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# TEMPERATURE REGULATOR





RT-824

Do not dispose of this device in the trash along with other waste! According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.

### Purpose

The RT-824 temperature regulator is designed for direct control of heating devices powered by 230 V, with a maximum current not exceeding 16 A

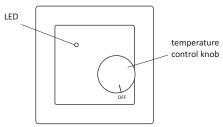
### Functioning

- The controller operates in one of four operation modes:
- \* operation with internal temperature sensor:
- \* operation with an external temperature sensor (included);
- \* operation with two temperature sensors.:
- \* operation in safety mode.

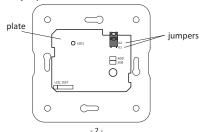
Until the desired room temperature is reached, the contact of the regulator is closed and the heating device is switched on (LED is on). Reaching the preset temperature causes the contact to open and switches off the heating device (LED goes off).

The temperature drop by the hysteresis value will restart the heating device until the set temperature (1°C) is reached. Setting the temperature control knob in the OFF position turns off the entire heating system.

## Description of the external panel



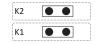
#### Location of jumpers



### Operating modes

Two jumpers located under the elevation of the regulator on the printed circuit board are used to set the operating modes.

1. Operation with internal temperature sensor



Jumper K1 and K2 are closed. If the internal temperature sensor is damaged, the regulator will automatically switch to safety mode.

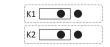
2. Operation with external temperature sensor



Jumper K1 is open, jumper K2 is closed

If the external sensor is damaged, the regulator will switch to operation with the internal sensor, and if this sensor is faulty, the regulator will switch to the safety mode.

3. Operation with two temperature sensors



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## Jumpers K1 and K2 are open.

The measurement sensor by which the control is carried out is an internal sensor. An external sensor is limiting upper temperature above which the heating device will be turned off. The default temperature is set at 40°C.

#### 4. Operation in safety mode

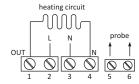
The controller switches to this operating mode in cases previously described (due to failure of any of the sensors). Operation in this mode is signaled by pulsing LED light. In safety mode, the regulator works in the cycle: \* 3 minutes – radiator switched on: \* 1 minute – radiator switched off

Never change the position of the jumpers when the power supply of the regulator is on. It can cause electric shock.

Do not install a device that is damaged or incomplete.

Do not install the device in rooms with high humidity, such as bathrooms etc.

## **Connection diagram**



- 1/4 output to connect the heating circuit
- 2 Lpower supply of the regulator
- 3 N power supply of the regulator
- 5/6 outputs for connecting the temperature sensor

# Assembly

- 1. Disconnect the power supply from the circuit to which the regulator will be connected.
- 2. Use a narrow, flat screwdriver to gently press the latch (marked with an arrow on the illustration) that clip the housing of the regulator.
- 3. Remove the cover and frame of the regulator taking care not to damage the electronics of the regulator.
- 4. Set the jumpers properly for the selected operating mode (see the description of the jumper arrangement).

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- 5. Connect according to diagram.
- 6. Place the lower part of the regulator in the flush-mounted box screwit on.
- 7. Replace the frame and push the cover.

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#### Technical data

sensor isolation

wire

D181129

1	2221/10
power supply	230 V AC
load current of the heating ci	rcuit <16 A
range of temperature adjustn	nent 5÷35°C
hysteresis	1°C
setting accuracy	1°C
measurement accuracy	±1°C
power consumption	0.8 W
working temperature	-5÷50°C
terminal	2.5 mm <sup>2</sup> screw terminals
dimensions	
front	86×86mm; depth 22 mm
base	Ø60; depth 27.5 mm
mounting	in the Ø60 flush-mounted box
protection level	IP20
external temperature sensor	NTC
sensor dimensions	Ø7; h= 25 mm

PC sleeve

PC 2×0.34 mm<sup>2</sup>; l=3 m



F&F Filipowski general partnership hereby declares that the device is in compliance with Directive 2014/53 / EU. The full text of the EU Declaration of Conformity is available at the Internet address: www.manuals.fif.com.pl.

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