oventrop

ClimaCon F

Operating instructions EN

ClimaCon F
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1. General information

The original operating instructions are written in German.

The operating instructions in other languages have been translated from German.

1.1 Validity of the instructions

These instructions are valid for the Oventrop ClimaCon F room thermostats.

Product	Item no.
ClimaCon F 90 (230 V)	1155009
ClimaCon F 100 (230 V)	1155010
ClimaCon F 100 (24 V)	1155510
ClimaCon F 210 (230 V)	1155021
ClimaCon F 310 (230 V)	1155031
ClimaCon F 310 (24 V)	1155531

1.2 Type plate

The type plate is located on the inside of the control unit.

1.3 Scope of delivery

- ClimaCon F room thermostat
- Safety and installation advice

1.4 Contact

OVENTROP GmbH & Co. KG
Paul-Oventrop-Straße 1
59939 Olsberg
GERMANY
www.oventrop.com

Technical service
Phone: +49 (0) 29 62 82-234

1.5 Declaration of conformity

All Oventrop ClimaCon F room thermostats are manufactured in compliance with the relevant provisions of the relevant EU directives.

Oventrop GmbH & Co. KG hereby declares that the wireless installation types ClimaCon F 210 and F 310 comply with the directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

www.oventrop.com.

1.6 Symbols used

	Highlights important information and further additions.
▶	Action required
•	List
1 2	Fixed order. Steps 1 to X.
▷	Result of action

2. Safety-related information

2.1 Correct use

Operational safety is only guaranteed if the product is used as intended.

The ClimaCon F room thermostats are electronically controlled operating devices for controlling surface heating and cooling systems as well as heating and cooling ceilings in detached houses or multiple dwellings.

Any use beyond and/or different from this is unintended use.

Claims of any kind against the manufacturer and/or his authorised representatives for damage resulting from unintended use cannot be recognised.

Intended use also includes correct compliance with these instructions.

2.2 Warnings

Each warning contains the following elements:

Warning symbol SIGNAL WORD

Type and source of danger!
Possible consequences if the danger occurs or the warning is ignored.

- ! Ways to avoid the danger.

Signal words define the severity of the danger posed by a situation.

⚠ WARNING

Indicates a possible danger with moderate risk. If the situation is not avoided, death or serious bodily injuries may result.

⚠ CAUTION

Indicates a possible danger with lower risk. If the situation is not avoided, minor and reversible bodily injuries will result.

NOTICE

Indicates a situation that can potentially result in damage to property if not avoided.

2.3 Safety instructions

We have developed this product in accordance with current safety requirements.

Observe the following instructions for safe use.

2.3.1 Danger due to electric current

- ! Make sure that the product can be disconnected from the power supply at any time.
- ! (**ClimaCon 230 V only**) The power supply you use must meet the criteria of overvoltage categories I or II according to DIN EN 60664-1. At the installation site, observe any additional applicable legal requirements derived from the IEC 60364 or HD 60364.
- ! Do not operate the product if there is visible damage.
- ! Work on the power supply may only be carried out by a specialist electrician.
- ! Disconnect the product from the power supply at all poles for installation work, secure it against being switched on again and check that no voltage is present.
- ! Only install the product in dry indoor areas.
- ! For devices with a 24 V power supply, use a SELV voltage source that is galvanically isolated from the earth potential.
- ! The setback input (ClimaCon F 90, F 100; terminal 4) and the change-over input (ClimaCon F 100, F 310; terminal 5) are not potential-free. Avoid direct contact. Do not connect any equipment here that could be damaged by electrical potentials or whose function could be disturbed.

2.3.2 Danger due to insufficient personnel qualification

Work on this product may only be carried out by suitably qualified specialist tradespeople.

Due to their professional training and experience as well as knowledge of the relevant legal regulations, qualified specialist tradespeople are able to carry out work on the described product in a professional manner.

Operator
The operator must be instructed in the operation by specialist tradespeople.

2.3.3 Availability of the operating instructions

Every person who works with this product must have read and apply this manual and all applicable instructions.

The instructions must be available at the place of use of the product.

- ! Pass on these instructions and all applicable instructions to the operator.

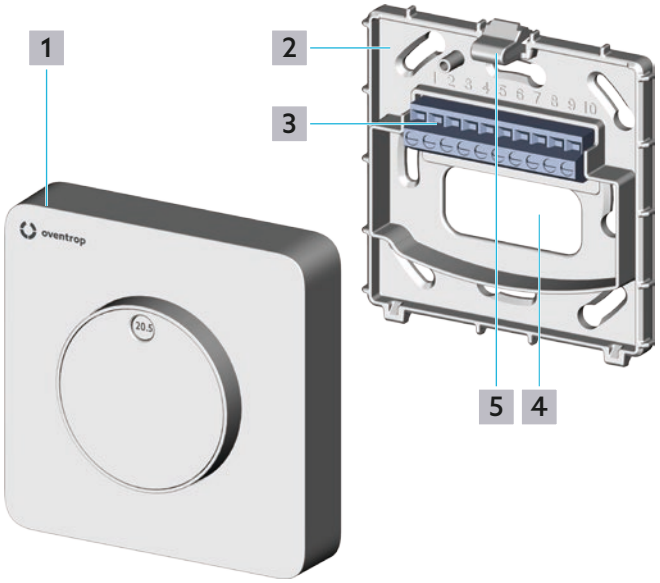
3. Technical description

3.1 Installation scheme (example)

Fig. 1: Installation scheme (example)

3.2 Design

3.2.1 ClimaCon F 90, F 100



1 Control unit
2 Mounting plate
3 Terminal strip
4 Opening for the cable feed
5 Release clip

Fig. 2: Design F 90, F 100

3.2.2 ClimaCon F 210, F 310

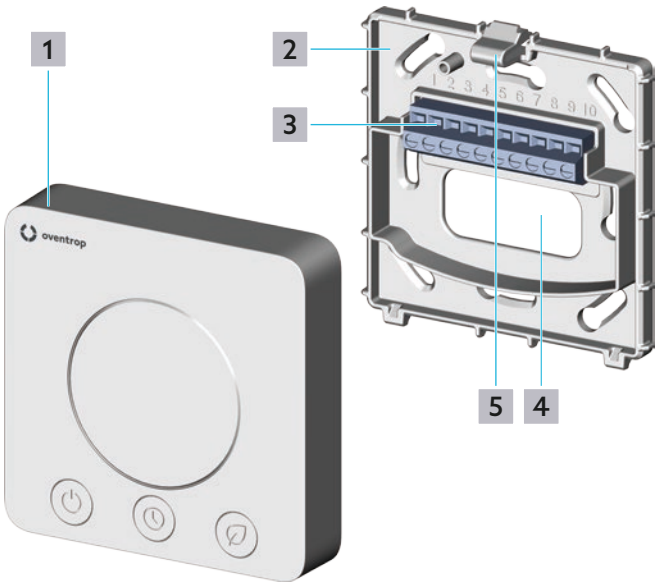


Fig. 3: Design F 210, F 310

1 Control unit
2 Mounting plate
3 Terminal strip
4 Opening for the cable feed
5 Release clip

3.3 Functional description

The ClimaCon F room thermostats are used to control the temperature of surface heating and cooling systems as well as heating and cooling ceilings in detached houses and multiple dwellings.

