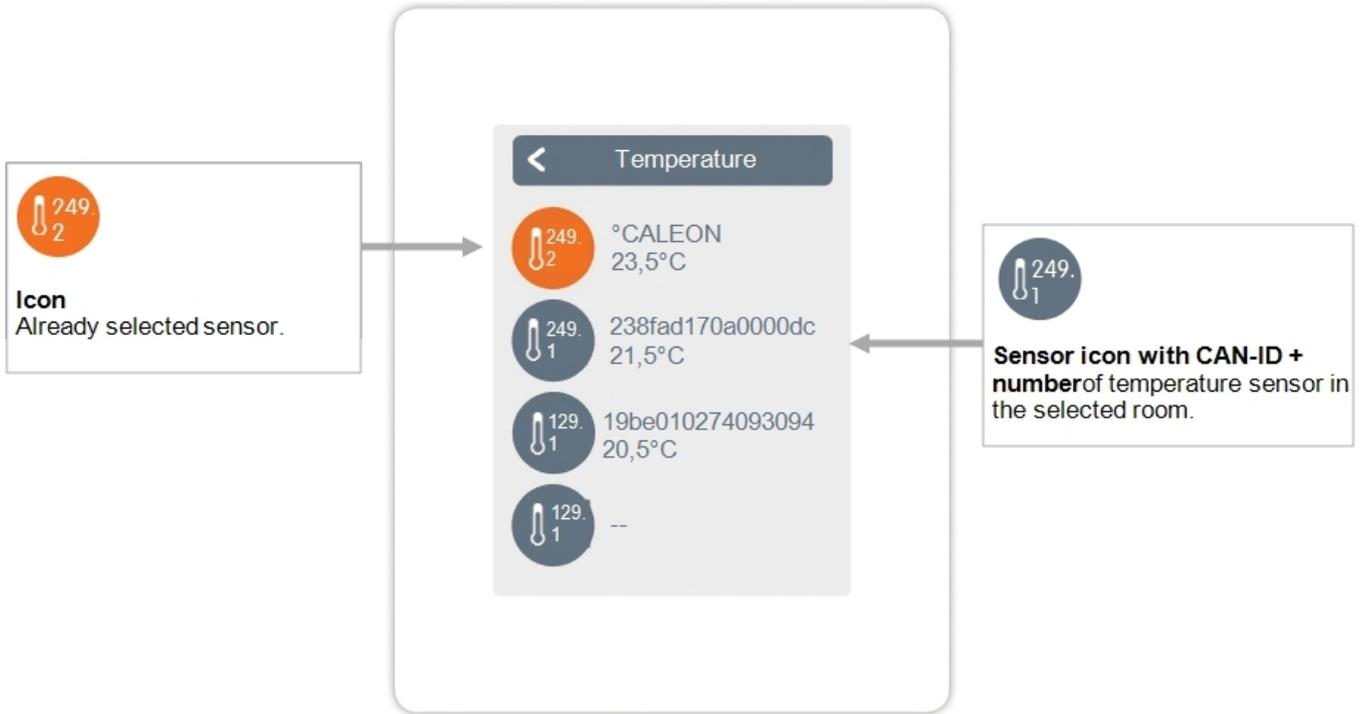


Overview > Operating mode > Menu > Expert > Settings > Room 2



Sensors

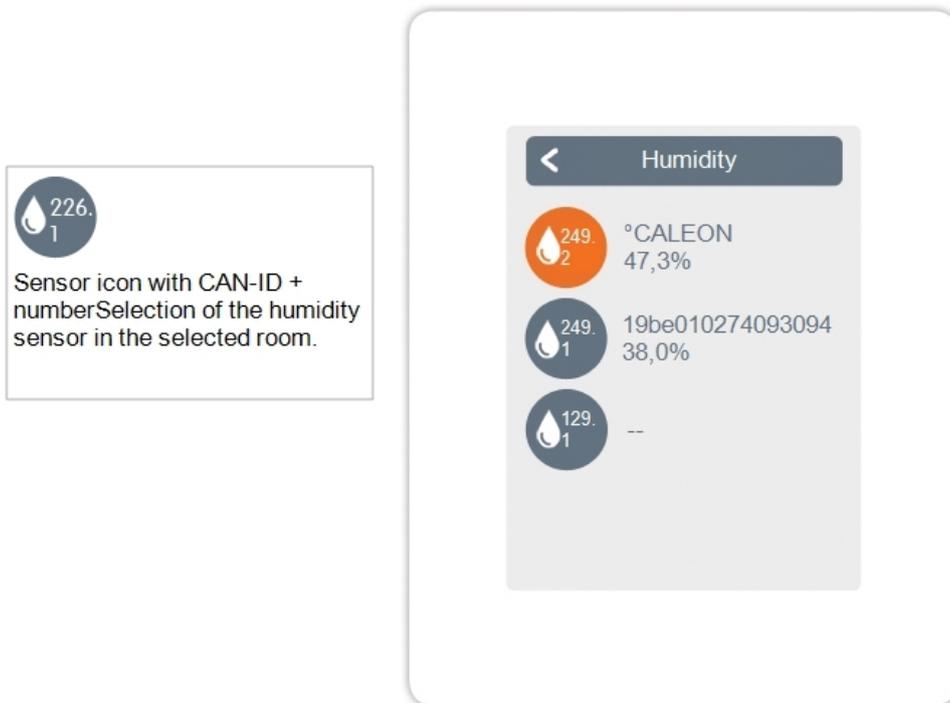
Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > Temperature



