



# PDV-P8001

## Light Dependent Resistor (LDR) CdS Photocell

The PDV-P8001 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 can.

### Applications

Camera Exposure

Shutter Controls

Night Light Controls

Audio Compressors

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 at $T_A=23\text{ }^\circ\text{C}$

Parameter	Symbol	Min	Max	Unit
Voltage	$V_R$	-	150	V
Power Dissipation	-	-	100	mW
Operating Temperature	$T_{OP}$	-30	+75	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-30	+75	$^\circ\text{C}$
Package	Ceramic			

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Dark Resistance	After 10 sec. @10Lux @2856 $^\circ\text{K}$	$R_D$	0.2	-	-	$\text{M}\Omega$
Illuminated Resistance	10 Lux @ 2856 $^\circ\text{K}$	$R_{IL}$	3	-	11	$\text{K}\Omega$
Sensitivity	$\frac{\text{Log}(R_{100}) - \text{Log}(R_{10})^{**}}{\text{Log}(E_{100}) - \text{Log}(E_{10})^{***}}$	S	-	0.6	-	$\Omega/\text{Lux}$
Spectral Peak	-	$\lambda_P$	-	520	-	nm
Rise Time	10Lux @ 2856 $^\circ\text{K}$	$T_R$	-	55	-	ms
Fall Time	After 10Lux @ 2856 $^\circ\text{K}$	$T_F$	-	20	-	ms

\*\*R100, R10: cell resistances at 100 Lux and 10 Lux at 2856 K respectively.

\*\*\*E100, E10: luminances at 100 Lux and 10 Lux 2856 K respectively.

## Mechanical Specifications

Units are in inches [mm]

