

# Harsh Environment Strobes

405-3A, -5A, -6A, -7A -8A

CS405-7A, -8A

## Overview

405 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.

405 Series strobes exceed UL synchronization requirements (within 10 milliseconds other over a two-hour period) when used with a separately-installed G1M Signal Master, or SIGA-CC1S Synchronization Module, or when powered by suitably enabled booster power supplies and control panels.

The flash from 405 Series strobes can be noticed from almost any position in the room, corridor, or large open space. 405 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.

405 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, 405 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 cd	15/75 cd	30 cd	60 cd	110 cd
16 Vdc	109	150	130	269	329
16 Vfwr	150	210	189	359	420

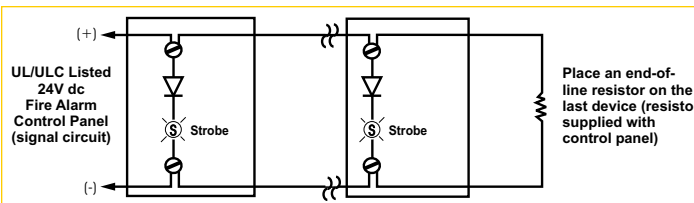
Typical Current	15 cd	15/75 cd	30 cd	60 cd	110 cd
24 Vdc	69	90	89	158	180
24 Vfwr	108	128	134	229	260

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

### Current Draw Notes and Comments

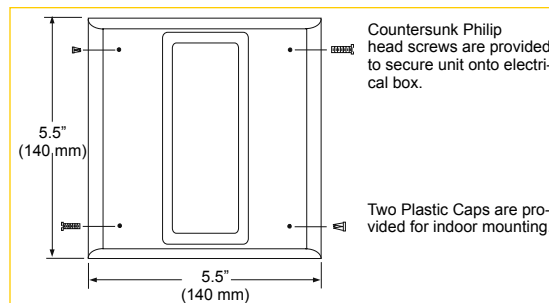
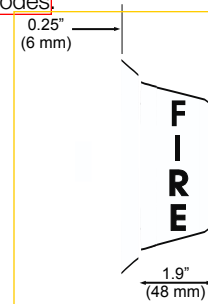
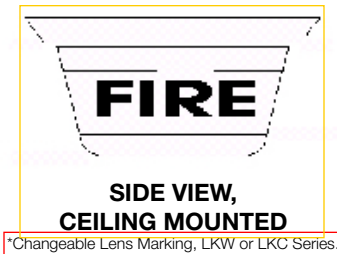
1. Current values are shown in mA.
2. UL Nameplate Rating can vary from Typical Current due to measurement methods and instruments used.
3. EDWARDS recommends using the Typical Current for system design including NAC and Power Supply loading and voltage drop calculations.
4. Use the 16 Vdc RMS current 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

