

**Temperature Controller
to be mounted on a 35 mm rail
IntraCon
Series IA-RE60**



Technical Information

03/2011



Accessories

Intra-Automation
Technical Information
03/2011

Technical details subject to be changed without notice.

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IA-RE60 IntraCon

Temperature Controller to be mounted on a 35 mm rail

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1 Application

The RE60 controller controls the temperature in objects through turning on and off the electrical controlling device according to the defined setting by the controller. It cooperates directly with RTD and TC.

It is destined for the temperature control in telecommunication cabinets in food and drying industries and everywhere, where there is the necessity to stabilize the temperature changes.

The controller has one output destined for the control and two alarm outputs.

2 Technical data

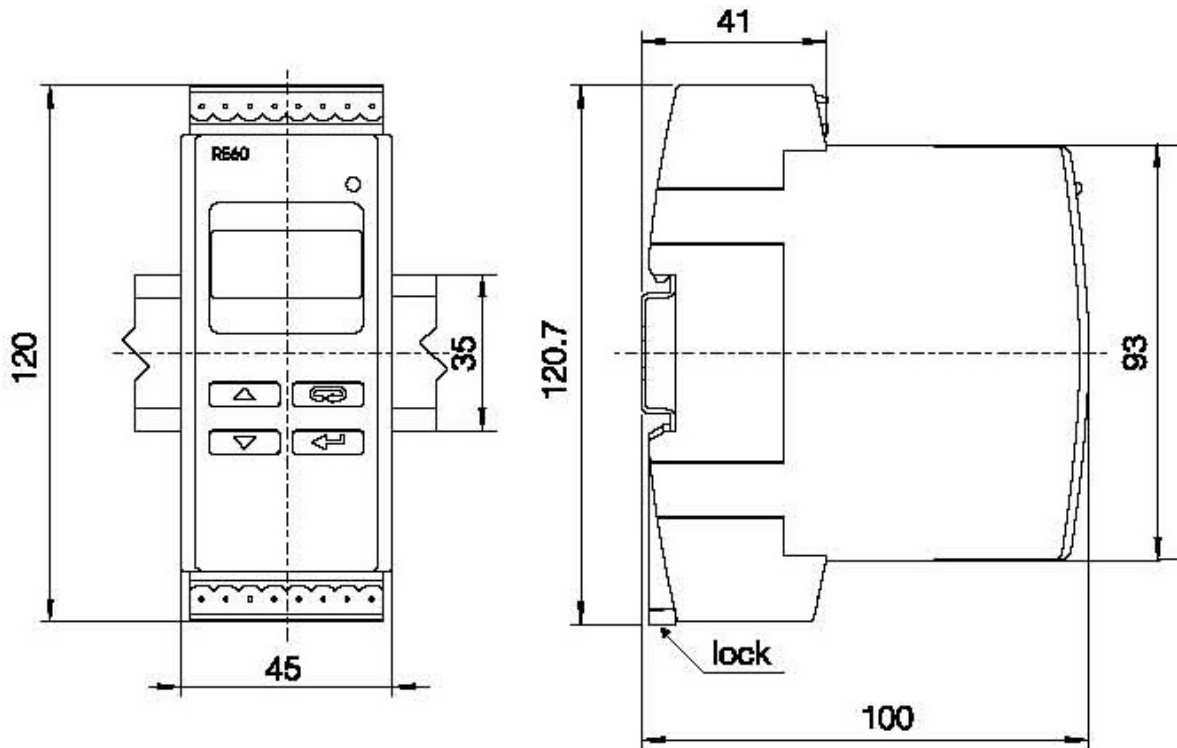
Input signals:

Sensor type/inputs	Marking	Range [°C]	Basic error [°C]
Pt100 acc. EN 60751	Pt100	-50...100	0.8
Pt100	Pt100	0...250	1.3
Pt100	Pt100	0...600	3.0
Fe-CuNi acc. EN 60584-1	J	0...250	3.0
FE-CuNi	J	0...600	4.0
FE-CuNi	J	0...900	5.0
NiCr-NiAl acc. EN 60584-1	K	0...600	4.0
NiCr-NiAl	K	0...900	5.0
NiCr-NiAl	K	0...1300	6.0
PtRh10-Pt acc. EN 60584-1	S	0...1600	7.0

