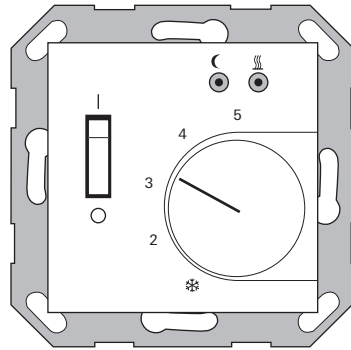


Room temperature controller
230 V~ with NO contact and sensor,
for electrical floor heating
0394 ..

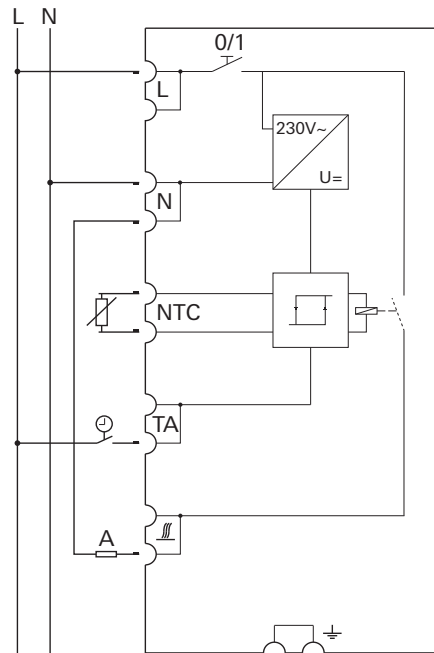
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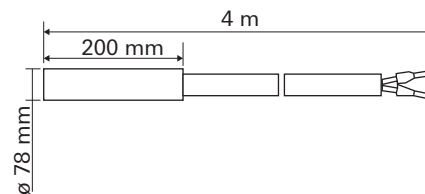
1



2



3



en Operating instructions

Security instructions



Electrical devices may only be installed and connected by a qualified electrician.

Serious injury (e.g. caused by an electric shock), fire, or material damage are possible in case of improper mounting.

Isolate before working on the device or load. Take into account all circuit breakers for this.

These instructions are part of the product and must remain with the end customer.

Functional description

The room temperature controller 230/10 (4) A~ with NO contact and sensor for electrical floor heating (fig. 1) is used to control electrical

- underfloor heating or
- in-floor heating systems.

The room temperature controller conforms to DIN EN 60730 and works according to mode of action 1C.

Within one hour of continuous heating, the room temperature controller automatically interrupts the heating process for 5 minutes (the heater is switched off; requirement of EN 50559).

Installation



DANGER
Working with voltages of 110 V and above

- The I - 0 switch isolates one pole of the room temperature controller from the mains supply and interrupts the electrical circuit to the floor sensor.
- When working on the load circuit, the power supply must at all times be disconnected, e.g. by removing the fuse.
- When the sensor is interrupted, the relay contact is closed; with a sensor short-circuit, the relay contact is open.

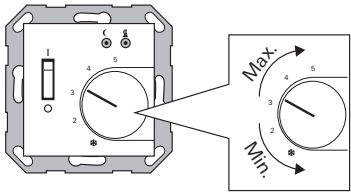
Room temperature controller

1. Pull off the setting knob, unscrew the cover screw and remove the housing cover.
2. Electrical connection: (Fig. 2);
Solid conductor - cross section 1 to 2.5 mm².
No protective conductor required. Protective conductor terminal is for loop-through only.
3. Install room temperature controller on flush-mounted box (always install the room temperature controller, including support ring, on top of the wall paper).
4. Replace the housing cover. Snap the cover into the lower part of the housing on the top left hand side.
5. Continue as described in 1., but in reverse order.

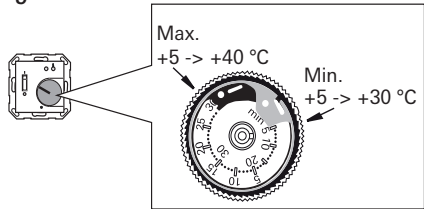
Floor sensor

The floor sensor must fulfil the requirements of protection class II and must always be laid in a protective tube, together with sensor cable H03VV (fig. 3). This protects the floor sensor from moisture and makes it easier to replace the sensor in case of a malfunction

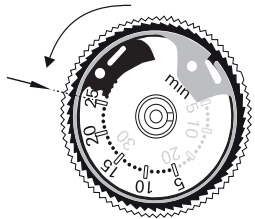
4



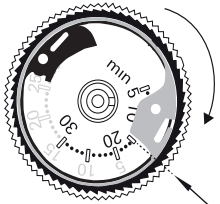
5



A) Max. 30 °C -> 25 °C



B) Min. 5 °C -> 15 °C



Setting the temperature

the desired floor temperature is set using the setting knob (fig. 4). The floor sensor monitors the floor temperature. The number scale *, 2, 3, 4, 5 on the knob corresponds to a temperature range of +10 to +50 °C.

The manufacturer's instructions regarding the floor heating settings must be observed. If the floor temperature falls below the set temperature, the control device requests heat.

The red status LED (illuminated) shows that the heating is using energy. The temperature range can be limited on the back of the setting knob (fig. 5).

The mains switch turns the underfloor heating on or off. In addition, a lower temperature can be programmed via an external timer, e.g. to lower the temperature during night hours. When an external timer is used, the green status LED (illuminated) signals the start of the temperature decrease.

Example: Temperature decrease approx. 4 K. The temperature set at the room temperature controller is 40° C (= number scale 4). This means that the floor temperature can drop to 36° C during the night without the heating being switched on automatically. Only if the temperature drops any further, the heating is switched on again.

Sensor parameters

Measuring instrument $R_i > 1 \text{ M}\Omega$

| Temperatur °C | Resistance kΩ |
|---------------|---------------|
| 5 | 85,279 |
| 10 | 66,785 |
| 15 | 52,330 |
| 20 | 41,272 |
| 25 | 33,000 |
| 30 | 26,281 |
| 35 | 21,137 |
| 40 | 17,085 |
| 45 | 13,846 |
| 50 | 11,277 |

The resistance values can only be measured when the sensor is disconnected.

Technical data

| | |
|--|---|
| Power supply: | AC 230 V, 50 Hz |
| Tolerance range: | max. 20 mA |
| Temperature adjustment range (number scale): | * , 2, 3, 4, 5 (= +10 to +50 °C) |
| Switching current: | 10 mA to 10 A $\cos \varphi = 1$ 10 mA to 4 A $\cos \varphi = 0,6$ |
| Rated surge voltage: | 4 kV |
| Mains switch: | 1-pole |
| Display elements | 106.5 x 106.5 mm |
| LED, red: | Heating mode |
| LED, green: | Temperature decrease |
| Contact (relay): | 1 NO contact (for heating), not potential-free |
| Temperature decrease: | approx. 4 k |
| Switching temperature differential: | approx. 1 k |
| Housing protection class: | IP 30 (acc. to EN 60529) |
| Ambient temperature: | 0 to +25 °C |
| Storage temperature: | -25 °C to +70 °C |
| Energy class: | IV = 2% |

Warranty

The warranty is provided in accordance with statutory requirements via the retailer. Please submit or send faulty devices postage paid and with an error description to your sales representative (retailer/installation company). The salesperson will forward the devices to the Gira Service Center.