

Smatrix Pulse

Termostaadi T-169 ja T-149 kasutusjuhend

Digitaaled termostaadid T-149 ja (T-169) töötamine

The following are the key parts of the Digital Thermostat (T-169).

Reference	Description
A	Display
B	Buttons
C	Battery (CR 2032V)
D	Sensor terminals (non-polarity sensitive)

Tabel 9-3: Digital Thermostat (T-169) components

Button Functions

Button	Function(s)
A	The ▲ and ▼ for the following functions:
B	<ul style="list-style-type: none"> Adjust setpoint temperature Modify settings Menüü parameters
C	<p>The OK button is used to:</p> <ul style="list-style-type: none"> Toggle between the current status and the values of available sensors connected to the thermostat Enter and exit the settings menu Confirm a setting

Tabel 9-4: Digital Thermostat (T-169) button functions

Display Mode

Joonis 9-5 shows the different symbol and characters that can be displayed when the thermostat is in the run mode.

Reference	Description
A	Room temperature
B	Temperature units (°F or °C)
C	Alarm warning

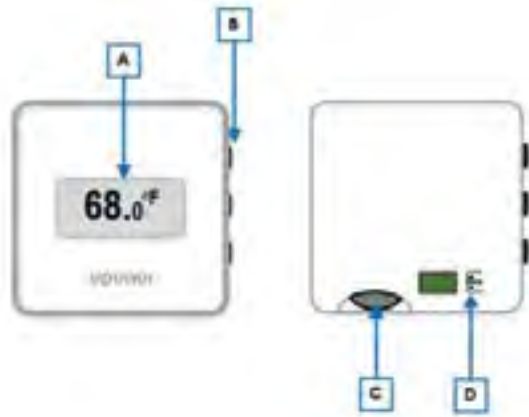
Tabel 9-5: Display mode

Changing Temperature Settings

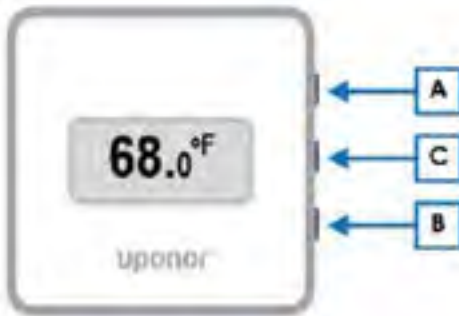
Joonis 9-6 shows all the possible symbols and characters that can be shown on the display when changing the desired set temperature.

Reference	Icons	Description
A		Indicates changing the setpoint temperature
B	68	Room set temperature
C		Heating demand
		Cooling demand
D		Comfort mode
		ECO (setback) mode

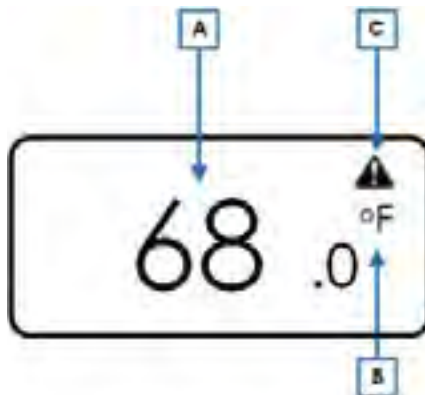
Tabel 9-6: Changing temperature settings



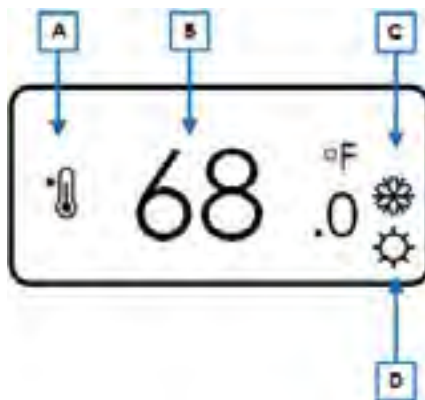
Joonis 9-3: Operation components



Joonis 9-4: Button functions



Joonis 9-5: Display mode



Joonis 9-6: Changing temperature settings

Alarms

This Joonis shows all the possible symbols and characters that can be shown for an alarm on the display along with the cause/meaning.

Icons	Description
	Alarm mode (shown with the following:)
	Faulty indoor sensor
	Faulty floor sensor
	Faulty remote sensor
	Faulty outdoor sensor
	Low battery indicator
	Relative humidity high limit (only shown in cooling mode and if RH control is setup)
	Communication failure

Tabel 9-7: Alarms

Menus for Digital Thermostat (T-169)

This section shows all the setting options for operating the Digital Thermostat (T-169).