The diagram illustrates the temperature sensor selection process. On the left, a callout box shows a red thermometer icon with '249' and '2', labeled 'Icon Already selected sensor.' An arrow points from this icon to the top of a 'Temperature' settings screen. The screen lists four sensors: '°CALEON 23,5°C' (selected), '238fad170a000dc 21,5°C', '19be010274093094 20,5°C', and '--'. A second callout box on the right shows a blue thermometer icon with '249' and '1', labeled 'Sensor icon with CAN-ID + number of temperature sensor in the selected room.' An arrow points from this icon to the second sensor entry on the screen.

| Icon | Label | Value |
|--------|------------------|--------|
| 249. 2 | °CALEON | 23,5°C |
| 249. 1 | 238fad170a000dc | 21,5°C |
| 129. 1 | 19be010274093094 | 20,5°C |
| 129. 1 | -- | -- |

Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > Humidity



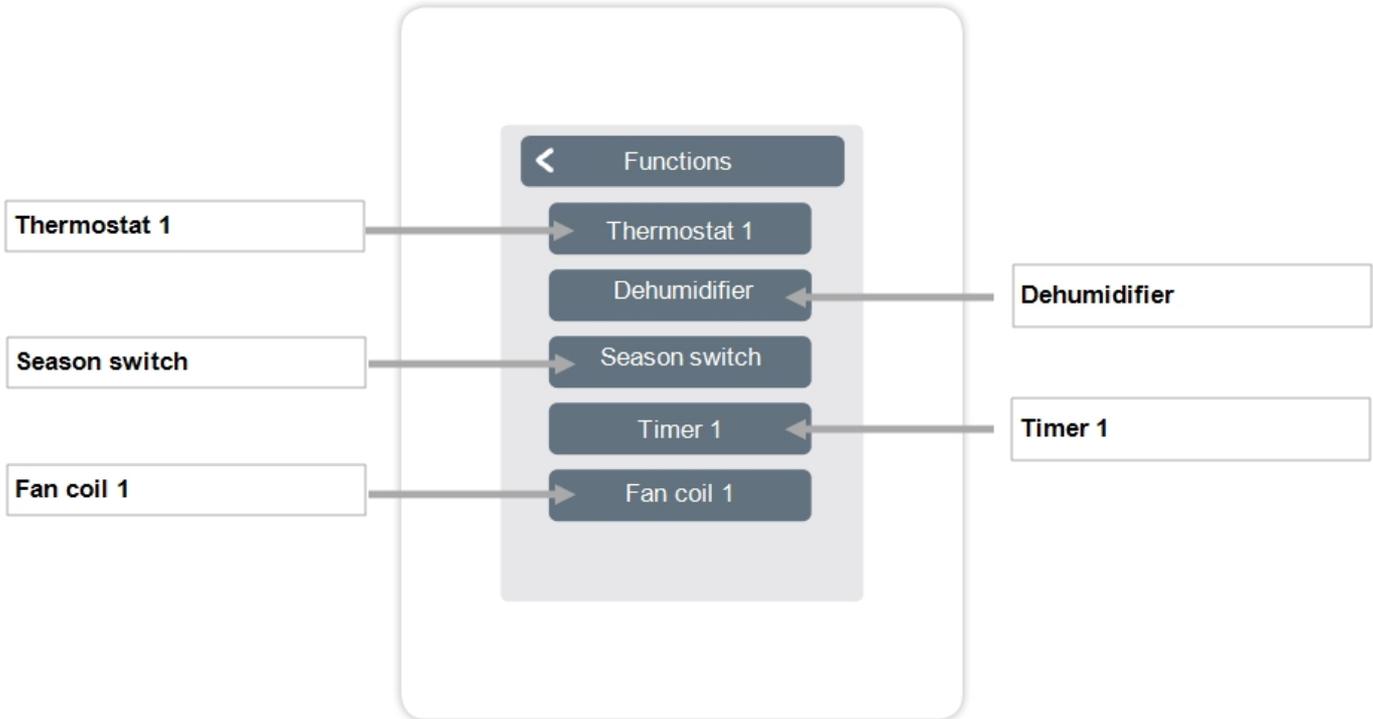
The diagram illustrates the humidity sensor selection process. On the left, a callout box shows a blue water drop icon with '226.' and '1', labeled 'Sensor icon with CAN-ID + number Selection of the humidity sensor in the selected room.' An arrow points from this icon to the top of a 'Humidity' settings screen. The screen lists three sensors: '°CALEON 47,3%' (selected), '19be010274093094 38,0%', and '--'. A second callout box on the right shows a blue water drop icon with '249.' and '1', labeled 'Sensor icon with CAN-ID + number of humidity sensor in the selected room.' An arrow points from this icon to the second sensor entry on the screen.

