

SM323

Heating Thermostat

It is designed for the control of underfloor heating systems.

Features:

- Control of underfloor water system heating systems
- Control of underfloor electric heating systems
- Display set value and room temperature
- Low temperature protection
- Recessed installation
- Clock and weekly time schedule



Usage

The SM323 room thermostat is designed for use with a variety of heating systems.

Usage Notes

Please read the document carefully. SM323 in accordance with the latest technological developments and safety rules designed and manufactured. Safety warnings must be observed to prevent injury and material damage.

Safety Advice-Caution

Installation, maintenance, and repair of the device must be done by authorized personnel. The power supply of the thermostat is 220 V AC and has no internal fuse. The line must be de-energized before making an electrical connection.



Ordering Information

Product Code	Description	Power	Communication
SM323	1 Digital Output (Relay) 1 Sensor Input (NTC10K)	220 V AC	Stand-Alone

Technical Specification

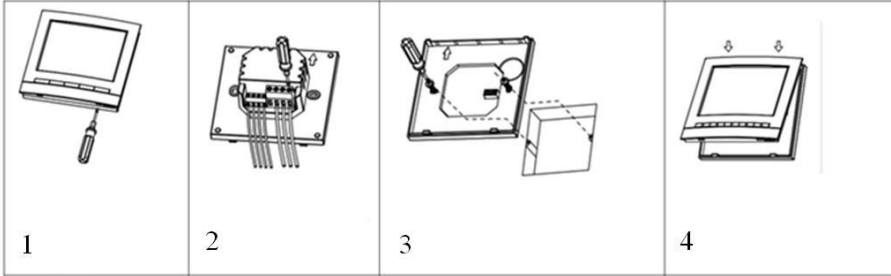
Operating Voltage	AC85~260V, 50/60Hz	External Sensor Type	NTC10K
Power Consumption	< 2 W	Temperature Setting	5°C ... +35°C (Internal Sensor) 0°C ... +90°C (External Sensor)
Electrical connection	Terminal Connectors, 1X4mm2	Protection Class	IP30
Setpoint Adjustment	5°C ... +35°C (with 0,5°C interval)	Dimensions	90×88×15.5 mm
Measurement Accuracy	±1°C	Mounting Hole Spacing	60mm
Inputs	1 Sensor Input NTC 10K	Mounting	Standard Junction Flush Mounting
Outputs	Electric Heater 16A (Load) Water Heating 2A (Load)		

Mounting Location

It is recommended to install the thermostat indoors. The thermostat should be mounted at least 1.5 meters above the floor so that it can measure the average room temperature. Keep the thermostat away from direct sunlight or any heat source to avoid inaccurate measurements.



Mounting Instructions



Please follow below instructions during mounting.

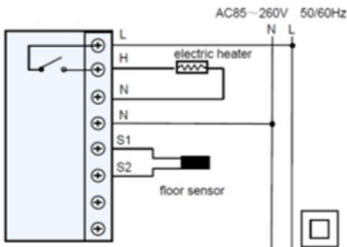
Step 1: Remove the front panel of the thermostat with a screwdriver.

Step 2: Connect the cables according to the connection diagram.

Step 3: Mount the back panel onto the junction box with screws.

Step 4: Snap the front panel onto the rear panel by snapping the two tabs into place. Apply power to operate the thermostat.

Wiring Diagram



Display and Operation



- **On/Off:** You can turn the thermostat on and off by pressing the on/off button. When the thermostat closes, the heating system also turns off.
- **Adjusting Set Value:** The set value can be adjusted in 0.5 °C intervals by pressing the Increase “▲” and Decrease “▼” buttons.
- **Heating System Adjustment and Working Conditions:** When the room temperature is 1°C below the set value, the thermostat operates the heating system. The icon indicating that the heating system is operating appears on the screen. When the environment reaches the set temperature value, the thermostat turns off the heating system. When the system is turned off, the heating icon disappears from the screen.
- **Detection Sensor Selection:**
Turn off the thermostat and press the M+ buttons simultaneously and wait 10 seconds. Increasing when "1" appears in the upper right corner, Select 2, 3 or 4 with the decrease keys.

01	Room sensor (sensor inside the thermostat)
02	Floor sensor
03	Floor sensor and Room sensor (sensor inside the thermostat). Control with two sensors when this mode is selected makes. The floor sensor is used to prevent overheating on the floor. When you select this mode, the floor sensor It must be connected to the thermostat. If the floor sensor is not connected, the thermostat will give an error message.
04	Room sensor (This is an externally installed room sensor. The sensor inside the thermostat is disabled.)