The ClimaCon F room thermostats control electrothermal actuators (e.g. up to 4 x Aktor T 2P) via a cable connection.

Valves are opened or closed via the electrothermal actuators. If the room temperature is lower than the setpoint temperature, the valves are opened; if the room temperature reaches the setpoint temperature, the valves are closed.

The setpoint temperature is adjusted at the room thermostat.

All product variants offer the same basic functions.

3.3.1 App connection (F 210, F 310)

The ClimaCon F 210 and F 310 product variants can be programmed via smartphone app.

Three modes are available for temperature control.

3.3.1.1 Auto mode

In Auto mode, the temperature control follows a time profile (see par. 7.2.3.2 on page 18).

3.3.1.2 Eco mode

In Eco mode, the temperature is constantly regulated to the "Eco setback temperature" (see par. 7.2.3.1 on page 17).

ClimaCon F 210, F 310 devices are equipped with a **setback output (leader)**. Whenever the Eco mode is active, a voltage is present at this output. The setback output can be connected to the **setback input (follower)** of a ClimaCon F 90, F 100 room thermostat. The voltage at the setback input reduces the temperature at the follower room thermostat by 4 Kelvin compared to the temperature set at the scale (position 2 in Fig. 4 on page 9).

3.3.1.3 Manual mode

You always have the option to set the temperature manually (see par. 8.2.3 on page 21).

3.3.2 Functions in detail

3.3.2.1 ClimaCon F 90 - Only heating / only cooling

- Rotary wheel for adjusting the setpoint temperature
- Frost protection can be activated via rotary wheel
- Follower input for connection to a leader room thermostat

3.3.2.2 ClimaCon F 100 - Heating or Cooling

- Rotary wheel for adjusting the setpoint temperature
- Frost protection can be activated via rotary wheel
- Follower input for connection to a leader room thermostat
- Selection between on/off and PWM via DIP switch
- Switching between heating and cooling via change-over signal

3.3.2.3 ClimaCon F 210 - Only heating / only cooling

- Dot-Matrix display for visualisation of the setpoint temperature, the actual temperature, various error codes, the display "BLu" for the teach-in mode, as well as the OFF display when the device is switched off
- LED display heating or cooling
- LED display with touch surfaces for adjusting the setpoint temperature via the Plus and Minus keys and for switching between Auto and Eco mode
- Control via app (Bluetooth)
- Possible modes: Auto (daily or weekly schedule), Eco/ Setback, Manual
- Frost protection (6 °C/ 43 °F) is activated when the room thermostat is switched off
- Temperature limitation and offset temperature adjustable
- Leader output for controlling the setback temperature of a follower room thermostat

3.3.2.4 ClimaCon F 310 - Heating or cooling

- Dot-Matrix display for visualisation of the setpoint temperature, the actual temperature, various error codes, the display "BLu" for the teach-in mode, as well as the OFF display when the device is switched off
- LED display heating or cooling
- LED display with touch surfaces for adjusting the setpoint temperature via the Plus and Minus keys and for switching between Auto and Eco mode
- Switching between heating and cooling via change-over signal
- Control via app (Bluetooth)
- Possible modes: Auto (daily or weekly schedule), Eco/ Setback, Manual
- Frost protection (6 °C/ 43 °F) is activated when the room thermostat is switched off
- Temperature limitation and offset temperature adjustable
- Leader output for controlling the setback temperature of a follower room thermostat

Only ClimaCon F 310 (24 V)

- 0-10 V output for controlling e.g. Air Handling Units (AHU)
- An external NTC temperature sensor (10 K) can be connected for measuring the actual temperature

