

# Photologic® Slotted Optical Switch

OPB960, OPB970, OPB980, OPB990 Series

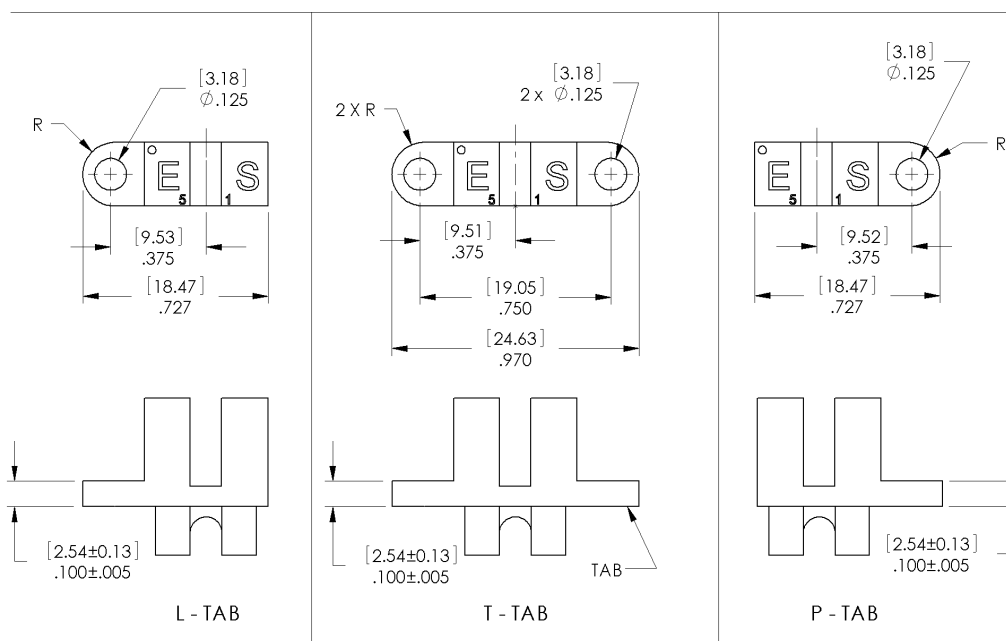
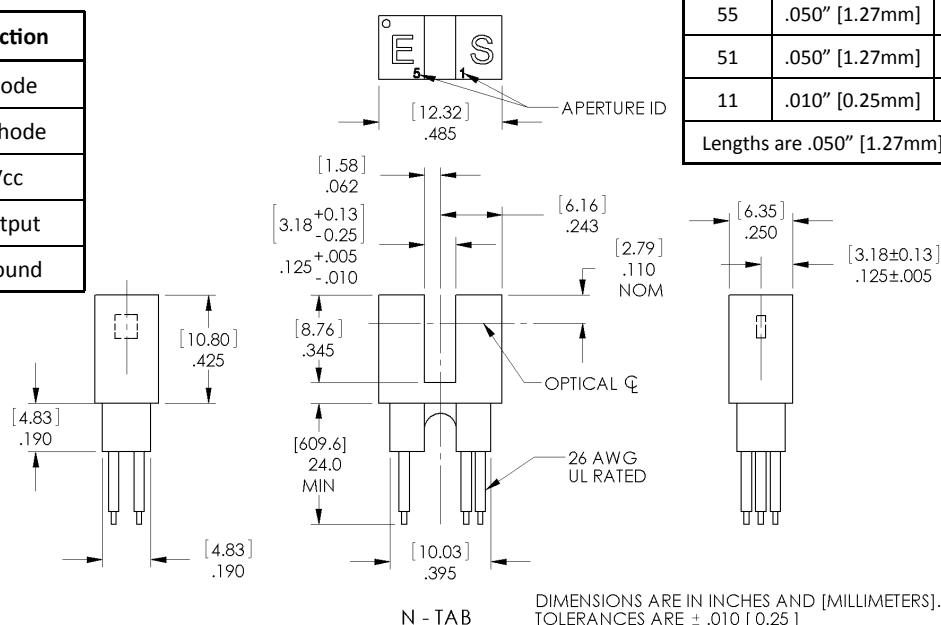


## PACKAGE OUTLINE for OPB980 and OPB990 Series

TABLE 2

| Wire Color | Function |
|------------|----------|
| Red        | Anode    |
| Black      | Cathode  |
| White      | Vcc      |
| Blue       | Output   |
| Green      | Ground   |

| APERTURE WIDTH GUIDE       |                |                |
|----------------------------|----------------|----------------|
| CODE                       | LED            | SENSOR         |
| 55                         | .050" [1.27mm] | .050" [1.27mm] |
| 51                         | .050" [1.27mm] | .010" [0.25mm] |
| 11                         | .010" [0.25mm] | .010" [0.25mm] |
| Lengths are .050" [1.27mm] |                |                |



