

- 24" min 26AWG wire leads
- Choice of aperture
- Choice of output configuration
- Choice of opaque or IR transmissive shell material
- Data rates to 250 kBaud
- Side mount configuration

The OPB930W and OPB940W series of Photologic® Photo Integrated Circuit Switches provide optimum flexibility for the design engineer. Building from a standard housing with a 0.125" (3.18 mm) wide slot, the user can specify (1) type and polarity of TTL output, (2) discrete shell material, and (3) aperture width. Available with PC board mountable leads as OPB930L/OPB940L series.

WIRE COLOR	POLARITY
GREEN	GROUND
BLUE	OUTPUT
WHITE	V _{CC}
BLACK	CATHODE
RED	ANODE

METHANOL AND ISOPROPANOL ALCOHOLS ARE RECOMMENDED AS CLEANING AGENTS. HOUSINGS ARE SOLUBLE IN CHLORINATED HYDROCARBONS AND KETONES. HIGHLY ACTIVATED, WATER SOLUBLE FLUXES MAY ATTACK HOUSINGS IN SOME SITUATIONS.

DIMENSIONS ARE IN INCHES (MILLIMETERS)

Supply Voltage, V _{CC} (Not to exceed 3 sec.)	10 V
Storage Temperature Range	-40° C to +80° C
Operating Temperature Range	-40° C to +70° C
Input Diode Power Dissipation	100 mW ⁽¹⁾
Output Photologic™ Power Dissipation	200 mW ⁽²⁾
Total Device Power Dissipation	300 mW ⁽³⁾
Voltage at Output Lead (Open Collector Output)	35 V
Diode Forward D.C. Current	40 mA
Diode Reverse D.C. Voltage	2 V

- (1) Derate linearly 2.22 mW/° C above 25° C.
- (2) Derate linearly 4.44 mW/° C above 25° C.
- (3) Derate linearly 6.66 mW/° C above 25° C.
- (4) The OPB930W/OPB940W series of switches are terminated with 24 inches of 7 strand 26 AWG, UL 1429 insulated wire on each terminal. Insulation colors and functions are:

Other wire lengths and/or colors in addition to customer selected connectors are available.
Contact your local representative or call the factory.

(5) Normal application would be with light source blocked, simulated by $I_f = 0$ mA.

(6) All parameters tested using pulse technique.

