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DESCRIPTION

The RTM-03 is a temperature controller designed for operation of electrical loads (such as radiators or resistance floor heating systems) in relation of the ambient temperature detected by an NTC sensor. The product can control the connected power loads according to the temperature set with the control potmeter on its front panel, with the setting range from -10°C to +90°C. The other potmeter can select one of 10 available hysteresis settings of the temperature controller (from 0.25°C to 2.5°C). The product requires an external NTC-03 temperature probe to work properly. The temperature probe must be purchased separately. The probe wiring is 3 m and can be extended by up to 50 m with a 0.2 to 2.50 mm² core wire. Do not connect several probes to the same wire.

FEATURES

- Temperature control between -10°C and +90°C.
- Incremental hysteresis control from 0.25°C to 2.5°C.
- Supports and requires an external NTC probe.
- Sensor connection status indicator.
- Relay status indicator.
- Temperature setting-dependent control of power loads.
- Night-Time Heating input (reduces the temp. setting by 5°C).
- Single-module housing.
- DIN-Rail mountable.
- Relay output: 16 A max.



CAUTION

Connect this product to a single-phase power system according to applicable electrical and safety standards and regulations. See this Manual for the wiring instructions. Installation, wiring and adjustment/setting shall only be done by qualified electricians who have read and understood this User Manual and the functions of the product. Do not open or otherwise disassemble the product housing; otherwise the product warranty will be void and an electrocution hazard may occur. Prior to installing and wiring this product, make sure that the wiring to be connected is not live. The conditions and methods of transport, storage and operation of this product may affect its performance. Do not install the product if any of its components are missing, the product is damaged or deformed in any way. If any malfunctions are found, consult the manufacturer.



Do not dispose of this device with other waste! In order to avoid harmful effects on the environment and human health, the used device should be stored in designated areas. For this purpose, you can dispose of household waste free of charge and in any quantity to a collection point set up, as well as to the shop when you buy new equipment.

TECHNICAL DATA

RTM-03

Power input terminals:	L, N
Rated supply voltage:	230 V AC
Supply voltage tolerance:	-15 + 10 %
Rated mains frequency:	50 / 60 Hz
Rated current load:	26 mA
Supply voltage ON LED:	green LED
NTC sensor input terminals:	NTC, NTC
Temperature setting range:	-10 + 90 °C
Hysteresis setting range:	0,25 + 2,5 °C
Relay terminals:	11, 12, 14
Night-Time -5°C Heating input terminals:	IN, IN
Power load ON LED:	red LED
Relay contact ratings:	16A NO/NC 4000 VA AC1
Wiring terminals:	9
Wiring size:	0,2 + 2,50 mm ²
Operating temperature:	-20 + 60 °C
Installation orientation:	any
Housing mounting:	DIN-Rail
Housing protection rating:	IP20
Overvoltage category:	II
Pollution class:	2
Dimensions:	single module (17.5 mm) 90 × 17.5 × 66 mm
Weight:	0,077 kg

APPEARANCE

Power input terminals

Night Time Heating input terminals

Relay status indicator

Supply voltage / sensor wiring status indicator

ON temperature setting

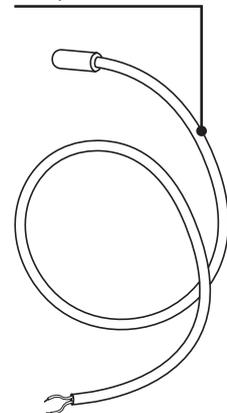
Hysteresis setting

NTC sensor input terminals

Relay output terminals (11; 12; 14)



NTC probe



INSTALLATION, OPERATION

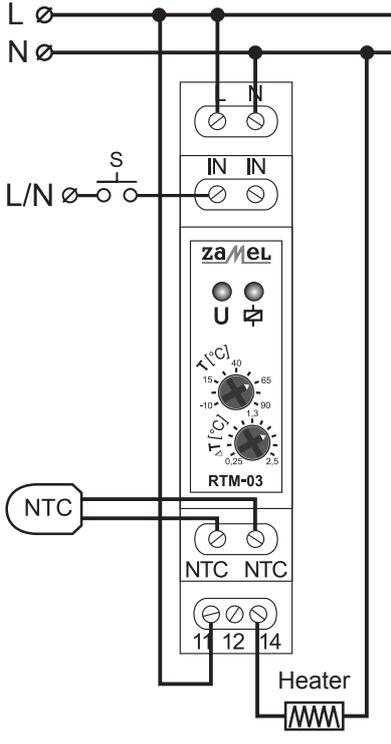
1. Isolate from power the wiring system to be connected with this product with its circuit breaker, overcurrent device or disconnecter, as applicable.
2. Use a suitable tester to verify that the isolated power input wiring is not live.
3. Install the RTM-03 on a DIN-Rail in the respective switchboard.
4. Connect the wiring to the terminals, see the applicable wiring connection diagram.
5. Turn on the power of the connected wiring system.

