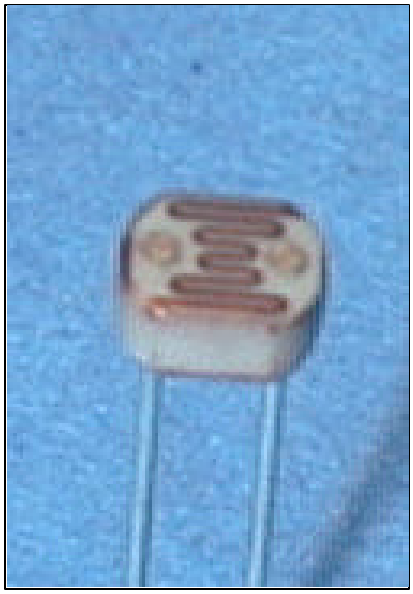
# PHOTONIC DETECTORS INC.

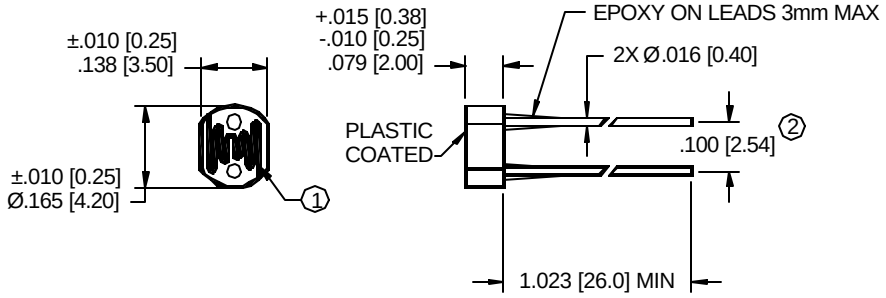
## Cadmium Sulfoselenide (CdS) Photoconductive Photocells

## Type PDV-P9XXX-X



PACKAGE DIMENSIONS INCH [mm]

INDUSTRY EQUIVALENTS:
VT900 & NSL5152




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-P9XXX-X** 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

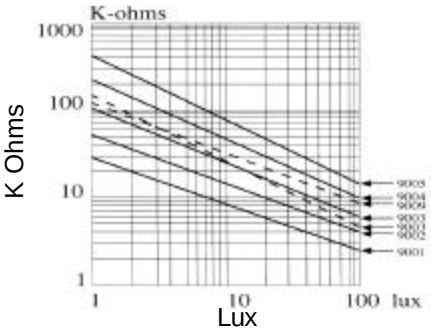
- Camera exposure
- Low light level
- Shutter controls
- Night light controls

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

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
|---|---|---|---|---|
| $V_{PK}$ | Applied Voltage | | 150 | V dc |
| $P_{d\Delta\ po\Delta t}$ | Continuous Power Dissipation | | 90 | mW/°C |
| $T_{stg}$ & $T_o$ | Operating Temperature Range & Storage | -30 | +75 | °C |
| $T_S$ | Soldering Temperature* | | +260 | °C |

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

CELL RESISTANCE VS. ILLUMINANCE




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

| MODEL NO. | CELL RESISTANCE** (Ohms) | | | | SENSITIVITY | SPECTRAL PEAK | RESPONSE TIME @10 Lux | |
|---|---|---|---|---|---|---|---|---|
| | 10 Lux @2856K | | DARK | | LOG(R100)-LOG(R10) / LOG (E100)-LOG(E10) | (nm) | RISE TIME (ms) | FALL TIME (ms) |
| | MIN (KΩ) | MAX (KΩ) | MIN (MΩ) | SEC | (λ TYP) | TYP | TYP | TYP |
| PDV-P9001 | 4 | 11 | 0.3 | 10 | 0.65 | 520 | 60 | 25 |
| PDV-P9002 | 9 | 20 | 0.5 | 10 | 0.6 | 520 | 60 | 25 |
| PDV-P9002-1 | 11 | 20 | 0.5 | 10 | 0.7 | 520 | 60 | 25 |
| PDV-P9003 | 16 | 33 | 1 | 10 | 0.8 | 520 | 60 | 25 |
| PDV-P9003-1 | 23 | 33 | 1 | 10 | 0.85 | 520 | 60 | 25 |
| PDV-P9004 | 27 | 60 | 2 | 10 | 0.85 | 520 | 60 | 25 |
| PDV-P9005 | 50 | 94 | 2.5 | 10 | 0.9 | 520 | 60 | 25 |
| PDV-P9005-1 | 48 | 140 | 20 | 10 | 0.9 | 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 light level. Resistance values are for reference only.



[FORM NO. 100-PDV-P9001 REV A]

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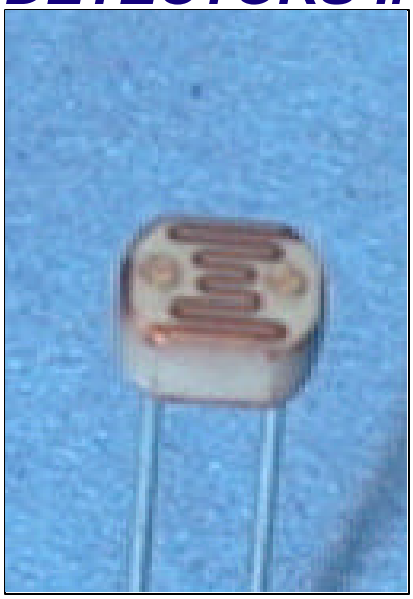

PACKAGE DIMENSIONS INCH [mm]

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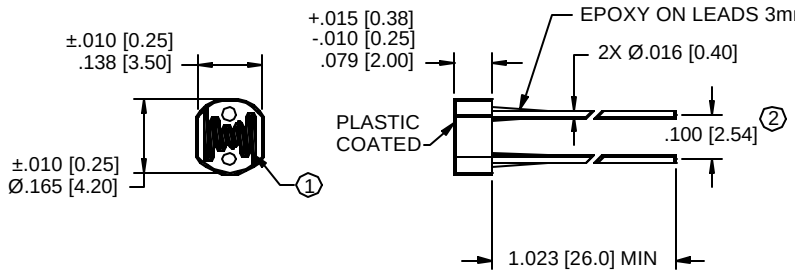


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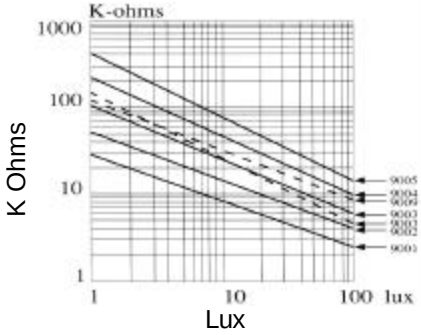


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| | MIN (KΩ) | MAX (KΩ) | MIN (MΩ) | SEC | (λ TYP) | TYP | TYP | TYP |
| PDV-P9006 | 80 | 200 | 5 | 10 | 1 | 520 | 60 | 25 |
| PDV-P9007 | 10 | 100 | 1 | 10 | 0.8 | 520 | 60 | 25 |
| PDV-P9008 | 10 | 200 | 20 | 10 | 0.85 | 520 | 60 | 25 |
| PDV-P9103 | 20 | 45 | 1 | 10 | 0.8 | 520 | 60 | 25 |
| PDV-P9200 | 10 | 50 | 5 | 10 | 0.9 | 520 | 70 | 15 |
| PDV-P9203 | 5 | 20 | 20 | 10 | 0.9 | 520 | 70 | 15 |
| | | | | | | | | |
| | | | | | | | | |