Types OPB930W, OPB940W Series

Electrical Characteristics ($T_A = -40^\circ\text{C}$ to $+70^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Input Diode						
V_F	Forward Voltage			1.7	V	$I_F = 20\text{ mA}$, $T_A = 25^\circ\text{C}$
I_R	Reverse Current			100	μA	$V_R = 2\text{ V}$, $T_A = 25^\circ\text{C}$
Output Photologic® Sensor						
V_{CC}	Operating D.C. Supply Voltage	4.75		5.25	V	
I_{CCL}	Low Level Supply Current: Buffered Totem-Pole Output Buffered Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 0\text{ mA}^{(5)}$
	Inverted Totem-Pole Output Inverted Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 15\text{ mA}$
I_{CCH}	High Level Supply Current: Buffered Totem-Pole Output Buffered Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 15\text{ mA}$
	Inverted Totem-Pole Output Inverted Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 0\text{ mA}^{(5)}$
V_{OL}	Low Level Output Voltage: Buffered Totem-Pole Output Buffered Open-Collector Output			0.4	V	$V_{CC} = 4.75\text{ V}$, $I_{OL} = 12.8\text{ mA}$ $I_F = 0\text{ mA}^{(5)}$
	Inverted Totem-Pole Output Inverted Open-Collector Output			0.4	V	$V_{CC} = 4.75\text{ V}$, $I_{OL} = 12.8\text{ mA}$ $I_F = 15\text{ mA}$
V_{OH}	High Level Output Voltage: Buffered Totem-Pole Output	2.4			V	$V_{CC} = 4.75\text{ V}$, $I_{OH} = -800\text{ mA}$ $I_F = 15\text{ mA}$
	Inverted Totem-Pole Output	2.4			V	$V_{CC} = 4.75\text{ V}$, $I_{OH} = -800\text{ mA}$ $I_F = 0\text{ mA}^{(5)}$
I_{OH}	High Level Output Current: Buffered Open-Collector Output			100	μA	$V_{CC} = 4.75\text{ V}$, $V_{OH} = 30\text{ V}$, $I_F = 15\text{ mA}$, $T_A = 25^\circ\text{C}$
	Inverted Open-Collector Output			100	μA	$V_{CC} = 4.75\text{ V}$, $V_{OH} = 30\text{ V}$, $I_F = 0\text{ mA}$, $T_A = 25^\circ\text{C}$
$I_F(+)$	LED Positive-Going Threshold Current			15	mA	$V_{CC} = 5\text{ V}$, $T_A = 25^\circ\text{C}$
$I_F(+)/I_F(-)$	Hysteresis		2.0			$V_{CC} = 5\text{ V}$
I_{OS}	Short Circuit Output Current: Buffered Totem-Pole Output	-30		-100	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 15\text{ mA}$ Output = GND
	Inverted Totem-Pole Output	-30		-100	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 0\text{ mA}$ Output = GND
t_r, t_f	Output Rise Time, Output Fall Time		70		ns	$V_{CC} = 5\text{ V}$, $T_A = 25^\circ\text{C}$ $I_F = 0$ or 15 mA $R_L = 8\text{ TTL Loads (Totem-Pole)}$ $R_L = 360\ \Omega$ (Open-Collector)
t_{PLH}, t_{PHL}	Propagation Delay Low-High & High-Low		5.0		μs	

Housing

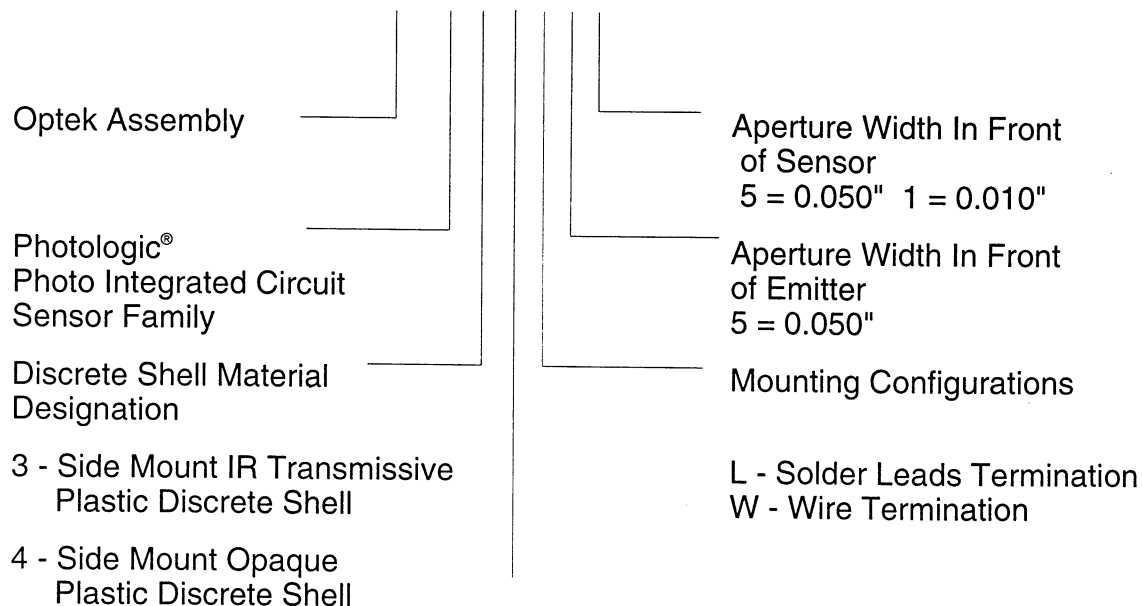
All housings are an opaque grade of injection-molded plastic to minimize the assembly's sensitivity to ambient radiation, both visible and near-infrared. Discrete shells (exposed on the parallel faces inside the device throat) are either IR transmissive plastic for applications where aperture contamination may occur or opaque plastic for maximum protection against ambient light.