Current flowing through Pt100	:	<220µA
Measurement time	:	0.5 s
Detection of error in the measuring circuit	:	
- thermocouple, Pt100 (RTD)	:	overflow of the measuring range
Kinds of outputs	:	
-relay	:	voltageless make contacts max. load: voltage: 250 V AC, 150 V DC current: 5 A 250 V AC, 5 A 30 V DC resistance load: 1250 VA, 150 W
- logic voltage (without isolation form the sensor side)	:	voltage 5 V resistance limiting the current: 66 Ω
Way of output operation	:	
- reverse for heating	:	
- direct for cooling	:	
Signalling	:	
- active output	:	symbol on the LCD display
- active alarm	:	symbol on the LCD display and LED diode
Rated operating conditions	:	
- supply voltage	:	230 V AC ± 10 % 110 V AC ± 10 % 24 V AC ± 10 % 18..72 V DC
- frequency of supply voltage	:	50/60 Hz
- ambient temperature	:	0...23...50 °C
- storage temperature	:	-20..+70 °C
- rel. air humidity	:	< 85 % (without condensation)
- external magnetic field	:	400 A/min
- preheating time	:	30 min
- work position	:	any

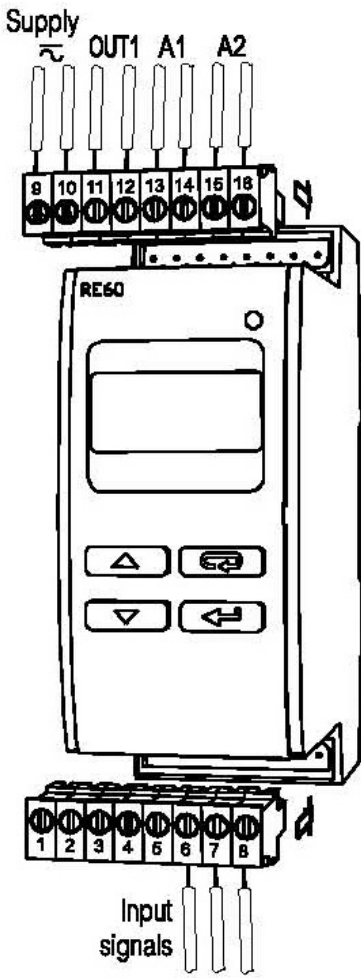
Power consumption	:	< 3 VA
Dimensions	:	45 x 120 x 100 mm
Weight	:	< 0.3 kg
Fixing	:	on a 35 mm rail
Ingression protection	:	IP40 acc. to EN 60529
Additional errors in rated operation conditions	:	
- changes of the ambient temperature	:	≤ 100 % of the basic error / 10 K
Security requirements acc. to EN 61010-1	:	
- installation category	:	III
- pollution level	:	2
- maximum phase to earth working voltage	:	
- for the supplying circuit, outputs	:	300 V
- for input circuits	;	50 V
Electromagnetic compatibility	:	
- immunity acc. EN 61000-6-2	:	
- emissions acc. EN 61000-6-4	:	

3 Controller installation

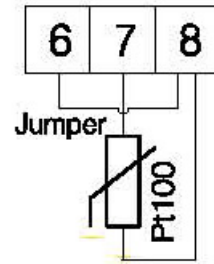


Dimensions and way of controller installation.

