

# OPTOELECTRONIC Solutions

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

OPTEK Technology

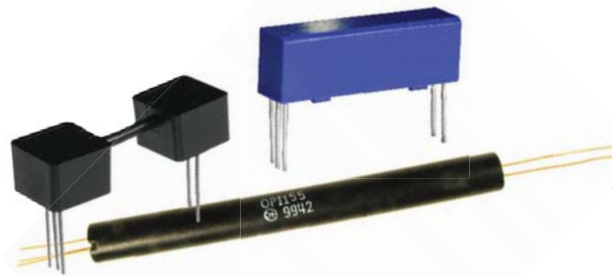
Phone: 972.323.2200

Email: [sensors@optekinc.com](mailto:sensors@optekinc.com)

[www.optekinc.com](http://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.

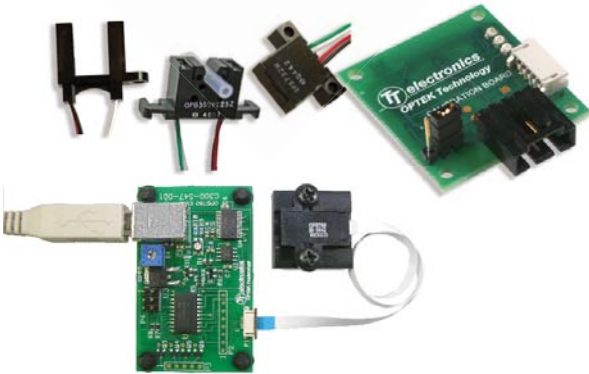


OPTEK's optocoupler line is available in DIP, SOP and SSOP package configurations while the optoisolator line is designed with special package configurations to enhance voltage isolation. Optocouplers are designed for isolation voltages up to 5,000 volts rms while the optoisolators can provide voltage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

Applications:

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

## 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

## Quality and Certifications - We are committed to providing reliable products to you.

TT electronics OPTEK Technology is dedicated to delivering Reliable World Class competitive products on time to meet the requirements of our customers. OPTEK is committed to its Quality Management System, Quality Objectives and will continually improve their effectiveness.

We offer screened high reliability products in classifications of "TX", "TXV", "B", "S", and "ESA" levels. OPTEK operates to TSAT, MIL-PRF-19500, MIL-PRF-38535, MIL-STD-750/883 performance requirements.

TT electronics OPTEK Technology is certified to:

- ISO/TS 16949:2009
- BS EN ISO 9001:2008
- ITAR Registered
- MLA License with OPTRON manufacturing facility

- DSCC - in an effort to provide unique capability beyond the "commercial-off-the-shelf" products, OPTEK has a specialized manufacturing line in Carrollton, TX. OPTEK anticipates receiving the rigid QML certification status and producing optoelectronic and sensor JAN level process products for US and NATO defense industry applications during the first half of 2011.

# OPTOELECTRONIC Solutions

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  
OPTOCOUPPLERS  
Analog and Digital

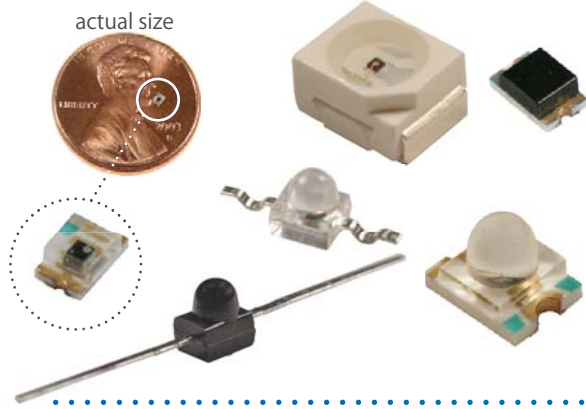
## Packages (DIP, SOP, SSOP)

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

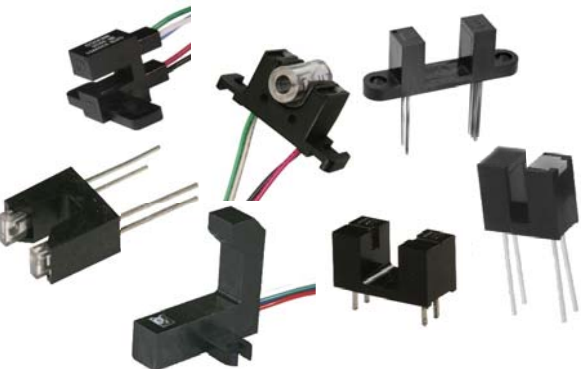


Typical reflective distances range from 0.04 inches (1 mm) to over 30 inches (762 mm). OPTEK provides custom as well as standard solutions with either infrared or visible light sources.

### 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