3.4 Operating elements and displays

3.4.1 ClimaCon F 90, F 100

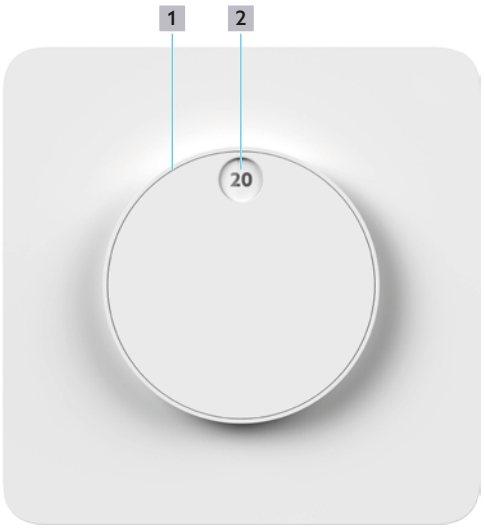


Fig. 4: Operating elements F 90, F 100

1 Rotary wheel

2 Scale

ClimaCon F 100 Switching on/off / PWM

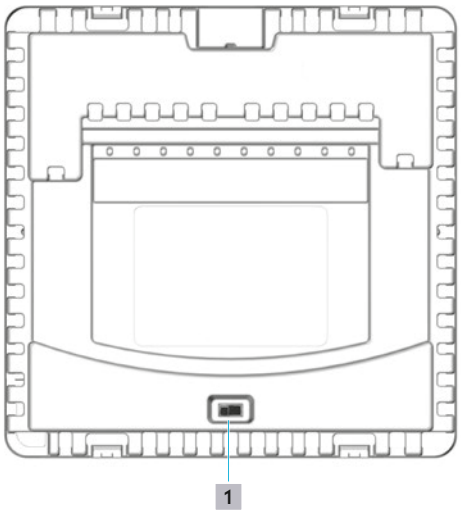


Fig. 5: F 100 Switching on/off / PWM

1 Switch position left = on/off
Switch position right = PWM

3.4.2 ClimaCon F 210, F 310

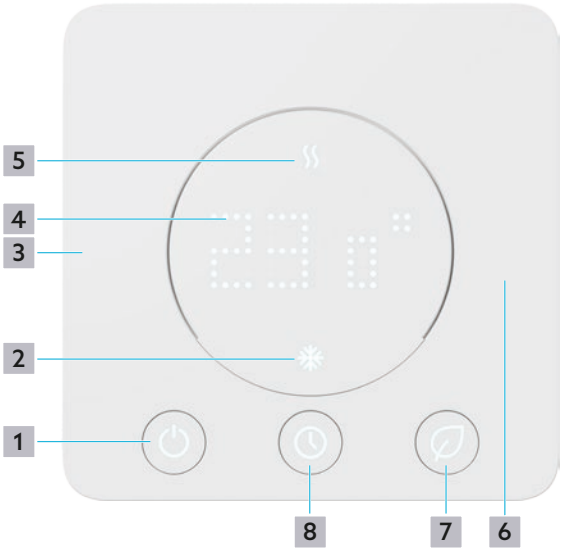


Fig. 6: Operating elements F 210, F 310

1 "ON/OFF" key

2 Display cooling

3 "-" sign, decrease of the desired temperature

4 Temperature display

5 Display heating

6 "+" sign, increase of the desired temperature

7 "Eco mode" key

8 "Auto mode" key

3.5 Technical data

3.5.1 General

Parameter	Value
Mode of operation	Type 1.Y
Contamination degree	2
Software class	A
Rated surge voltage	2500 V
Temperature for the ball pressure test	75 °C

3.5.2 F 90, F 100

3.5.2.1 ClimaCon F 90 (230 V)

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Inputs	• Setback input - 4 K (follower), not potential-free The setback function is only useful in pure heating mode!
Outputs	On/off
Accuracy at +25 °C	+/- 1 K
Required actuator	Heating Electrothermal actuator "normally closed" or Cooling Electrothermal actuator "normally open"
Fuse	SMD (not exchangeable)
Colour	White
Operating voltage	230 V AC / 50-60 Hz
Protection class	II
Dimensions (WxHxD) mm	88x88x25

3.5.2.2 ClimaCon F 100 (230 V)

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Inputs	• Setback input - 4 K (follower), not potential-free The setback function is only useful in pure heating mode! • Change-Over, not potential-free
Outputs	On/off / PWM
Accuracy at +25 °C	+/- 1 K
Required actuator	Electrothermal actuator "normally closed"
Fuse	SMD (not exchangeable)
Colour	White
Operating voltage	230 V AC / 50-60 Hz
Protection class	II
Dimensions (WxHxD) mm	88x88x25

3.5.2.3 ClimaCon F 100 (24 V)

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Inputs	• Setback input - 4 K (follower), not potential-free The setback function is only useful in pure heating mode! • Change-Over, not potential-free
Outputs	On/off / PWM
Accuracy at +25 °C	+/- 1 K

Required actuator	Electrothermal actuator "normally closed"
Fuse	SMD (not exchangeable)
Colour	White
Operating voltage	24 V AC +/- 15 %
Protection class	III
Dimensions (WxHxD) mm	88x88x25

3.5.3 F 210, F 310

3.5.3.1 ClimaCon F 210

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Outputs	• Setback output (leader, max. 10 mA for up to 10 ClimaCon F 90, F 100) • On/off / PWM
Accuracy at +25 °C	+/- 1 K
Required actuator	Electrothermal actuator "normally closed"
Fuse	SMD (not exchangeable)
Colour	White
Operating voltage	230 V AC / 50-60 Hz
Protection class	II
Bluetooth	BLE 5.0
App	For smartphones in portrait format (Android:7.x; iOS:13.x)
App languages	DE/EN/FR
Dimensions (WxHxD) mm	88x88x20

3.5.3.2 ClimaCon F 310 (230 V)

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Input	Change-Over, not potential-free
Outputs	• Setback output (leader, max. 10 mA for up to 10 ClimaCon F 90, F 100) • On/off / PWM • Potential-free contact (max 230 V, 90 mA DC/AC)
Accuracy at +25 °C	+/- 1 K
Required actuator	Electrothermal actuator "normally closed"
Fuse	SMD (not exchangeable)
Colour	White
Operating voltage	230 V AC / 50-60 Hz
Protection class	II
Bluetooth	BLE 5.0
App	For smartphones in portrait format (Android:7.x; iOS:13.x)
App languages	DE/EN/FR
Dimensions (WxHxD) mm	88x88x20

3.5.3.3 ClimaCon F 310 (24 V)

Parameter	Value
Temperature adjustment range	12 °C to 28 °C, frost protection
Protection category	IP20
Switching current (short-time)	1 A
Switching capacity	Max. 5.5 W (4xAktor T2P)
Input	• External temperature sensor (10 K NTC) • Change-Over, not potential-free
Outputs	• Setback output (leader, max. 10 mA for up to 10 ClimaCon F 90, F 100) • On/off / PWM • Potential-free contact (max 24 V, 90 mA DC/AC) • 0-10 V output (max. 10 mA)
Accuracy at +25 °C	+/- 1 K
Required actuator	Electrothermal actuator "normally closed"
Fuse	SMD (not exchangeable)

Colour	White
Operating voltage	24 V AC +/- 15 %
Protection class	III
Bluetooth	BLE 5.0
App	For smartphones in portrait format (Android:7.x; iOS:13.x)
App languages	DE/EN/FR
Dimensions (WxHxD) mm	88x88x20

4. Accessories and spare parts

You will find the current accessories and spare part list on our website.

- ▶ Call up the search on the website **www.oventrop.com** by clicking on the magnifying glass symbol and search for 1155.
- ▶ Select your product.
- ▷ Here you can find all information on your product.

5. Transport and storage

Parameter	Value
Temperature range	0 °C to +50 °C
Relative air humidity	Max. 95 %, non-condensing
Particles	Store in a dry and dust-protected place
Mechanical influences	Protected from mechanical shock
Weather influences	Do not store outdoors
	Protect from sunlight
Chemical influences	Do not store together with aggressive media

6. Mounting

⚠ WARNING

Danger to life due to electric current !
There is a danger to life if live components are touched.

- ! (**ClimaCon 230 V only**) The power supply you use must meet the criteria of overvoltage categories I or II according to DIN EN 60664-1. At the installation site, observe any additional applicable legal requirements derived from the IEC 60364 or HD 60364.
- ! Check that not voltage is present.
- ! Secure the product against being switched on again.

NOTICE

Damage to the ClimaCon due to unsuitable power supply (24 V version)

- ! Use a SELV voltage source galvanically isolated from the earth potential.

