

Glossary

Ambient Conditions of the working environment, i.e. light, temperature, vibration and humidity.

Beam Break See thru-beam.

Beam Diameter Measure of the size of the target which can be detected by a thru-beam.

Chassis Mount Individual electrical components and devices mounted on a printed circuit board with terminal strip connectors.

Coaxial Light source and photodetector on the same optical axis.

Collimate Make parallel; e.g., a collimating lens makes parallel the light rays emitted from a lamp.

Continuous Operation Steady or non-varying output from an LED as opposed to a modulated output.

Dark Current Amount of electric current flowing thru a photodetector when light is absent.

Dark Energize Absence of light energizes switched output.

Delay On/Off Controlled time delay between input change and output change.

Derate Change of listed engineering specifications with change in environment, usually temperature.

Diffuse Reflection Reflection of light in many directions from rough or irregular surfaces.

Diode Protected Collector Built-in diode protects output transistor; for use with inductive loads.

Duty Cycle Percent of time LED light source is driven by modulating control.

Eye Mark See registration mark.

Fiber Optic A fiber or strand of glass or plastic which carries light.

Field of View Area seen by a reflective skanner at a given distance.

Hysteresis The difference between the turn ON voltage and the turn OFF voltage in a Schmitt trigger.

Instant On/Off No controlled delay between an input and its effect on switched output.

Lamp An incandescent light source.

LED Light Emitting Diode — A semiconductor device which produces light energy when stimulated by electric current.

Light Current Amount of electric current flowing thru a photodetector when light is present.

Light Energize Presence of light energizes switched output.

Maximum Usable Distance Greatest distance between reflective skanner and white target which produces at least 10 microamps of photodetector current.

Modulating A control designed to turn the light source on and off very rapidly; modulated-pulsed or discontinuous.

One-Shot A timer which produces a single electrical pulse of pre-determined length for inputs of varying length; the input must return to its original state for another output pulse to be produced.

Open Collector Common method of using a transistor as an output switch; current must be supplied by the user thru a pull-up resistance.

Operating Voltage Highest forward bias voltage which can be safely applied to a photodetector.

Optimum Distance to Target Distance between a reflective skanner and a white target which produces the maximum Light Current.

Photodetector Light detecting part of a photoelectric device.

Plug-In Mount Electrical components and devices sealed inside a can or module; connections thru projecting pins to a separate socket.

Rated Separation Greatest distance between a thru-beam's light source and photodetector which will produce at least 10 microamps of photoelectric current.

Reflective Skanner Device with a light source and photodetector in one housing; target is detected by reflected light.

Registration Mark Mark of contrasting color placed on sheet materials, esp. packaging wraps; used to control cutting operations.

Response Time Time interval between an input change and the corresponding output change.