

Product Information Report

Strobe Lights

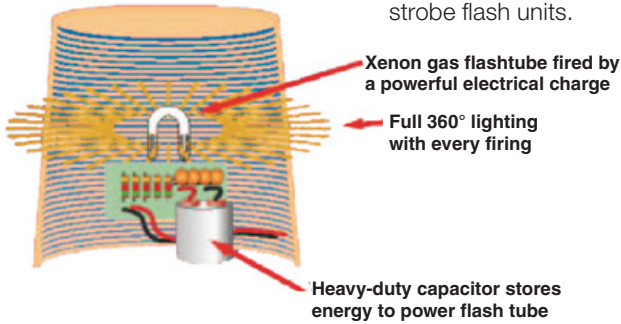


Overview

Strobe devices use an electronic power source to produce energy which is used to trigger a reaction from the xenon gas contained within the strobe flash tube.

Features/Benefits

Typically, a strobe device uses 1/2 to 1/3 of the power (amperage) of its comparable rotating incandescent device. Solid-state circuitry allows a variety of flash patterns to be programmed into strobe flash units.



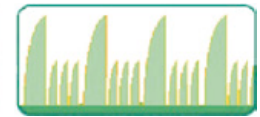
Single



Rapid Single



Double

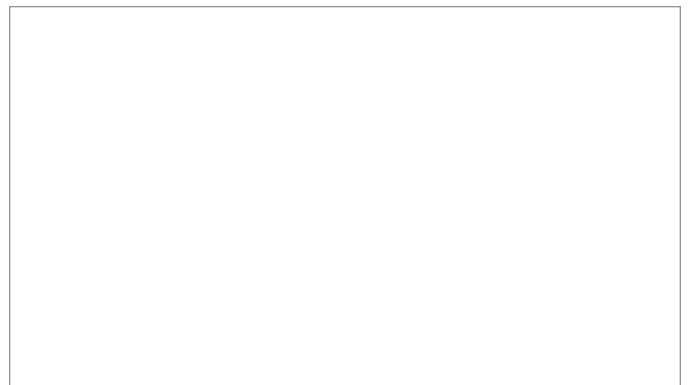


Quad

Applications



- Emergency vehicles
- Factories and warehouses
- School buses
- Airport vehicles
- Construction vehicles



Strobe Light Classification

It is important to know which strobe is best for certain applications.

SAE (The Society of Automotive Engineers) publishes standards for all warning light devices. The standards for strobe devices can be found in Section J1318. The manufacturer may choose to have devices tested by an independent laboratory and have the results reviewed and certified by AMECA (American Manufacturers Equipment Compliance Agency). If required, a certificate of compliance is available for your records.

SAE has developed three different classifications for all warning devices based on measured "Flash Energy – Candella-Seconds". This measurement terminology is not common to many automotive users of these devices, but reflects the most accurate standard for light output measurement. The measurements in each zone around the device are calculated and then zone totals are given as minimum requirements for each and all 4 safety colors: white, yellow, red and blue. It is important to note that a device may be certified in one color and not in another. The certificate of compliance for the device will indicate the approved lens colors. The following shows the minimum required zone totals for devices with amber lens filters.

Class I minimum = 198 candela-seconds

Class II minimum = 49.5 candela-seconds

Class III minimum = 20 candela-seconds

How to Decide Which is Best for You

Attention

The strobe device should draw attention to the vehicle to which it is attached under ALL reasonable surrounding conditions: bright sunlight, snow, fog, traffic congestion, vehicle location, etc. The "peak intensity" or primary (1st flash impulse) joule rating of the device is critical here. The higher the peak intensity, the farther the distance of detection.

Recognition

The strobe device has to be recognized as a warning signal so that the driver of an approaching vehicle can react in a reasonable amount of time in order to take appropriate action.

Output Power

This is best evaluated by the output power measurement of the device. Such a measurement not only evaluates the "Peak Intensity" but takes into account the "On Time" (Flash Pattern as well as Flash Rate) of the device.

Common Strobe Lighting Terms

Candlepower (cp): The measurement of light emanating from a steady-burning light source. This term is commonly used but is not accurate for strobe devices

Impulse: A single ignition of the strobe lamp

Flash Pattern: Many impulses can be strung together to form a Flash Pattern (Double Flash, or Quad Flash)

Flash Rate: The average number of times a Flash Pattern repeats itself in a 60 second time span

Joules (J): Energy per impulse

Candela: The units of luminous intensity based on flame or incandescent filament

Output Power (Watts): Total energy per flash