| Icon | Label | Value |
|--------|------------------|-------|
| 249. 2 | °CALEON | 47,3% |
| 249. 1 | 19be010274093094 | 38,0% |
| 129. 1 | -- | -- |

Functions

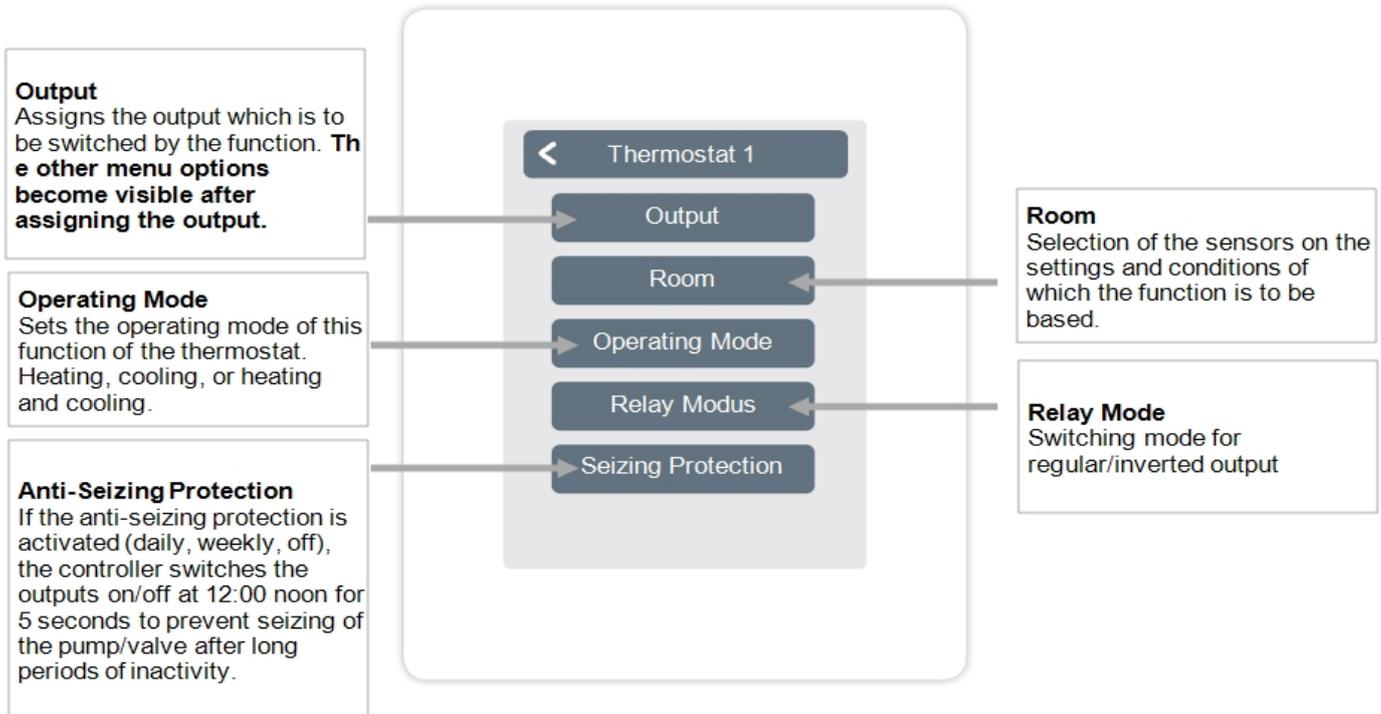
Overview > Operating mode > Menu > Expert > Settings > Functions

Activate and set additional functions.

