sifam tinsley
PRECISION INSTRUMENTATION

NEW

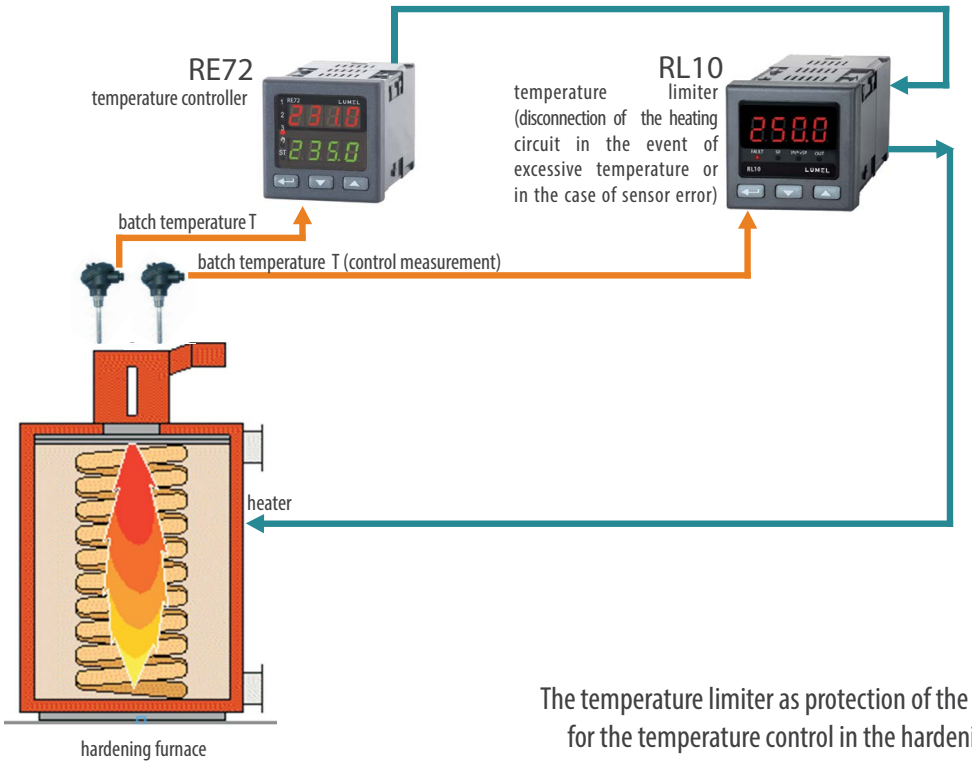
RL10
- TEMPERATURE LIMITER

- 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).

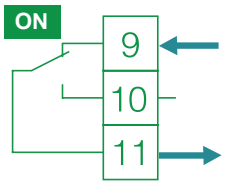
Electrical Safety CAT III

CE

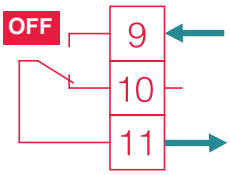
EXAMPLE OF APPLICATION



T ≤ 250°C
normal operating mode, the heater turned on

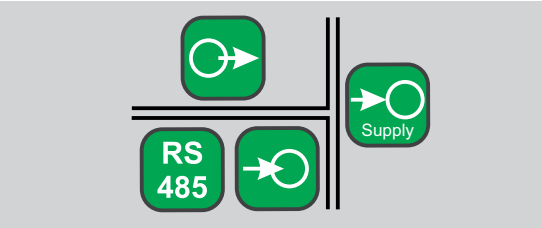


T > 250°C
temperature limitation mode, the heater turned off



The temperature limiter as protection of the heating circuit for the temperature control in the hardening furnace.

RL10 - TEMPERATURE LIMITER

FEATURES	INPUT	OUTPUT	GALVANIC ISOLATION
			

TECHNICAL DATA

INPUT

Input type	Symbol	Range		Error
Pt100	Pt100	-200...850°C	-328...1563°F	0.3%
Pt1000	Pt1000	-200...850°C	-328...1563°F	0.3%
Fe-CuNi	J	-50...1200°C	-58...2192°F	0.3%
Cu-CuNi	T	-50...400°C	-58...752°F	0.3%
NiCr-NiAl	K	-50...1372°C	-58...2501.6°F	0.3%
PtRh10-Pt	S	0...1767°C	32...3212.6°F	0.5%
PtRh13-Pt	R	0...1767°C	32...3212.6°F	0.5%
PtRh30-PtRh6	B	200...1767°C	392...3212.6°F	0.5%
NiCrSi-NiSi	N	-50...1300°C	-58...2372°F	0.3%

OUTPUT

Output type	Properties
Relay output	changeover relay, max. load 5 A 250 V a.c. . max. 200 000 cycles for 5 A/230 V a.c. (load. resist.)

EXTERNAL FEATURES

Readout field	LED	9.3 mm, 4 digits
Overall dimensions	48 ´ 48 ´ 93 mm	
Weight	0.25 kg	
Protection grade	from frontal side: IP65	from terminal side: IP20

RATED OPERATING CONDITIONS

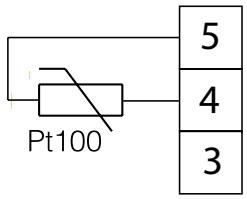
Supply voltage	230 V a.c. +/- 10%	częstotliwość 50 .. 60 Hz
Temperature	pracy: 0...23...50°C	magazynowania: -20...70°C
Humidity	< 85% without condensation	
Operating position	any	

SAFETY AND COMPABILITY REQUIREMENTS

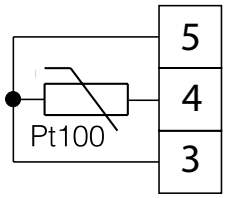
Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Polution level	2	
Installation category	III	
Maximal phase-to-earth voltage	for supply circuit, output: 300 V	for input circuits: 50 V
Altitude a.s.l.	up to 2000 m	

RL10 - TEMPERATURE LIMITER

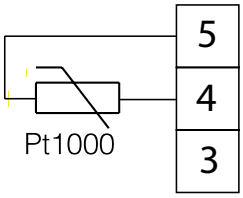
CONNECTION DIAGRAMS



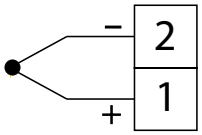
resistance thermometer Pt100
in a 2-wire system



resistance thermometer Pt100
in a 3-wire system

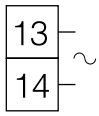


resistance thermometer Pt1000

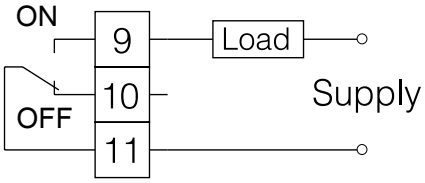


thermocouple

Fig.1. Connection of input signals.



supply



output - relay

Fig.2. Connection of supply and i load circuit.

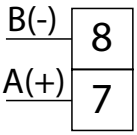


Fig.3. RS-485 interface (only for configuration).

RL10 - TEMPERATURE LIMITER

ORDERING CODE

RL10 -	XX	X	X
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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