



# Temperature Controller

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## RE 56



Measure



Control



Record



Analyze

# Temperature Controller

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The controller is designed for the temperature control. Controller works directly with the resistance sensors or thermocouple sensors. The controller is equipped with outputs that allows for control and alert signalization. Control output can be programmed for PID or ON/OFF algorithm.

### Applications:

- Plastics Industries
- Food Industries
- Dehydration Industries

### Product Features:

#### Programmable input temperature sensors:

- ▶ RTD : PT100(2 or 3 wire)
- ▶ Thermocouple: J,T,K,S,R

#### Independent Relay output & SSR output:

- ▶ Either Relay or SSR output can be configured to Control output while other output can be used as Alarm Output

#### Control Output:

- ▶ Control Method : ON-OFF ,PID.
- ▶ Type of control output : Relay or SSR

#### Alarm Output:

- ▶ Different Alarm modes available.
- ▶ Type of alarm output : Relay or SSR.

#### Configuration through:

- ▶ Front keys.

#### Auto Tunning Function

- ▶ Auto tuning of PID Parameters.

#### Measurement are available on:

- ▶ 3 digit 7 segment display with 14.2 mm digit height

#### Manual mode

- ▶ Output can be controlled manually.

#### Timer Function

- ▶ Control Output can be configured for timer function. Timer output can be assigned to following functions
  - 1.Stop Control Output
  - 2.Switch to Manual Mode
  - 3.Start Auto Tunning
  - 4.Stop Auto tuning
- ▶ Alarm Output can be configured to Timer Alarm

#### Output on Sensor Failure

- ▶ User can set the value for safe operation of process on failure of input sensor

#### Input Digital filter

- ▶ The time constant of the filter can be set from 0 to 99.9 sec.

#### Heating / Cooling control

- ▶ Output can be configured as Heating or Cooling control.

#### Enclosure Protection for dust and water:

- ▶ Conforms to IP 54 for front face as per IEC 60529.

#### Compliance to International Safety standards

- ▶ Compliance to International Safety standard IEC 61010-1- 2010.



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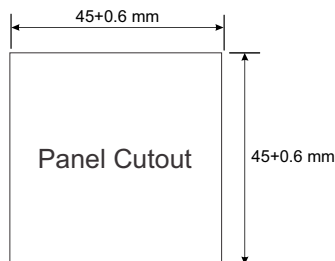
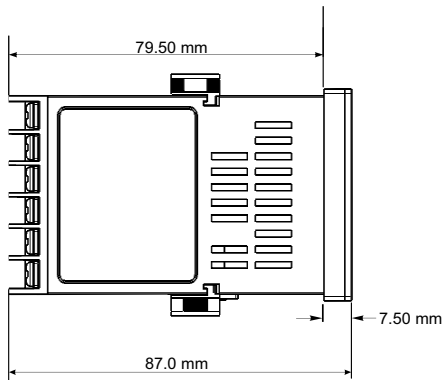
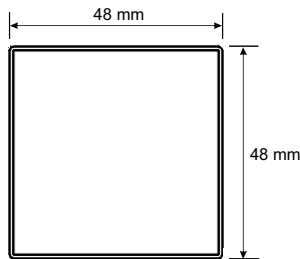


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### Dimensions Details :



### Technical Specifications:

#### Input Signals:

Input type	Ranges	
Pt100	-199 ... 850°C	-199 ... 999°F
Fe-CuNi (J)	-100 ... 999°C	-148 ... 999°F
Cu-CuNi (T)	-100 ... 400°C	-148 ... 752°F
NiCr-NiAl (K)	-100 ... 999°C	-148 ... 999°F
PtRh10-Pt (S)	0 ... 999°C	32 ... 999°F
PtRh13-Pt (R)	0 ... 999°C	32 ... 999°F

**Measurement time:** 0.2 sec

**Resolution** 1 °

#### Auxiliary Supply:

Higher Aux 60 V – 280 V AC/DC

Higher Aux supply frequency 45 to 65 Hz range

Higher Aux Nominal Value 230 V AC/DC 50/60 Hz for AC Aux

#### VA Burden:

Auxiliary Supply burden < 6VA approx.

#### Types of outputs:

Relay contact SPDT-NO/NC, rated load: 10A,250VAC / 30VDC

SSR drive output 12VDC, maximum load capacity: 40 mA

#### Accuracy :

Reference Conditions 23°C

RTD 0.1% of range ± 1°C

Thermocouple 0.25% of range (0.5% of range - for R,S) ± 1°C

#### Influence of Variations

Temperature coefficient 0.025% / Deg

#### Applicable Standards:

EMC immunity IEC 61326 - 1 : 2012, Table 2 \*

Safety IEC 61010-1-2010 , Permanently connected use

IP for water & dust IEC60529

Pollution degree: 2

Installation category: II

\*Note:- The instrument continues to operate at a measuring accuracy of within ± 2% of the range during test.



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All specifications are subject to change without notice



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