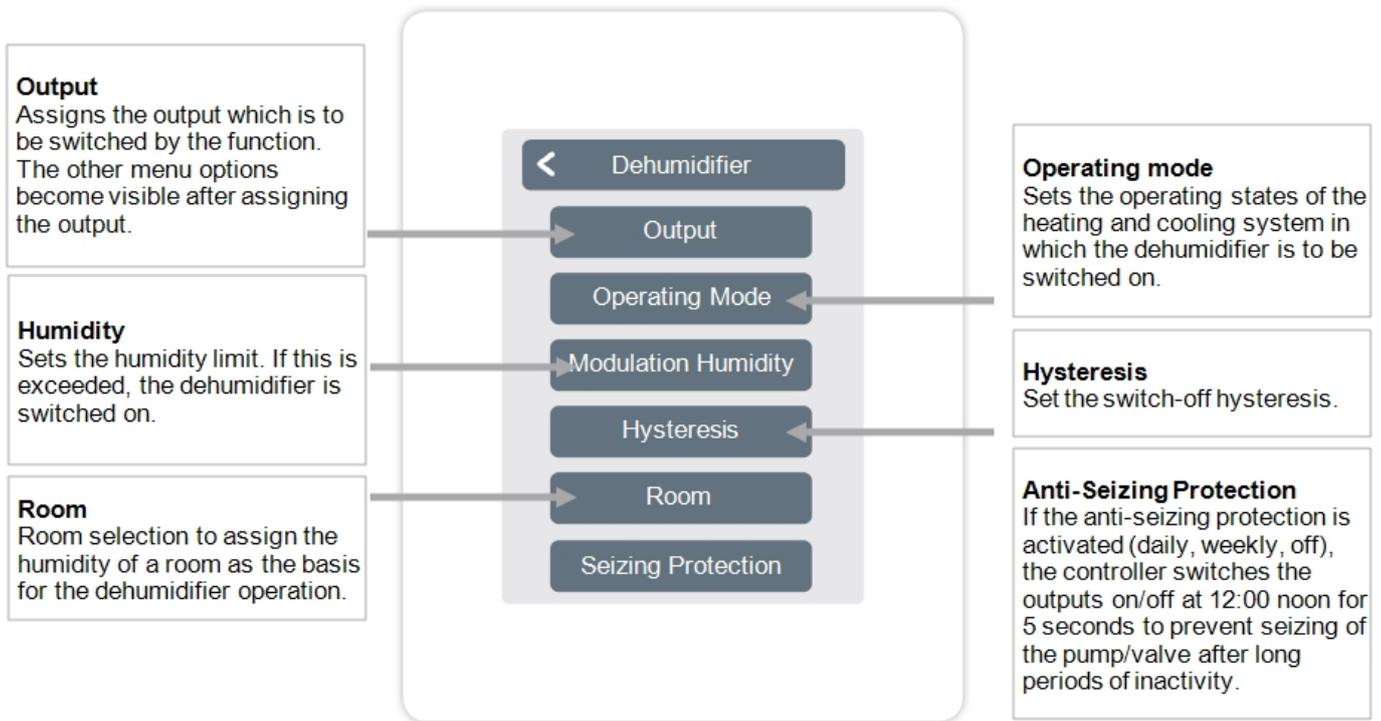


Overview > Operating mode > Menu > Expert > Settings > Functions > Thermostat 1

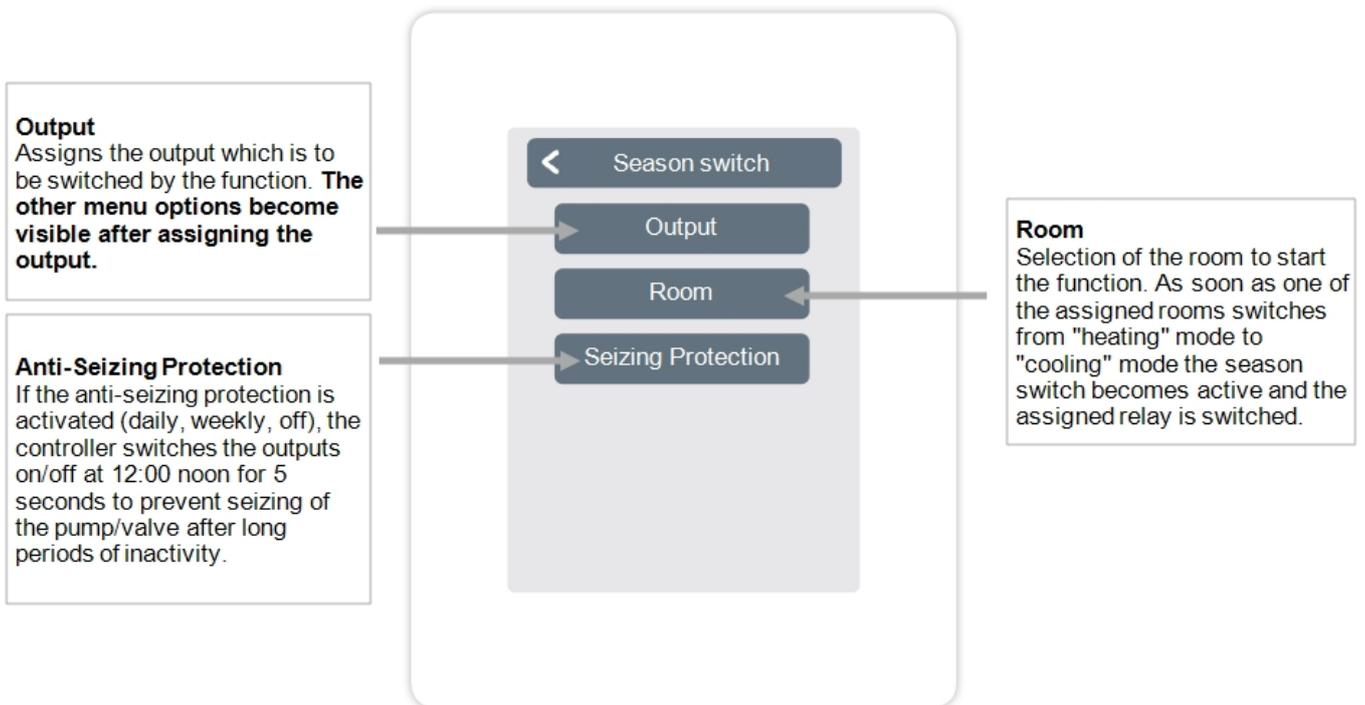
Switches the defined output to the set room / rooms depending on time and temperature.



