



# Harsh Environment Strobes

CS405-7A, -8A



Patented

CS405 Series

## Overview

CS405 Series strobes are specially designed for use with compatible life safety communication and control equipment to alert the hearing impaired of a life safety event. Strobes are available with 15 cd, 15/75 cd, 30 cd, 60 cd, and 110 cd effective flash intensity. They are fully compatible with Genesis signals.

CS405 Series strobes exceed UL synchronization requirements (within 10 milliseconds other over a two-hour period) when used with a separately-installed EG1M Signal Master, or E-NAC Synchronization Module, or when powered by suitably enabled booster power supplies and control panels.

The flash from CS405 Series strobes can be noticed from almost any position in the room, corridor, or large open space. CS405 Series strobes are UL 1971 listed with both wall and ceiling cd intensity ratings (see Specifications). This is useful in areas where the Authority Having Jurisdiction (AHJ) permits ceiling-mount strobes.

CS405 Series strobes are designed for 16 to 33 Vdc operation and must be connected to signal circuits that output a constant (not pulsed) voltage. A diode is used to allow full signal circuit supervision and polarized connections are made to terminals that accept up to #12 AWG (2.5mm<sup>2</sup>) wire.

The strobe front plate is of steel construction finished with durable baked epoxy polyester powder-coat paint.

## Standard Features

- **UL 1971-listed synchronizing strobe**  
Integrity strobes synchronize to the latest UL 1971 requirements when used with a synchronization source.
- **Genesis-compatible**  
All Genesis and Integrity strobes on the same circuit meet UL 1971 synchronization requirements when used with an external control module.
- **Approved for public and private mode applications**  
UL 1971-listed as signaling devices for the hearing impaired and UL 1638-listed as protective visual signaling appliances.
- **Rugged red or white steel front plate**  
Ideal for outdoor or harsh environments.
- **Rated for wall or ceiling installation**
- **Field changeable field markings**  
Lens language or standard "FIRE" marking is easily changed with optional LKW and LKC series lens kits.
- **Fits 4-inch square flush box**  
Ideal for retrofit and renovation projects.
- **UL/ULC rated outdoor option**

# Application

**NOTE:** The installation of visible signals are subject to national and local standards, codes, and ordinances. Consult your Authority Having Jurisdiction for device installation requirements, application standards, and minimum performance specifications.

Edwards strobes are UL 1971-listed for use indoors as wall-mounted public-mode notification appliances for the hearing impaired. Prevailing codes require strobes to be used where ambient noise conditions exceed specified levels, where occupants use hearing protection, and in areas of public accommodation. Consult with your Authority Having Jurisdiction for details.

As part of the Enhanced Integrity line of products, CS405 Series strobes exceed UL synchronization requirements (within 10 milliseconds other over a two-hour period) when used with a synchronization source. Synchronization is important because a small portion of the population have a condition which may cause them to become disoriented from multiple random flashes of light. Integrity strobes minimize this risk.

Integrity strobes are fully compatible with Edwards Genesis signals.

**NOTE:** The flash intensity of some visible signals may not be adequate to alert or waken occupants in the protected area. Research indicates that the intensity of strobe needed to awaken 90% of sleeping persons is approximately 100 cd. Edwards recommends that strobes in sleeping rooms be rated at at least 110 cd.

**WARNING:** These devices will not operate without electrical power. As fires frequently cause power interruptions, further safeguards such as backup power supplies may be required.

