ClimaCon F

Room thermostats for surface heating and cooling

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 or dwellings. The room temperature is controlled via a valve, which is controlled by the room thermostat via an electrothermal actuator. When the room temperature reaches the setpoint temperature, the valve is closed.

The ClimaCon F room thermostats can be used in combination with electrothermal actuators (e.g. Aktor T 2P). Alternatively, connection to a connecting block (e.g. FloorCon) is possible. Depending on the room thermostat, switching between heating and cooling is possible via a change-over signal, e.g. from the heat pump.

The setback mode (Eco mode) saves energy, e.g. during absence or at night.

Depending on the model, there are room thermostats with reduced display, integrated time switch and setting options via app.

Features

+ Intuitive operation
+ Energy-saving room temperature control
+ Easy installation, quick configuration
+ Appealing, modern design

Product overview

ClimaCon F 90	**ClimaCon F 100**	**ClimaCon F 210**	**ClimaCon F 310**
Item no. 1155009 (230 V)	Item no. 1155010 (230 V) Item no. 1155510 (24 V)	Item no. 1155021 (230 V)	Item no. 1155031 (230 V) Item no. 1155531 (24 V)
Only heating/ only cooling (NC/ NO actuators)	Heating or cooling (switchable via change-over)	Only heating/ only cooling (adjustable in the app)	Heating or cooling (switchable via change-over or adjustable in the app)

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Product Details

ClimaCon F 90 only heating / only cooling

The ClimaCon F 90 room thermostat is operated by means of a rotary wheel. The setpoint can be adjusted and the frost protection mode can be activated.

The ClimaCon F 90 room thermostat can be connected as a follower room thermostat. If the setback mode is activated on a leader room thermostat (e.g. ClimaCon F 210/ F 310), the ClimaCon F 90 lowers the temperature by 4 Kelvin.

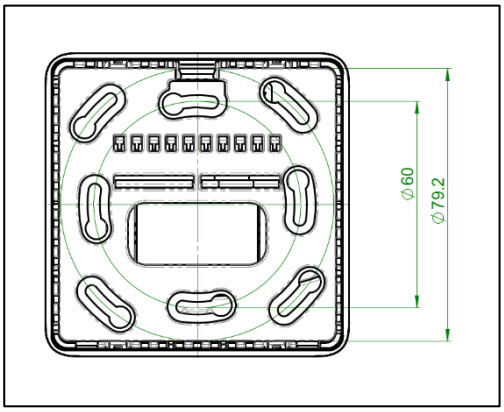
When the room thermostat is used in a heating application, an electrothermal actuator "normally closed" is used. If the room thermostat is used in a cooling application, an electrothermal actuator "normally open" is used.

Technical data

Temperature range	12…28 °C
Eco temperature	4 K
Control	Pulse-width modulation (PWM)
Fuse	SMD (not exchangeable)
Switching current (short-time)	1 A
Installation	Surface mounting
Protection class	IP 20
Colour	RAL 9003 (semi matt)

Functions

- Rotary wheel for adjusting the setpoint temperature
- Frost protection can be activated via rotary wheel
- Setback mode is activated when the leader room thermostat sets back (time-controlled setback mode possible)



Dimension base plate ClimaCon

	Item no.	Power supply	Inputs	Outputs	Actuators (max. of 4 actuators)	W [mm]	H [mm]	D [mm]
	1155009	230 V AC/ 50…60 Hz	Setback input (follower)	PWM output	Heating: electrothermal actuator "normally closed" Cooling: electrothermal actuator "normally open"	88	88	25

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ClimaCon F 100 heating or cooling

The ClimaCon F 100 room thermostat is operated by means of a rotary wheel. The setpoint can be adjusted and the frost protection mode can be activated.

Switching from heating mode to cooling mode takes place as soon as a voltage is applied to the change-over input.

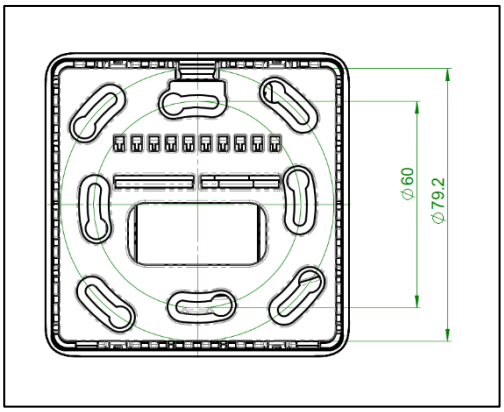
The ClimaCon F 100 room thermostat can be connected as a follower room thermostat. If the setback mode is activated on a leader room thermostat (e.g. ClimaCon F 210/ F 310), the ClimaCon F 100 increases or decreases the temperature by 4 Kelvin, depending on whether it is currently in heating or cooling mode.

