

Genesis Strobe Expander

G4E Series

Overview

EDWARDS' s Genesis G4E Strobe Expander offers both Mass Notification/Emergency Communication (MNEC) and Life Safety System notification capabilities without all the wall clutter of separate, or larger appliances. The ingenious patent-pending G4E Strobe Expander accomplishes this by providing a separate, independently-controlled strobe that fits readily behind a Genesis G4 Series speaker or speaker-strobe.

This attractive low-profile design allows a single, compact assembly to house three vital notification elements: a clear multi-candela strobe that serves life safety requirements; a colored multi-candela strobe that serves MNEC needs; and, a highly intelligible multi-tap, multi-purpose loudspeaker.

The UL Listed G4E Strobe Expander offers all the advanced features found in the popular Genesis line of notification appliances, including Fulllight™ strobe technology, as well as synchronization capabilities that exceed UL 1971 requirements. G4E Strobe Expanders are 100 per cent compatible with other Genesis and Enhanced Integrity appliances on the same circuit.

The G4E packs two independent strobes and a loudspeaker into one sleek, low-profile design that is actually slimmer than many other single-strobe units on the market today. Functionally and aesthetically, the G4E Strobe Expander continues the Genesis tradition of excellence, quality and value.

Standard Features

- **Sleek design**
Patent pending design allows the installation of two independent strobes and a speaker in a single compact footprint
- **Fewer parts to stock**
Uses standard G4 Speaker-strobes
- **Field configurable convenience**
Adjustable settings remain visible even after the unit is installed
- **Meets UL 1971 synchronization requirements**
- **Highly regulated in-rush current**
Allows the maximum number of strobes on a circuit
- **No extension ring or trim plate needed**
Fits standard 4-inch square electrical boxes with plenty of room behind the signal for wiring
- **Optional surface-mount back box**
High and low rear mounting hole patterns and knock-outs for easy retrofit applications

Application 1

The patent pending G4E is ideal for new and retrofit applications where both fire alarm and mass notification signaling is required. By allowing a speaker and two independent strobes to be installed in a single compact footprint, the G4E cuts down on wall clutter and reduces the number of boxes that have to be installed. This not only speeds installation and reduces costs – it also makes for a neat installation that minimizes the impact on the interior design of the protected space.

For surface-mount and/or retrofit applications, the optional G4EWB (white) or G4ERB (red) backbox can be used. This box has ½" and ¾" knockouts, and a unique rear hole arrangement that allows for mounting over a 4" square box that is installed at 82" or 84" above finished floor (AFF), yet keeps the lower strobe light at 80" AFF. The backbox can also be mounted directly to a solid surface and accept wiring through the top or side knockouts.

The G4E Strobe Expander features field-selectable strobe outputs. The selection remains visible even after installation, making it easy to verify that the strobe output is suitable for the application – and in line with the output setting of its companion G4 Speaker-strobe.

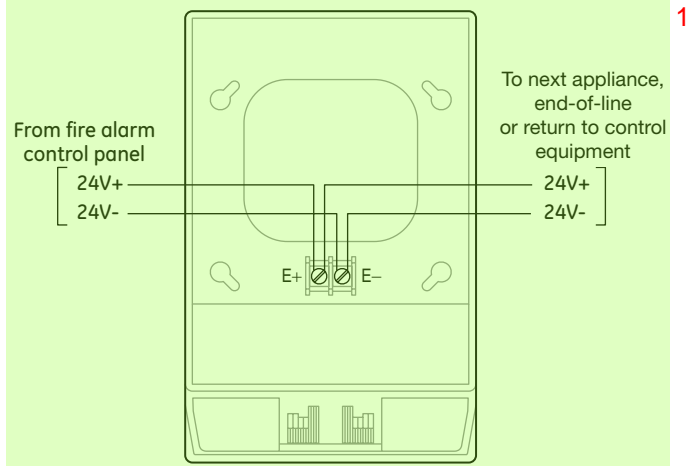
Available with red or white housings, as well as clear or amber lenses, and optional "FIRE" or "ALERT" markings, there is a G4E model to suit any application. For added flexibility, a simple jumper cut changes the flash rate from the standard one flash per second for public mode signaling, to a 3-3-3 temporal rate for private mode applications.