The dehumidifier function switches the defined output depending on the set humidity in the set room(s).



The seasonal switch changes the operating mode of the heat pump (compressor) between "heating" and "cooling". Therefore the heat pump (compressor) must be compatible with reversible operation.



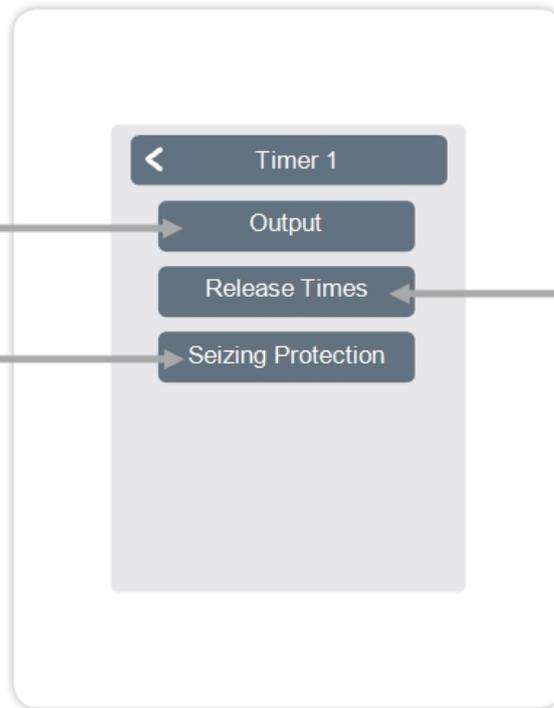
The function Timer 1-2 switches the defined output depending on the set times.

Output

Assigns the output which is to be switched by the function. **The other menu items are visible after assignment of the outputs soon as at least one room has heat demand.**

