

# RE72 TEMPERATURE CONTROLLER

## FEATURES:

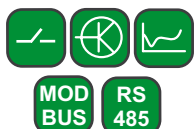


- Universal measuring input.
- Binary input control.
- Set point value: fixed value, programmed or from an additional input.
- On/off, PID, PID step-by-step control (valve control) or PID of heating-cooling type.
- Soft start.
- 8 types of alarms.
- Function of bistable alarm (LATCH).
- Timer function.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

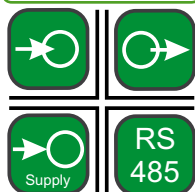
## INPUTS:



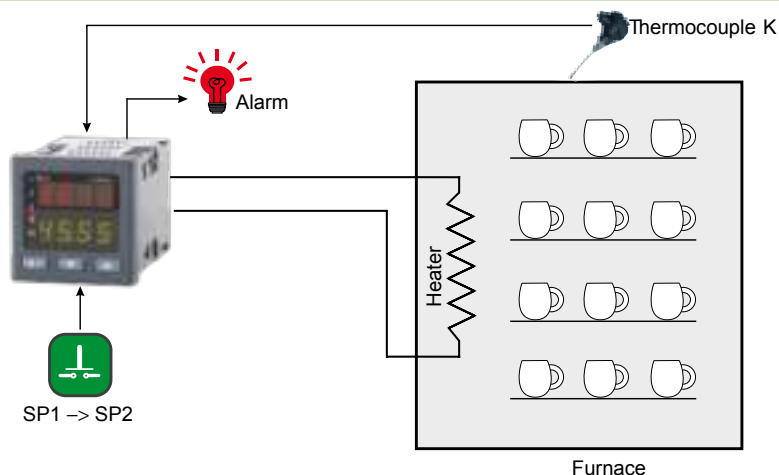
## OUTPUTS:



## GALVANIC ISOLATION:



## 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

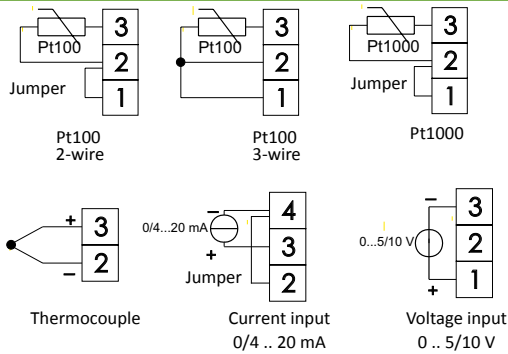


Fig. 1. Input signals.

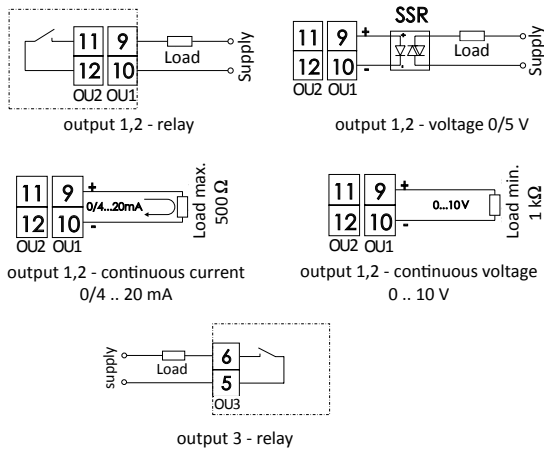


Fig. 2. Control/alarm outputs.

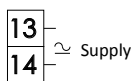


Fig. 3. Supply.

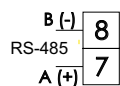


Fig. 4. Interface RS-485



Fig. 5. Transducer supply.



Fig. 6. Binary input.

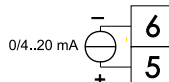


Fig. 7. Additional input.

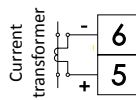


Fig. 8. Current transformer input.

## 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