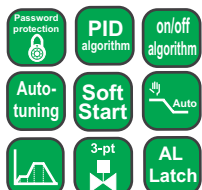
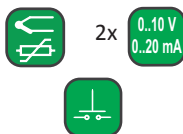


RE15 CONTROLLER

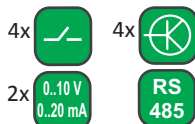
FEATURES:



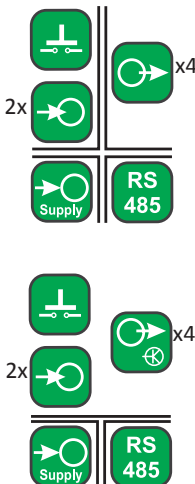
INPUT:



OUTPUT

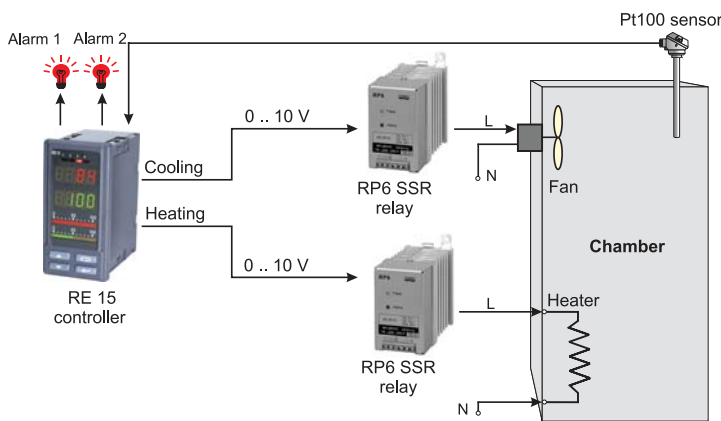


GALVANIC ISOLATION:



- Main input: universal (temperature sensors and standard signals).
- Logic input for steering the control process.
- In option: additional input and RS-485 interface.
- 4 outputs (control and alarm): relay, transistor or continuous in option.
- Control: PID with auto-tuning, on/off, step-by-step (for valve control).
- Fixed set point control, programmed control (15 programs with 15 segments) or from an additional input.

EXAMPLE OF APPLICATION



Temperature control in the chamber.

INPUTS

Input type	Range	Error	Additional error
Universal main input			
Pt100	-200 .. 850°C	0.1%	Compensation of wire resistance changes in a 3-wire connection: < 0.2%
Pt1000	-200 .. 850°C	0.1%	
Ni100/1.617	-60 .. 180°C	0.2%	
Cu100/1.426	-50 .. 180°C	0.2%	Compensation of thermocouple reference cold junction: < 2°C
Fe-CuNi (J)	-100 .. 1200°C	0.2%	
Cu-CuNi (T)	-100 .. 400°C	0.2%	
NiCr-NiAl (K)	-100 .. 1370°C	0.2%	
PtRh10-Pt (S)	-50 .. 1760°C	0.3%	
PtRh13-Pt (R)	-50 .. 1760°C	0.3%	Ambient temperature change: ≤ 0.2% / 10 K
PtRh30-PtRh6 (B)	300 .. 1800°C	0.3%	
NiCr-CuNi (E)	-100 .. 1000°C	0.2%	
NiCrSi-NiSi (N)	-100 .. 1300°C	0.2%	
Chromel-kopel	0 .. 800°C	0.2%	
Resistance	0 .. 400 Ω	0.2%	
Current (I)	0 .. 20 mA, 4 .. 20 mA	0.2%	
Voltage (U)	0 .. 5 V, 0 .. 10 V	0.2%	
Additional input			
Current (I)	0 .. 20 mA, 4 .. 20 mA	0.2%	Ambient temperature change: ≤ 0.2% / 10 K
Voltage (U)	0 .. 5 V, 0 .. 10 V	0.2%	
Resistance (R)	0 .. 100 Ω, 0... 1000 Ω	0.2%	
Logic input		voltageless	

OUTPUTS (4 OUTPUTS TOGETHER)

