

RE72 TEMPERATURE CONTROLLER

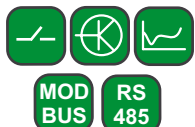
FEATURES:



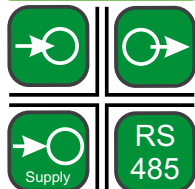
INPUTS:



OUTPUTS:

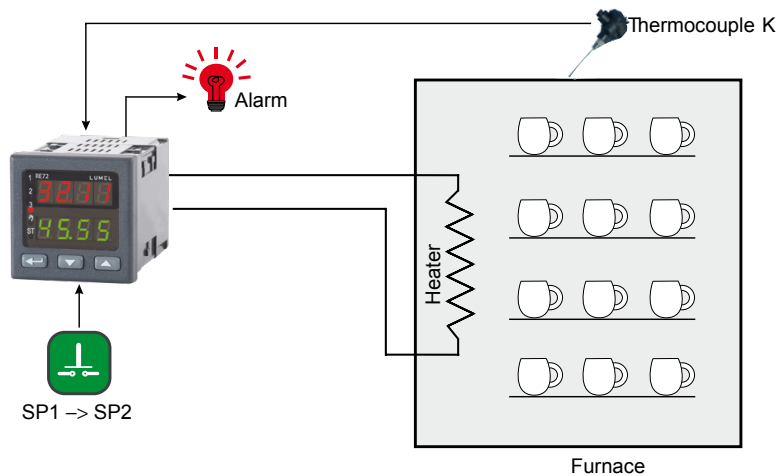


GALVANIC ISOLATION:



- Universal measuring input.
- Binary input control.
- Set point value: fixed value, programmed or from an additional input.
- On/off, PID, PID step-by-step control (valve control) or PID of heating-cooling type.
- Soft start.
- 8 types of alarms.
- Function of bistable alarm (LATCH).
- Timer function.
- Measurement of heater current and heater burning control or short-circuit of the control element (e.g. SSR).

EXAMPLE OF APPLICATION



Control of ceramics burning process.

INPUT

Input type	Range	Error
Pt100	-200 .. 850°C	0.2%
Pt1000	-200 .. 850°C	0.2%
Fe-CuNi (J)	-100 .. 1200°C	0.3%
Cu-CuNi (T)	-100 .. 400°C	0.3%
NiCr-NiAl (K)	-100 .. 1372°C	0.3%
PtRh10-Pt (S)	0 .. 1767°C	0.5%
PtRh13-Pt (R)	0 .. 1767°C	0.5%
PtRh30-PtRh6 (B)	200 .. 1767°C	0.5%
NiCr-CuNi (E)	-100 .. 1000°C	0.3%
NiCrSi-NiSi (N)	-100 .. 1300°C	0.3%
chromel-kopel (L)	-100 .. 800°C	0.3%
Current channels (I)	0/4 .. 20 mA	0.2% +/- 1 digit
Voltage channels (U)	0 .. 5/10 V	0.2% +/- 1 digit

OUTPUTS

Output type	Properties	Load capacity
Voltageless relay output	NO contact	2 A/ 230 V a.c. (out. 1 and 2) 1 A/ 230 V a.c. (out. 3)
Voltage transistor output	0/5 V	max 40 mA
Continuous voltage output	0 .. 10 V	at $R_{load} \geq 1 \text{ k}\Omega$
Continuous current output	0 .. 20 mA, 4 .. 20 mA	at $R_{load} \leq 500 \Omega$

DIGITAL INTERFACE

Interface type	RS-485	Mode
Protocol	Modbus RTU	8N2, 8E1, 8O1, 8N1
Transmission rate	4.8, 9.6, 19.2, 38.4, 57.6 kbit/s	

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EXTERNAL FEATURES

Readout field	2 x 4 digits	digit height: 10 mm, red and green colours
Dimensions	48 x 48 x 93 mm	
Weight	< 0.2 kg	
Protection grade	from frontal plate: IP65	from terminal side: IP20

