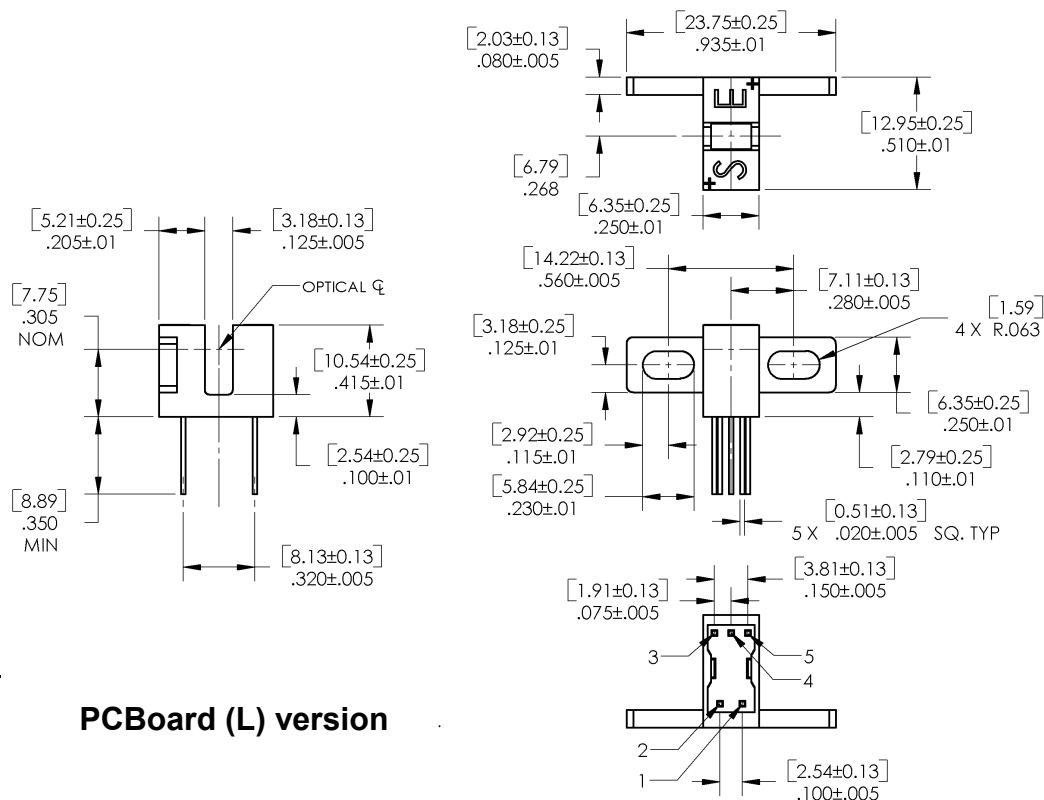


# Photologic® Slotted Optical Switch

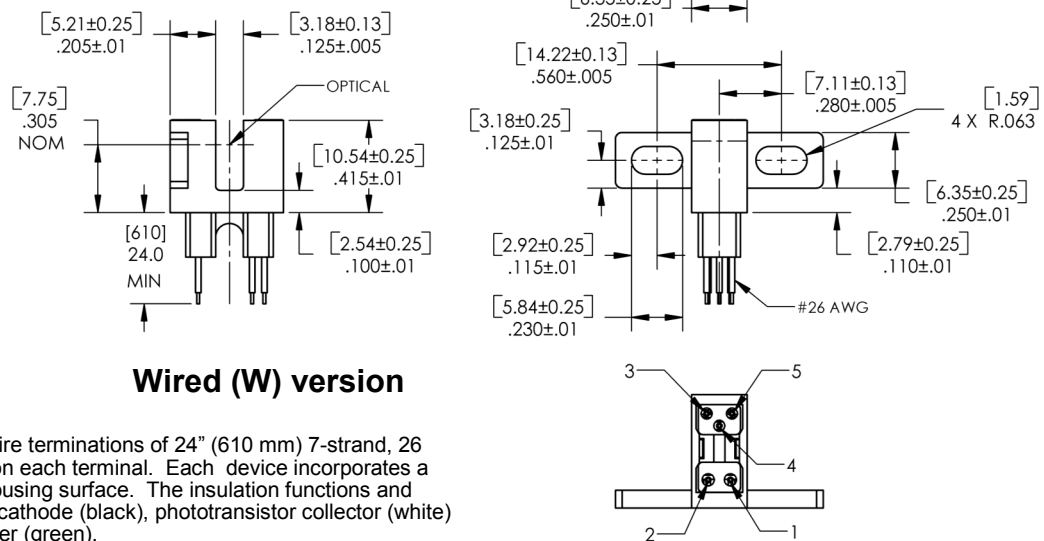
## OPB930 and OPB940 (L and W Series)