Note
<p>If no button on the thermostat is pressed for about eight (8) seconds, while in a sub Menü, the current values will be saved, and the software exits to the Settings Menü. About 60 seconds later, it exits to run mode where the current room temperature is displayed.</p>

To enter the Settings Menü, use the following steps:

- Press and hold the **OK** button for about three (3) seconds.
- The settings icon and Menü number are displayed in the top-right corner of the display.
- Use the **<** or **>** button to change the numbers to locate a sub Menü (see list below).

Menü #	Description
02	Heating/cooling changeover
03	ECO mode setback value
04	Control mode
05	High temperature floor limit
06	Low temperature floor limit
07	Cooling allowed
08	Display units
09	Relay Module integration
11	Room temperature calibration
12	Invert screen

Tabel 9-8: Digital Thermostat (T-169) Menü descriptions

Menü 02: Heating/Cooling Changeover

This Menü is not visible if the thermostat is registered to a Controller. Heating/cooling changeover will be controlled by a physical heating/cooling switch or in the Smatrix Pulse App (requires Communication Module).

Menü 03: ECO Mode Setback Value

Default value: 39°F (4°C)

Setting range: 32 – 52°F (0 – 11°C), 1°F (0.5°C) increments

This is the setback temperature for whenever the system is in ECO. The setting adjusts the current setpoint with the set value. In Heating mode, the setpoint is reduced, and in cooling mode it is increased. If the setback temperature is set to 0, the thermostat will remain unaffected if a program sets the system in ECO mode.

This Menü is not visible if a Communication Module is connected to the system. The setting is then available in the Smatrix Pulse App.

Menü 04: Control Mode

This Menü set the way an external sensor (if attached) is used (remote, outdoor, etc.). If an external sensor is connected to the thermostat, a control mode must be chosen to accommodate the extra functionality of the sensor. Current control mode options are Room Temperature **RT** (default), Room and Floor Temperature **RFT**, Remote Sensor **RS** or Room and Outdoor Sensor **RO**.

Refer to the Tabel below for available information based on the control mode selected.


	RT	RFT	RS	RO
Room temperature	✓	✓	✓	✓
Alarm (if active)	✓	✓	✓	✓
Floor temperature		✓		
Remote temperature			✓	
Outdoor temperature				✓
ECO/Comfort mode status	✓	✓	✓	✓
Active demand (heating or cooling)	✓	✓	✓	✓
Relative humidity	✓	✓	✓	✓

Tabel 9-9: Control Mode Menü

Menü 05: High Floor Temperature Limitation

Default: 78°F (26°C)

Setting range: 38 – 95°F (20 – 35°C), 1°F (0.5°C) increments


Note	
	This parameter cannot be set lower than the set value in settings Menü 06 (low floor temperature limitation).

In this Menü, a limit on the highest allowable floor temperature is set. This Menü is only visible if control mode RFT is activated in **Menü 04**. For systems with a Communication Module, this Menü only shows the set value. Changes are done in the Smatrix Pulse App.

Menü 06: Low Floor Temperature Limitation

Default: 68°F (20°C)

Setting range: 50 – 86°F (10 – 30°C), 1°F (0.5°C) increments

Note	
	This parameter cannot be set higher than the set value in settings Menü 05 High floor temperature limitation.

In this Menü a limit on the lowest allowable floor temperature is set. This Menü is only visible if control mode RFT is activated in **Menü 04**. For systems with a Communication Module, this Menü only shows the set value. Changes are done in the Smatrix Pulse App.

Menü 07: Cooling Allowed

This Menü sets whether a room will receive cooling or not. This Menü is not visible if a Communication Module is connected to the system. The setting is then available in the Smatrix Pulse App.

Menü 08: Display Units

This Menü sets the temperature information in °F or °C.

Menü 09: Relay Module Integration

Use this Menü to link a thermostat to a Relay Module for controlling a forced-air heating and cooling system or fan coil unit.

Menü 11: Room Temperature Calibration

Default: 0.0

Setting range: -6.0 – 6.0, 0.1 increments

This Menü adjusts the temperature in the display if there is a difference between the displayed versus the actual temperature.

Menü 12: Invert Screen

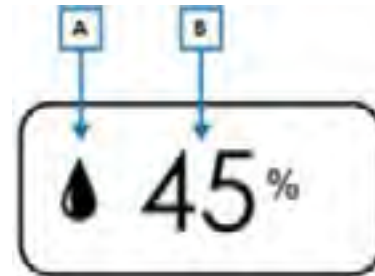
This Menü inverts the color in the display. The background is black, and the numbers and icons are white.

Relative Humidity

The Digital Thermostat (T-169) also displays the relative humidity level in the room or space. Pressing the **OK** button three (3) times will display the following information:

Reference	Description
A	Relative humidity
B	Relative humidity reading

Tabel 9-10: Relative humidity displays



Joonis 9-7: Relative Humidity