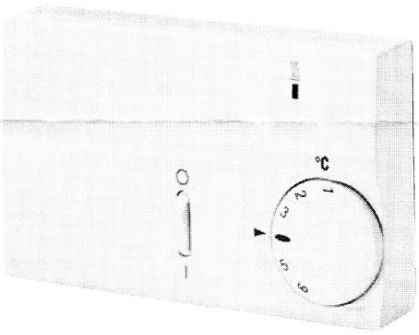
468 931 003 030-3

GB

Installation and Operating Instructions

Temperature Controller for Floor Heating Systems



Caution!

The device may only be opened and installed according to the circuit diagram on the device or these instructions by a qualified electrician. The existing safety regulations must be observed.

Appropriate installation measures must be taken to achieve the requirements of protection class II.

This independently mountable electronic device is designed for controlling the temperature in dry and en-closed rooms only under normal conditions. The device confirms to EN 60730, it works according operating principle 1C.

1. Application

- Electric Floor Heating Systems
- Hot Water Floor Heating Systems

2. Operation

The controller recognizes the temperature via the external remote sensor. The controller switches on when sensor temperature is below set temperature and it switches off as soon as required room temperature (set value) will be reached and rise.

The setting range 1...6 corresponds to temperature 10...60°C.

The controller can be switched ON and OFF by means of the rocker switch.

The red LED indicates „calling for heat"

In case of sensor disconnection or shortcircuit the relay will drop.

The variants with a tamper proof housing do not have a mains ON/OFF switch, the temperature adjustment is under the top cover.

3. Installation

a) Controller

- System to be wired free of voltage
- Pull off the adjusting knob
- Loosen the fixing screw
- Remove the cover
- Connection acc. to wiring diagram (inside cover)

b) Remote Sensor

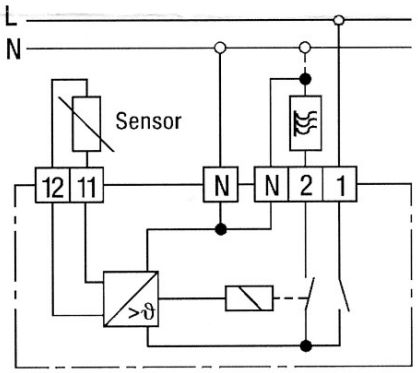
Attention:

For more easy replacement sensor cable should be put into a protection tube. The sensor cable can be lengthened up to 50 m by using a standard 2-core cable for mains voltage and with a cross section of 1,5 mm2. Close parallel routing along high voltage cables or in cable ducts should be avoided or otherwise a screened cable has to be installed.

Attention:

In case of failure the sensor cable still can carry mains voltage.

4. Wiring Diagram



5. Technical Data

Controller

Article no.	515 7101 51...
Switching current	16 A (4 A cos φ = 0,6)
Operating voltage at 50 Hz	230 V AC (195 ... 253 V)
Temperature range	1...6 (corresponds to 10...60°C)
Switch	mains ON/OFF
Indication LED	calling for heat
Contact (Relay)	1 n/o (for „heating")
Mode of regulation	on - off
Switching differential	approx. 1 K
Protection class of housing	IP 30
Degree of safety	II*
Software class	A
Pollution degree	2
Rated impulse voltage	4 kV
Ball pressure test temperature	75 ± 2 °C
Voltage and Current for the for purposes of interfernce measurements	230 V, 0.1 A
Operating temperature	–20 ... +40°C
Storage temperature	–20 ... +70°C

Remote Sensor

Full Ref. No.	000 193 720 000
Sensor identification	white
Sensing element	NTC
Sensor cable	PVC (2x0,5 mm2)
Length of cable	4 m
Protection class	IP 68
Ambient temperature	–25 ... +70°C
Energy class	I = 1 %

(acc. EU 811/2013, 812/2013, 813/2013, 814/2013)

* See point "Attention"

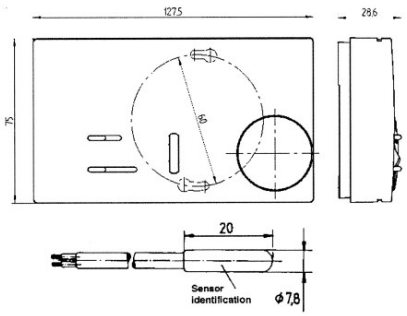
Characteristics of NTC resistor

Temperature range 10 ... 60°C

	[kΩ]	[V]
10°C	66,8	3,7
20°C	41,3	3,4
30°C	26,3	2,9
40°C	17,1	2,5
50°C	11,3	2,0
60°C	7,5	1,5

Ohmic values only can be tested on disconnected sensor cable

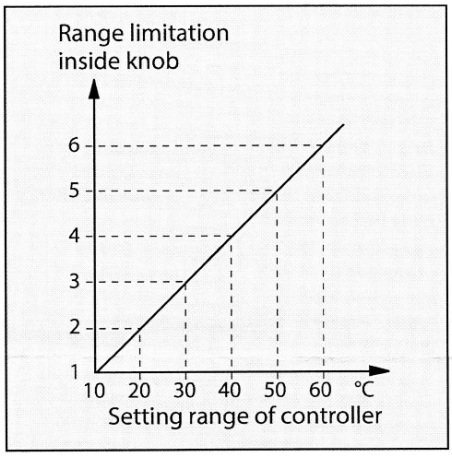
6. Dimensions

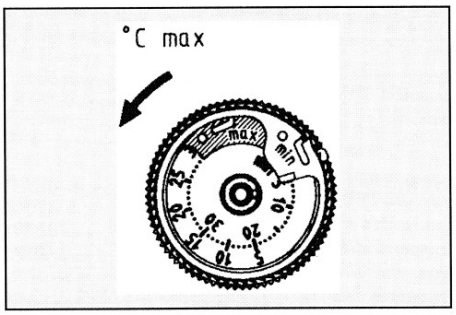


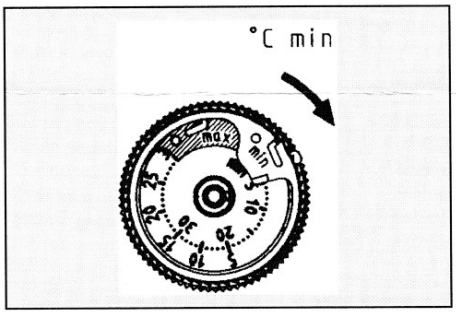
7. Limiting the temperature range

Preset of controller to max. setting range at factory.

Inside of adjustable knob there are 2 setting rings with a range of 1 to 6. For limiting the range, please consider following diagram.







This product should not be disposed of with household waste. Please recycle the products where facilities for electronic waste exist. Check with your local authorities for recycling advice.