

PID CONTROLLED OVEN

OMEGA TYPE PID-200

Small ovens are frequently used in class room experiments for the determination of temperature coefficients of resistances, capacitances, zener diodes, and also for studying the leakage currents of semiconductor devices at various temperatures. Conventional arrangement with oven fed from an auto transformer and thermometer type temperature measurement is unsatisfactory due to the long time it takes the oven to heat or cool, large time constant of mercury thermometers and difficulty in setting and maintaining a particular temperature.

DESCRIPTION

This is high quality PID controlled oven suitable for testing of electronic components & study of temperature transducers etc.. The oven has been designed for fast heating and cooling rates which enhances the effectiveness of the controller. SSR driven heater and accurate temperature control.

A platinum RTD has been used for sensing the temperature.

TECHNICAL SPECIFICATION

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| Temperature Range | : Ambient to 200°C |
| Resolution | : 0.1°C |
| Stability | : Less than $\pm 0.2^\circ\text{C}$ |
| Measurement Accuracy | : ± 1 digit |
| Oven | : Top Open Heating Chamber. Oven heating up to 200° Chamber L80 x W80 x H105mm |
| Sensor | : RTD (A Class) |
| Display | : Process value 4 digit 7-segment Red LED |
| Power | : Set Value 4 digit 7-segment Green LED. |
| Power Consumption | : 120 Watt |

SAFETY INSTRUCTION

WARNING

- 01 An external protection device must be installed if failure of this instrument could result in damage to the instrument, equipment or injury to personnel.
- 02 All wiring must be completed before power is turned on to prevent electric shock, fire or damage to instrument and equipment.
- 03 This instrument must be used in accordance with the specifications to prevent fire or damage to instrument and equipment.
- 04 This instrument is not intended for use in locations subject to flammable or explosive gases.
- 05 Do not touch high-voltage connections such as power supply terminals, etc. to avoid electric shock.



CAUTION

- 01 This instrument is protected from electric shock by reinforced insulation. Provide reinforced insulation between the wire for the input signal and the wires for instrument power supply, source of power and loads.
- 02 This instrument is design for installation in an enclosed instrumentation panel. All high-voltage connections such as power supply terminals must be enclosed in the instrumentation on panel to avoid electric shock by operating personnel.
- 03 All precautions described in this manual should be taken to avoid damage to the instrument or equipment.
- 04 All wiring must be in accordance with local codes and regulations.
- 05 Always observe precautions described in this manual. Otherwise serious injury or accident may result. Do not allow metal fragments or lead wire scraps to fall inside this instrument. This may cause electric shock, fire or malfunction.
- 06 Firmly tighten each terminal screw at the specified torque. Otherwise electric shock or fire may result.
- 07 Do not place any obstacle around this instrument in order not to impede radiation of heat. And do not close ventilation holes.
- 08 Do not connect wires to unused terminals.
- 09 Before cleaning the instrument, always turn off the power supply.
- 10 Remove stains from this instrument using a soft, dry cloth. Do not use a volatile solvent such as thinner in order to avoid deformation or discoloration.
- 11 Do not rub nor strike the display unit of this instrument with a hard object.

LIST OF ACCESSORIES:

- 01 One with 1meter cord along with 5pin socket
- 02 3Core Electrical wire along with 4mm Banana Pin, Red, Black, Green, with Teflon block having diameter ID 10mm for finding out temperature coefficient of resistance, capacitances, zener diodes etc.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

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