6.1 Tools required

- Pen for marking the drill holes
- Percussion drill with masonry drill bit
- Slotted screwdriver or current tester

6.2 Loosening of the mounting plate

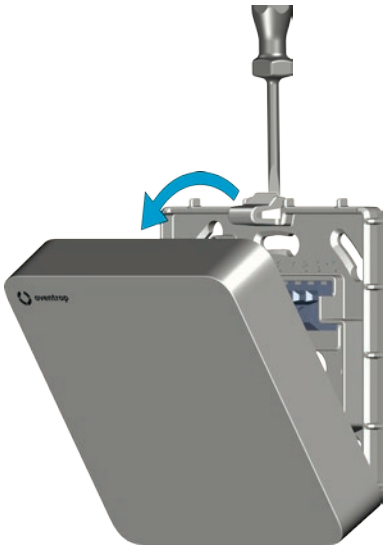


Fig. 7: Loosening of the mounting plate

1. Press the release clip (position 5 in Fig. 2 on page 7 or position 5 in Fig. 3 on page 8) down slightly and detach the control unit from the mounting plate.
2. Put the control unit to one side.

6.3 Mounting of the mounting plate

The ClimaCon F room thermostat is designed for surface-mounted installation.

Operate the room thermostat at a location in the room where the room air is well distributed. Mount the room thermostat on an interior wall or on a pillar, at a height of 140 cm to 170 cm. Make sure that the room thermostat is not thermally influenced by extraneous heat (e.g. solar radiation or nearby heating devices).

The supply line is fed into the device through the opening for the cable feed (see position 4 in Fig. 2 on page 7 or position 4 in Fig. 3 on page 8). The supply line must therefore already protrude from the wall at the designated location. The cross-section of the cores must be 0.5 – 2.5 mm² for flexible lines and 1 – 2.5 mm² for fixed wiring. The line type used must have a rated voltage of at least 300 V (e.g. NYM cable).

Alternatively, the mounting plate can also be mounted on a standard flush-mounted box.

For mounting and installing the actuators you use, observe the respective operating instructions.

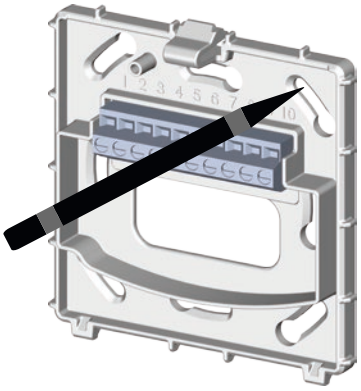


Fig. 8: Mounting of the mounting plate

1 Hold the mounting plate flat against the wall and align it perpendicularly.

2 Mark the drill holes with a pen.

WARNING

Danger to life due to electric current !
Damage to live lines can cause electric shocks or fires.

! Be careful not to drill into electrical lines.

3 Drill at least two holes (opposite each other) and insert dowels.

4 Screw on the mounting plate.

Only use device screws for switch boxes (countersunk screws).

If you use screws with thicker screw heads, you will not be able to mount the control unit.

6.4 Electrical connection of the room thermostat

6.4.1 Terminal assignment

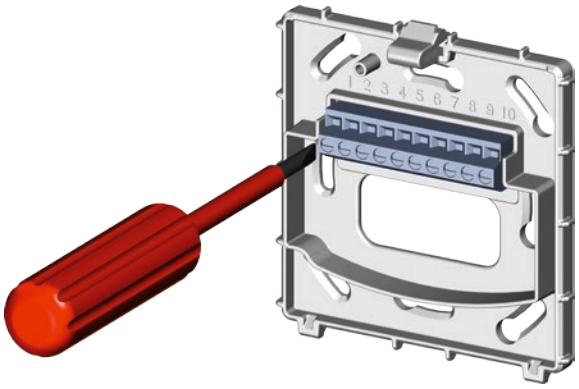
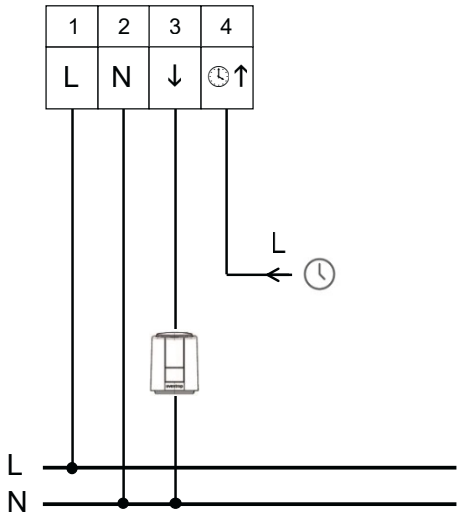


Fig. 9: ClimaCon F - Electrical connection

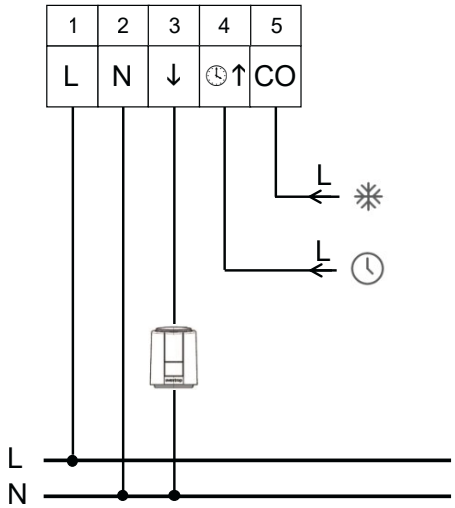
6.4.1.1 ClimaCon F 90 (230 V) (item no.1155009)

Terminal	Assignment
1	IN (L 230 V) operating voltage
2	IN (N 230 V) operating voltage
3	OUT (L 230 V) on/off
4	IN (L 230 V) setback input, not potential-free



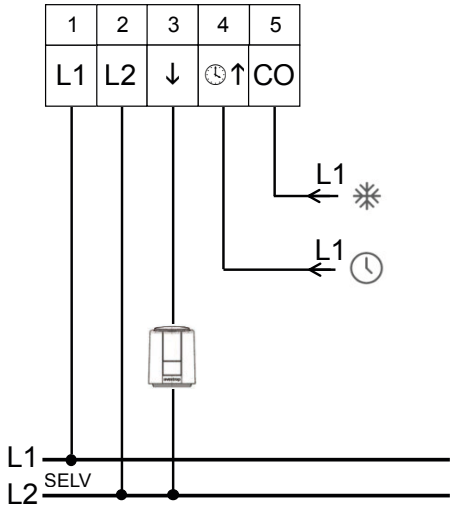
6.4.1.2 ClimaCon F 100 (230 V) (item no. 1155010)

