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ELEKTRA®

USER'S MANUAL

ELEKTRA ELR-10



electronic
temperature
controller

solutions
for everyone

Congratulations on purchasing the Elektra ELR-10 electronic temperature controller. Thank you for the trust you have placed in our company. The controller will be of use for you and your family for many years to come. It will significantly reduce your energy expenses and will improve the thermal comfort.



ELEKTRA ELR-10

Please read this manual carefully before operating the controller.

TABLE OF CONTENTS

1. Introduction
2. Classification
3. Installing the floor sensor
4. Installing the controller with built-in air sensor
5. Installing the controller with built-in air
or floor sensor and additional sensor
limiting floor temperature to $+40^{\circ}\text{C}$
6. Technical specifications
7. Installing the controller
8. Switching on and adjustments
9. Warranty conditions

1. INTRODUCTION

The Elektra ELR-10 electronic temperature controller manages the supply of power to heating elements so that the required (optimal) temperature can be acquired, thus ensuring reduced electricity consumption. Elektra ELR-10 uses the three following temperature measurement methods:

- **air sensor,**
- **floor sensor,**
- **air and floor sensors.**

Depending on the temperature measurement method used, prepare the controller in advance by opening or closing relevant connectors. The controller preparation

procedure is presented in the table below:

Tab. 1. Preparing the controller depending on the temperature measurement method.

	Temperature measurement method	Preparing the controller
1	air sensor	connectors C-D open; the controller uses the built-in air temperature sensor.

	Temperature measurement method	Preparing the controller
2	floor sensor	remove the C-D jumper; connect the floor sensor to the A-D connector
3	air sensor with floor temperature limited to +40°C	connectors C-D closed; the controller uses the built-in air temperature sensor. Connect the floor sensor to connectors A-B

NOTE: Electricity supply shall be cut-off while installing the controller!

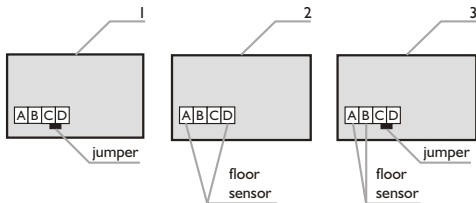


Fig.1 Preparing the controller depending on the temperature measurement method used.

2. CLASSIFICATION

The product complies with the 2nd protection class (reinforced insulation) and has to be wired in the following manner:

connector N: neutral wire

connector L: phase wire

connectors N, L1: heating device (max. 3600W)

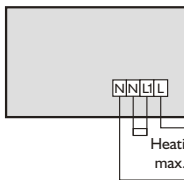


Fig 2. Connection diagram for the heating device and controller power supply.

Heating device max. 3600 W
230V 50Hz

3. INSTALLING THE FLOOR SENSOR

The floor sensor must be installed in a blinded installation pipe (e.g. a flexible PVC pipe) which should be positioned in the upper layer of the floor concrete, between heating cables. The sensor wire can be extended up to 50m of length.

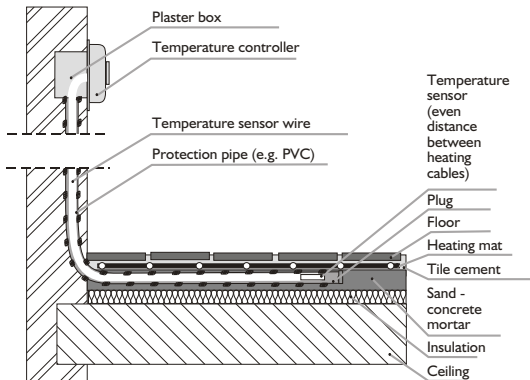


Fig. 3. Installing the floor temperature sensor with Elektra heating mats used.



4. INSTALLING THE CONTROLLER WITH BUILT-IN AIR SENSOR

The controller should be positioned in a draught-free location and cannot be exposed to direct sunlight or another source of heat which could disturb proper temperature measurements. The sensor should be installed between 120 and 160 cm above floor level.

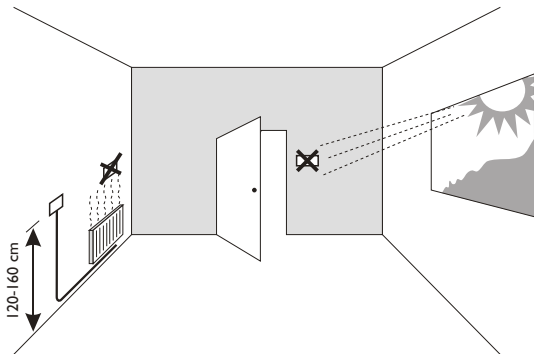


Fig. 4. Proper location for the controller.

5. INSTALLING THE CONTROLLER WITH BUILT-IN AIR OR FLOOR SENSOR AND ADDITIONAL SENSOR LIMITING FLOOR TEMPERATURE TO +40°C

In this configuration the floor sensor prevents the mats and heating cables from overheating. Prepare the controller according to the guidelines (see tab. 1; fig. 4), and install the floor sensor (see fig. 3).

6. TECHNICAL SPECIFICATIONS

power supply voltage	230 VAC/50 Hz
power load at $\cos \varnothing=1$	max 3600 W (res.)
temperature adjustment range	from +5°C to +35°C
sensitivity	$\leq 0,5^{\circ}\text{C}$ (floor 1°C)
safety class	IP 20
dimensions (h/w/l)	80 x 82 x 36 mm
installation mode	on the plaster surface
control light	LED
switch	1 pole

7. INSTALLING THE CONTROLLER

Once the appropriate temperature measurement method has been chosen and the proper controller installation spot has been determined, the installation process can begin. Follow the steps described below:

- slacken the fixing screw
and remove the controller cover,
- put all wires through the opening
in the bottom of the cover,
- using two screws positioned vertically tighten
the controller to the installation box,
- observing the diagram connect all wires
to the connection strip,
- install the front cover and tighten the fixing screw.

8. SWITCHING THE CONTROLLER ON AND ITS ADJUSTMENTS

The controller is switched on and off with the help of the switch located on the left-hand side of its cover (position "0" off, position "1" on) -(1). The desired temperature is set with the knob -(2). The red LED comes on when the heating circuit is powered -(3).

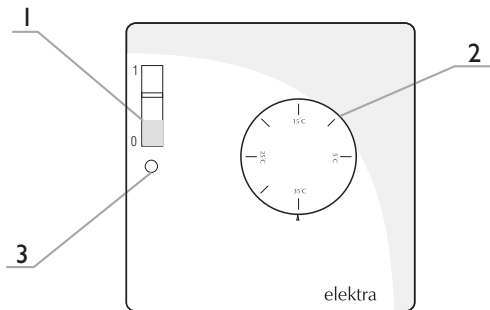


Fig. 5. Electronic temperature controller Elektra ELR-10



ELEKTRA®

Our offer comprises:

Floor heating, heating mats and cables,
temperature controllers, self-adjusting heating cables,
frost protection systems, heating cables
for industrial applications, unit heaters, bathroom
dryers and heaters, thermal-storage heaters,
water heaters, heat-recovery ventilation systems,
central vacuum cleaning systems.