SLOTTED
OPTICAL
SWITCHES

Types OPB930W, OPB940W Series

PART NUMBER GUIDE

OPB 9 X X X X X

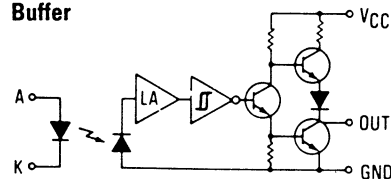


Electrical Specification Variations

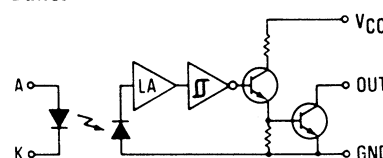
- 0 - Buffered Totem-Pole Output
- 1 - Buffered Open-Collector Output
- 2 - Inverted Totem-Pole Output
- 3 - Inverted Open-Collector Output

Schematics

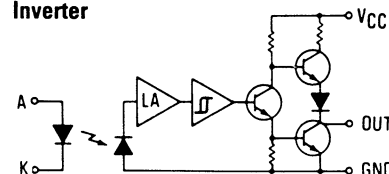
OPB930, OPB940
(Totem-Pole Output)
Buffer



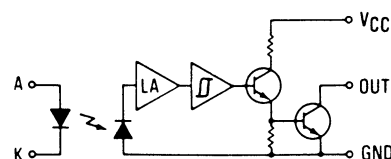
OPB931, OPB941
(Open-Collector Output)
Buffer



OPB932, OPB942
(Totem-Pole Output)
Inverter



OPB933, OPB943
(Open-Collector Output)
Inverter



Types OPB930W, OPB940W Series

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Output Photologic[®] Sensor						
V_{CC}	Operating D.C. Supply Voltage	4.75		5.25	V	
I_{CCL}	Low Level Supply Current: Buffered Totem-Pole Output Buffered Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 0\text{ mA}^{(5)}$
	Inverted Totem-Pole Output Inverted Open-Collector Output			15	mA	$V_{CC} = 5.25\text{ V}$, $I_F = 15\text{ mA}$
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	Inverted Totem-Pole Output Inverted Open-Collector Output			0.4	V	$V_{CC} = 4.75\text{ V}$, $I_{OL} = 12.8\text{ mA}$ $I_F = 15\text{ mA}$
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	Inverted Totem-Pole Output	2.4			V	$V_{CC} = 4.75\text{ V}$, $I_{OH} = -800\text{ mA}$ $I_F = 0\text{ mA}^{(5)}$
I_{OH}	High Level Output Current: Buffered Open-Collector Output			100	μA	$V_{CC} = 4.75\text{ V}$, $V_{OH} = 30\text{ V}$, $I_F = 15\text{ mA}$, $T_A = 25^\circ\text{C}$
	Inverted Open-Collector Output			100	μA	$V_{CC} = 4.75\text{ V}$, $V_{OH} = 30\text{ V}$, $I_F = 0\text{ mA}$, $T_A = 25^\circ\text{C}$
$I_F(+)$	LED Positive-Going Threshold Current			15	mA	$V_{CC} = 5\text{ V}$, $T_A = 25^\circ\text{C}$
$I_F(+)/I_F(-)$	Hysteresis		2.0			$V_{CC} = 5\text{ V}$
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t_{PLH}, t_{PHL}	Propagation Delay Low-High & High-Low		5.0		μs	

Housing

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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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