



NSL-5112

Light Dependent Resistor (LDR) CdS Photocell

The NSL-5112 is a light dependent resistor with sensitivity in the visible light region. The CdS photoresistor photocell is mounted on a 2-pin ceramic and the photocell surface is plastic encapsulated for moisture resistance.

Advanced Photonix's CdS Photocells are photoresistor cells for visible light measurement designed to sense light from 400 to 700 nm. Their resistance decreases as the light level increases with efficiency characteristics similar to the human eye. These Light Dependent Resistors (LDR) are available in a wide range of resistance values. They are available in a two leaded plastic-coated ceramic header or hermetically sealed TO metal cans.

Applications

- Industrial
- Audio Compressors
- Night Lights
- Photography Light Meters
- Solar Street Lights
- Flame Detection

Features

- Visible Light Response
- Sintered Construction
- Two-leaded ceramic package
- Available in a Hermetically sealed package
- Available in a wide range of resistance values

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Voltage	V_R	-	100	V
Power Dissipation*	-	-	50	mW
Operating Temperature	T_{OP}	-40	+75	°C
Storage Temperature	T_{STG}	-55	+75	°C
Package	TO-18 Ceramic			

*Derate linearly to zero at 75°C

Typical Electro-Optical Specifications at $T_A=23\text{ }^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Light Resistance	1ftc., 2854 °K	R_L	6	10	14	K Ω
	100 ftc., 2854 °K	R_L	-	700	-	Ω
Dark Resistance	5 sec after removal of test light	R_D	670	-	-	M Ω
Spectral Peak	-	λ_p	-	550	-	nm

¹Cells light adapted at 30 to 50 ftc for 16 hrs minimum prior to electrical tests.

Mechanical Specifications

Units are in inches [mm]

