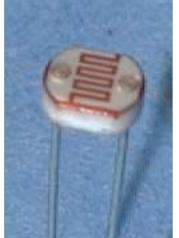
# **DETECTORS INC.** Type PDV-P8XXX



INDUSTRY EQUIVALENTS: PACKAGE DIMENSIONS INCH [mm] VT800&NSL4532 EPOXY ON LEADS 3mm MAX +.015 [0.38] -.010 [0.25] 2X .016 [0.40] .079 [2.00] .169 [4.3]  $\langle 2 \rangle$ -.010[0.25] PLASTIC .134 [3.4] .200 [5.1] COATED 4 1.023 [26.0] MIN PLASTIC COATED CERAMIC PACKAGE

1. PHOTOCELL "GRID" PATTERN CAN VARY, PDI RESERVES THE RIGHT TO CHANGE AND MIX GRID PATTERNS. 2. DIMENSION CONTROLLED AT BASE OF CERAMIC HEADER PACKAGE.

#### FEATURES

- Visible light response
- Sintered construction
- Low cost
- High Reliability

#### DESCRIPTION

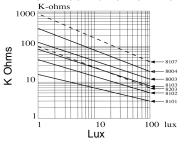
**PDV-P8XXX** are (CdS) photoconductive photocells designed to sense light from 400 nm to 700 nm. As light dependent resistors, they are available in a wide range of resistance values. They are packaged in a two leaded plastic-coated ceramic header.

#### APPLICATIONS

- Light dimmers
- Brightness controls
- Street light controls
- Auto headlight controls

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)							
SYMBOL	PARAMETER	MIN	MAX	UNITS			
Vрк	Applied Voltage		150	V dc			
P <sub>d △po/△t</sub>	Continuous Power Dissipation		100	mW /ºC			
Tstg & To	Operating Temperature Range & Storage	-30	+75	°C			
Ts	Soldering Temperature*		+260	°C			

#### CELL RESISTANCE VS. ILLUMINANCE



\*.200 inch (5 mm) from bottom of header for 3 secs max with heat sink

#### ELECTRO-OPTICAL CHARACTERISTICS TA=25°C (2 HOURSLIGHT ADAPT, MIN)\*\*\*

MODELNO.	CELL RESISTANCE** (Ohms)				SENSITIVITY	SPECTRALPEAK	RESPONSE TIME @10 Lux	
	10 Lux @2856K		DARK		LOG(R100)-LOG(R10) LOG (E100)-LOG(E10)	(nm)	RISE TIME (ms)	FALL TIME (ms)
	MIN (K <b>W</b> )	MAX (K <b>W</b> )	MIN (M <b>W</b> )	SEC	( <b>I</b> TYP)	TYP	TYP	TYP
PDV-P8001	3	11	0.2	10	0.6	520	50	20
PDV-P8002	8	24	0.5	10	0.65	520	50	20
PDV-P8003	16	33	0.5	10	0.7	520	55	20
PDV-P8004	20	60	0.5	10	0.75	520	55	20
PDV-P8005	40	120	1	10	0.8	520	60	25
PDV-P8006	80	240	5	10	0.85	520	60	25
PDV-P8101	4	11	0.15	10	0.65	520	55	20
PDV-P8102	9	20	0.3	10	0.7	520	60	25

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. \*\* Photocells are light adapted at 100 to 500 Lux. \*\*\* Photocells are tested at 2856 °K at a 10 Lux [FORM NO. 100-PDV-P8001 REV N/C] light level. Resistance values are for reference only. **PAGE 1 OF 2** 

#### **PHOTONIC** Cadmium Sulfoselenide (CdS) Photoconductive Photocells DETECTORS INC. **Type PDV-P8XXX** INDUSTRY EQUIVALENT:

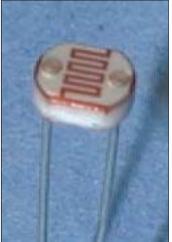
-.010 [0.25]

.010 [0.25]

.200 [5.1]

.169 [4.3]

PACKAGE DIMENSIONS INCH [mm]



# PLASTIC COATED CERAMIC PACKAGE 1. PHOTOCELL "GRID" PATTERN CAN VARY, PDI RESERVES THE RIGHT TO CHANGE

AND MIX GRID PATTERNS. 2. DIMENSION CONTROLLED AT BASE OF CERAMIC HEADER PACKAGE.

+.015 [0.38]

.079 [2.00]

PLASTIC

COATED

### **FEATURES**

- Visible light response
- Sintered construction
- Low cost
- High Reliability



PDV-P8XXX are (CdS) photoconductive photocells designed to sense light from 400 nm to 700 nm. As light dependent resistors, they are available in a wide range of resistance values. They are packaged in a two leaded plastic-coated ceramic header.

#### **APPLICATIONS**

- Light dimmers
- Brightness contols

VT800&NSL4532 EPOXY ON LEADS 3mm MAX

(2)

.134 [3.4]

2X .016 [0.40]

1.023 [26.0] MIN

K-ohms

1000

100

K Ohms 10

- Street light controls
- Auto headlight controls

CELL RESISTANCE VS. ILLUMINANCE

 $L_{ux}^{10}$ 

100 lux

## ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
Vрк	Applied Voltage		150	V dc
	Continuous Power Dissipation		100	mW /ºC
Tstg & To	Operating Temperature Range & Storage	-30	+75	°C
Ts	Soldering Temperature*		+260	°C

\*.200 inch (5 mm) from bottom of header for 3 secs max with heat sink

### ELECTRO-OPTICAL CHARACTERISTICS TA=25°C (2 HOURSLIGHT ADAPT, MIN)\*\*\*

MODELNO.	LNO.CELLRESISTANCE** (Ohms)				SENSITIVITY	SPECTRALPEAK	RESPONSE TIME @10Lux	
	10 Lux @2856K		DARK		LOG(R100)-LOG(R10)	(nm)	RISE TIME (ms)	FALL TIME (ms)
	MIN (K <b>W</b> )	MAX (K <b>W</b> )	MIN (M <b>W</b> )	SEC	LOG (E100)-LOG(E10) (I TYP)	TYP	TYP	TYP
PDV-P8103	16	33	0.5	10	0.75	520	60	25
PDV-P8104	27	60	2	10	0.8	520	60	25
PDV-P8105	50	94	2.5	10	0.85	520	60	25
PDV-P8106	50	140	20	10	0.9	520	60	25
PDV-P8107	80	240	20	10	0.9	520	60	25

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