Functions

- Rotary wheel for adjusting the setpoint temperature
- Frost protection can be activated via rotary wheel
- If the room thermostat receives a change-over signal, the cooling mode is activated
- Setback mode is activated when the leader room thermostat sets back (time-controlled setback mode possible)

Technical data

Temperature range	12...28 °C
Eco temperature	±4 K
Control (switchable via switch)	Pulse-width modulation (PWM) On/off control
Actuators (max. of 4 actuators)	Use electrothermal actuators "normally closed"
Switching current (short-time)	1 A
Fuse	SMD (not exchangeable)
Installation	Surface mounting
Protection class	IP 20
Colour	RAL 9003 (semi matt)



Dimension base plate ClimaCon

	Item no.	Power supply	Inputs	Outputs	W [mm]	H [mm]	D [mm]
	1155010	230 V AC/ 50...60 Hz	Setback input (follower) Change-over input	On/off / PWM output	88	88	25
	1155510	24 V AC/ 50...60 Hz	Setback input (follower) Change-over input	On/off / PWM output	88	88	25

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ClimaCon F 210 only heating / only cooling

The ClimaCon F 210 room thermostat with reduced display includes a dot-matrix display (58 white LEDs) for temperature indication. There are also backlit symbols (heating/cooling) and touch surfaces (Automatic and Eco modes as well as plus and minus). The room thermostat can be configured with the ClimaCon App and an active Bluetooth connection (e.g. for setting time programmes). The ClimaCon app is available for Android and iOS smartphones. The settings are stored in the room thermostat.

The app is used to set whether the room thermostat is in a heating or cooling application.

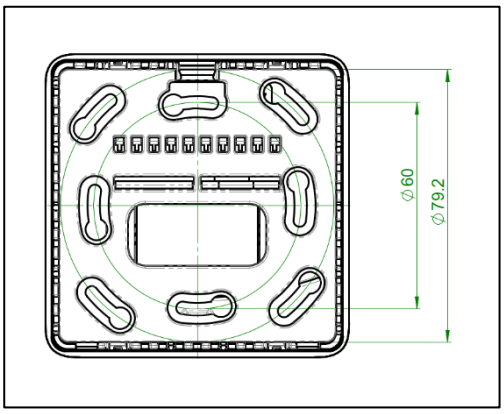
The ClimaCon F 210 room thermostat can be used as a leader room thermostat. If setback mode (Eco mode) is activated on a ClimaCon F 210 leader room thermostat, the connected follower room thermostat (e.g. ClimaCon F 90/ F 100) also reduces the temperature.

Functions

- Dot-matrix display for visualisation of the setpoint temperature, the actual temperature, various error codes and 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 Automatic and Eco mode
- Possible modes: Automatic (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

Technical data

Temperature range	12...28 °C 54...82 °F
Eco temperature	Adjustable in the app
Control (switchable via switch)	Pulse-width modulation (PWM) On/off control
Hysteresis	Adjustable, presetting values: PWM = 1.0 K, on/off = 0.2 K
Actuators **(max. of 4 actuators)**	Use electrothermal actuators "normally closed"
Switching current **(short-time)**	1 A
Correction offset	Adjustable, ± 3.0 K in 0.5 K
Fuse	SMD (not exchangeable)
Bluetooth	BLE 5.0
App	For smartphones in portrait format (Android: 7.x; iOS: 13.x)
App languages	DE, EN, FR, PL, BG, ES, HR, NL, UA, RU, CN, RO, HU, DK, IT
Installation	Surface mounting
Protection class	IP 20
Power reserve	12 hours
Colour	RAL 9003 (semi matt)



Dimension base plate ClimaCon

	Item no.	Power supply	Outputs	Actuators	W [mm]	H [mm]	D [mm]
	1155021	230 V AC/ 50...60 Hz	On/off / PWM output Setback output (leader)	Heating: electrothermal actuators "normally closed" Cooling: electrothermal actuators "normally open"	88	88	20

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ClimaCon F 310 Heating or cooling

The ClimaCon F 310 room thermostat with reduced display includes a dot-matrix display (58 white LEDs) for temperature indication. There are also backlit symbols (heating/cooling) and touch surfaces (Automatic and Eco modes as well as plus and minus). The room thermostat can be configured with the ClimaCon App and an active Bluetooth connection (e.g. for setting time programmes). The ClimaCon app is available for Android and iOS smartphones. The settings are stored in the room thermostat. When the change-over input is active, the cooling mode is activated.

The ClimaCon F 310 room thermostat can be used as a leader room thermostat. If setback mode (Eco mode) is activated on a ClimaCon F 310 leader room thermostat, the connected follower room thermostat (e.g. ClimaCon F 90/ F 100) also reduces the temperature.