The product is ready for use once properly installed and wired. The product monitors the ambient temperature of the external NTC sensor (probe). If the ambient temperature is below $T - \Delta T$, the temperature controller switches the output relay ON (make outputs 11-14), which powers on the wired power load (e.g. an electric radiator). The power load will remain on until the ambient temperature is $T + \Delta T$. The temperature hysteresis, which is user-settable between 0.25°C and 2.5°C , eliminates too frequent switching of the relay within its switching threshold tolerance. The auxiliary input can be wired to an external control timer or control switch for periodic reduction of the ambient temperature by 5°C (the so-called Night-Time Heating mode).

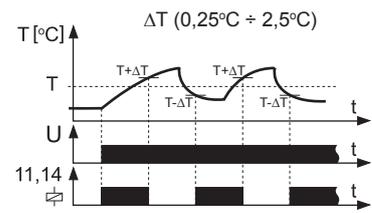
NTC sensor wiring indication:

- Wiring shorter / sensor missing: the green LED pulses 1/second;
- Sensor wiring OK: the green LED stays on.

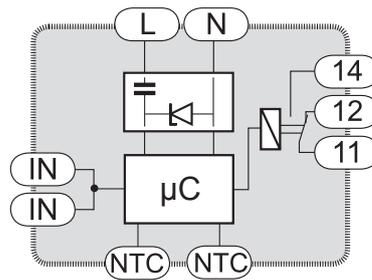
CONNECTION



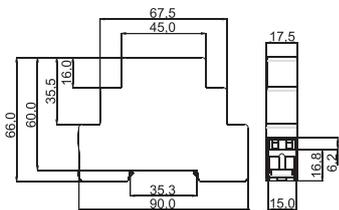
TIME COURSE



INTERNAL DIAGRAM



DIMENSIONS



PRODUCT FAMILY

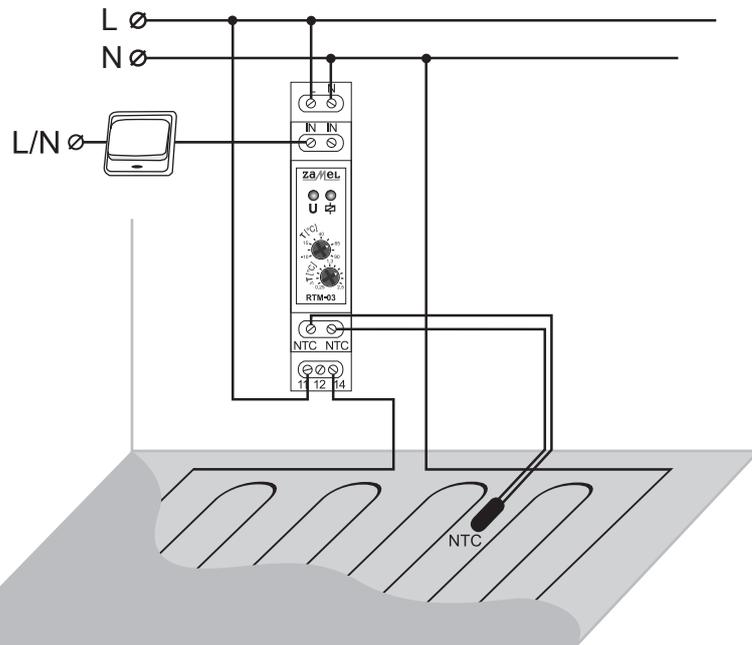
The RTM-03 is a model from the RTM range of temperature controllers.

RTM - xx

Product version:
 01 - basic
 02 - extended
 03 - with settable hysteresis and Night-Time Heating input
 20 - with LCD panel
 30 - with LCD panel extended

Product type code

APPLICATION



Floor heating control system.

WARRANTY CARD

There is 24 months guarantee on the product

1. ZAMEL provides a two-year warranty for its products.
2. The ZAMEL warranty does not cover:
 - a) mechanical defects resulting from transport, loading / unloading or other circumstances
 - b) defects resulting from incorrect installation or operation of ZAMEL products;
 - c) defects resulting from any changes made by CUSTOMERS or third parties, to products sold or equipment necessary for the correct operation of products sold;
 - d) defects resulting from force majeure or other aleatory events for which ZAMEL is not liable;
 - e) power supply (batteries) to be equipped with a device in the moment of sale (if they appear);
3. All complaints in relation to the warranty must be provided by the CUSTOMER in writing to the retailer after discovering a defect.;
4. ZAMEL will review complaints in accordance with existing regulations.;
5. The way a complaint is settled, e.g. replacement of the product, repair or refund, is left to the discretion of ZAMEL.
6. Guarantee does not exclude, does not limit, nor does it suspend the rights of the PURCHASER resulting from the discrepancy between the goods and the contract.

Salesman stamp and signature, date of sale