Anti-Seizing Protection

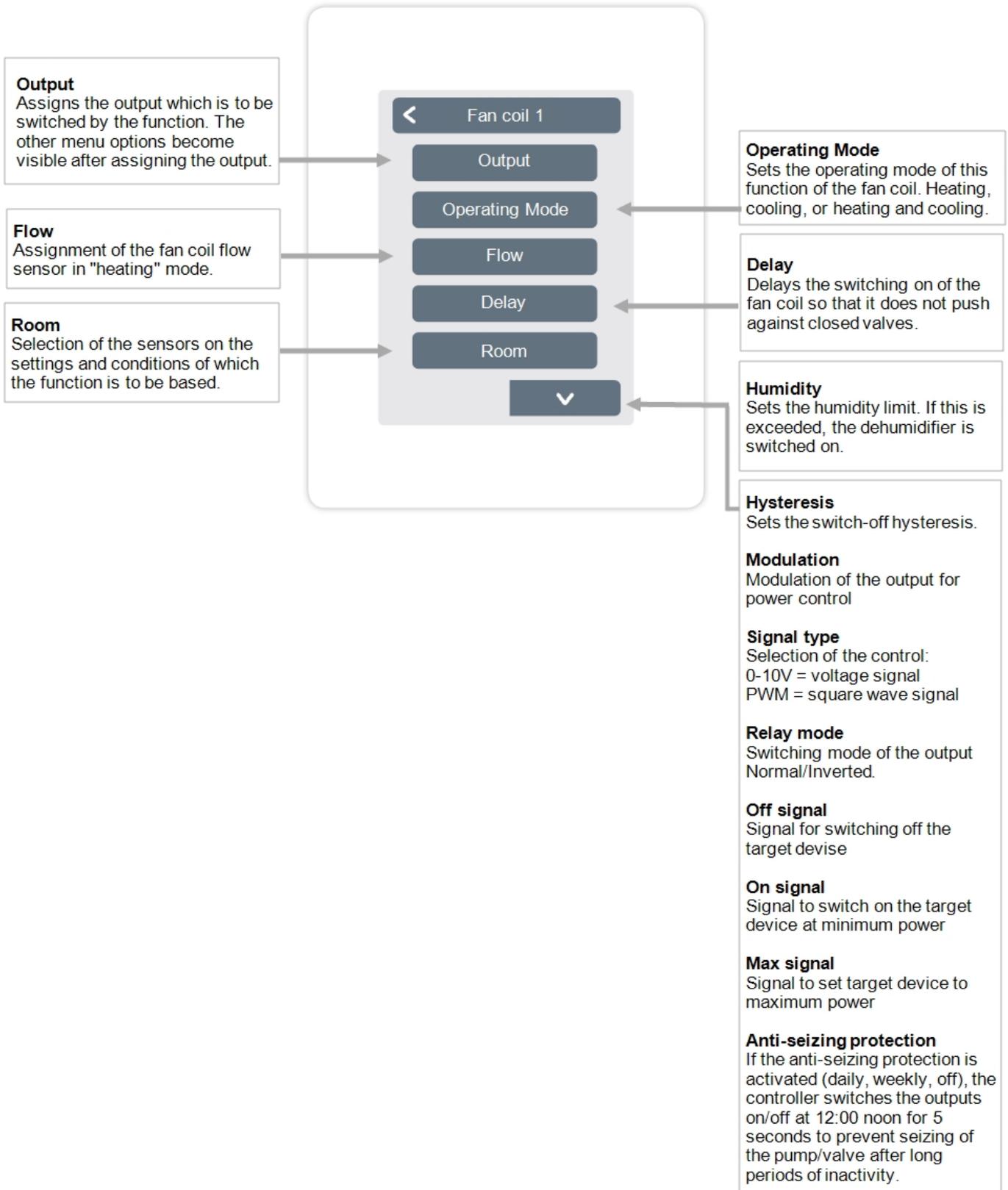
If the anti-seizing protection is activated (daily, weekly, off), the controller switches the outputs on/off at 12:00 noon for 5 seconds to prevent seizing of the pump/valve after long periods of inactivity.