- >> Error: Room/floor sensor error - when only one sensor is installed –
E1: Room sensor error – when room and floor sensors are installed together –
E2: Floor sensor error – when room and floor sensors are installed together –

Note: Floor sensor cable length must be less than 20 m.

When the temperature is higher than 55°C, “HI” appears on the screen. When the temperature is lower than 0°C, “LO” appears on the screen.

- **Working Mode Selection:** Turn on the thermostat and press the M button for 3 seconds. XX will appear on the screen. Select the desired mode from 01, 02, 03 with the boost reduction “▲” and “▼” keys.

01:	Manual Mode
02:	On/Off Time Program
03:	4 Period Time Program

- **Clock and Time Setting:** Press the clock key. When the hh:mm appears, the hh part will flash first. Adjust the time with the increase and decrease “▲” and “▼” keys, press the hour sign. mm- minute- part starts to flash will start. Adjust the minutes with the increase and decrease “▲” and “▼” keys. Press the clock button and set the day of the week when the week display appears.

• **Setting According to On/Off Time Program (Working Mode: 02):**

- **Thermostat opening time:** Press the clock ⌚ button until ON and hh appear on the display. First set the thermostat's hh (open time) with the increase-decrease "▲" and "▼" buttons. Turning on by pressing the clock ⌚ button mm -minutes- set it.
- **Thermostat closing time:** By pressing the clock ⌚ button, when you see OFF and hh, set the hh- hour. Press the clock ⌚ button and adjust the mm-minute setting. This time setting will be valid for one day only.
- **There are two ways to cancel the On/Off Time setting:**
 - 1) Set the hour and minute setting to "-"
 - 2) In the operation mode selection, switch from 03(4-Period Time Program) to 01(Manual mode).

• **Setting According to 4-Period Time Program (Operating Mode: 03):** Week is divided into weekdays and weekends. A 24-hour day is divided into 4 periods.

- **Mid-week:** Press the clock ⌚ button until 1 and MON TUE WED THU FRI appear. Adjust the time with the increase and decrease "▲" and "▼" keys. When you press the Clock button, °C appears. Adjust the Set value with the increase and decrease buttons. Set all periods by pressing the clock button.
- **Weekend:** Press and hold clock button until 1 and "SAT SUN" appear. Adjust the time with the increase and decrease "▲" and "▼" keys. When you press the Clock button, °C appears. Adjust the Set value with the increase and decrease buttons. Adjust all periods one by one by pressing the time button.
- The set value can be changed manually while in the time program and when the next period is passed, the set value in the time program takes effect.

Mid-Week / Weekend	Period 1	Period 2	Period 3	Period 4
	Start / Temperature	Start / Temperature	Start / Temperature	Start / Temperature
Mid-week (Monday-Friday)	7:00 15°C	17:00 22°C	21:00 20°C	22:00 18°C
Weekend (Saturday-Sunday)	7:00 22°C	09:00 20°C	17:00 22°C	22:00 18°C

To cancel the 4-period time program, put the thermostat in manual mode (01) or on/off time program mode (02).

• **Key Lock Operations**

With the thermostat off, press M and ⌚ the hour sign for 10 seconds. Go to parameter 7 by pressing the button ⌚ on the screen that appears. The factory setting is 00. You can make selections with the "▲" and "▼" keys.

00	Keys are not locked
01	Only the on/off button is locked
02	All buttons are locked except the on/off button.
03	All keys are locked

• **Reading and Adjusting the Temperature of the Device:** (When Detection Sensor Selection is 03)

1. Turn on the thermostat. Press "M", when "Room" disappears, ☀ sun and ☁ ventilation symbols appear. The visible XX °C temperature value is the temperature value of the ground.
 2. Setting the Protection Temperature Value for the Floor: Press the "M" and "▲" buttons for 10 seconds. Set the value XX°C. Adjust the values by increasing or decreasing with the "▲" and "▼" keys. Factory setting is 60°C. It can be adjusted between 20°C-90°C.
- **Celsius-°C and Fahrenheit-F Selection:** While the thermostat is off, press the "M" and ▼ buttons for 10 seconds. The C or F symbol will appear. The symbol that appears on the screen is the unit that will be used when you turn on the thermostat. To change between units, apply the same procedure to the thermostat each time.
 - **Low Temperature Protection:** When the low temperature protection is active, the room or floor temperature drops below 5°C. In such cases, even if the thermostat is off, it automatically turns on, the half sun symbol appears on the screen, and the heating starts to work.
 - **Activating Low Temperature Protection:** While the thermostat is off, press the "M" button for 3 seconds, "00" or "01" will appear on the screen. You can switch between values with the "▲" and "▼" keys.

00	Low Temperature Protection Disable
01	Low Temperature Protection Enabled

Dimensions (mm)