### Notes:

- (7) Wire is 26AWG, UL Rated PVC insulation.
- (8) Ideal torque for bolt or screw 0,45 to 0,68 Nm ( 4 to 6 Lb-in ).
- (9) When using a thread lock compound, ND Industries "ND Vibra-Tite® Formula 3" will avoid stress cracking plastic.
- (10) Plastic is soluble in chlorinated hydrocarbons and ketones. Methanol or isopropanol are recommended as cleaning agents.

### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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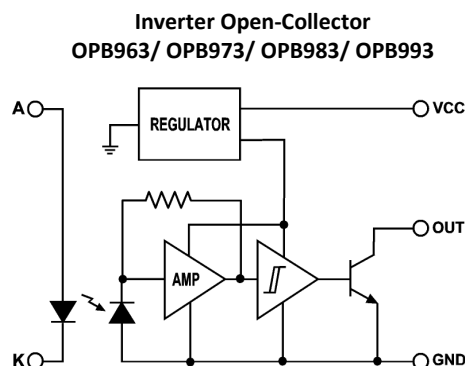
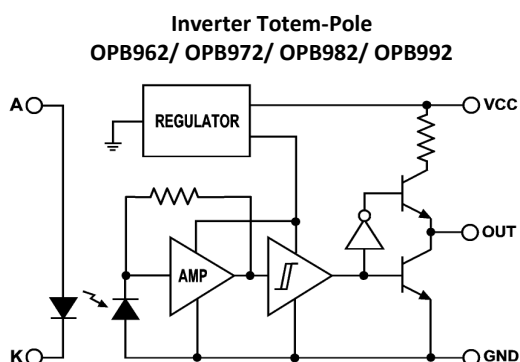
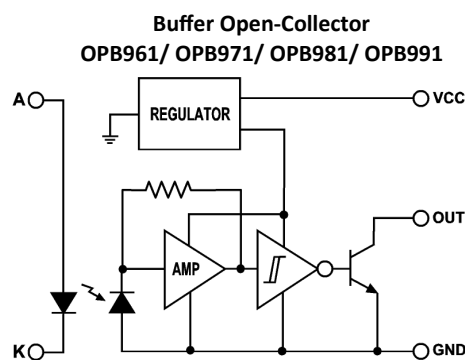
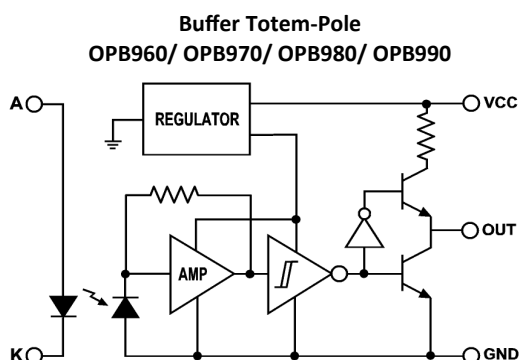
## Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

|                                                                          |                        |
|--------------------------------------------------------------------------|------------------------|
| Storage Temperature Range                                                | -40°C to +85°C         |
| Operating Temperature Range                                              | -40°C to +70°C         |
| <b>Input Diode (E)</b>                                                   |                        |
| Input Diode Power Dissipation                                            | 100 mW <sup>(11)</sup> |
| Input Diode Forward D.C. Current, $T_A = 25^\circ\text{C}$               | 40 mA <sup>(14)</sup>  |
| Input Diode Reverse D.C. Voltage, $T_A = 25^\circ\text{C}$               | 2 V                    |
| <b>Sensor (S)</b>                                                        |                        |
| Supply Voltage ( $V_{CC}$ to Ground)                                     | 18 V <sup>(13)</sup>   |
| Output Photologic® Power Dissipation                                     | 200 mW <sup>(12)</sup> |
| Voltage at Output Lead (Open-Collector Output), $T_A = 25^\circ\text{C}$ | 35V                    |
| Short Circuit Output Current to Ground ( $I_{OS}$ ) 1 sec Max.           | 30 mA                  |

### Notes:

- (11) Derate linearly 2.22 mW / °C above 25° C.
- (12) Derate linearly 4.44 mW / °C above 25° C.
- (13) Prior to 2004  $V_{CC}$  was limited to 5.5V maximum.
- (14) Do not connect input diode directly to a voltage source without an external current limiting resistor.

## Block Diagram



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