Terminal	Assignment
1	IN (L 230 V) operating voltage
2	IN (N 230 V) operating voltage
3	OUT (L 230 V) on/off / PWM
4	IN (L 230 V) setback input, not potential-free
5	IN (L 230 V) change-over, not potential-free



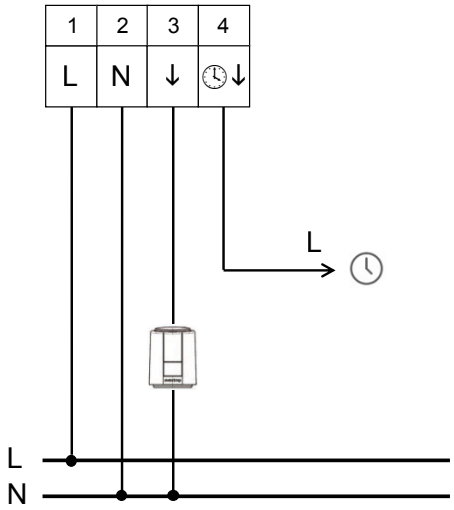
6.4.1.3 ClimaCon F 100 (24 V) (item no. 1155510)

Terminal	Assignment
1	IN (L1 24 V AC) operating voltage
2	IN (L2 24 V AC) operating voltage
3	OUT (L1 24 V AC) on/off / PWM
4	IN (L1 24 V AC) setback input, not potential-free
5	IN (L1 24 V AC) change-over, not potential-free



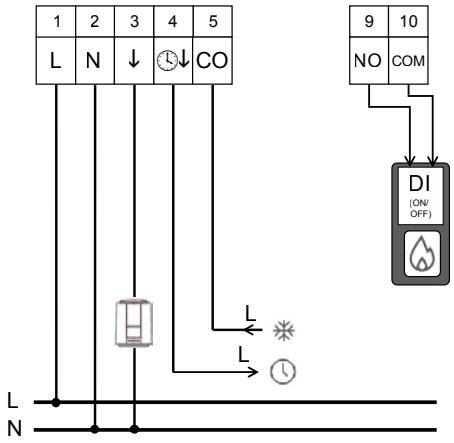
6.4.1.4 ClimaCon F 210 (230 V) (item no. 1155021)

Terminal	Assignment
1	IN (L 230 V) operating voltage
2	IN (N 230 V) operating voltage
3	OUT (L 230 V) on/off / PWM
4	OUT (L 230 V) setback output



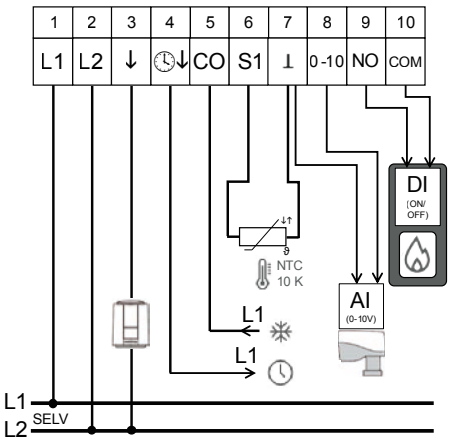
6.4.1.5 ClimaCon F 310 (230 V) (item no. 1155031)

Terminal	Assignment
1	IN (L 230 V) operating voltage
2	IN (N 230 V) operating voltage
3	OUT (L 230 V) on/off / PWM
4	OUT (L 230 V) setback output
5	IN (L 230 V) change-over, not potential-free
9	OUT (NO) potential-free contact (max 230 V, 90 mA DC/AC)
10	OUT (COM) potential-free contact (max 230 V, 90 mA DC/AC)



6.4.1.6 ClimaCon F 310 (24 V) (item no. 1155531)

Terminal	Assignment
1	IN (L1 24 V AC) operating voltage
2	IN (L2 24 V AC) operating voltage
3	OUT (L1 24 V AC) on/off / PWM
4	OUT (L1 24 V AC) setback output
5	IN (L1 24 V AC) change-over, not potential-free
6	IN (A) ext. 10 K NTC
7	IN (B) ext. 10 K NTC
8	OUT (signal) 0-10 V (max. 10mA)
9	OUT (NO) potential-free contact (max 24 V, 90 mA DC/AC)
10	OUT (COM) potential-free contact (max 24 V, 90 mA DC/AC)



6.4.2 Connection of the room thermostat

NOTICE

Damage to the ClimaCon due to several outer conductors (phases) in the installation!

! Use the same outer conductor (phase) for terminals 1 (operating voltage), 4 (setback input or setback output) and 5 (change-over). If this is not possible on site, ensure the separation of the phases by means of a coupling relay.

⚠ WARNING

Only ClimaCon F 310 (24 V) (item no. 1155531) Danger to life due to excessive voltages at the terminals for potential-free contacts!

! Only apply extra-low voltages (SELV) to terminals 9 and 10.

▶ Connect the cores to the terminal strip according to the terminal assignment for your product variant (stripping length 6 mm).

6.4.3 Fitting of the control unit

NOTICE

Damage to the device due to incorrect operating voltage!

Mounting plates and operating elements of the different product variants are not compatible with each other.

! Only combine components of the same product variant with each other.

▶ Connect the control unit to the mounting plate by first placing the control unit on the lower edge of the mounting plate and then pressing it on with a slight twisting motion.

▷ The room thermostat is completely mounted when the release clip is audibly engaged.

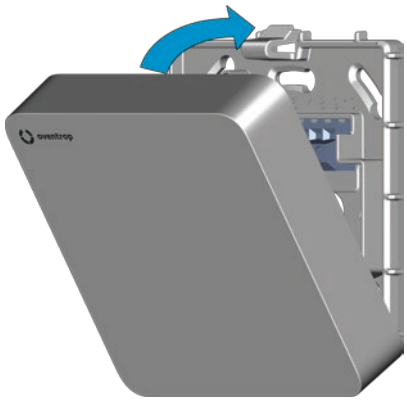


Fig. 10: Fitting of the control unit

6.5 App installation (F 210, F 310)

The ClimaCon F app is available for both Android and iOS.

Note the minimum requirements regarding the version of the operating system and the Bluetooth version (see par. 3.5 on page 10).

1 Go to the Appstore for your operating system.

GET IT ON Google Play

Download on the App Store

2 Search for the Oventrop App "ClimaCon" and install it.

7. Commissioning

CAUTION

Danger due to electric current!
The setback input (ClimaCon F 90, F 100; terminal 4) and the change-over input (ClimaCon F 100, F 310; terminal 5) are not potential-free.