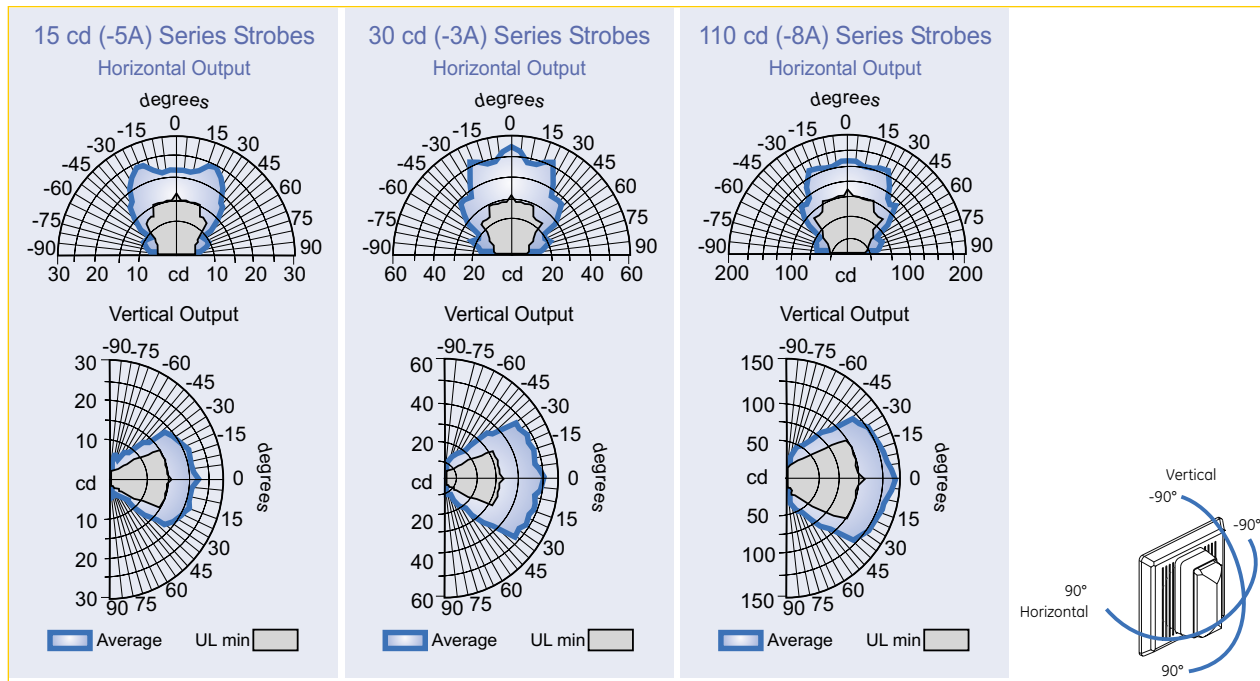


## Installation and Mounting

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	405-5A	405-3A	405-6A	405-7A	405-8A, CS405-8A
UL 1638/ULC S526 Rated Strobe Output	15cd	30cd	60cd	15/75cd	110cd
UL 1971 Rated Strobe Output	15cd (wall only)	30cd wall 15cd ceiling	60cd wall 30cd ceiling	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	G1M-RM, SIGA-CC1S, SIGA-MCC1S, BPS6, BPS10				
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)				

## Ordering Information

Catalog Number	Description	Ship Wt. lb (kg)
405-5A-T	Strobe, 15 cd, Red	1 (0.4)
405-5A-TW	Strobe, 15 cd, White	
405-7A-T	Strobe, 15/75, Red	
405-7A-TW	Strobe, 15/75, White	
405-3A-T	Strobe, 30 cd, Red	
405-3A-TW	Strobe, 30 cd, White	
405-6A-T	Strobe, 60 cd, Red	
405-6A-TW	Strobe, 60 cd, White	
405-8A-T	Strobe, 110 cd, Red	
405-8A-TW	Strobe, 110 cd, White	
Outdoor Listed Strobes		
CS405-7A-T	Strobe, 15/75, Outdoor, Red	1 (0.4)
CS405-8A-T	Strobe, 110 cd, Outdoor, Red	
Synchronization Sources		
G1M-RM	Genesis Signal Master Remote Mount (1-gang)	0.2 (0.1)
SIGA-CC1S	Synchronization Output Module (Standard Mount) - UL/ULC Listed	0.5 (0.23)
SIGA-MCC1S	Synchronization Output Module (UIO Mount) - UL Listed	0.18 (0.08)
BPS6A	6.5 Amp Booster Power Supply	13 ( 5.9)
BPS10A	10 Amp Booster Power Supply	13 ( 5.9)
Mounting Accessories		
449	Surface Mount Box, Gray, Outdoor, ('CS' models only)	1 (0.4)
LKW-1	"FIRE" - Wall Orientation (supplied)	0.2 (0.1)
LKW-1R	"FIRE" - Wall Orientation, red with white letters	
LKW-2	"FEU" - Wall Orientation	
LKW-3	"FIRE/FEU" - Wall Orientation	
LKW-4	"SMOKE" - Wall Orientation	
LKW-7	"EMERGENCY" - Wall Orientation	
LKW-8	"ALARM" - Wall Orientation	
LKW-9	"FUEGO" - Wall Orientation	
LKC-1	"FIRE" - Ceiling Orientation	
LKC-2	"FEU" - Ceiling Orientation	
LKC-3	"FIRE/FEU" - Ceiling Orientation	
LKC-4	"SMOKE" - Ceiling Orientation	
LKC-7	"EMERGENCY" - Ceiling Orientation	
LKC-8	"ALARM" - Ceiling Orientation	
LK-10	"ALERT" - Wall Orientation	

Strobes are shipped with standard wall mount style "FIRE" lens markings