DATA SHEET

Electronic temperature controller with temperature sensor for flush mounting

Reviewed on: 05/2016
Replace DS from: –

CAUTION! – No persons other than expert electricians only must open this device in due compliance with the wiring diagram shown in the housing cover / represented in the corresponding operating instructions. All expert electricians committed to the execution of any such works must comply with the relevant safety regulations currently operative and in force.

Area of application / functional method

The electronic temperature controller with timer serves for the control of temperature. The appliance comprises the control module for setting the desired temperature and a temperature sensor, which measures the temperature and communicates the measured value to the control module.

Application example for the electric bench heating: the control variable is the bench temperature. This is measured by means of a remote sensor at the heating mat level (scale 1 … 5 corresponds with approx. 10 ... 50 °C floor temperature). The red lamp signalises the active heating phase. The heating function can be switched off by means of the switch. If the phase is switched at the terminal, the controller reduces the set target value by approx. 5 K. The green lamp indicates this saving mode.

The night setback function is activated when the connecting terminal ◷L is connected. This may, for example, be realised by means of an external timer or clock controller. **(Caution! second feeder) – the night setback function must also be deactivated when working on the controller.**

Opening of the controller / Installation of the controller / Gerät schließen

Opening of the controller

– Lever off the button (1) using a screwdriver
– Release screw (2)
– Pull off the housing cover (3)
– Remove the small intermediate frame (4) and switch frame (5)

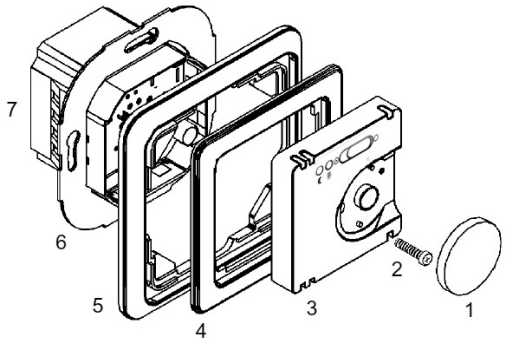
Installation of the controller

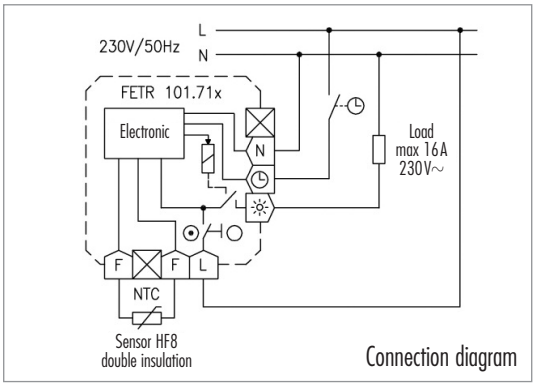
Caution; deactivate power supply at all poles prior to installation!

– Electrical connection acc. to "Connection diagram" with screw terminals
– Solid conductor cross section load-dependent 1.5 ... 2.5 mm²
– no protective earth
– Mount the controller (7) in the flush socket using the support ring (6)

Closing the device

– The device is closed in reverse order to the opening sequence

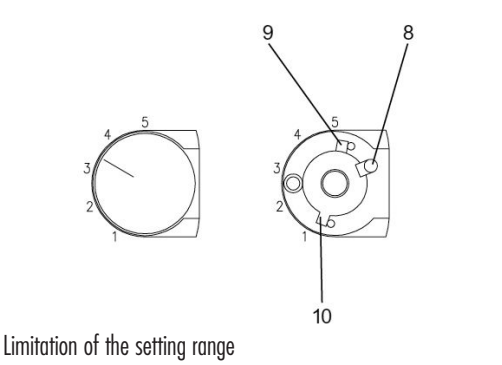




Connection diagram

Limitation of the setting range

– Pull off the pin (8)
– Turn the red stop (9) for maximum temperature and the blue stop (10) for minimum temperature
– Insert the pin (8) to lock the stops



