RL10 - TEMPERATURE LIMITER

- Monitoring the processes of temperature control.
- Deactivation of the control system in the case of excessive temperature, or in the case of sensor error.
- Universal input for thermocouples and resistance thermometers.
- Relay output for disconnecting the temperature control system.
- Lockout of controlled system reconnection.
- Meets the requirements of EN 60519-2 for Class 2 (Safety in electroheat installations).

EXAMPLE OF APPLICATION

The temperature limiter as protection of the heating circuit for the temperature control in the hardening furnace.
**RL10 - TEMPERATURE LIMITER**

### FEATURES
- IP65
- Password protection

### INPUT
- Symbol: Pt100
- Range: -200...850°C
- Error: 0.3%

### OUTPUT
- Relay output: changeover relay, max. load 5 A 250 V a.c., max. 200 000 cycles for 5 A/230 V a.c. (load res.)

### TECHNICAL DATA

#### INPUT

<table>
<thead>
<tr>
<th>Input type</th>
<th>Symbol</th>
<th>Range</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt100</td>
<td>Pt100</td>
<td>-200...850°C</td>
<td>0.3%</td>
</tr>
<tr>
<td>Pt1000</td>
<td>Pt1000</td>
<td>-200...850°C</td>
<td>0.3%</td>
</tr>
<tr>
<td>Fe-CuNi</td>
<td>J</td>
<td>-50...1200°C</td>
<td>0.3%</td>
</tr>
<tr>
<td>Co-CuNi</td>
<td>T</td>
<td>-50...400°C</td>
<td>0.3%</td>
</tr>
<tr>
<td>NiCr-NiAl</td>
<td>K</td>
<td>-50...1372°C</td>
<td>0.3%</td>
</tr>
<tr>
<td>PtRh10-Pt</td>
<td>S</td>
<td>0...1767°C</td>
<td>0.5%</td>
</tr>
<tr>
<td>PtRh13-Pt</td>
<td>R</td>
<td>0...1767°C</td>
<td>0.5%</td>
</tr>
<tr>
<td>PtRh30-PtRh6</td>
<td>B</td>
<td>200...1767°C</td>
<td>0.5%</td>
</tr>
<tr>
<td>NiCrSi-NiSi</td>
<td>N</td>
<td>-50...1300°C</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

#### OUTPUT

<table>
<thead>
<tr>
<th>Output type</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relay output</td>
<td>changeover relay, max. load 5 A 250 V a.c., max. 200 000 cycles for 5 A/230 V a.c. (load res.)</td>
</tr>
</tbody>
</table>

#### EXTERNAL FEATURES

- Readout field: LED
- Overall dimensions: 48 x 48 x 93 mm
- Weight: 0.25 kg
- Protection grade: from frontal side: IP65, from terminal side: IP20

#### RATED OPERATING CONDITIONS

- Supply voltage: 230 V a.c. +/- 10%
- Frequency: 50...60 Hz
- Temperature: -20...70°C
- Humidity: < 85% without condensation
- Operating position: any

#### SAFETY AND COMPATIBILITY REQUIREMENTS

- Electromagnetic compatibility: noise immunity acc. to EN 61000-6-2, noise emissions acc. to EN 61000-6-4
- Pollution level: 2
- Installation category: III
- Maximal phase-to-earth voltage: for supply circuit: output: 300 V, for input circuits: 50 V
- Altitude a.s.l: up to 2000 m

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**WEB SITE - www.lumel.com.pl**
RL10 - TEMPERATURE LIMITER

CONNECTION DIAGRAMS

Fig.1. Connection of input signals.

Fig.2. Connection of supply and load circuit.

Fig.3. RS-485 interface (only for configuration).
RL10 - TEMPERATURE LIMITER

ORDERING CODE

<table>
<thead>
<tr>
<th>RL10</th>
<th>XX</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
</table>

**Version:**
- standard: 00
- custom-made*: XX

**Language:**
- Polish: P
- English: E
- other*: X

**Acceptance tests:**
- without additional quality requirements: 0
- with an extra quality inspection certificate: 1
- acc.to customer's request: X

* only after agreeing with the manufacturer

Order example:
The code: RL10-00 E 0 means:
- RL10 - temperature limiter RL10
- 00 - standard version
- E - user's manual in English
- 0 - without additional quality requirements.

SEE ALSO:

- RE70 - temperature controller
- RE72 - temperature controller
- RP7 - power controller

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