

RE01 TEMPERATURE CONTROLLER

FEATURES:



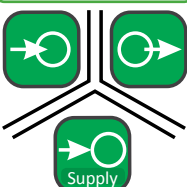
INPUTS:



OUTPUTS:



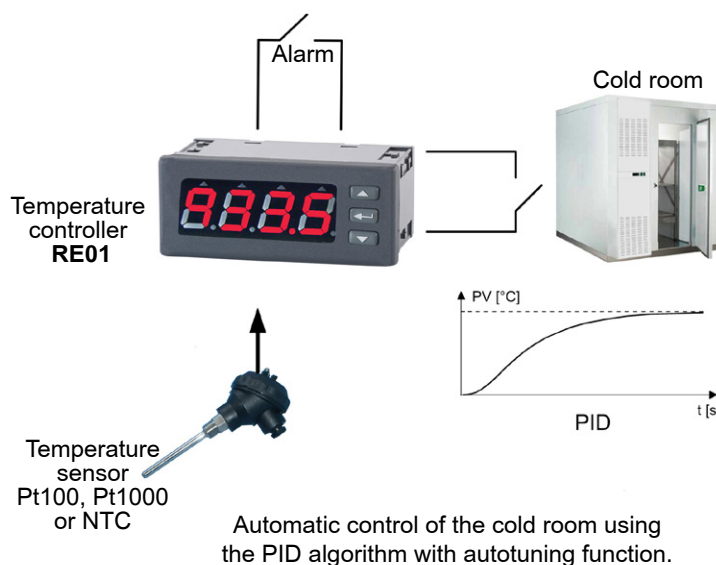
GALVANIC ISOLATION:



- Control acc. to the PID or ON/OFF algorithm
- Direct co-operation with resistance thermometer or NTC.
- Automatic selection of PID parameters.
- One control relay output and alarm relay.
- Manual control mode.
- One binary input for remote control of control functions.
- **NEW:** Defrost function with programmable automatic or manual mode.



EXAMPLE OF APPLICATION



INPUTS

Sensor type	Range [°C]	Basic error [°C]	Remarks	Additional error
Resistance thermometer (acc. EN 60751), measuring current 1 mA				Additional errors in rated operating conditions caused by: • change of the ambient temperature ≤100% of the basic error/10K
Pt100	-50...100	± 0.8	Resistance of the sensor line < 10 Ω; one must connect with wires of the same section and length	
	0...250	± 1.3		
	0...600	± 3.0		
Resistance thermometer (acc. to EN 60751), measuring current 0.1 mA				
Pt1000	-50...100	± 0.8	Resistance of the sensor line < 10 Ω; one must connect with wires of the same section and length	
	0...250	± 1.3		
	0...600	± 3.0		
NTC 2.7 k	-40...100	± 0.7		
Binary voltage			without isolation from the sensor	

OUTPUTS

Output kind	Properties	Notes
Voltageless relay	switching contact, overload capacity: 8 A/ 230 V 10 A/250 V a.c., 10 A/30 V d.c.,	minimum of 100 thousand switching cycles for maximum load
Voltageless relay	NO contact, overload capacity: 5 A/250 V a.c., 5 A/28 V d.c	

PARAMETERS OF WORK

Detection of error in the measurement circuit:	thermocouple Pt100, Pt1000, NTC	overflow of measuring range
Way of output operation	reverse: for heating	direct: for cooling
Signalling:	active output, set point value display, auto-tuning, manual control	

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EXTERNAL FEATURES

Weight	< 0.25 kg	
Dimensions	76 x 34 x 80 mm	
Protection grade (acc. to EN 60529)	ensured by the housing: IP65	from the terminal side: IP20

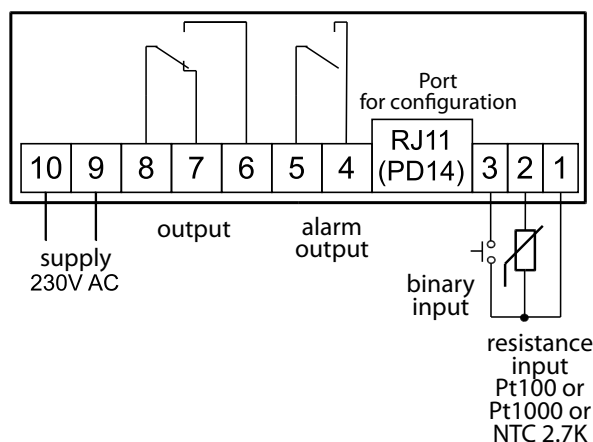
RATED OPERATING CONDITIONS

Supply voltage	230 V a.c. $\pm 10\%$, 50/60 Hz	power consumption: < 4 VA
Temperature	ambient: 0...23...50°C	storage: -20...70°C
Relative humidity	$\leq 85\%$	condensation inadmissible
Operating position	any	
Preheating time	30 min	
Averaging time	≥ 0.33 s	

SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2
	Noise emissions	acc. to EN 61000-6-4
Isolation between circuits	basic	acc. to EN 61010-1
Pollution grade	2	
Installation category	III	
Maximal phase-to-earth operating voltage	for the supply circuit, outputs: 300 V for input circuit: 50 V	
Altitude above sea level	< 2000 m	

CONNECTION DIAGRAMS



ORDERING

RE01 -	X	X	X
Input:			
Pt100 (-50...100°C) (0...250°C) (0...600°C)	1		
Pt1000 (-50...100°C) (0...250°C) (0...600°C)	2		
NTC (-40...100°C)	3		
Language:			
Polish		P	
English		E	
other*		X	
Acceptance tests:			
without extra requirements	0		
with a extra quality inspection certificate	1		
acc. to customer's request*	X		

* - only after agreeing with the manufacturer

Order example:

The code **RE01 - 1 E 0** means:

- RE01** - temperature controller of RE01 type
- 1** - input: thermocouple Pt100 (-50...100°C) (0...250°C) (0...600°C)
- E** - English version
- 0** - without extra requirements

SEE ALSO:



N25T meter for measurement of temperature from resistance thermometers and thermocouples sensors.



Look at our offer of different controllers on our website.

For more information about LUMEL's products please visit our website:
www.lumel.com.pl

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