

Temperature Controller IntraCon Series IA-RE72



Technical Information

03/2011



Accessories

THE EXPERT IN LEVEL AND FLOW

Intra-Automation
Technical Information
03/2011

Technical details subject to be changed without notice.

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info@intra-automation.de

IA-RE72 IntraCon Temperature Controller

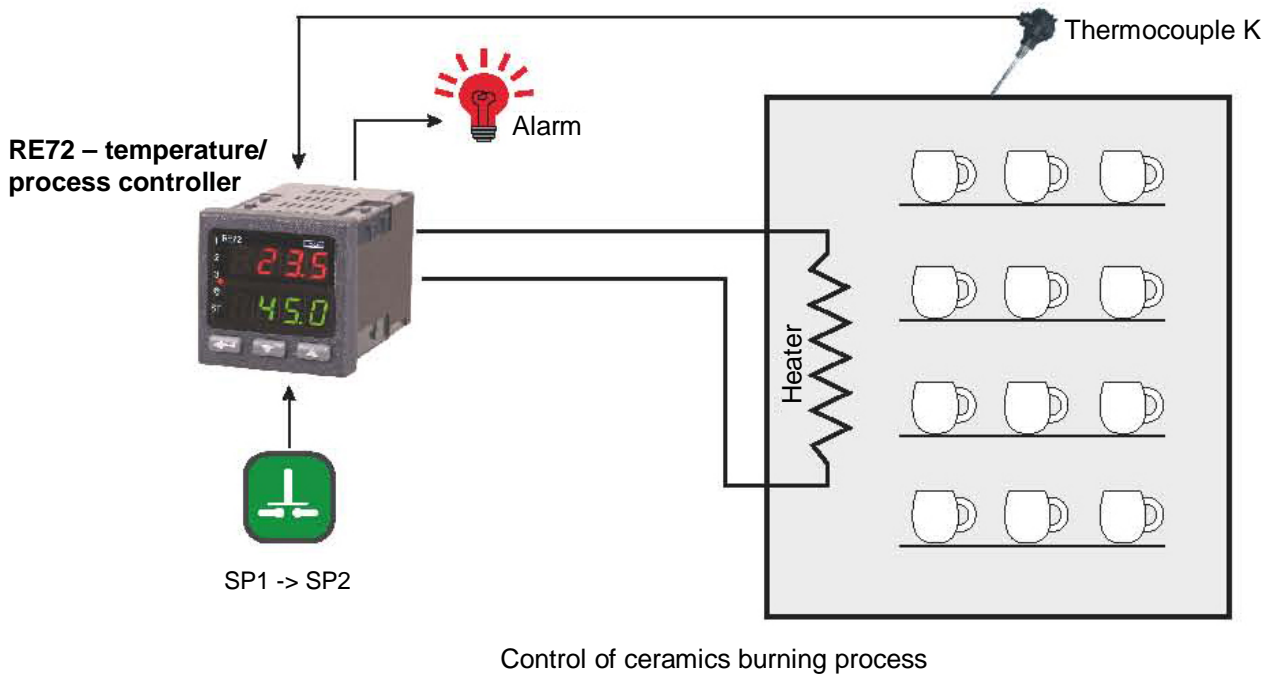
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1 Features

- ◆ 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 or short-circuit of the control element

2 Application example



3 Technical data

Inputs		
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-Pt6 (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		
Kind of output	Properties	
Voltageless relay output	NO contact	2A/230 V AC (out 1 and 2) 1A/230 V AC (out 3)
Voltage transmitter output	0/5 V	max. 40 A
Continuous voltage output	0...10 V	at $R_{load} \geq 1 \text{ k}\Omega$
Continuous current output	0...20 mA, 4...20 mA	at $R_{load} \leq 500 \Omega$

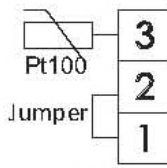
Digital interfaces			
Interface type	Transmission protocol	Modes	Baud rates
RS-485	MODBUS RTU	8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbit/s

External features		
Read-out field	2x4 digits	Digit height: 10 mm, red and green
Weight	< 0,2 kg	
Dimensions	48 x 48 x 93 mm	
Protection grade (acc. to EN 60529)	IP65 (housing/front side)	IP20 (terminal side)