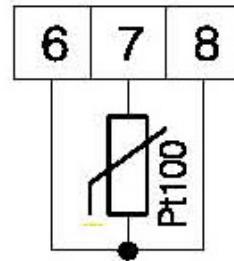
4 Connecting diagrams



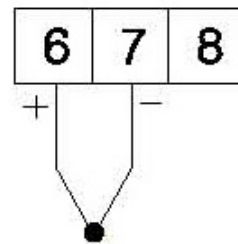
View of controller terminal strips



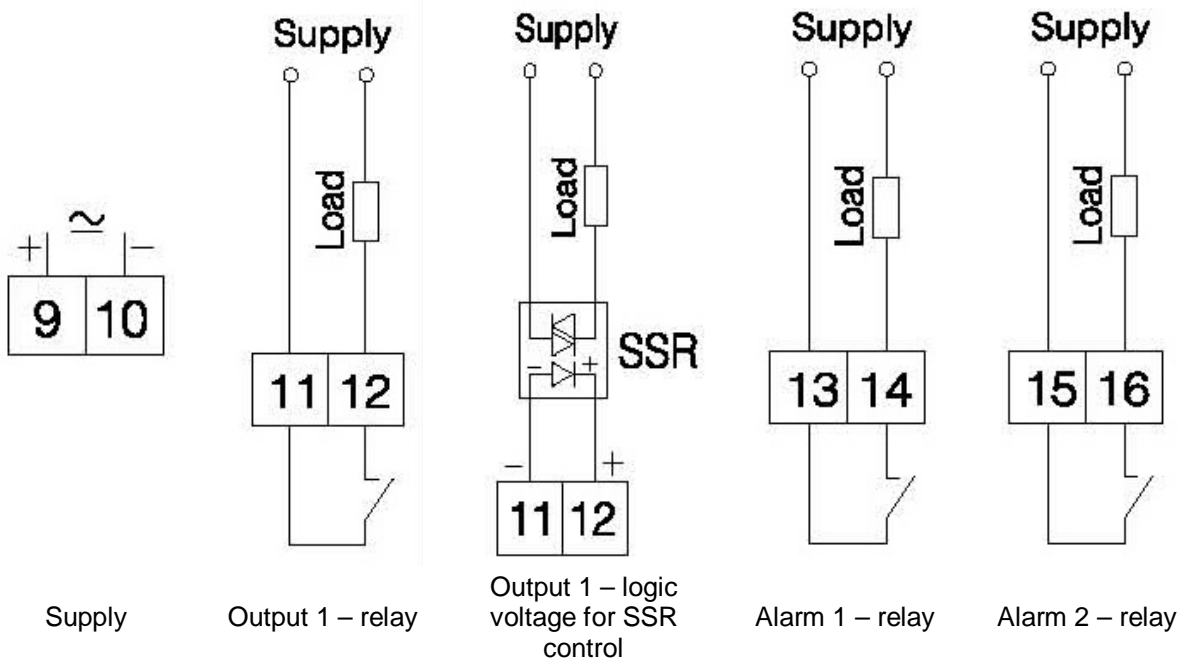
Pt100 resistance thermometer in a two wire system



Pt100 resistance thermometer in a three wire system



Thermocouple Connection of input signals



Connection of the supply and load circuit

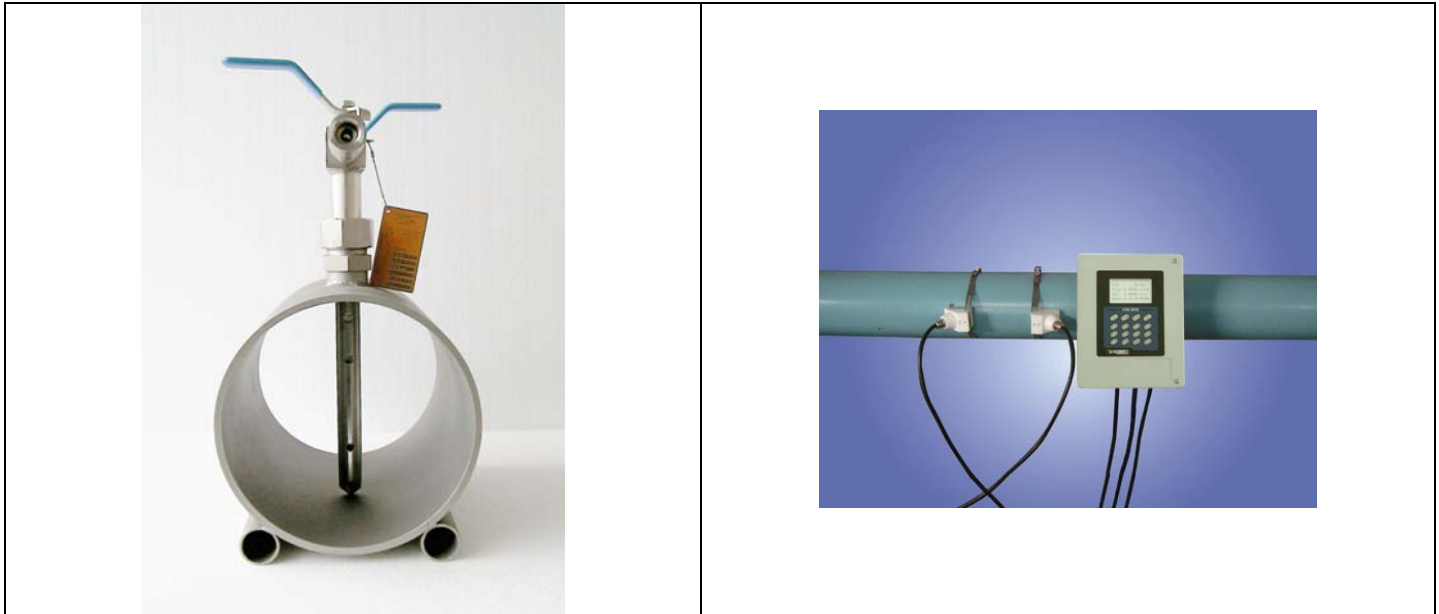
5 Order codes	
Code	Description
IA-RE60	Temperature Controller to be mounted on 35 mm rail
Input	
01	resistance thermometer Pt100 -50...100 °C
02	resistance thermometer Pt100 0...250 °C
03	resistance thermometer Pt100 0...600 °C
04	thermocouple J 0...250 °C
05	thermocouple J 0...600 °C
06	thermocouple J 0...900 °C
07	thermocouple K 0...600 °C
08	thermocouple K 0...900 °C
09	thermocouple K 0...1300 °C
10	thermocouple S 0...1600 °C
XX	as per order*
Main output	
1	relay
2	logic 0/5 V for SSR control
X	as per order*
Alarm outputs	
0	without
1	1 relay output
2	2 relay outputs
X	as per order*
Supply	
1	230 V AC 50/60 Hz
2	110 V AC 50/60 Hz
3	24 V AC 50/60 Hz
4	18...72 V DC
X	as per order*
Certification	
8	without additional quality inspection certificate
7	with additional quality inspection certificate
X	on request*

