Long Distance Reflective Switch

TT electronics

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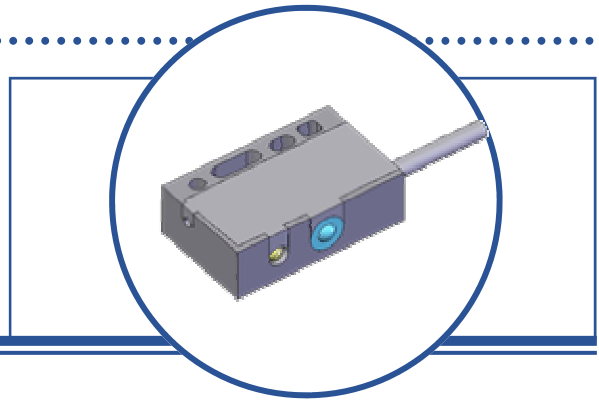
OPB720

- 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:

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

Color	Description
Red	Vcc
White	Output
Black	Ground

Dimensions are in inches [millimeters]
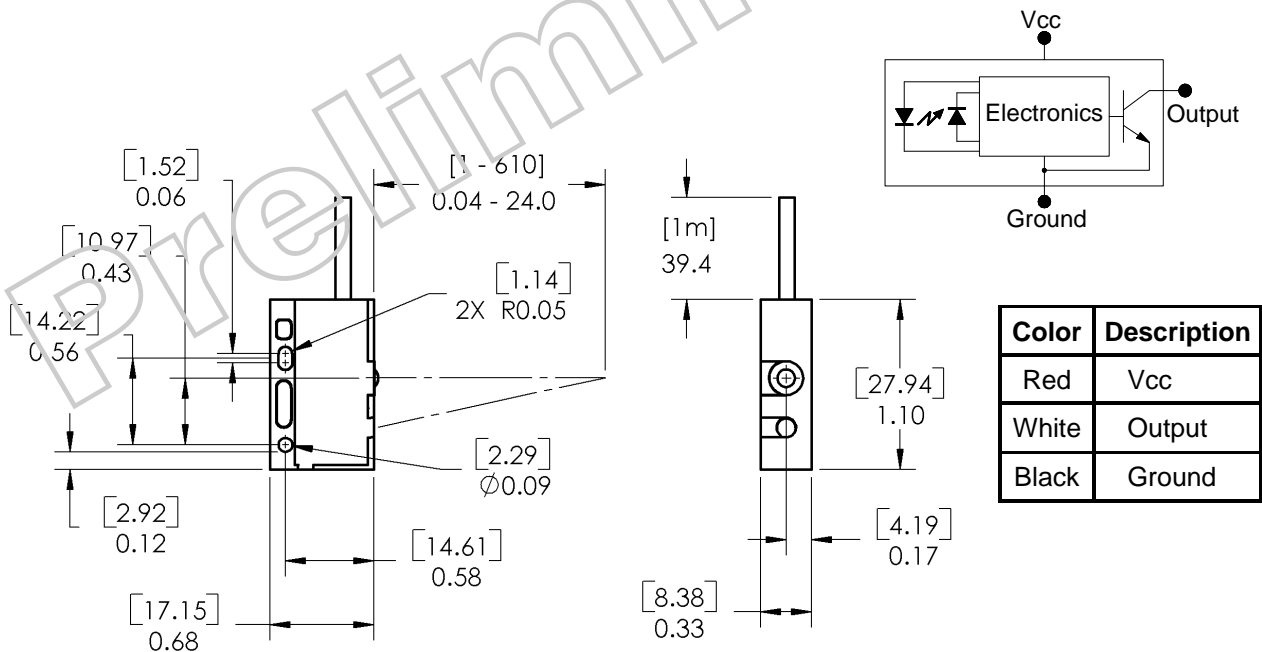
Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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Absolute Maximum Ratings $(T_A = 25°C$ unless otherwise noted)

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

Absolute Maximum Ratings $(T_A = 25°C$ 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 $(T_A = 25°C$ 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.