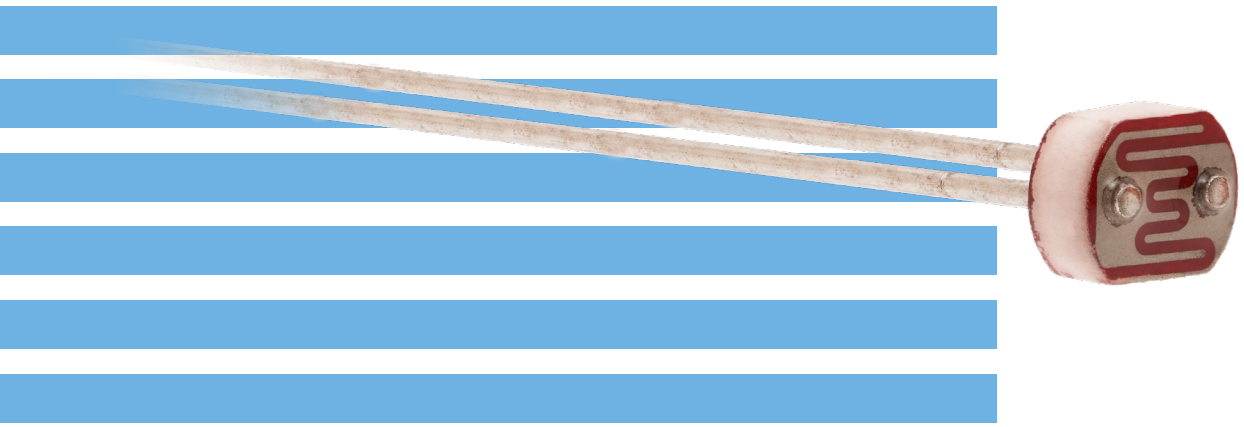

NSL-19M51

Light Dependent Resistor (LDR) CdS Photocell

The NSL-19M51 is a light dependent resistor with sensitivity in the visible light region. The CdS photoresistor cell is on a 2-pin ceramic and the device 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

- Passive Resistance output
- Ceramic Package
- Available in Hermetically Sealed package
- Available in a wide range of resistance values

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Voltage (peak AC or DC)	V_R	-	100	V
Power Dissipation at 25°C	-	-	250	mW
Operating Temperature	T_{OP}	-60	+75	°C
Storage Temperature	T_{STG}	-60	+75	°C
Package	Ceramic			

Typical Electro-Optical Specifications at T_A=23 °C

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Light Resistance	1lux,2854K[1]	R_{on}	20	-	100	KΩ
	100lux.,2854K[1]	R_{on}	-	5	-	KΩ
Dark Resistance	10 Sec. after light removal	R_{off}	20	-	-	MΩ
Spectral Peak	-	-	-	550	-	nm
Gamma	1-10lux	γ	-	0.7	-	-
	10-100lux	γ	-	0.7	-	-

[1] Cells light adapted at 30 to 50 ftc for 16 hours prior to electrical tests.

Mechanical Specifications

Units are in inches [mm]