IA-RE60					
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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).

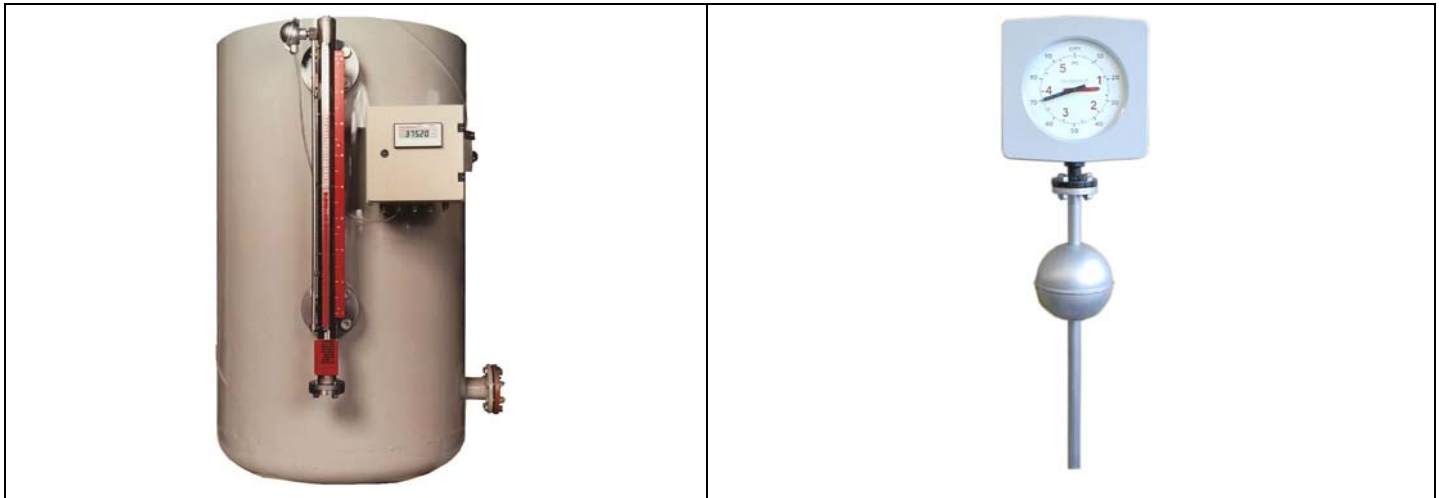
Flow measurement



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



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IA



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