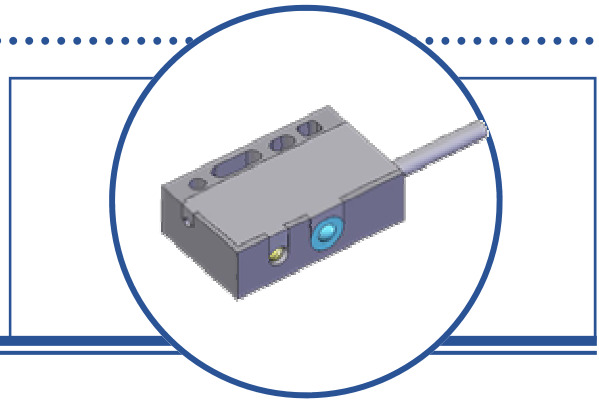


Long Distance Reflective Switch

OPB720

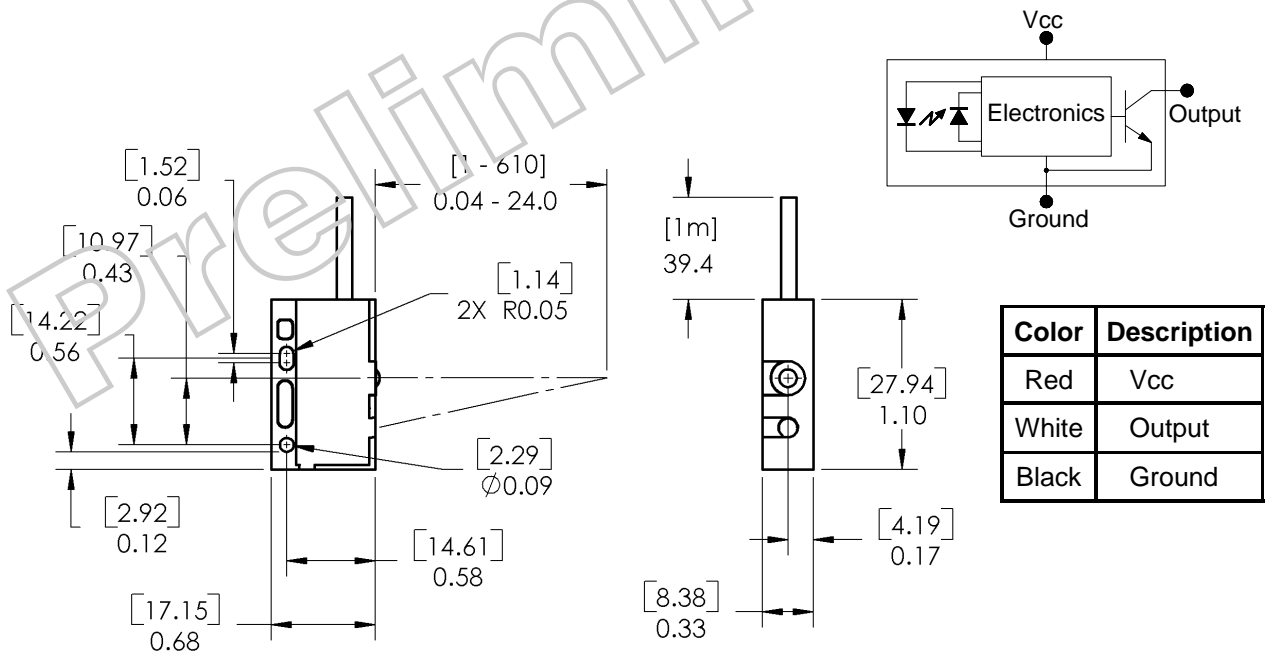
- Detection distance from 0.04" (1 mm) to 24" (610 mm)
[maximum distance to be set at the factory]
- Ambient Light Rejection < 100K Lux
- Object size as small as 0.08" (2mm) can be recognized
- Cable Length and Termination options
- Open collector output



The OPB720 is a reflective switch designed to detect objects as far away as 24" (610 mm). Detectable object sizes can be as small as 0.08" (2mm) at a distance of 8" (20 mm). The OPB720 has a logical output that switches from a high level with no reflection target to a low level with a reflection target. With the addition of hysteresis, the OPB720 minimizes switching oscillations on the output. The open collector output transistor and power requirements is compatible with most PLC's

Applications include:

- Conveyor belt package recognition
- Personnel movement recognition
- Near focus security systems
- Hand wash and soap dispensing stations
- Toilet and urinal sensors
- Product dispensing systems



Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Long Distance Reflective Switch OPB720

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| | |
|--|-----------------------|
| Storage Temperature | -40° C to +80° C |
| Operating Temperature | -20° C to +60° C |
| Lead Soldering Temperature (1/16" (1.6mm) from case for 5 seconds with soldering iron) | 260° C ⁽¹⁾ |

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| | |
|-----------------------------|----------------|
| Supply Voltage (Vcc) | 10 to 30 Volts |
| Maximum Collector Voltage | 30 Volts |
| Collector DC Current (Sink) | 50 mA |
| Power Dissipation | 300 mW |

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS | CONDITIONS |
|--------|--------------------------|-----|-----|-----|-------|--|
| VOL | Low Level Output voltage | - | - | 0.8 | Volts | Vcc=10V, RL=10K, D=8" Surface White Diffuse Paper EK E152-7798 |
| VOH | High Level Output | 5.0 | - | - | Volts | Vcc=10V, RL=10K, No Target |

Notes:

- (1) RMA flux is recommended. Duration can be extended to 10 seconds maximum when flow soldering.

Preliminary