



NSL-4140

Light Dependent Resistor (LDR) CdS Photocell

The NSL-4140 is a Type 5 light dependent resistor with sensitivity in the visible light region. The CdS photoresistor photocell is mounted in a hermetic, flat lens TO-18 package.

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

Passive Resistance output
Hermetically Sealed
Available in a two-leaded ceramic package
Available in a wide range of resistance values

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Voltage	V_R	-	80	V
Power Dissipation	-	-	50	mW
Operating Temperature	T_{OP}	-40	+75	°C
Storage Temperature	T_{STG}	-55	+75	°C
Package	TO-18			

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	8.4	14	19.6	K Ω
	100 ftc., 2854 °K	R_L	-	0.25	-	K Ω
Dark Resistance	5 sec after removal of test light	R_D	800	-	2	M Ω
Spectral Peak	-	λ_P	-	550	-	nm

Mechanical Specifications

Units are in inches [mm]