Output type	Properties	Remarks
Relay	2,3 or 4 outputs	switching contacts 2 A/ 220 V
OC transistor	2,3 or 4 outputs	U _{max} =24 V, I _{max} = 10 mA
Voltage transistor	1 output	0/19 V (I _{max} =20 mA)
Continuous voltage	1 or 2 outputs	0.5 V, 0 .. 10 V, R _{load} ≥ 500 Ω
Continuous current	1 or 2 outputs	0 .. 20 mA, 4 .. 20 mA, R _{load} ≤ 500 Ω

DIGITAL INTERFACE (OPTION)

Interface type, protocol	Properties	Remarks
RS-485, MODBUS RTU/ ASCII	ASCII - 8N1, 7E1, 7O1, RTU - 8N2, 8E1, 8O1, 8N1	2400, 4800, 9600 bit/s

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EXTERNAL FEATURES

Readout field	2 x LED 10 mm, 4 digits 2 x bargraph	
Overall dimensions	96 × 48 × 93 mm	
Weight	< 0.3 kg	
Protection grade	from frontal side: IP40	from terminal side: IP20

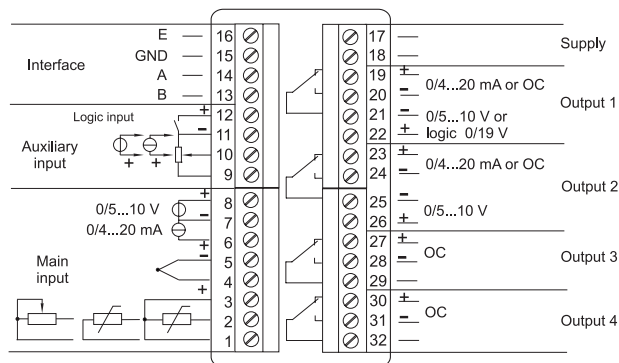
RATED OPERATING CONDITIONS

Supply voltage	-90 .. 230 .. 254 V a.c./d.c. -20 .. 24 .. 40 V a.c./d.c.	frequency 40 .. 50 .. 440 Hz
Temperature	ambient: 5...23...40°C	storage: -20...70°C
Humidity	25 .. 85%	without condensation
Operating position	any	
External magnetic field	< 400 A/m	

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	for supply circuit, outputs: 300 V	for input circuits: 50 V
Altitude a.s.l.	up to 2000 m	

CONNECTION DIAGRAM



ORDERING

RE15 -	X	X	X	X	X	XX	X
Main input:							
universal for TC, RTD,							
linear current: 0/4 .. 20 mA,	1						
linear voltage: 0 .. 5/10 V							
Additional input:							
without input	0						
current: 0/4..20 mA		1					
voltage: 0..10 V, 0..5 V			2				
potentiometric transmitter: 100 Ω				3			
potentiometric transmitter: 1000 Ω					4		
Outputs:							
4 relays with switching contact						1	
4 OC transistors							2
1 transistor 0/19 V + 3 relays							3
1 continuous + 3 relays							4
1 continuous + 3 OC transistors							5
2 continuous + 2 relays							6
2 continuous + 2 OC transistors							7
Interface RS-485:							
without interface							0
with MODBUS protocol							1
Supply:							
85..253 V a.c./d.c.							1
18..30 V d.c.							2
Version:							
standard							00
custom-made*							XX
Additional quality requirements:							
without additional quality requirements							8
with an extra inspection quality certificate							7
acc. to customer's request**							X

* the code number will be established by the manufacturer
** after agreeing with the manufacturer

Order example:

The code: **RE15 - 1 - 1 - 2 - 1 - 2 - 00 - 8** means:

- RE15** - controller of RE15 type
- 1** - universal input,
- 1** - current input: 0/4 .. 20 mA,
- 2** - 4 OC transistors,
- 1** - RS-485 interface with MODBUS protocol,
- 2** - supply voltage: 18 .. 30 V d.c.,
- 00** - standard version,
- 8** - without additional quality requirements.

SEE ALSO



SSR relay of LU series.



RP power controller.



Temperature sensor.



Interface converter (USB/RS-485) - PD10.

OUR OFFER



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