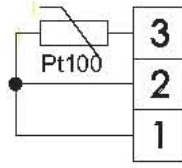
Rated operation conditions		
Supply voltage	85...253 V AC/DC	24...40 V AC/DC
Temperature	Ambient: 0...23...50 °C	Storage: -20...70 °C
Relative humidity	≤ 85 %	(without condensation of water vapour)
Operating position	any	

Safety and compatibility requirements		
Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Pollution grade	2	
Installation category	III	
Maximal phase-to-earth operating voltage	supply circuit, output: 300 V	acc. to EN 61010-1
	input circuit: 50 V	
Altitude above sea level	< 2000 m	

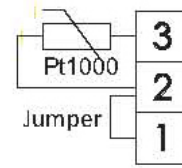
4 Electrical connection



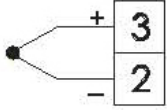
Pt100, 2-wire



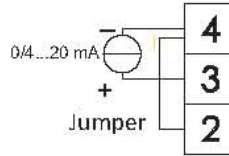
Pt100, 3-wire



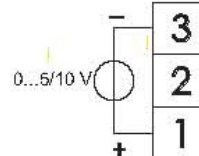
Pt1000



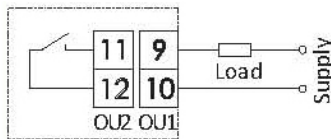
Thermocouple



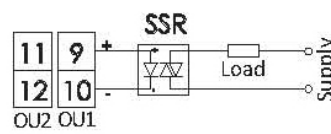
Current output 0/4...20 mA



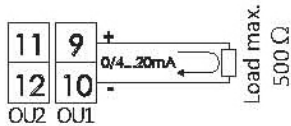
Voltage output 0...5/10 V



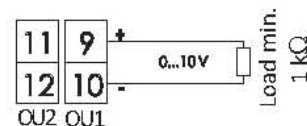
Output 1,2 relay



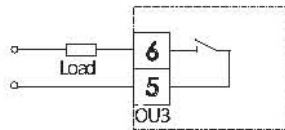
Output 1,2 voltage 0/5 V



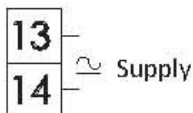
Output 1,2 continuous current 0/4...20 mA



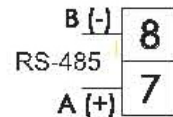
Output 1/2 - continuous voltage 0...10 V



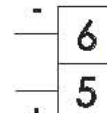
Output 3 - relay



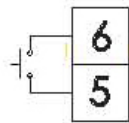
Supply



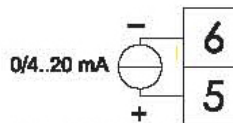
Interface RS485



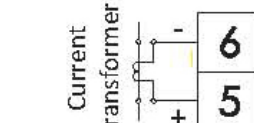
Transducer supply



Binary input



Additional input



Current transformer input

5 Order codes

Code	Description
IA-RE72	Temperature Controller
Output 1	
1	relay
2	voltage: 0/5V
3	continuous current: 0/4...20 mA
4	continuous voltage: 0...10 V
Output 2	
1	relay
2	voltage: 0/5V
3	continuous current: 0/4...20 mA
4	continuous voltage: 0...10 V
Options	
0	without
1	output 3 – relay
2	binary input
3	current transformer input
4	additional current input: 0/4...20 mA
5	Transducer supply: 24 V DC, 1 W
Supply	
1	85...253 V AC/DC
2	20...40 V AC/DC
Version	
00	standard
XX	custom-made
Language version	
E	English
X	other
Certification	
0	without additional quality inspection certificate
1	with additional quality inspection certificate
X	on request*

IA-RE72							
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*Please contact manufacturer

Besides the products covered by this brochure, Intra-Automation GmbH also manufactures other high-quality and high precision instruments for industrial measurement tasks. For more information, please contact us (contact details on the backside of this brochure).

Flow measurement



Itabar®-Flow Sensor



IntraSonic IS210 Ultrasonic Flow Meter

Level measurement



ITA-mag. Level Gauge



MAGLINK Level Indicator

Other Measurement Tasks:



DigiFlow Flow and Level Computers



IntraCon Digital Controllers



IntraDigit Digital Indicators / Meters



INTRA-AUTOMATION

MESS- UND REGELINSTRUMENTE / MEASUREMENT AND CONTROL



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