



**ZAMEL Sp. z o.o.**

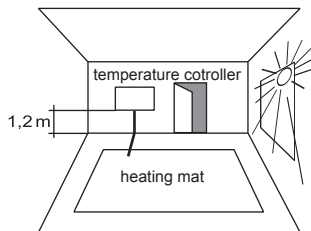
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### DESCRIPTION

The RTS-01A temperature controller is a non-programmable controller used for floor heating. The controller cooperates with electric floor heating system. The RTS-01A device can control the temperature by means of built-in (internal) or floor (external) sensor.



The temperature controller should be installed:

- in a heating room (flat surface mounting, or in cable box Ø60), 120 cm high from the heating zone
  - in a place not exposed to direct sunlight
  - in a place not exposed to strong wind blows
- The temperature in the mounting place should be from 5°C to +50°C

### FEATURES

- LCD display showing current room temperature
- Economical or comfort mode operation
- Optional temperature display: Celsius or Fahrenheit scales
- Temperature controlled by built-in (internal) sensor, or external floor sensor
- Easy to use



The device is designed for one-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this instruction manual. Installation, connection and control should be carried out by a qualified electrician staff, who acts in accordance with the instruction manual and the device functions. Disassembling of the device is equal with a loss of guarantee and can cause electric shock. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 2,5 mm should be used to install the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to install the device in the following cases: if any device's part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.



The symbol stands for selective collection of electrical and electronic devices. Placing used devices with other waste is not allowed

### TECHNICAL DATA

#### RTS-01A

Input terminals:	L (5), N (6)
Input rated voltage:	100 ÷ 240 V~
Nominal frequency:	50 / 60 Hz
Rated power consumption:	0,35 W in STANDBY mode
Battery backup:	no
NTC sensor terminals:	RT+, RT-
Temperature sensor:	NTC 100 k for 25 °C
Room temperature adjustment range:	+5 ÷ +30 °C
Floor temperature control range:	+5 ÷ +40 °C
Temperature measurement accuracy:	±1 °C
Relay parameters:	16 A / 230 V
Number of terminal clamps:	6
Section of connecting cables:	0,5 ÷ 1,5 mm <sup>2</sup>
Ambient temperature range:	-5 ÷ +50 °C
Casing mounting:	surface
Casing protection degree:	IP21
Protection level:	II
Overvoltage category:	II
Dimensions:	86 x 86 x 32 mm
Weight:	0,114 kg
Reference standards:	EN 60730-1:2000+A2:2008, EN 60730-2-9:2002+A2:2005, EN 61000-3-2:2006, EN 61000-3-3:2008, EN 55014-2:1997+A1:2001+A2:2008, EN 55014-1:2006+A1:2010

### APPEARANCE

Adjustment knob

LCD display

Main switch ON/OFF

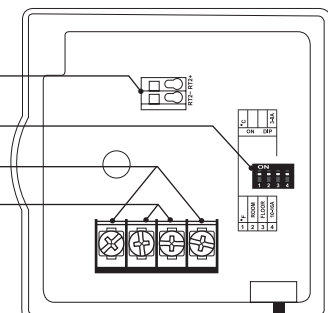
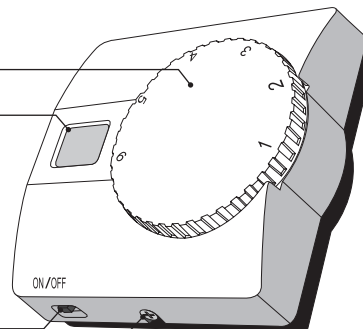
Base mounting screw

Temperature sensor terminals

Mode switch

Output relay terminals

Input terminals



## OPERATING

During standard operation the LCD display shows current room temperature. Current temperature adjustment is shown in pulsating form while turning the knob.

### Temperature adjustment

Adjust required temperature by means of controller's knob. Adjusted temperature will be shown in pulsating form on the LCD display. After some time it will stop and show current room temperature.

Heating status: The flame symbol appears when the controller starts heating.

The controller is equipped with built-in (internal) temperature sensor and terminals marked as RT2-, RT2+ used for external (floor) temperature sensor connection. If the external sensor is connected to the terminals then the temperature is controlled by the external sensor. Otherwise the temperature controller will use the built-in controller.

**Error chart** (Error symbol pulsates on the LCD display)

Symbol	Description
„E1” pulsates	Short-circuit of internal sensor. The temperature controller cuts off the output.
„E2” pulsates	Room sensor damage. The temperature controller cuts off the output.
„E3” pulsates	Short-circuit of external (floor) sensor. The temperature controller cuts off the output.
„E4” pulsates	Floor sensor damage. The temperature controller cuts off the output.

