

CAPILLARY THERMOMETERS SERIES RT 8801.01, RT 8802.01A, RT 8803.02, RT 8804.01

Description

RT is a single-pole temperature regulator based on the principle of liquid dilatation. It consists of two basic parts: switching unit and capillary temperature sensor. There is a protective grounding pin on the cover. There are types with flat and angle design of connection terminals. RT are produced as switch-off (two terminals) and switch-over (three terminals). All types are built-in and have IP 00 protection. The regulated temperature can be set by the user within the control range.

Installation

The thermostat may be installed and connected to the electrical circuit only by a person qualified at least according to decree No. 50/1978 §6, or by a professional servicing technician. Following guidelines must be observed during installation:

- Install the thermostat only into appliances specified in this manual (appliances class I) with the connection terminals under the unremovable cover.
- Use sleeves 6.3x0.8 mm (ČSN EN 612 10) to connect the terminals to the electrical circuit and the ground pin
- The minimum bend radius of the capillary is $R=5\text{mm}$.
- The M4 screws may be only as long so as not to reach into the switching mechanism. Apply 1.2 Nm torque to tighten them to a control panel or a support
- The switch head may be mounted in normal environment AB5, AE1, AM1, AN1, BE1, the capillary system may not come into contact with aggressive agents
- Insert the whole sensor + min. 2 cm of the capillary system into the controlled environment

- The position of the sensor and switching mechanism does not matter
- RT 8803.02R – lock the adjusting screw at angle 185°
- RT 8804.xx(x) – touchable parts of the capillary system must be grounded every 5 cm.

Method of use

RT does not serve as master switch. Minimum current 0.4 A. RT are intended only for single-phase household or similar appliances (whose nominal voltage does not exceed 240 V) subject to RN 60335-1. The thermostat is intended for thermoregulation in these appliances:

- RT 8801.01 for room temperature regulation – control of convectors
- RT 8802.01A/01AU with capillary length 1459 mm – for thermoregulation of liquid filled electronic radiators – sensor must be placed in a protective well
- RT 8803.02/02U for thermoregulation in solid non flow-through accumulation boilers permanently connected to a fixed duct – sensor must be placed in a protective well
- RT 8803.02R for thermoregulation of water in textile washing machines with water heating – sensor must be placed in a protective well
- RT 8804.01/01U for thermoregulation in non-portable baking ovens

Other methods of use must be discussed with the manufacturer.

After installing RT observe guidelines on the appliance manual.

Effect on other products

The operation of RT contacts results in monetary voltage fluctuation on the contacts which is superimposed on the supply wave shape.

Technical data

(the number for the switching version is in brackets)

Type	RT 8801.01 (RT8801.011)	RT 8802.01A/01AU (RT8802.011)	RT 8803.02/02U (RT8801.011)	RT 8803.02 R	RT 8804.01/01U (RT8804.011)
Control angle range	$(0 \div 270)^\circ\text{C}$	$(0 \div 270)^\circ\text{C}$	$(50 \div 270)^\circ\text{C}$	$(35 \div 185)^\circ\text{C}$	$(45 \div 270)^\circ\text{C}$
Control temperature range	$(0 \div 40)^\circ\text{C}$	$(35 \div 95)^\circ\text{C}$	$(7 \div 77)^\circ\text{C}$	$(30 \div 90)^\circ\text{C}$	$(50 \div 320)^\circ\text{C}$
Manufacturing tolerance at max angle of control range	$\pm 2^\circ\text{C}$	$\pm 4^\circ\text{C}$	$\pm 6^\circ\text{C}$	$\pm 4^\circ\text{C}$	$\pm 10^\circ\text{C}$
Switching difference	1 ÷ 3 K	2 ÷ 5 K	2 ÷ 5 K	2 ÷ 5 K	4 ÷ 10 K
Rated current	16 (2,6) A ~	16 (2,6) A ~	16 (2,6) A ~	16 (2,6) A ~	16 (2,6) A ~

Rated voltage	240 V	240 V	240 V	240 V	240 V
Switching temp. rate	0 ÷ 55°C	0 ÷ 150°C	0 ÷ 150°C	0 ÷ 150°C	0 ÷ 150°C
Max. sensor temp.	50°C	110°C	90°C	150°C	330°C
Protection	IP 00	IP 00	IP 00	IP 00	IP 00
Protection class	I	I	I	I	I
Guaranteed number automatic working cycles	100 000*	100 000	100 000*	100 000	100 000*
Min. radius of capillary cycles	5 mm	5 mm	5 mm	5 mm	5 mm
Connectors	Spade con. 6,3x0,8mm according to ČSN EN 61210	Spade con. 6,3x0,8mm according to ČSN EN 61210	Spade con. 6,3x0,8mm according to ČSN EN 61210	Spade con. 6,3x0,8mm according to ČSN EN 61210	Spade con. 6,3x0,8mm according to ČSN EN 61210

*for RT 8801.011, RT 8802.011, RT 8804.011/U and RT 8803.021/U is number of automatic operation cycles 50 000.

Storage conditions

Packed RT may be stored in rooms with temperatures 0 to 45°C and the relative humidity up to 75%. Devices must not be mechanically damaged during storage and reloading. The thermostats must be handled carefully without excessive vibrations and shocks. Storage areas must be free of harmful gases.

Disposal

Dispose of the RT as follows: Take the RT to a scrap yard.

Possible minor defects and troubleshooting

Any defects of capillary thermostats may be repaired only by the manufacturer.

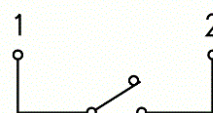
Conformity declaration. RoHs compliance

Declaration of compliance with RoHs here:

www.metra-su.cz

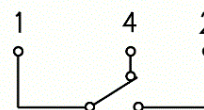
Wiring diagram

Schema zapojení v poloze rozepnuto



Označení svorek je provedeno na tělese spínače

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Warranty

If positioned, wired and used on compliance with the guidelines stated in the Installation and Operation instructions manual the manufacturer provides a warranty according to the current code, unless otherwise agreed.

The manufacturer will refuse warranty service if the unit has been damaged:

- During transport and storage by the purchaser or the customers
- During installation or removal from a purchaser's or his customers' appliance
- By improper handling and installation in another device than that specified in the manual
- If RT has been exposed to environments other than those specified in the manual

Warranty and post-warranty repairs

Warranty and post-warranty repairs are provided by manufacturer. Pack the product and send it to address:

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