

# ***INTIEL***

***THE ELECTRONICS ON YOUR SIDE***

## **Controller for Heating Chambers** **TLC**

**User's Manual**



## 1. Application

Controller for heating chambers TLC is designed to control the electrical heating elements operation, mounted in heating show cases, etc., by their switching on and protecting at low water level.

## 2. Technical data

- |   |                      |
|---|----------------------|
| 1. Power supply:                              | 220V/50Hz/AC         |
| 2. Outputs commutation current:               |                      |
| • Of heating elements:                        | 16A/250V/AC          |
| • Of the magnet valve:                        | 10A/250V/AC          |
| 3. Resistance against strokes and vibrations: | up to 2g             |
| 4. Digital display:                           | two sectional        |
| 5. Precision class:                           | +/- 1 <sup>0</sup> C |

## 3. Operation

The Controller is encased in a plastic board equipped with a transparent plastic cover. The connections between the Controller and the rest units is provided by dismountable terminals, located on the Controller main board in accordance with the mentioned scheme bellow.

The Controller measures the temperature in the chamber by remote temperature sensors, connected with two-wire cables to the main board. The measured temperature is indicated on a two positional digital display with precision of 1 <sup>0</sup>C, in the range of (0<sup>0</sup>C) up to (+99<sup>0</sup>C). The thermo regulator, keeping the assigned temperature level in the refrigeration chamber has a fixed different of 3.5 <sup>0</sup>C. The different can be adjusted by the trimmer-potential-meter P3 in the range of (2 <sup>0</sup>C) – (10 <sup>0</sup>C). The assignation of the desired temperature is provided by a button and a trimmer-potential-meter on the front Controller panel. The button has two positions – “X” and “W”. When the button is in position “X” (released) on the digital display is indicated the current temperature in the chamber. And if it is in position “W” (pressed) – the assigned temperature level is indicated. The meaning of the rest indications on the front panels are as follows:

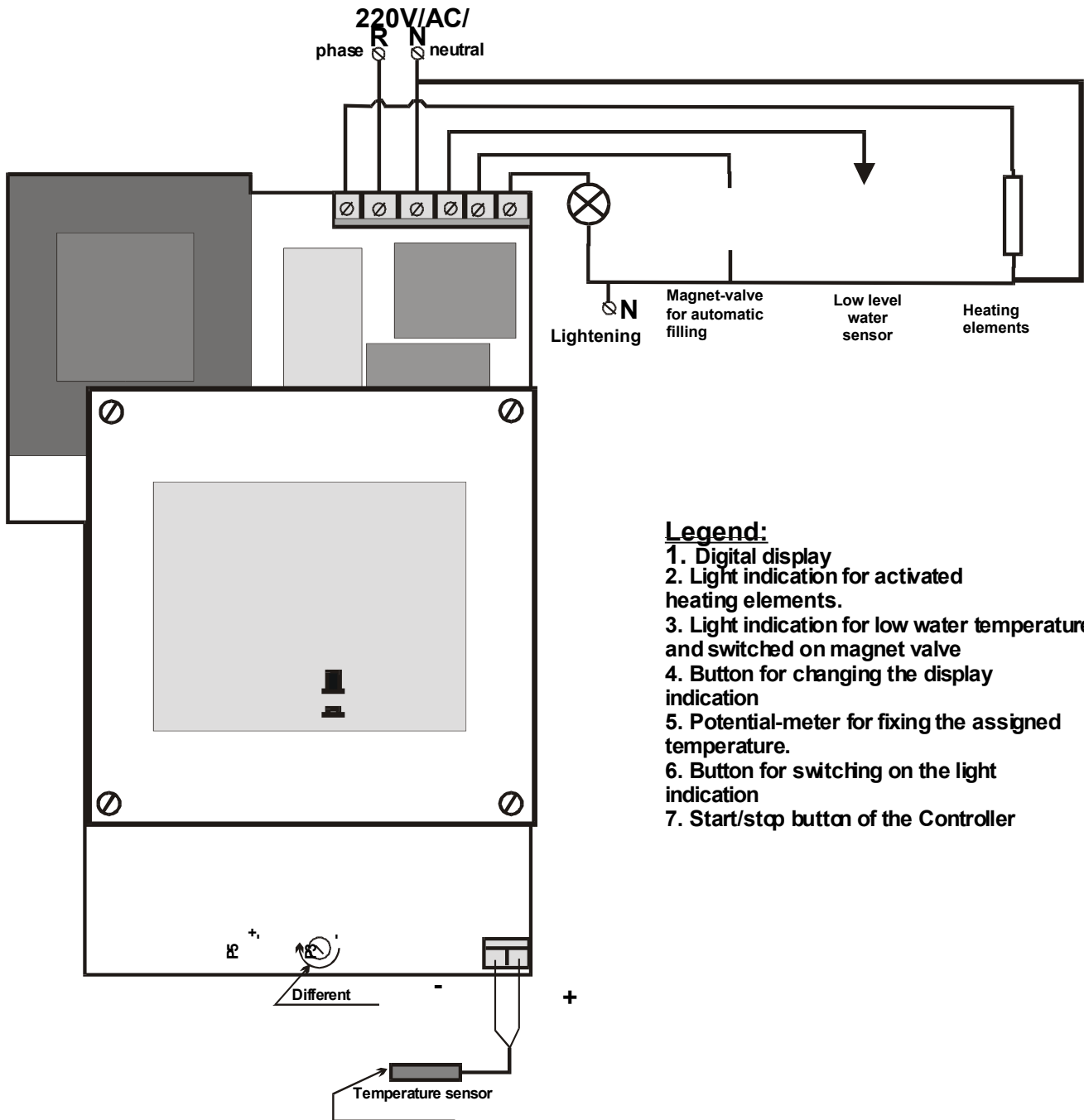
- Red indication – active at low water level
- Green indication – active when the heating is switched on

During the operation the heating will be switched off, in case the water level is being decreased, also a red light indication for a low water level will be activated and a relay output to the magnet-valve will be switched on in order to provide automatic filling with water.

There are two other buttons on the front panel:

- The show-case lightening can be switched on or switched off by means of button 8;
- The control can be switched off by means of button 9, without switching off the Controller power supply.

### 3. Wiring



#### Legend:

1. Digital display
2. Light indication for activated heating elements.
3. Light indication for low water temperature and switched on magnet valve
4. Button for changing the display indication
5. Potential-meter for fixing the assigned temperature.
6. Button for switching on the light indication
7. Start/stop button of the Controller

#### 4. Warranty

The warranty period is 24 months following the purchase date of the unit or its installation by an authorized Engineering Company, but not exceeding 28 months after the production date. The warranty is extended to the malfunctions that occur during the warranty period and are result of the production reasons or defective used parts.

The warranty does not relate to malfunctions corresponding to not-qualified installation, activities directed to the product body interference, not regular storage or transport.

The repairs during the warranty period can be done after correct filling of the manufacturer warranty card

### Warranty Card

<b>Manufacturer: INTIEL</b>	
<b>Product type</b>	
<b>Production number</b>	
<b>Production date</b>	
<b>Dealer confirmation</b>	
<b>Purchase date</b>	
<b>Invoice number</b>	
<b>Dealer's name, address and stamp</b>	
<b>Seller's name and signature</b>	
<b>Installation Date</b>	
<b>Date</b>	
<b>Company (address, stamp)</b>	
<b>Installer's name and signature</b>	