Limitation of the setting range

Contd. on page 2

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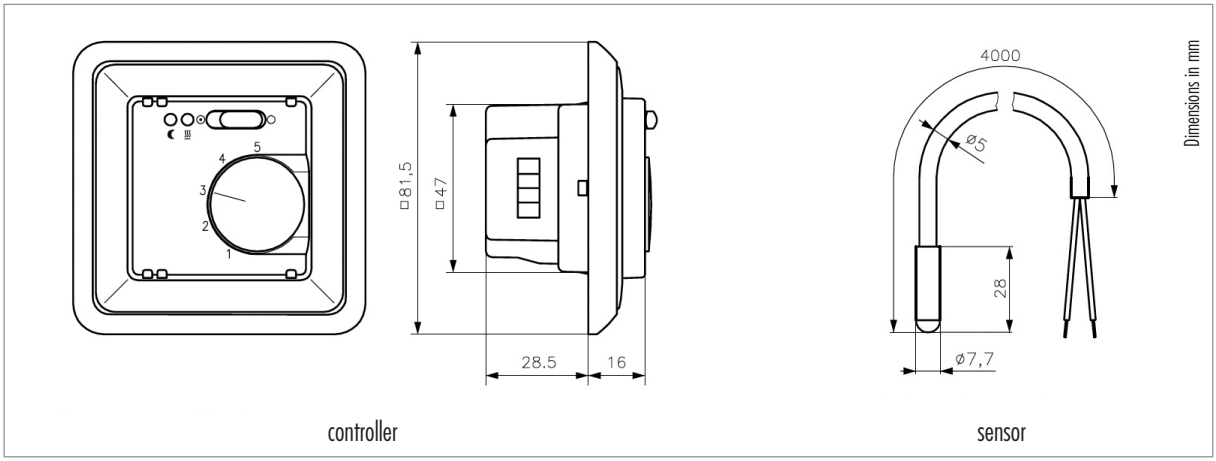
Technical data

Operating voltage:	230 V/50 Hz
Regulation range:	10 ... 50 °C
Switching differential:	approx. 1 K
Power consumption:	approx. 1 VA
Night setback:	approx. 5 K fixed (connection L → ◷)
Contact:	NO contact 230 V max.16(2) A / 30,000 switching cycles VDE tested up to 12(2) A / 100,000 switching cycles
external sensor: (double insulation)	2 kΩ, NTC corresp. to DIN 44574 corresp. to BS EN 60730-2-1
Sensor failure detector:	Heating is switched off
Displays:	LED for heating, night setback function
Screw terminals:	1.5 – 2.5 mm²
Fastening:	in flush box Ø 55 mm
Protection type:	IP30
Protection class:	II after corresp. assembly
Ambient temperature:	0 ... 40 °C
Storage temperature	-20 ... +70 °C
Interference suppression:	acc. to EN 50081-1, EN 50082-1

Accessories

The controller is delivered as a complete set with 4 m sleeve sensor (order code HF-8/4-K2).

Dimensional drawings



controller sensor

Sensor characteristics table NTC 2k

Sensor temperature [°C]	Resistance value [k]	U [V]
10	3,66	2,49
20	2,43	2,22
25	2,00	2,08
30	1,65	1,92
40	1,15	1,63
50	0,82	1,35

Symbols used

- Control ON
- Control OFF
- Heating ON
- Night setback ON
- Heating connection
- Reduced temperature connection
- L Phase connection
- N Neutral conductor connection
- F Sensor connection

Warranty

The technical data provided by us were established under laboratory conditions in accordance with generally applicable test regulations, in particular DIN specifications. Properties are only assured up to this extent. The obligation for testing the suitability for the purpose intended by the client or the use under the given conditions lies with the client; we shall not assume any responsibility whatsoever for this. Subject to change.

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