Functions

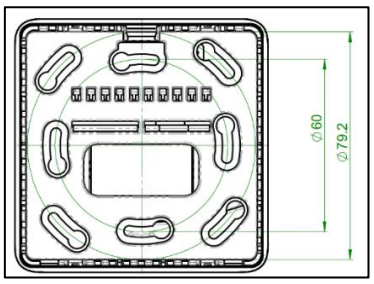
- Dot-matrix display for visualisation of the setpoint temperature, the actual temperature, various error codes and the OFF display when the device is switched off
- LED display heating or cooling
- LED display with touch surfaces for adjusting the setpoint temperature via the Plus and Minus keys and for switching between Automatic and Eco mode
- Switching between heating and cooling via change-over signal
- Possible modes: Automatic (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

Functions exclusively of item no.1155531

- 0 - 10 V output for controlling e.g. Air Handling Units (AHU)
- Limiter function (ext. NTC temperature sensor)
- External NTC temperature sensor supplies the actual temperature instead of the internal sensor
- Dew point monitor and / or safety temperature limiter can be connected directly

Technical data

Temperature range	12...28 °C 54...82 °F
Setback/Eco temperature	Adjustable in the app
Control (switchable via switch)	Pulse-width modulation (PWM) On/off control
Hysteresis	Adjustable, presetting values: PWM = 1.0 K, on/off = 0.2 K
Actuators **(max. of 4 actuators)**	Use electrothermal actuators "normally closed"
Switching current **(short-time)**	1 A
Correction offset	Adjustable, ± 3.0 K in 0.5 K
Potential-free contact	90 mA, short-time up to 120 mA
Fuse	SMD (not exchangeable)
Bluetooth	BLE 5.0
App	For smartphones in portrait format (Android: 7.x; iOS: 13.x)
App languages	DE, EN, FR, PL, BG, ES, HR, NL, UA, RU, CN, RO, HU, DK, IT
Installation	Surface mounting
Protection class	IP 20
Power reserve	12 hours
Colour	RAL 9003 (semi matt)



Dimension base plate ClimaCon

	Item number	Power supply	Inputs	Outputs	W [mm]	H [mm]	D [mm]
	1155031	230 V AC/ 50...60 Hz	Change-over input	On/off / PWM output Setback output (leader) Potential-free contact	88	88	20
	1155531	24 V AC/ 50...60 Hz	Change-over input External temperature sensor (NTC)	On/off / PWM output Setback output (leader) Potential-free contact 0 – 10 V output	88	88	20

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Accessories

FloorCon F Electrical connecting block

With automatic hydronic balancing for surface heating/cooling.

	Suitable for	Room thermostats	Item no.
	230 V, without room allocation	8	1400984
	230 V, with room allocation	8	1400985

Electrical connecting block for surface heating

When using item no. 1400980/82 with 24 V, an external power supply of 24 V must be available. Item no. 1153053 can be used as transformer.

	Suitable for	Control zones	Item no.
	24 V and 230 V, heating	6	1400980
	230 V, heating/cooling (C/O), pump control	10	1400981
	24 V, heating/cooling (C/O), pump control	10	1400982
	230 V, heating/cooling (C/O), pump and boiler control, integrated time switch	10	1400983

Aktor T 2P Electrothermal actuator

On/off control, connection thread M 30 x 1.5.

	Suitable for	Item no.
	• ClimaCon F • FloorCon F • Electrical connecting block	1012415 (230 V NC) 1012425 (230 V NO)
	• ClimaCon F • Electrical connecting block	1012416 (24 V NC) 1012426 (24 V NO)

Temperature sensor for FloorCon

One flow temperature sensor is required per heating circuit distributor/collector and one return temperature sensor is required per heating circuit.

	Suitable for	Item no.
	FloorCon F	1029093 (supply)
	FloorCon F	1029094 (return)

ClimaCon F Temperature sensor

Serves as an external temperature sensor to detect the temperature in the room or as an external temperature sensor to detect the floor temperature as a safety temperature limiter (STB).

	Suitable for	Item no.
	ClimaCon F 310 24 V item no. 1155531	1155599

Sensor GA FD Dew point monitor

Is required in conjunction with room thermostats to protect against condensation on cooling surfaces.

	Suitable for	Item no.
	• Connecting block • ClimaCon 24 V • Room thermostats	1141951
	• Connecting block • FloorCon F • ClimaCon 230 V • Room thermostats	1141952

Safety temperature monitor

For limiting the surface heating temperature.

	Suitable for	Item no.
	• FloorCon F • Electrical connecting block	1344583 1143000

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