- ! Avoid direct contact.
- ! Do not connect any equipment here that could be damaged by electrical potentials or whose function could be disturbed.

7.1 Establishment of the power supply

▶ Establish the power supply.

▷ The room thermostat is now ready for operation.

7.2 ClimaCon F 210, F 310

▷ The display shows the currently measured temperature. After approx. 5 seconds, the display switches off.

7.2.1 ClimaCon F 210, F 310 - Teach-in

A ClimaCon F room thermostat corresponds to a room in the ClimaCon app.

1 Switch on the room thermostat (position 1 in Fig. 6 on page 9).

2 Press the "Eco mode" and "Auto mode" keys simultaneously for approx. 3 seconds (positions 7 and 8 in Fig. 6 on page 9).

Fig. 11: ClimaCon F - Activation of the teach-in mode

▷ The "Eco mode" and "Auto mode" key flash alternately. The display shows "BLu".

▷ The teach-in mode is active.

The teach-in mode remains active for approx. 1 minute. Without teach-in mode, the device switches off and retains the previous settings.

3 Start the ClimaCon F app on your smartphone.

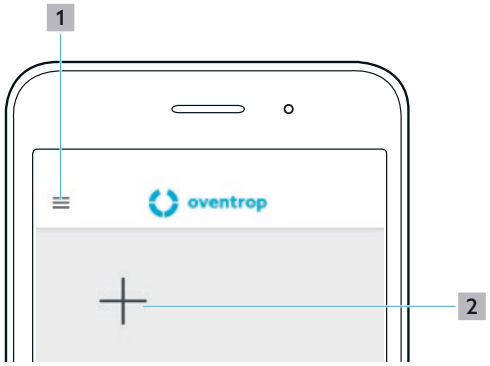


Fig. 12: ClimaCon F app - Start screen

1 General information

2 "+" sign (teach-in of the room thermostat)

4 Tap the "+" sign to teach in a (further) room thermostat.

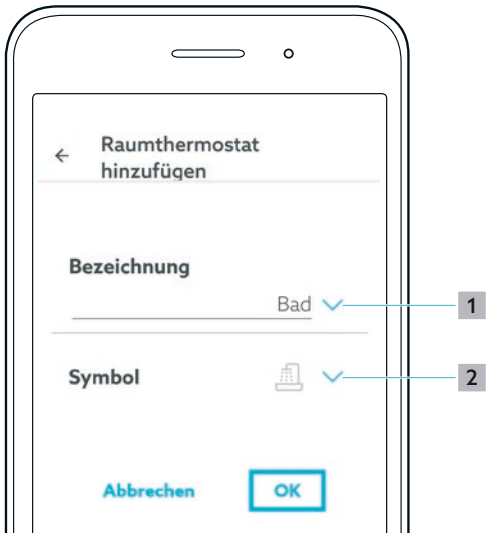


Fig. 13: ClimaCon F app - Start screen

1 Room

2 Symbol

5 Name the room in which the room thermostat is operated.

IBy tapping the arrow (position 1 in Fig. 13 on page 16), you have the possibility to make the appropriate selection from a given list.

Alternatively, you can enter a desired text manually.

6 Select a suitable symbol from the list (position 2 in Fig. 13 on page 16).

7 Confirm the entry with "OK".

▷ The overview page for this room thermostat appears.

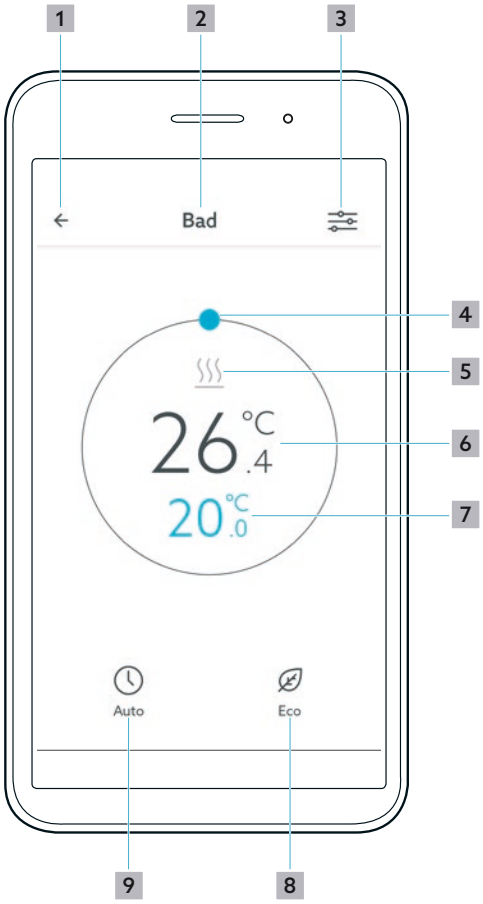


Fig. 14: ClimaCon F app - Room thermostat overview

1 Back to the room thermostat selection

2 Room

3 Call-up of the Settings menu

4 Manual temperature selection

5 Heating or cooling display

6 Measured temperature

7 Setpoint temperature

8 "Eco mode"

9 "Auto mode"

If the "heating" or the "cooling" symbol lights up blue, "heating" or "cooling" is active. When the room has reached the setpoint temperature, the symbol turns grey.

ClimaCon F 310:
Depending on whether heating or cooling is signalled to the room thermostat at the change-over connection, the corresponding symbol is displayed here.

7.2.2 ClimaCon F 210, F 310 - Removal of a room thermostat

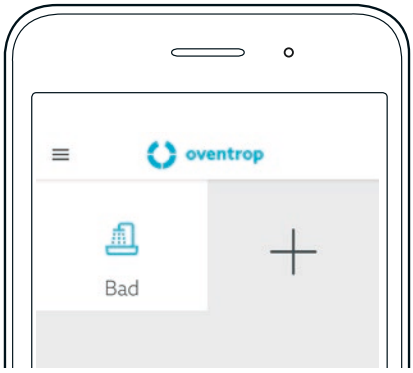


Fig. 15: ClimaCon F app - Removal of a room thermostat

▶ Tap and hold the room thermostat that you want to remove.

▷ A selection menu opens in which you can remove the room thermostat.

7.2.3 ClimaCon F 210, F 310 - Setting of the heating profile

You can regulate the room temperature in three ways.

- **Auto mode**
  In Auto mode, the temperature control follows a time profile.
- **Eco mode**
  In Eco mode, the temperature is constantly regulated to the "Eco setback temperature".
- **Manual mode**
  In addition, you always have the option to set the temperature manually.

7.2.3.1 Setting of the "Eco setback temperature"

1 Tap the key "Call-up of the Settings menu" on the overview screen of the room thermostat for which you want to make the settings (position 3 in Fig. 14 on page 17).