## Operating Current (RMS)

UL Rating	15/75 cd	110 cd
16 Vdc	150	329
16 Vfwr	210	420

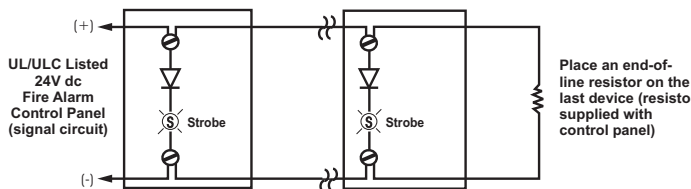
Typical Current	15/75 cd	110 cd
24 Vdc	90	180
24 Vfwr	128	260

Vdc: Volts direct current, regulated and filtered  
 Vfwr: Volts full wave rectified

### Current Draw Notes and Comments

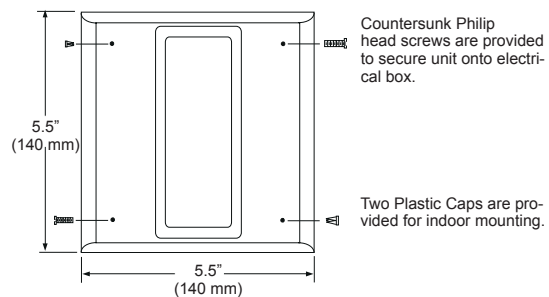
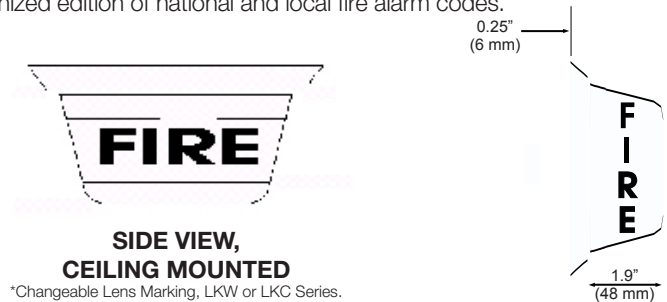
1. Current values are shown in mA.
2. UL Nameplate Rating can vary from Typical Current due to measurement methods and instruments used.
3. Edwards recommends using the Typical Current for system design including NAC and Power Supply loading and voltage drop calculations.
4. Use the 16 Vdc RMS current ratings for filtered power supply and battery AH calculations. Use the 16 Vfwr RMS current ratings for unfiltered power supply calculations.
5. Fuses, circuit breakers and other overcurrent protection devices are typically rated for current in RMS values. Most of these devices operate based upon the heating affect of the current flowing through the device. The RMS current determines the heating affect and therefore, the trip and hold threshold for those devices.