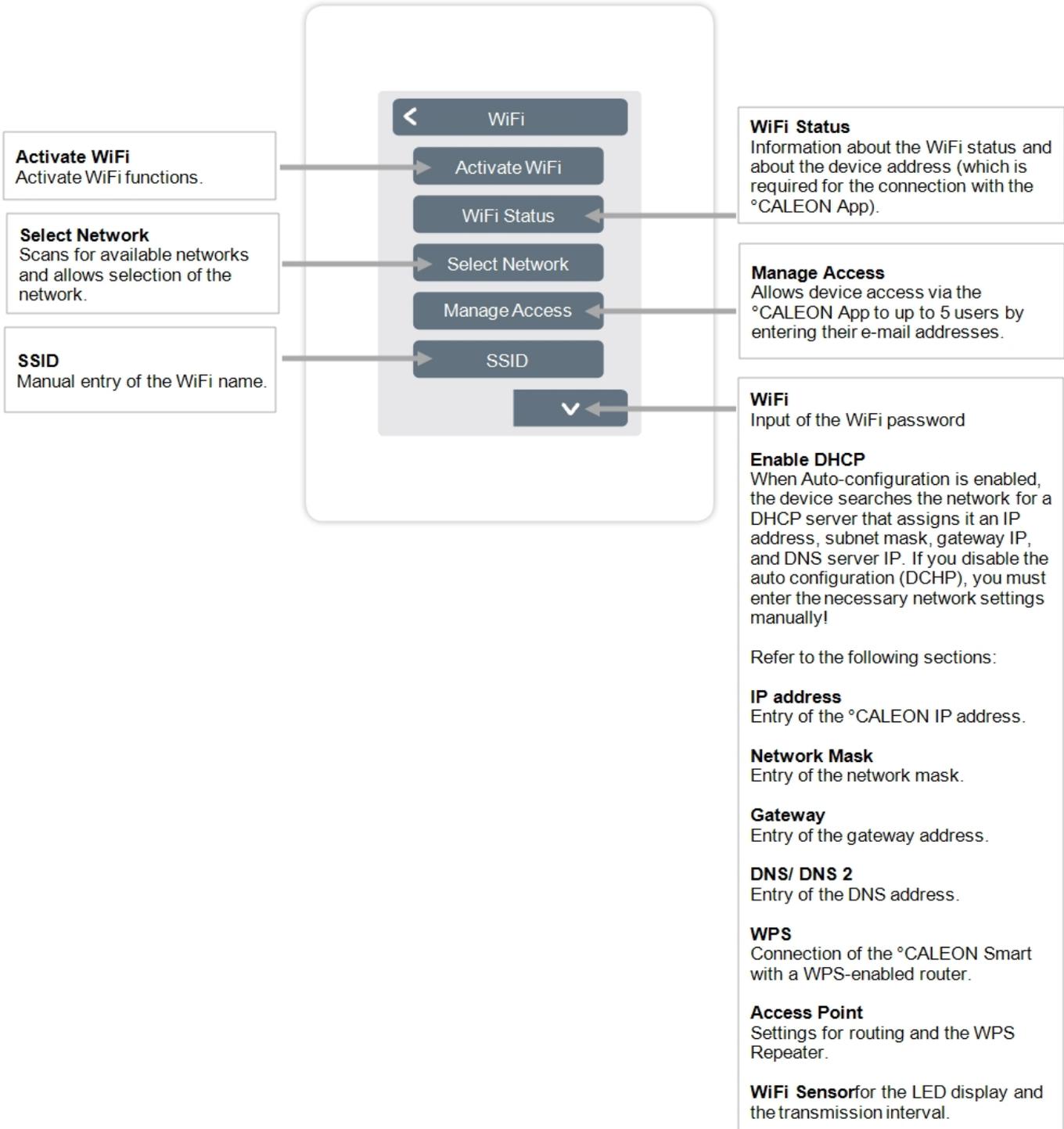


Times

Set the times at which the outputs are to be switched.

The fan coil function controls convection heating and cooling via the 0-10V/PWM outputs .



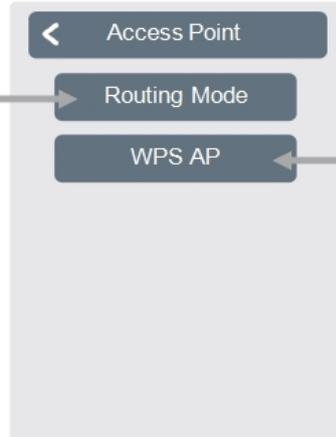


Access Point

Overview > Operating Mode > Menu > Expert > Settings > WiFi > Access Point

Routing Mode

The automatic routing selects independently between a direct connection of WiFi devices with the access point of the °CALEON and indirect connection via the WLAN router. As not all routers support this function, the setting "No" is recommended in case of problems in WiFi communication. In this case, all communication runs via the WLAN router. If there is no router, the communication runs via the access point of the °CALEON.



WPS Repeater

Add a WPS-enabled repeater to increase the range.

WiFi Sensor

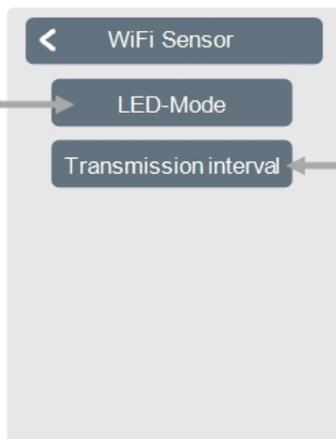
Overview > Operating Mode > Menu > Expert > Settings > WiFi > WiFi Sensor

LED-Mode

Settings for LED behaviour.

Sending of sensor values successful = LED lights up green
Sending of sensor values failed = LED flashes red

In the "Silent" mode, the LED only flashes red if the transmission of the sensor values has failed 3 times in succession.

