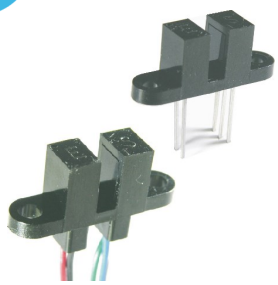
Photologic® Slotted Optical Switch

OPB960, OPB970, OPB980, OPB990 Series



Features:

- Choice of logic and output driver circuits
- Choice of aperture size, covered or open
- Wire or PCB leads
- Choice of mounting features
- Direct TTL, LSTTL, CMOS Interface

Description:

The OPB960/ 970/ 980/ 990 series of non-contact Photologic® slotted optical switches provides flexibility in meeting application specific requirements for the design engineer.

Building from a standard housing with a 0.125" (3.18mm) wide slot, the user can specify output logic state, output driver circuit, aperture width, aperture surface and mounting tab locations. Furthermore, an option of wire or PCB leads allows electrical interface flexibility.

The device body is an opaque plastic which minimizes sensitivity to both visible and near-infrared external light sources which may impact operation. Aperture width choices provide different optical resolution for motion sensing. A covered aperture provides dust protection, while an open aperture provides maximum protection against external light sources.

Electrical operation is over a wide supply voltage range. LED emissions are near-infrared (850—940nm).
Detector digital output logic choices of buffer or inverter with totem-pole or open-collector driver circuit simplify interface for various electrical requirements.

Custom electrical, wire and cabling services are available.
Contact your local representative or OPTEK for more information. Compliant to EU RoHS Directive 2002/95/EC

Applications:

- Speed and direction indication
- Rotary encoders
- Mechanical switch replacement
- Mechanical limit indication
- Printers - Top of form, End of travel, Home position.
- Sliding Door Automotive and Lift gate applications

Part Number Guide

OPB 9XX X XX X

OPTEK Assembly

Photologic® Sensor Family

Slot Aperture Surface and Lead Options:
6 — Covered (apertures not visible), PCB leads
7 — Open (apertures visible), PCB leads
8 — Covered (apertures not visible), Wires
9 — Open (apertures visible), Wires

Logic and Output Driver Types:
0 — Buffer Totem-Pole
1 — Buffer Open-Collector
2 — Inverter Totem-Pole
3 — Inverter Open-Collector

Z = Wires only, None for PCB leads

Aperture Width Guide Options:
55, 51, 11 (See Aperture Width Guide)

Mounting Tab Location:
L — Emitter
N — None
P — Sensor
T — Both (two mounting tabs)

Logic Type	Input LED	Output Logic State
Buffer	OFF	LOW = 0
Inverter	OFF	HIGH = 1

RoHS

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.

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

© TT electronics plc

Photologic® Slotted Optical Switch

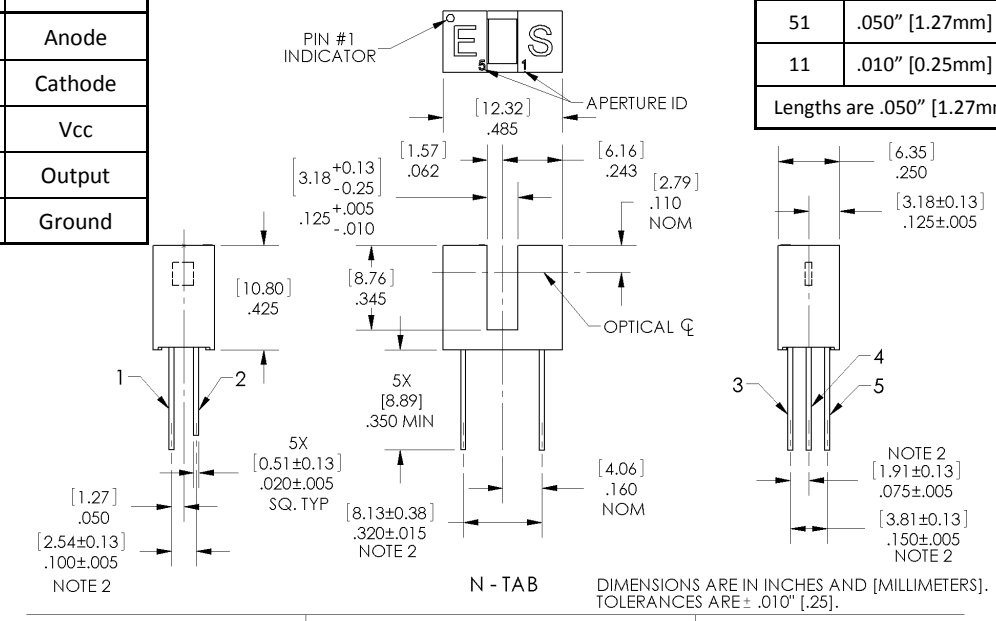
OPB960, OPB970, OPB980, OPB990 Series

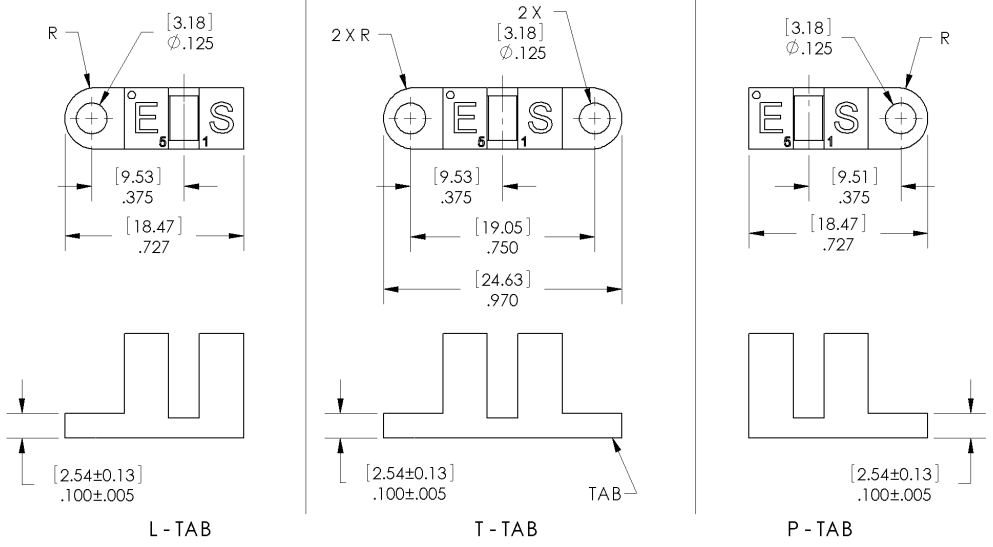
PACKAGE OUTLINE for OPB960 and OPB970 Series

TABLE 1

Lead No.	Function
1	Anode
2	Cathode
3	Vcc
4	Output
5	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:

(1) RMA flux recommended. Duration can be extended to 10 seconds max.
(2) Feature controlled at body.
(3) Highly activated water soluble fluxes may attack plastic. Recommend trial to verify application.
(4) Maximum lead soldering temperature [1.6mm from case for 5 seconds with soldering iron] 260° C.
(5) Cathode lead may be shorter.
(6) Part number marking may be on any side.

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.

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

© TT electronics plc