

OPTOELECTRONIC Solutions

from the infrared to visible to the ultraviolet
OPTEK provides you application specific solutions.

OPTEK Technology

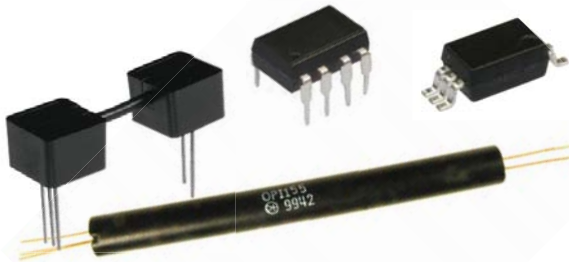
Phone: 972.323.2200

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www.optekinc.com

OPTEK is more than a component sensor company. One of our core strengths is partnering with you to develop solutions for your specific applications. We have been designing & manufacturing fully integrated and tested optoelectronic solutions for our customers for more than 40 years. We have the technical expertise to provide total optoelectronic integrated solutions including wiring harness, connectorization, board assembly, and custom packaging to customer specific designs. Call us when you need more than just a component. However, if all you need is a component - we're the best in the industry to satisfy that requirement too.

Optocouplers and Optoisolators - When you need isolation and circuit protection.



OPTEK's optocoupler line is available in DIP, SOP and SSOP package configurations while the optoisolator line is designed with special package configurations to enhance voltage isolation. Optocouplers are designed for isolation voltages up to 5,000 volts rms while the optoisolators can provide voltage isolation up to 50,000 volts.

Applications:

- High voltage isolation
- Power supplies
- Industrial equipment
- Medical equipment
- Office equipment

Solid State Relay - When you need an electronic controlled switch that contains no moving parts.



OPTEK's solid state relays incorporate a zero crossing circuit minimizing current and noise surges due to resistive and inductive loads as well as controlling switching timing to a zero crossing phase. OPTEK provides three different electrical configurations of the OSSR series: DC input – AC output, AC input – AC output and DC input – DC output. These configurations meet most industry applications.

Applications:

- Temperature controlled systems
- Office equipment
- Motor controls
- Industrial equipment
- Lighting control systems
- Heater control
- Appliances
- HVAC temperature control
- Plastic molding
- Packaging industry
- Food processing

Design Kits - When you need a quick design to meet management direction.



The Auto-Calibration Kit (OCB100-Kit) allows the engineer an easy way to interface optoelectronic devices in equipment. The Auto-Calibration Kit provides a circuit board that eliminates the majority of problems with manufacturing variation, as well as LED degradation for slotted (transmissive), reflective and special purpose devices. This kit provides an analog and two digital outputs to provide sensing for most applications while minimizing electrical interface problems.

When sensing colors is required, the OPB780KIT provides a low cost easy way to start recognition of colors. The Color Sensor Kit consists of an OPB780Z color sensor with control electronics and a light shield to block external light. The color sensor provides 4 different frequency outputs to allow the engineer an excellent way to distinguish different colors

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when the 'standard' just won't do we provide the custom solution.
OPTEK works with you to develop the solution.

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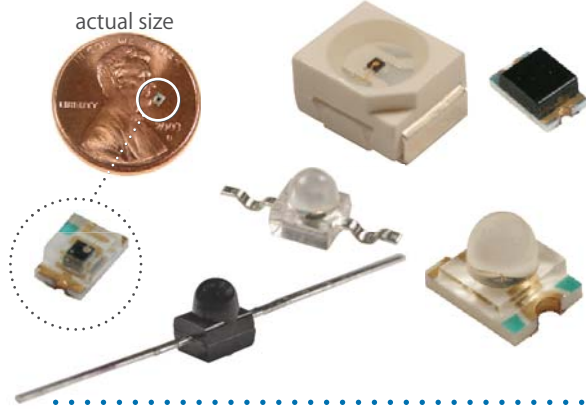
INFRARED DEVICES
Photodarlington
Photologic
Pill Pack
Reflective
Slotted
Surface Mount

OPTICAL COUPLED ISOLATORS
Flexible Linkage
LED/Photologic
LED Phototransistor
Surface Mount & Chip Carrier
OPTOCOUPLERS
Analog and Digital

Packages (DIP, SOP, SSOP)
SOLID-STATE RELAYS
LED-Triac
Bridge Rectifier -Double Triac
MAGNETIC SENSORS
Hall Effect
VCSELS

FIBER OPTIC DEVICES
Emitters
Sensors
VISIBLE LEDES
Custom application solutions
Complete SSL lab
HIGH RELIABILITY / COTS PLUS

Infrared Surface Mount Devices - When you need a miniature opto device for a very small space.



OPTEK's surface mount component family consists of GaAs/GaAlAs/VCSEL infrared LEDs and silicon phototransistors/darlington mounted in flat or dome lens configurations. All devices are RoHS compliant and compatible with high-speed automated placement systems, making them ideal for high-volume applications. Included in this family is the OP180 Series and OP280 Series that are housed in plastic leadless PLCC-2 packages with a silicon encapsulant to increase operational life of the component.

Applications:

- Non-contact position sensing
- Optical encoders
- Datum detection
- Machine automation
- Reflective sensing
- Transmissive (interruptive) sensing

Reflective Sensors - When you need identification of an object passing near a sensor

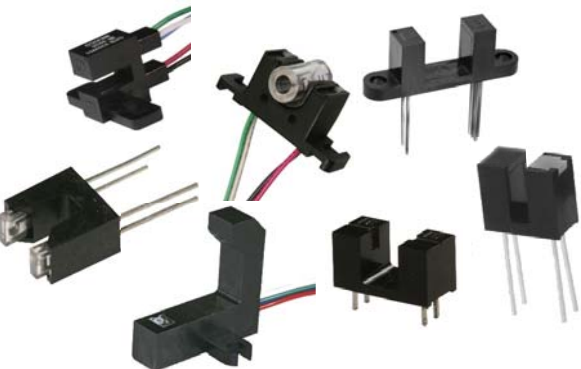


Typical reflective distances range from 0.04 inches (1 mm) to over 30 inches (762 mm). OPTEK provides custom as well as standard solutions with either infrared or visible light sources.

Applications:

- Non-contact reflective object sensing
- Assembly line automation
- Machine control
- Machine automation
- Machine safety
- End of travel sensing
- Door / window closure

Slotted Switches - When you need identification of an object passing through the switch (between the LED and photosensor).



Typical slotted switches range in gap width (distance between the LED and Photosensor towers) from 0.08 inches (2 mm) to over 1.25 inches (32 mm). OPTEK provides custom as well as standard solutions with either infrared or visible light sources.

Applications:

- Non-contact reflective object sensing
- Assembly line automation
- Machine control
- Machine automation
- Machine safety
- End of travel sensing
- Door / window closure