Reflective Object Sensor

OPB708, OPB709
OPB740 Series, OPB740WZ Series

OPB708, OPB709, OPB740, OPB745 Series

OPB7_ _WZ Series

Features:

- Focused for maximum sensitivity
- Phototransistor or photodarlington output
- Crosstalk does not exceed specified ICEO
- 24" (610 mm) wire length
- 26 AWG wire size

Description:

Each reflective object sensor in the **OPB708**, **OPB709**, **OPB740** through **OPB746** and **OPB740WZ** through **OPB746WZ** series consists of an infrared emitting diode and a NPN silicon phototransistor or a photodarlington. The **OPB747WZ** and **OPB748WZ** consist of a Red visible LED and a low light level rejection (R_{BE}) NPN silicon phototransistor. The Red LED allows better contrast ratio when detecting Black marks on a White surface. All these devices are mounted side-by-side on converging optical axes in a black plastic housing focusing on a small area and depth of field.

OPB7 _ _ WZ series are wired (UL approved wire) devices that offer various lens options, including no windows, blue polysulfone windows for dust protection or opaque aperture windows with offset openings for improved target resolution.

On each sensor included in this data sheet, the photosensor responds to radiation only when a reflective object passes within its field of view.

Custom IC(ON) current binning, special wire lengths and connectorization is available through your OPTEK rep.

Applications:

- Non-contact reflective object sensor
- Assembly line automation
- Machine automation
- Machine safety
- End of travel sensor
- Door sensor
- Thermal Paper Mark

CONTAINS POLYSULFONE

To avoid stress cracking, we suggest using ND Industries' **Vibra-Tite** for thread-locking. **Vibra-Tite** evaporates fast without causing structural failure in OPTEK's molded plastics.
Applies to: OPB460, OPB470, OPB480, OPB490.

RoHS

Part Number	LED Peak Wavelength	Sensor	Reflection Distance Inch (mm)	Lead Length/ Wire Type
OPB708	935 nm	Transistor	Min=0.08" [2.04 mm] Typ=0.15" [3.81 mm] Max=0.30" [7.62 mm]	0.150" Minimum
OPB709		Darlington		
OPB740	890 nm	Transistor		
OPB741				
OPB742				
OPB743				
OPB744				
OPB745		Darlington		
OPB740WZ		Transistor		24" / 26 AWG Wire
OPB741WZ				
OPB742WZ				
OPB743WZ				
OPB744WZ				
OPB745WZ		Darlington		
OPB746WZ	935 nm	R_{BE} Transistor		
OPB747WZ	645 nm			
OPB748WZ		Transistor		

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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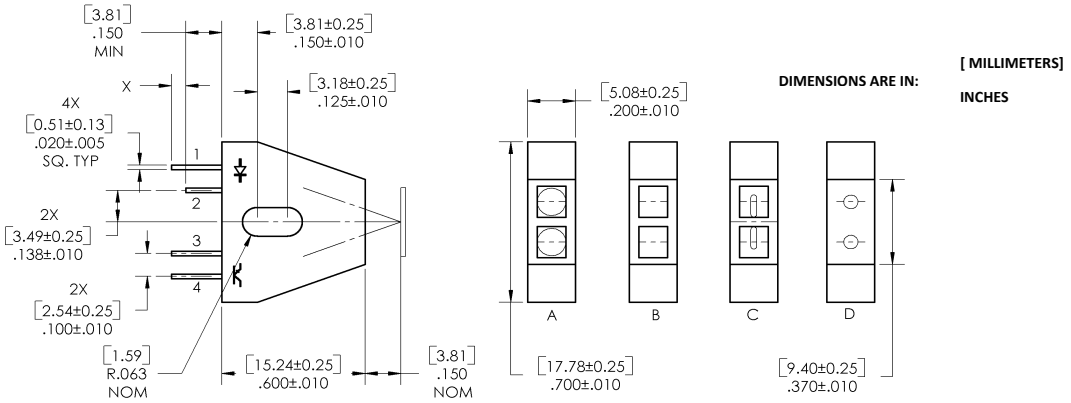
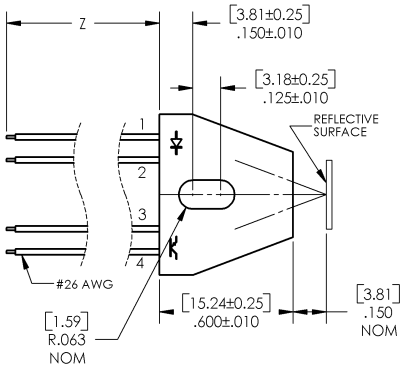
Electrical Specifications

OPB708, OPB709, OPB740, OPB741, OPB742, OPB743, OPB744, OPB745



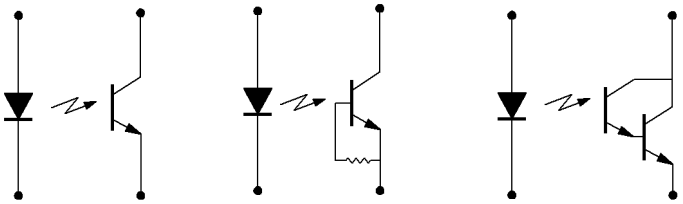
OPB740WZ, OPB741WZ, OPB742WZ, OPB743WZ, OPB744WZ, OPB745WZ, OPB746WZ, OPB747WZ, OPB748WZ



OPB708
OPB740 thru **OPB744**
OPB740WZ thru **OPB744WZ**

OPB746WZ, OPB747WZ, OPB748WZ

OPB709, OPB745, OPB745WZ



Color-PIN #	LED	Color-PIN #	Transistor
Orange-1	Anode	White-4	Collector
Green-2	Cathode	Blue-3	Emitter

Package Style	
Part Number	**Lens Configuration**
OPB708	D - No windows
OPB709	D - No windows
OPB740	A - No windows
OPB740WZ	A - No windows
OPB741	B - Blue windows
OPB741WZ	B - Blue windows
OPB742	C - Offset windows
OPB742WZ	C - Offset windows
OPB743	A - No windows
OPB743WZ	A - No windows
OPB744	B - Blue windows
OPB744WZ	B - Blue windows
OPB745	C - Offset windows
OPB745WZ	C - Offset windows
OPB746WZ	B - Blue windows
OPB747WZ	C - Offset windows
OPB748WZ	C - Offset windows

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