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 your Authority Having Jurisdiction for details.

All Genesis strobes, including the G4E, exceed UL synchronization requirements (within 10 milliseconds over a two-hour period) when used with a compatible synchronization source. See the Specifications section for details.

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 per cent of sleeping persons is approximately 100 cd. EDWARDS recommends that strobes in sleeping rooms be rated at least 110 cd.

Wiring 9

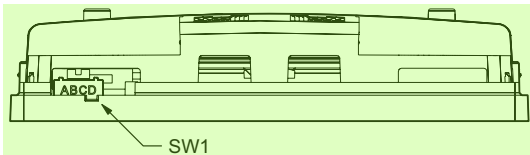


Notes 11

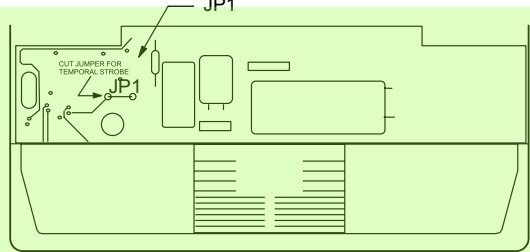
- 1. All wiring is power-limited and supervised.
- 2. For proper electrical supervision, break the wire run at each E+ and E- terminal.
- 3. Marking indicates signal polarity required to activate the device.

Field Configuration 13

Genesis G4E Strobe Expanders may be field configured for the desired candela output. The output setting is visible through a small window on the bottom of the device and is changed by simply sliding the switch until the desired setting appears in the window.

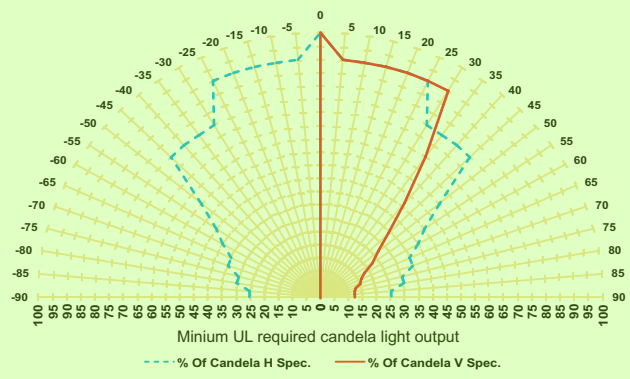


Genesis speaker-strobes may also be configured for temporal flash. This feature is intended for private mode signaling only. To set the device for temporal flash, cut the jumper as shown in the Jumper Location diagram below.



Light output 18

Per cent of UL rating versus angle 19



Candela Output 21

Lens Color	Rating	Switch Position A	Switch Position B	Switch Position C	Switch Position D
Amber	UL 1638	110 cd	75 cd	30 cd	15 cd
Amber	UL 1971*	88 cd	60 cd	24 cd	12 cd
Clear	UL 1971	110 cd	75 cd	30 cd	15 cd

