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RT-824

Temperature regulator



5190831215926311

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 can operate in one of four operating modes:

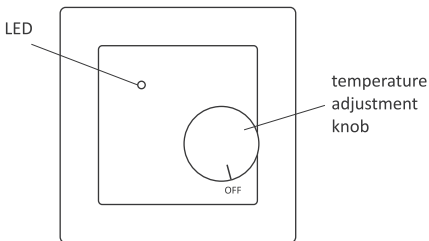
- » operation with an internal temperature sensor;
- » operation with an external temperature sensor (included in the set);
- » operation with two temperature sensors;
- » operation in safety mode.

A drop in temperature by the hysteresis value will switch the heating device back on until the set temperature (1°C) is reached.

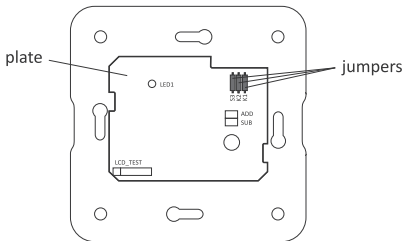


Setting the temperature control knob to OFF switches off the entire heating system.

External panel



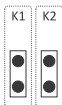
Location of jumpers



Operating modes

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

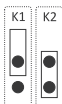
Operation with internal temperature sensor



Jumper K1 and K2 are closed

If the internal temperature sensor is damaged, the regulator will automatically switch to safety mode.

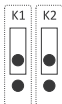
Operation with external temperature sensor



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.

Operation with 2 temperature sensors



Jumpers K1 and K2 are opened

The measuring sensor to which the control takes place is the internal sensor.

The external sensor acts as a limiter, switching off the heating unit if the safety temperature is exceeded.

Operating modes cont.



The safety temperature is set using jumper S3. If any sensor fails, the controller enters emergency mode.

Setting the safety temperature (applies to operation with 2 temperature sensors)



Safety temperature
40°C



Safety temperature
55°C

Operation in safety mode

The controller switches to this mode in the cases described earlier (due to a failure of one of the sensors).

Operation in the emergency mode is signalled by blinking of the LED.

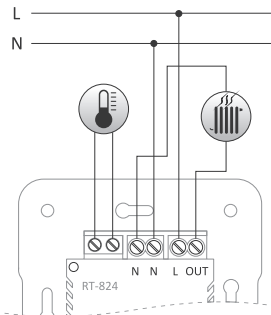
In the emergency mode, the regulator operates in the cycle:

- » 3 minutes – heater ON;
- » 1 minute – heater OFF.



Controller default setting: operation with internal temperature sensor (safety temperature of 40°C).

Wiring diagram



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



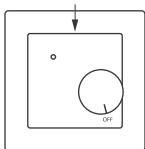
Do not install a device that is damaged or incomplete.



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

Mounting

1. Disconnect the power supply from the circuit to which the regulator will be connected.
2. Using a narrow, flat-bladed screwdriver, gently push in the clip (marked with an arrow in the figure below) securing the regulator housing.



3. Remove the controller cover and frame, taking care not to damage the electronics of the regulator in the process.
4. Set the jumpers for the selected operation mode accordingly (see the description **Location of jumpers**).
5. Connect according to the diagram.
6. Place the lower part of the controller into the flush-mounted box and screw in place.
7. Fit the frame and press down the cover.

Technical data

power supply	230 V AC
maximum load current (AC-1)	16 A
contact	1×NO
temperature adjustment range	5÷35°C
hysteresis	3°C
setting accuracy	1°C
measurement accuracy	±1°C
power consumption	0.8 W
working temperature	-5÷50°C
terminal	1.5 mm ² screw terminals
tightening torque	0.2 Nm
dimensions	
front	83.5×83.5 mm; depth= 22 mm
back	∅50; depth= 27.5 mm
mounting	in ∅60 flush-mounted box
ingress protection	IP20
external temperature sensor	NTC
sensor dimensions	∅7; h= 25 mm
sensor insulation	PC sleeve
wire	PC 2×0.34 mm ² ; length= 3 m

Warranty

The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us.

CE declaration

F&F Filipowski L.P. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at www.fif.com.pl on the product page.