▷ The "Time profile" submenu opens in the "Settings" menu for the selected room thermostat.

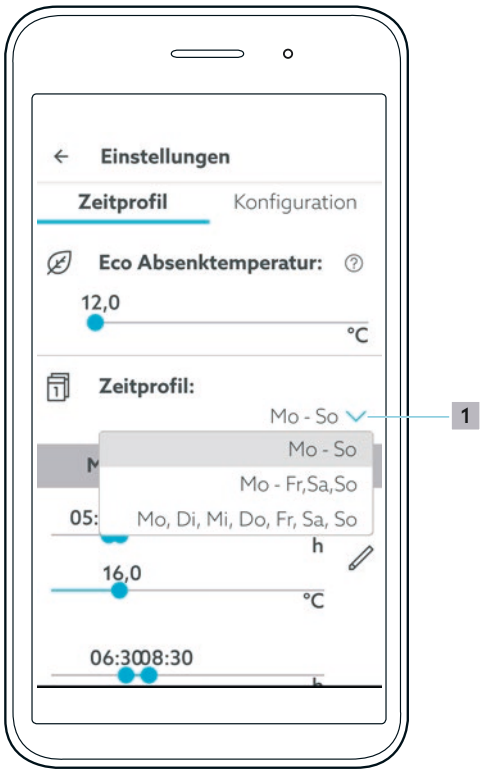


Fig. 16: ClimaCon F app - Weekly profile

1 Selection of the weekly profile

2 Set the desired "Eco setback temperature" by moving the blue dot to the desired value with your finger or a pen.

7.2.3.2 Setting of a time profile

1 Select the weekly profile

You can choose from three weekly profiles.

- "Mo - Su": With this weekly profile, you configure identical temperature curves for each day of the week.
- "Mo - Fr, Sa, Su": With this weekly profile, you configure uniform values for the working days and individual different values for Saturday and Sunday.
- "Mo, Tu, We, Thu, Fr, Sa, Su": With this weekly profile, you configure individual values for each day of the week.

2 Tap the "+" sign below the day of the week.

▷ A time profile with default values is created for this entry.

Up to three time periods per day can be configured.

You can set the desired start and end of the respective time period as well as the setpoint temperature by moving the blue dots to the corresponding values.

Time periods in the daily routine that you do not configure here are interpreted by the system as times during which the Eco setback temperature should apply.

3 Set the desired time periods and the desired temperatures.

Numerical time entry

Alternatively, you can enter the times numerically. You can call up the input menu by tapping on the pen symbol (position **1** in Fig. 17 on page 18). Here you can also delete the respective time profile (Fig. 18 on page 19).

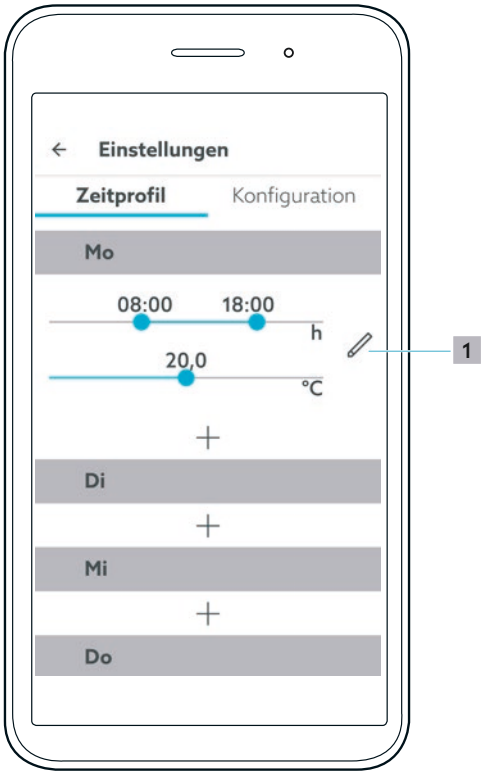


Fig. 17: ClimaCon F app - Time profile

1 Manual time entry

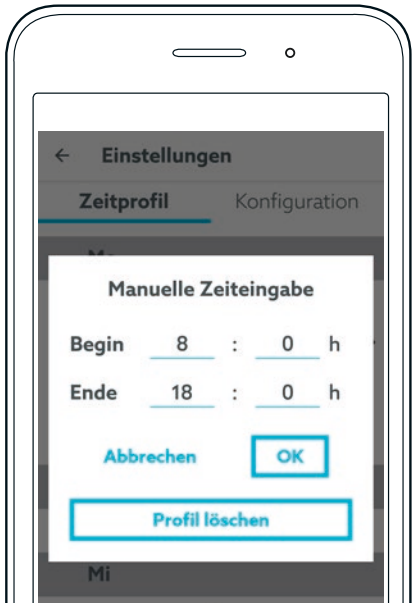


Fig. 18: ClimaCon F app - Manual time entry

7.2.4 ClimaCon F 210, F 310 - Configuration

▶ Tap "Configuration" in the "Settings" menu.

7.2.4.1 Temperature limitation

The maximum adjustable temperature range is between 12 °C and 28 °C.

The adjustable temperature range can be limited here.

Example:

If the room temperature is to be at least 18 °C and at most 25 °C, set the values here accordingly. With this basic setting, the room temperature can then only be controlled in the range between 18 °C and 25 °C in the app and on the room thermostat.

7.2.4.2 Operating mode

The currently set operating mode "Heating" or "Cooling" is displayed here.

The corresponding setting can be changed in the "Extended settings" menu (Fig. 20 on page 19).

7.2.4.3 Correction offset

In unfavourable installation conditions, the temperature measured on the room thermostat can deviate greatly from the actual room temperature.

In these cases, you can define a correction offset to compensate for the deviation.

1 Determine the temperature deviation.

2 Set the correction offset accordingly.

7.2.4.4 Designation

▶ Here you can change the name of the currently selected room thermostat.

7.2.4.5 Symbol

▶ Here you can change the symbol for the currently selected room thermostat.

7.2.4.6 Automatic summer time

▶ Select whether the app should automatically switch between standard time and summer time.

7.2.4.7 Removal of a room thermostat

▶ Here you can remove the currently selected room thermostat.

▷ After the room thermostat has been removed, the app switches to the start screen (Fig. 12 on page 16).