**PCBoard (L) version**

Color- Pin #	Description
Red—1	Anode
Black—2	Cathode
White—3	V <sub>CC</sub>
Blue—4	Output
Green—5	Ground

DIMENSIONS ARE IN: [ MILLIMETERS ]  
[ INCHES ]



**Wired (W) version**

The W Series includes wire terminations of 24" (610 mm) 7-strand, 26 AWG UL insulated wire on each terminal. Each device incorporates a wire strain relief at the housing surface. The insulation functions and colors are: anode (red), cathode (black), phototransistor collector (white) and phototransistor emitter (green).

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

# Photologic® Slotted Optical Switch

## OPB930 and OPB940 (L and W Series)



Electrical Characteristics (T <sub>A</sub> = 25° C unless otherwise noted)						
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
<b>Input Diode</b>						
V <sub>F</sub>	Forward Voltage	-	-	1.7	V	I <sub>F</sub> = 20 mA
I <sub>R</sub>	Reverse Current	-	-	100	μA	V <sub>R</sub> = 2.0 V
<b>Output Photologic® Sensor</b>						
V <sub>CC</sub>	Operating D.C. Supply Voltage	4.75	-	5.25	V	-
I <sub>CCL</sub>	Low Level Supply Current: Totem Pole & Open-Collector	-	-	15	mA	V <sub>CC</sub> = 5.25, I <sub>F</sub> = 0 mA <sup>(1)</sup>
	Inverted Totem-Pole & Inverted Open-Collector	-	-	15	mA	V <sub>CC</sub> = 5.25, I <sub>F</sub> = 15 mA
I <sub>CCH</sub>	High Level Supply Current: Totem Pole & Open-Collector	-	-	15	mA	V <sub>CC</sub> = 5.25, I <sub>F</sub> = 15 mA
	Inverted Totem-Pole & Inverted Open-Collector	-	-	15	mA	V <sub>CC</sub> = 5.25, I <sub>F</sub> = 0 mA <sup>(1)</sup>
V <sub>OL</sub>	Low Level Output Voltage: Totem Pole & Open-Collector	-	-	0.4	V	V <sub>CC</sub> = 4.75, I <sub>OL</sub> = 12.8 mA, I <sub>F</sub> = 0 mA <sup>(1)</sup>
	Inverted Totem-Pole & Inverted Open-Collector	-	-	0.4	V	V <sub>CC</sub> = 4.75, I <sub>OL</sub> = 12.8 mA, I <sub>F</sub> = 15 mA
V <sub>OH</sub>	High Level Output Voltage: Totem-Pole & Open-Collector	2.4	-	-	V	V <sub>CC</sub> = 4.75, I <sub>OH</sub> = -800 μA, I <sub>F</sub> = 15 mA
	Inverted Totem-Pole & Inverted Open-Collector	2.4	-	-	V	V <sub>CC</sub> = 4.75, I <sub>OH</sub> = -800 μA, I <sub>F</sub> = 0 mA <sup>(1)</sup>
I <sub>OH</sub>	High Level Output Current: Totem Pole & Open-Collector	-	-	100	μA	V <sub>CC</sub> = 4.75, V <sub>OH</sub> = 30 V, I <sub>F</sub> = 15 mA,
	Inverted Totem-Pole & Inverted Open-Collector	-	-	100	μA	V <sub>CC</sub> = 4.75, V <sub>OH</sub> = 30 V, I <sub>F</sub> = 0 mA <sup>(1)</sup>
I <sub>F</sub> (+)	LED Positive-Going Threshold Current	-	-	15	mA	V <sub>CC</sub> = 5.0 V
I <sub>F</sub> (+), I <sub>F</sub> (-)	Hysteresis	-	2.0	-	V	V <sub>CC</sub> = 5.0 V
I <sub>OS</sub>	Short Circuit Output Current: Totem Pole & Open-Collector	-15	-	-60	mA	V <sub>CC</sub> = 5.25 V, I <sub>F</sub> = 15 mA, Output = GND
	Inverted Totem-Pole & Inverted Open-Collector	-15	-	-60	mA	V <sub>CC</sub> = 5.25 V, I <sub>F</sub> = 0 mA <sup>(1)</sup> , Output = GND

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