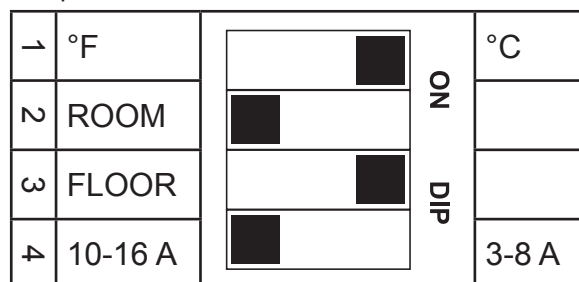
In case of internal(floor) sensor breakdown, the temperature is controlled by (built-in) internal sensor. If the room temperature is higher than 30°C, than „HI” symbol appears on the display. Then in the heating mode the controller's output is cut off, whereas in the cooling mode cooling should start. If the room temperature is lower than 5°C than „LO” symbol appears on the display. In the heating mode heating should start and in the cooling mode cooling should switch off.

## MOUNTING

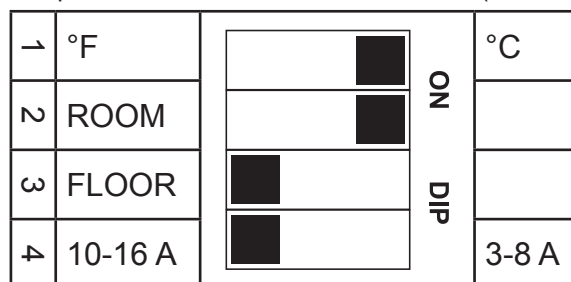
1. Disconnect the power supply from the mains by: the phase fuse, circuit-breaker or switch disconnector joined to the proper circuit.
2. **By means of special equipment check if there is no voltage on connection cables.**
3. After unscrewing the screw, carefully remove the upper cover.
4. Choose mounting place on the wall, make two holes corresponding to mounting holes of the temperature controller's base.
5. Set wall plugs in the holes.
6. Pull installation cables through holes in the base.
7. Mount the base by means of screws, screw them into the wall plugs.
8. Connect the cables with the terminals according to the **installing diagram**.
9. Connect the external sensor to the RT2-, RT2+ terminals, if necessary.
10. Adjust controller's operation parameters by means of operation mode switch.
11. Place the upper cover on the base.
12. Screw the regulator's base. Only  $\varnothing 3$  mm screws can be used and with maximum length of 8 mm.
13. Switch on the power supply from the mains and check the regulator's operation.  
**CAUTION:** the cable with floor sensor must not be shortened.

## SWITCHES ADJUSTEMENT CONFIGURATION

Temperature control from internal sensor



Temperature control from external sensor (at the floor)

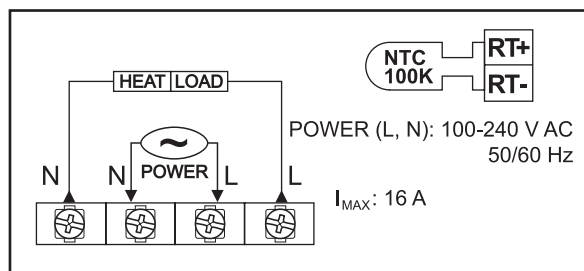


°F / °C degree – temperature unit, ROOM, FLOOR

Mode	Description
ON/OFF	mode switch set on: ON OFF
ON	the relay is switched on
OFF	the relay is switched off

## CONNECTING

Electric floor heating system



## GUARANTEE CARD

There is 24 months guarantee on the product

1. ZAMEL Sp. z o.o. assures 24 months guarantee for the product.
2. The manufacturer's guarantee does not cover any of the following actions:
  - a) mechanical damage during transport, loading / unloading or under other circumstances,
  - b) damage caused by incorrect product mounting or misuse,
  - c) damage caused by unauthorised modifications made by the PURCHASER or any third parties to the product or any other devices needed for the product functioning,
  - d) damage caused by Act of God or any other incidents independent of the manufacturer - ZAMEL Sp. z o.o.
  - e) power supply (batteries) to be equipped with a device in the moment of sale (if they appear);
3. The PURCHASER shall lay any claims in writing to the dealer or ZAMEL Sp. z o.o.
4. ZAMEL Sp. z o.o. is liable for processing any claim according to current Polish legislation.
5. ZAMEL Sp. z o.o. shall process the claim at its own discretion: product repair, replacement or money return.
6. The manufacturer's guarantee is valid in the Republic of Poland.
7. The PURCHASER's statutory rights in any applicable legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty.

Salesman stamp and signature, date of sale