## Typical Wiring - 24 Vdc

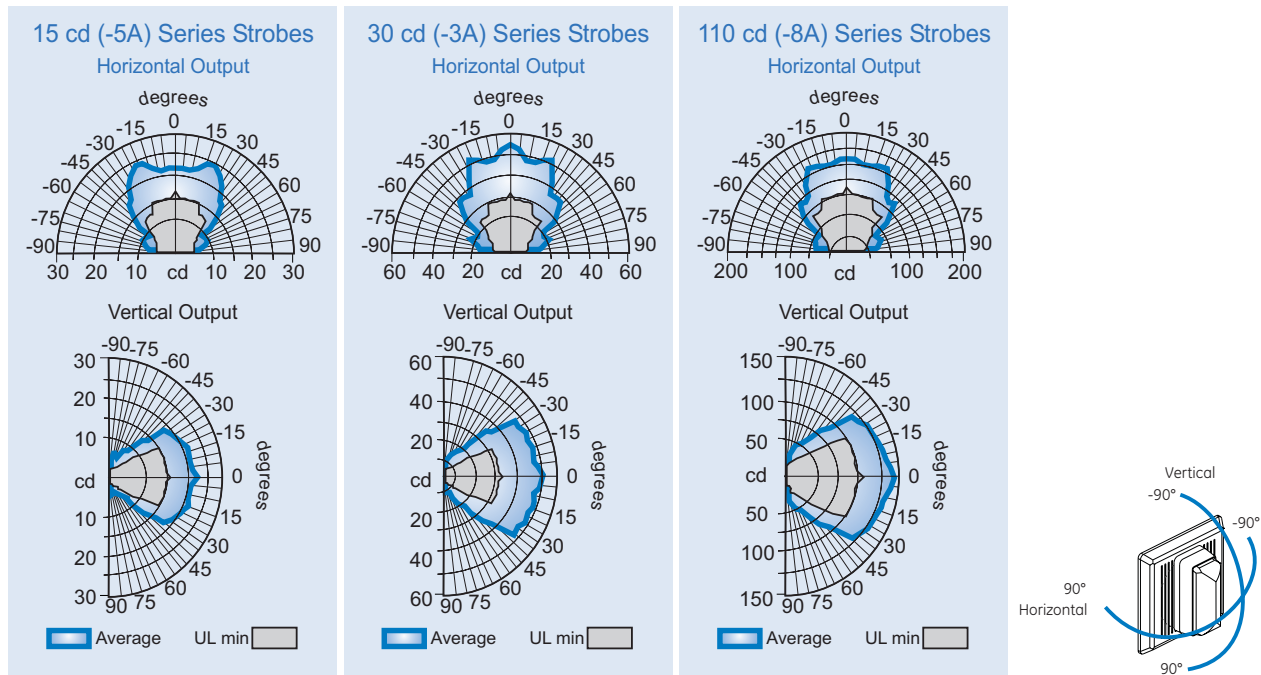


## Installation and Mounting

All models fit to a standard flush mounted, North American four inch electrical box, 1-1/2 inch (38 mm) deep minimum. Optional Edwards weatherproof, surface mount boxes are available. The strobes must be connected to signal circuits which output a constant (not pulsed) voltage. Edwards recommends that these strobes always be installed in accordance with the latest recognized edition of national and local fire alarm codes.



# Light Distribution



## Specifications

Catalog Number	CS405-7A	CS405-8A, CS405-8A
UL 1638/ULC S526 Rated Strobe Output	15/75cd	110cd
UL 1971 Rated Strobe Output	15cd wall 15cd ceiling	110cd wall 60cd ceiling
Strobe Flash Rate	Synchronized at one flash per second. External control module necessary to meet UL 1971 synchronization requirements of 10 milliseconds over a two-hour period.	
Synchronization Sources	EG1M-RM, EBPS6, EBPS10, E-NAC, E-FSC, E-FSA	
Strobe Operating Volts	Continuous 16 to 33 Vdc or 16 to 33 Vfwr	
Operating Environment	INDOOR: 30° C @ 85% RH; 32 - 120° F (0 - 49° C) ambient temperature. OUTDOOR (CS models only): 30° C @ 93% RH; -40-150° F (-40-66° C) ambient temp '7A' (17.7cd @ -35° C per UL @ -40° C per ULC) and; '8A' (70.7cd @ -35° C per UL @ -40° C per ULC) models only	
Lens Markings	Supplied with LKW-1 "FIRE" red letters, vertical both sides (Wall Mount) - see LKW and LKC series for ceiling style and optional markings	
Wire Connections	Terminals - polarized input, #12 AWG (2.5mm <sup>2</sup> ) max wire size	
Flash Tube Enclosure	Clear LEXAN	
Strobe Plate, Finish	CRS steel - 5½ in (140mm) square, red or white baked epoxy polyester powder-coat finish	
Mounting	INDOOR: North American 4 in square electrical box; OUTDOOR: 449 series weatherproof surface box	
Agency Listings	UL 1971, UL 1638, ULC S526, CE, FM, CSFM, MEA (All models comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule)	



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## Ordering Information

Catalog Number	Description	Ship Wt. lb (kg)
<b>Outdoor Listed Strobes</b>		
CS405-7A-T	Strobe, 15/75, Outdoor, Red	1 (0.4)
CS405-8A-T	Strobe, 110 cd, Outdoor, Red	
<b>Mounting Accessories</b>		
449	Surface Mount Box, Gray, Outdoor, ('CS' models only)	1 (0.4)