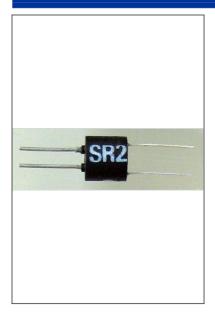
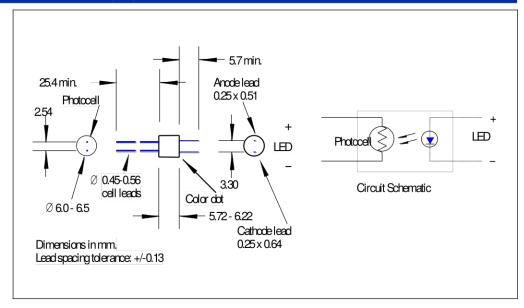


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## **Precision – Control – Results**





#### **DESCRIPTION**

This optocoupler consists of an LED input optically coupled to a photocell. The photocell resistance is high when the LED current is "off" and low resistance when the LED current is "on".

## **RELIABILITY**

CdS/CdSe photo resistors are temperature sensitive, it should be noted that operation of the photocell above +75°C does not usually lead to catastrophic failure but the photoconductive surface may be damaged leading to irreversible changes in sensitivity

Contact API for recommendations on specific test conditions and procedures.

#### **FEATURES**

- Compact, moisture resistant package
- Low LED current
- Passive resistance output

## **APPLICATIONS**

Industrial sensing

#### **ABSOLUTE MAXIMUM RATINGS**

| Isolation Voltage     |     |    | 2000 | V  | $T_a = 23^{\circ}C$           |
|-----------------------|-----|----|------|----|-------------------------------|
| Operating Temperature | -40 | to | +75  | °C | non condensing                |
| Storage Temperature   | -40 | to | +75  | °C |                               |
| Soldering Temperature |     |    | +260 | °C | >0.05" from case for < 5 sec. |
| -                     |     |    |      |    |                               |

- (1) Derate linearly to 0 at 75°C
- (2) Measured after 1 minute ON @ IF = 20mA and followed by 10 sec. OFF.
- (3) Print "NSL-32SR2" and date code "YYWW"



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#### **OPTO-ELECTRICAL PARAMETERS**

 $T_a = 23^{\circ}C$  unless noted otherwise

| PARAMETER              | TEST CONDITIONS  | MIN | TYP | MAX | UNITS |
|------------------------|--|-----|-----|-----|-------|
| LED                    | <u> </u>   |     |     |     |       |
| Forward Current        |  |     |     | 25  | mA    |
| Forward Voltage        | $I_F = 20mA$   |     |     | 2.5 | V     |
| Reverse Current        | $V_R = 4V$   |     |     | 10  | μΑ    |
| Cell                   |  |     |     |     |       |
| Maximum Cell Voltage   | (Peak AC or DC)  |     |     | 60  | V     |
| Power Dissipation      | (1)  |     |     | 50  | mW    |
| Coupled                |  |     |     |     |       |
| On Resistance          | $I_F = 20 \text{mA}$   |     |     | 40  | Ω     |
|                        | $I_F = 1 \text{mA}$  |     | 140 |     | Ω     |
| Off Resistance (2)     | 10 sec after IF = 0 mA, 5 V dc on cell   | 1   | 5   |     | ΜΩ    |
| Rise Time              | Time for the dark to light change in conductance to reach 63% of its final value |     | 5   |     | msec. |
| Decay Time             | Time to reach 100 KΩ after removal of IF =16 mA                                  |     | 5   |     | msec. |
| Cell Temp. Coefficient | I <sub>F</sub> > 5 mA  |     | 0.7 |     | %/°C  |