7.2.4.8 Firmware room thermostat

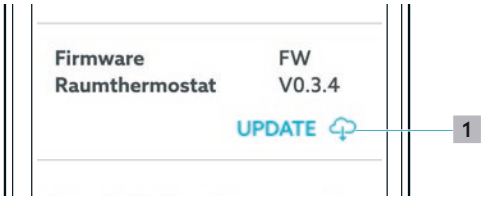


Fig. 19: ClimaCon F app - Firmware update

1 Call-up of the firmware update

7.2.4.9 Extended settings

Fig. 20: ClimaCon F app - Call-up of the extended settings

1 Call-up of the extended settings

Fig. 21: ClimaCon F App - Entering the installer code

▶ To call up the extended settings, enter the installer code 2962 and confirm the entry with "OK".

7.2.5 ClimaCon F 210, F 310 - Extended settings

NOTICE

Malfunctions due to improper configuration!
Improperly configured extended settings can cause unexpected room temperatures and damage parts of the system.

! Extended settings may only be carried out by specialist tradespeople who are sufficiently qualified.

7.2.5.1 Unit

Here you can choose between the units °Celsius and °Fahrenheit.

This setting affects all temperature settings in the app and at the room thermostat.

7.2.5.2 Operating mode

Here you can switch between the operating modes.

- ClimaCon F 210: Heating / Cooling
- ClimaCon F 310: Heating / Cooling / Heating or cooling

7.2.5.3 Sensor (F 310 24 V)

The room temperature can be measured via the internal sensor or optionally via an external sensor.

Here you select which sensor is to be used.

7.2.5.4 External limitation (F 310 24 V)

If a temperature sensor is connected to measure the surface temperature, the maximum/minimum permissible temperatures can be set here.

If these temperatures are exceeded or undercut, the connected actuator is closed.

This can only be selected if the internal sensor is used for temperature measurement.

7.2.5.5 Output signal of the actuator

Electrothermal actuators can be wired with an on/off control or pulse-width modulation.

For surface heating systems, we generally recommend pulse-width modulation (PWM). This enables a fast and accurate reaction to temperature differences between the measured actual values and the defined setpoint values.

With PWM control, the opening and closing time of the actuator is calculated from the temperature difference between the actual value and the setpoint value.

The higher the difference, the longer the actuator remains open.

By setting a hysteresis, you define the value by which the measured temperature may deviate from the setpoint temperature before the actuator is opened for heating or cooling.

The optimum value depends on the design of the system.

7.2.5.6 Output signal 0 - 10 V (ClimaCon F 310 (24 V)

The reaction of the 0-10 V output is influenced by the P and I components.

P component

Setting of the height of the proportional band of the PI controller.

I component

Setting of the height of the integral component of the PI controller.

7.2.5.7 Valve protection

Once a week, the actuator is fully opened and closed. This ensures that the valve cannot get stuck during a longer standstill.

The point in time within the week can be set here.

8. Operation

8.1 ClimaCon F 90, F 100

Select the desired setpoint temperature with the rotary wheel (position 1 in Fig. 4 on page 9).

Observe the notes on the function of the setback input (follower) in par.. 3.3.1.2 on page 8.

8.2 ClimaCon F 210, F 310

8.2.1 Auto mode

Auto mode is active when the "Auto mode" display lights up.

Temperature control is time-controlled according to the set values (see par. 7.2.3 on page 17).

- To activate or deactivate the Auto mode, tap "Auto mode" on the room thermostat (position 8 in Fig. 6 on page 9) or in the app (position 9 in Fig. 14 on page 17).

8.2.2 Eco mode

- When Eco mode is activated, the room thermostat constantly maintains the set Eco setback temperature (see par. 7.2.3.1 on page 17).
- Observe the notes on the function of the setback output (leader) in par. 3.3.1.2 on page 8.

- To activate or deactivate the Eco mode, tap "Eco mode" on the room thermostat (position 7 in Fig. 6 on page 9) or in the app (position 8 in Fig. 14 on page 17).

8.2.3 Manual mode

Manual mode is always active when neither Auto mode nor Eco mode are activated.

8.2.3.1 Manual mode on the room thermostat

- To manually select a lower room temperature, press the "-" sign on the room thermostat (position 3 in Fig. 6 on page 9).
- To manually select a higher room temperature, press the "+" sign on the room thermostat (position 6 in Fig. 6 on page 9).

8.2.3.2 Manual mode in the app

- To manually select a room temperature, move the blue dot on the overview page for the room thermostat in question to the desired value (position 4 in Fig. 14 on page 17).

8.2.4 Switching off

- Press and hold the "On/Off" key (position 1 in Fig. 6 on page 9) for more than three seconds

▷ The device switches off (OFF mode). Bluetooth and control functions are switched off.
The frost protection function remains active.

9. Troubleshooting

MALFUNCTION	CAUSE	REMEDY
The app does not find the room thermostat during teach-in.	Other devices equipped with Bluetooth interfere with the connection between the room thermostat and smartphone.	During the teach-in process, temporarily switch off all Bluetooth-equipped devices that are not needed.
The display shows the message "F" pulsating every 10 seconds for 1 second.	The temperature measured at the internal temperature sensor has dropped below 6 °C (43 °F). The frost protection function is activated (two point / PWM) is switched on).	If the temperature measured at the internal temperature sensor rises above 6 °C (43 °F), the frost protection function is automatically deactivated.
The message "F1" appears in the display.	The device has measured implausible temperature values or the temperature measurement has failed.	Contact the technical service.
The message "F3" appears in the display.	Auto mode cannot be activated because no correct time and date information is stored in the ClimaCon.	Connect your ClimaCon to your smartphone via Bluetooth. Valid time and date information is transferred from the smartphone to the ClimaCon.

10. Maintenance

⚠ WARNING

Danger to life due to electric current !
Penetrating liquids can cause electric shocks and fires.

! If necessary, clean the surfaces with a soft cloth.

11. Disposal

Directive 2012/19/UE WEEE:

- The "crossed-out wheeled bin" symbolises that your are legally obliged to dispose of old appliances separately from unsorted municipal waste. Incorrect disposal can lead to environmental damage.
- Remove used batteries and accumulators not enclosed in the old appliance as well as lamps from the old appliance without destroying them and dispose of them separately.
- You can hand in your old appliance free of charge within the framework of the possibilities provided by the public waste disposal authorities.
- Distributors with a sales area for electrical and electronic equipment of at least 400 square meters are obliged to take back your old appliance free of charge when you buy a similar new appliance (1:1 take-back). You can also return all old appliances to distributors free of charge if the external dimensions do not exceed 25 centimetres and the return is limited to three old appliances per type of appliance.
- Delete your personal data stored on the old device to be disposed of, if any, on your own responsibility.

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oventrop
Wir regeln das. Seit 1851.

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