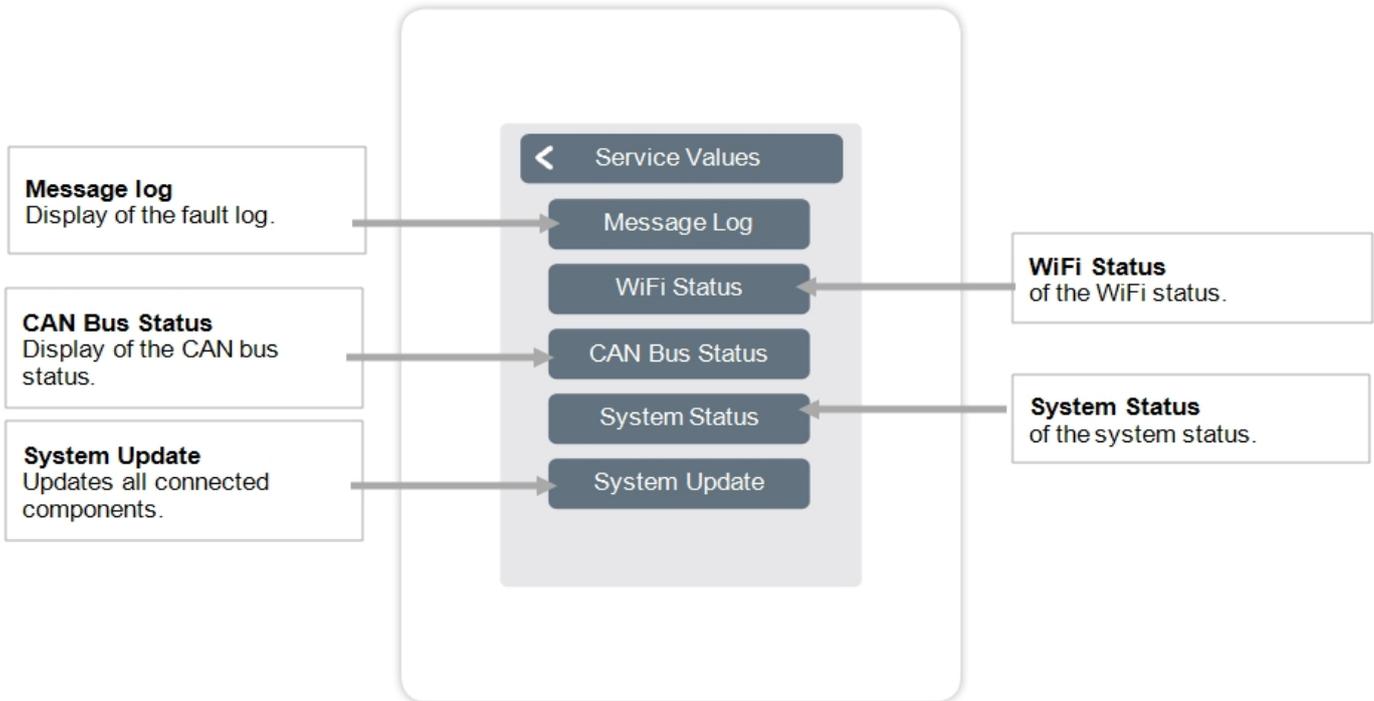


Transmission interval

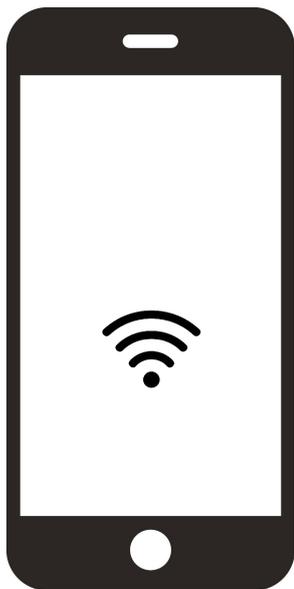
Setting of the time between two transmissions in minutes.



A short transmission interval can lead to problems with the WLAN connection with some routers.



°CALEON WiFi and App Configuration



1.  Download °CALEON app to your mobile device. Currently available on Google Play (Android) and Apple App Store (iOS).
2.  Start app and create account.
3.  Click activation link in your e-mail inbox.
4.  Connect °CALEON with the WLAN network:
Expert → Settings → WiFi → Choose Network
5.  Add selected e-mail address to access list: Expert → Settings → WiFi → Access Control
6.  Log in to °CALEON app with e-mail and password
7.  Enter device address in °CALEON app. The device address can be found in the device:
Expert → Settings → WiFi → WiFi Status

Support

| Event | Support |
|---|---|
| The display does not show anything. | Is the device connected to the power supply? Is the mains connection voltage? Has the electrical connection been made as described in the user manual? |
| The heating/cooling circuit does not respond to my °CALEON . | Is °CALEON assigned to the heating circuit in the controller menu? Is the CAN bus wiring between controller and °CALEON correct? |
| The CAN bus connection is incorrect. | Is the CAN bus connection properly installed and have all devices been wired <u>in line</u> (no star!)? Are end resistors set on the first and last device for termination of the bus? |
| No additional function can be assigned to a relay/V output under "Functions". | Is the selected function already assigned to another output? Is the output already assigned to another function? |

Your problem still exists? Please contact: support@sorel.de.

Notes

Final Declaration

Although these have been created with the greatest possible care, the possibility of incorrect or incomplete information cannot be excluded. Subject as a basic principle to errors and technical changes.

Date and time of installation:

Name of installation company:

Space for notes:

Your specialist dealer:

Manufacturer:

SOREL GmbH Mikroelektronik
Reme-Str. 12
D - 58300 Wetter (Ruhr)

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