

Light Dependent Resistor (LDR) Characteristics

Model : SA-125

SINCOM SA-125 Light Dependent Resistor (LDR) Characteristics is intended to study optical characteristics of LDR under different light conditions. The LDR have applications in smoke detection, automatic lighting control, batch counting, Optical receiver circuits and burglar alarm systems. The trainer is simply designed to study the LDR characteristics and determine its various parameters in a simple experimental way. The trainer is without meters and has the facility to connect the external analog or digital voltmeter, ammeter and variable light intensity source in the circuit.

Features

- ❖ Two LDRs of 5mm ceramic types are provided
- ❖ Passive Resistance output
- ❖ LDR used is CDS coated with epoxy, Fast response, High Sensitivity and good spectrum characteristics.
- ❖ High Dark Resistance and Convex front
- ❖ Current controlling resistor in series
- ❖ Facility to vary wide range of applied DC input voltage
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Multi color Circuit Diagram printed on the front of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect the external Digital/ Analog Voltmeter and Ammeter
- ❖ On Board 60W Lamp load with variable light intensity
- ❖ User friendly Designed
- ❖ Very Easy for Operation
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

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|--------------------------------|---|
| ▪ AC Mains Power Supply | : 230V \pm 10%, 50Hz |
| ▪ DC Power Supply | : IC Regulated variable 0V to +12V / 500mA |
| ▪ LDR Used | : 10K Ω and 100K Ω @ |
| ▪ LDR Type | : NTC, CDs coated |
| ▪ Diameter and Front | : 5mm Front Convex |
| ▪ Viewing angle | : 50 $^{\circ}$ |
| ▪ Dark Resistance | : @10K Ω and 100K Ω under standard conditions |
| ▪ Maximum LDR Current | : 50mA under full light conditions |
| ▪ Maximum Operating Voltage | : 15V |
| ▪ Current Controlling Resistor | : MFR 100 Ω , \pm 5% in series |
| ▪ Light Source | : 60W Lamp load max-Variable Intensity control |
| ▪ Weight | : 2.0 kg (approx) |
| ▪ Dimensions (mm) | : L 220 x W 270 x H 110 |



An ISO 9001:2015 Co.

- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50°C, 80% RH

Learning Scope

- To Study operation of Light Dependent Resistor (LDR).
- To Study the characteristics of LDR of different values.
- To Observe & Note Change in LDR Resistance, Current & Voltage w.r.t. change in the intensity of light.

Other Instruments Required

SINCOM Digital VI meter (DVI) : Model DVI-02 Range V-20V, I-200mA DC. Dimmerstat single phase 230V.

Accessories Included

Set of Patch Cord, Lamp Load 60W with variable light intensity and Details Instruction Manual