RATED OPERATING CONDITIONS

Supply voltage	85 .. 253 V a.c./ d.c.	20 .. 40 V a.c./d.c.
Temperature	ambient: 0...23...50°C	storage: -20...70°C
Relative humidity	< 85%	(without condensation of water vapour)
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 operating voltage	supply, output: 300 V	input circuits: 50 V
Altitude above sea level	2000 m	

CONNECTION DIAGRAMS

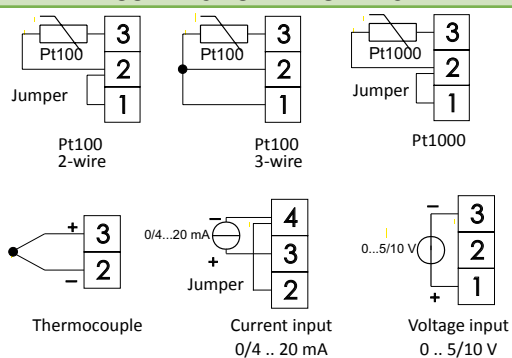


Fig. 1. Input signals.

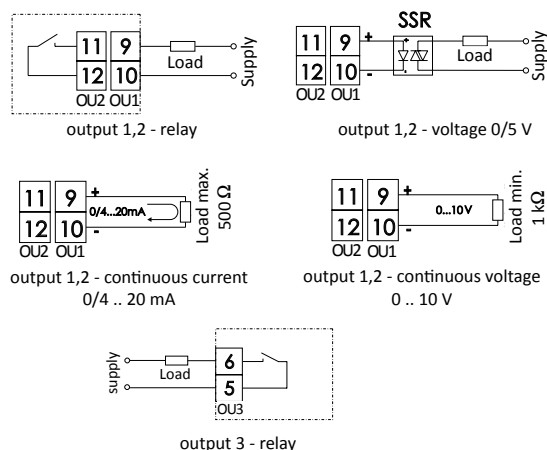


Fig. 2. Control/alarm outputs.

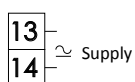


Fig. 3. Supply.

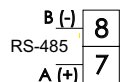


Fig. 4. Interface RS-485

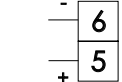


Fig. 5. Transducer supply.

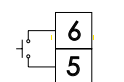


Fig. 6. Binary input.

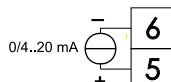


Fig. 7. Additional input.

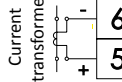


Fig. 8. Current transformer input.

ORDERING

Ordering Code	Description
RE72 111100M0*	Temperature controller RE72, universal input for thermoresistors, thermocouples or for standard analog signals, 3x relay output, RS-485 interface, supply 85...253 V a.c./d.c., documentation and descriptions in Polish and English version, test certificate
RE72 211100M0*	Temperature controller RE72, universal input for thermoresistors, thermocouples or for standard analog signals, 2x relay output, 1x voltage output 0/5 V (SSR), RS-485 interface, supply 85...253 V a.c./d.c., documentation and descriptions in Polish and English version, test certificate
RE72 131100M0*	Temperature controller RE72, universal input for thermoresistors, thermocouples or for standard analog signals, 2x relay output, 1x analog output 0/4...20mA, RS-485 interface, supply 85...253 V a.c./d.c., documentation and descriptions in Polish and English version, test certificate
RE72 111200M0*	Temperature controller RE72, universal input for thermoresistors, thermocouples or for standard analog signals, 3x relay output, RS-485 interface, supply 20...40 V a.c./d.c., documentation and descriptions in Polish and English version, test certificate
RE72 122100M0*	Temperature controller RE72, universal input for thermoresistors, thermocouples or for standard analog signals, 1x relay output, 1x voltage output 0/5 V (SSR), 1x binary input, RS-485 interface, supply 85...253 V a.c./d.c., documentation and descriptions in Polish and English version, test certificate

* Upon agreement, an option to order a calibration certificate for the product is available against payment. Then, in the execution code, in the place of the last character, enter the digit 2, eg **RE72 122100M0**. The customer will then receive a standard test certificate and a calibration certificate (against payment).

For more information about LUMEL's products please visit our website:
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