

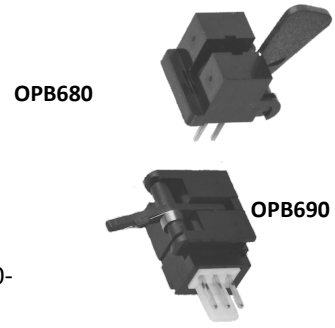
# Slotted Optical Flag Switch

OPB680, OPB680-20, OPB690Z



**Features:**

- Phototransistor output
- Mechanical switch replacement
- Enhanced signal to noise ratio
- Printed PCBoard mounting (OPB680, OPB680-20)
- Lever force options(OPB680, OPB680-20)
- 3-pin connector, 0.98" (2.5mm) Mates with Molex 22-01-1032 and terminal #08-70-0069



**Description:**

Each **OPB680**, **OPB680-20** and **OPB690Z** optical flag switch consists of an infrared emitting diode in a molded plastic housing. The phototransistor has an enhanced low current roll-off that improves contrast ratio and immunity to background irradiance.

A lever arm actuated flag interrupts the light beam and switches the output between states that can readily drive logic gates. This can be actuated by passing a paper sheet without damaging the paper's edge.

**OPB680-20** offers increased lever operating force that prevents false triggering due to incidental contact in door sensing and other heavy-duty applications.

**OPB690Z** is designed to easily snap mount into a 0.037" ± 0.001" (0.940 mm ± 0.025 mm) thick material with a rectangular opening of 0.320" ± 0.003" x 0.472" (8.128 mm x 11.989 mm) minimum. Insertion into the punched side of metal is recommended.

Customized lever arms and spring torques can be designed for specific applications for each of the devices.

Custom electrical, wire, cabling and connectors are available. Contact your local representative or OPTEK for more information.

**Applications:**

- Mechanical switch replacement
- Speed indication (tachometer)
- Mechanical limit indication
- Edge sensing

Ordering Information				
Part Number	LED Peak Wavelength	Sensor	Flag Travel Degrees Max	Lead Length / Spacing or Connector
OPB680	890 nm	Rbe Transistor	51°	0.100" / 0.275"
OPB680-20			70°	
OPB690Z			Molex 5102	



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.

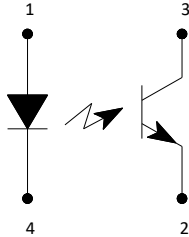
TT Electronics | OPTEK Technology  
 2900 E. Plano Pkwy, Plano, TX 75074 | Ph: +1 972 323 2200  
 www.ttelectronics.com | sensors@ttelectronics.com

# Slotted Optical Flag Switch

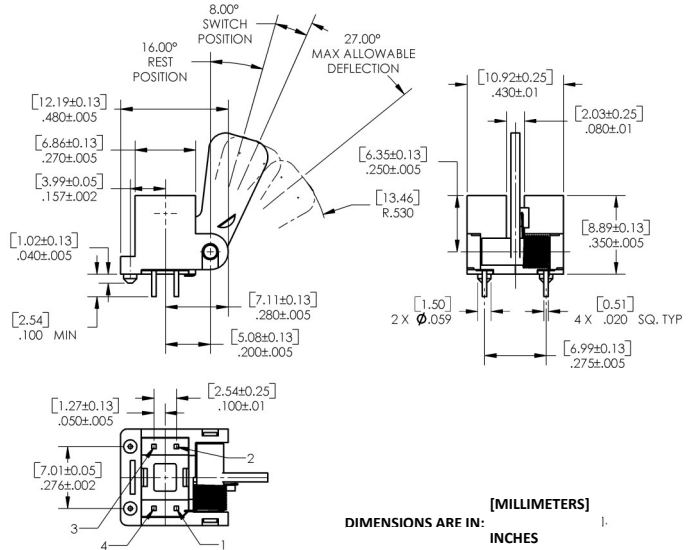
## OPB680, OPB680-20, OPB690Z



### OPB680, OPB680-20



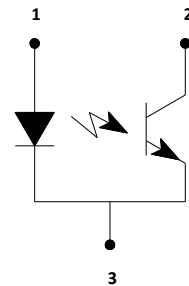
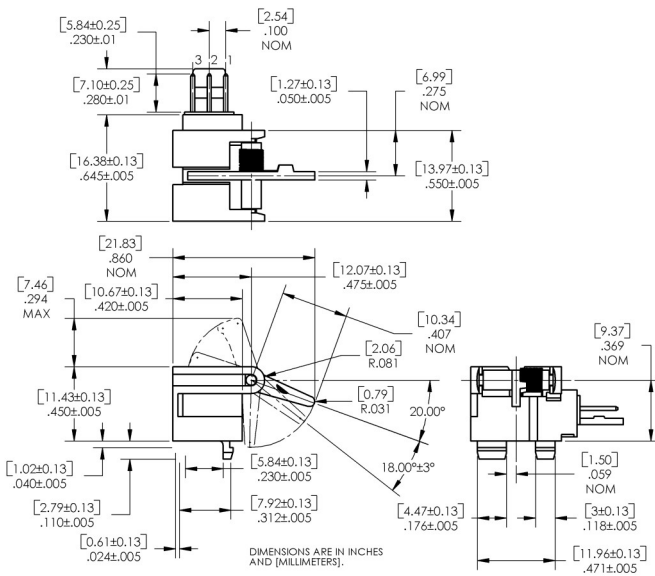
Pin #	Description	Pin #	Description
1	Anode	3	Collector
4	Cathode	2	Emitter



**Notes:**

- (1) For OPB680 and OPB680-20, the “on” condition exists when the lever arm is in the rest position (16° from vertical).
- (2) For OPB680 and OPB680-20, the “off” condition exists when the lever arm is deflected clockwise 8° ± 3° from the rest position (16° from vertical). Maximum allowable deflection is 35° from the rest position.

### OPB690Z



Pin #	Description
1	Anode
2	Collector
3	Ground

**Notes:**

- (1) For OPB690Z, the “on” condition exists when the lever arm is deflected clockwise 18° +/-3° from the rest position (20° from vertical).
- (2) For OPB690Z, the “off” position exists when the lever arm is in the rest position (20° from vertical).
- (3) For OPB690Z, from the rest position to the switch point the lever torque measured at the end of the arm is 1.5 grams maximum.

**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.

TT Electronics | OPTeK Technology  
2900 E. Plano Pkwy, Plano, TX 75074 | Ph: +1 972 323 2200  
www.ttelectronics.com | sensors@ttelectronics.com