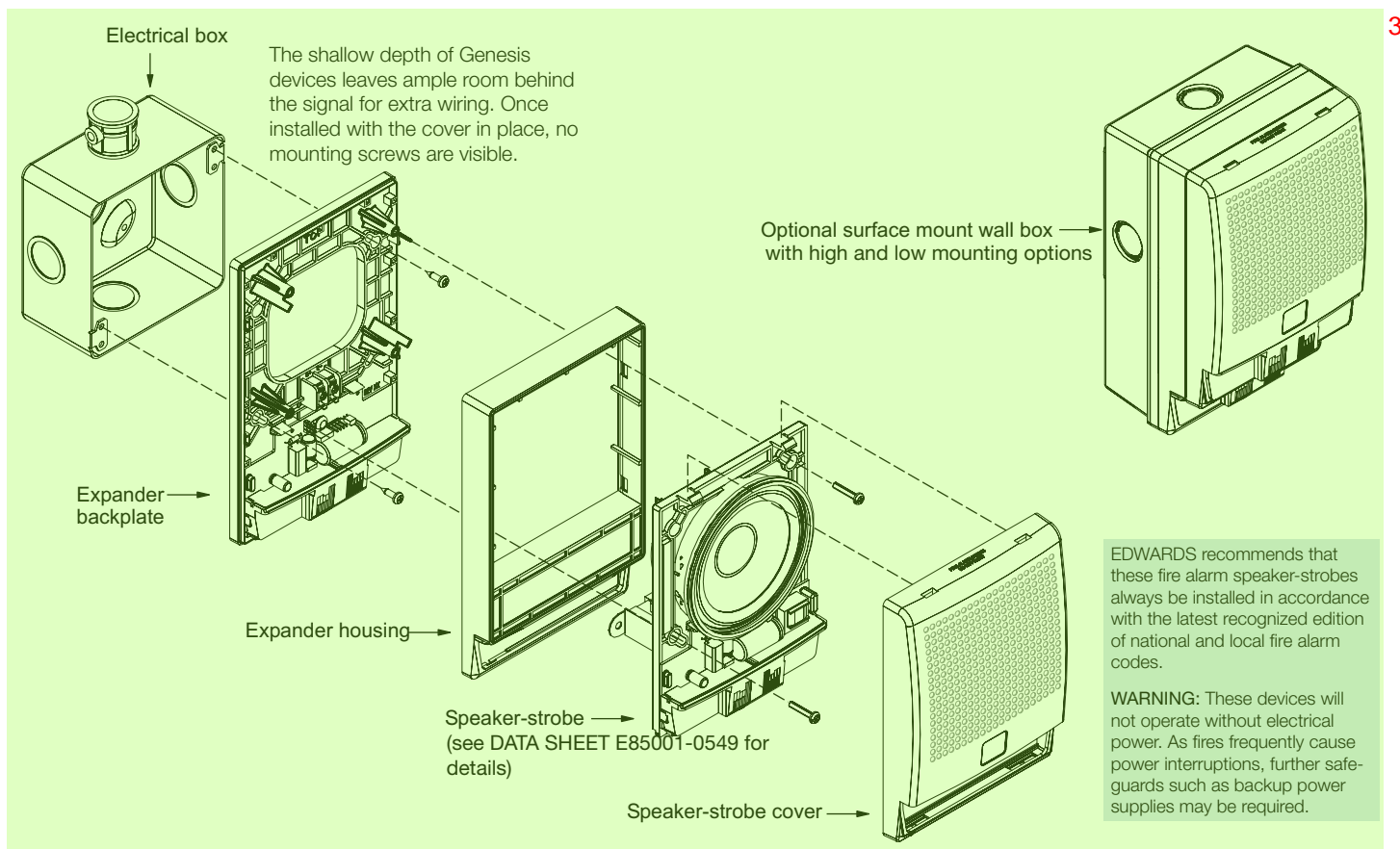
* Equivalent Rating 23

Typical Current Draw (RMS) 24

Voltage	Switch Position A	Switch Position B	Switch Position C	Switch Position D
16 Vdc (UL)	294 ma	239 ma	130 ma	96 ma
20 Vdc	245 ma	188 ma	101 ma	78 ma
24 Vdc	203 ma	159 ma	86 ma	65 ma
16 Vfwr (UL)	375 ma	329 ma	169 ma	120 ma
20 Vfwr	342ma	264 ma	147 ma	106 ma
24 Vfwr	283 ma	225 ma	130 ma	95 ma

Installation and Mounting 1

Genesis G4E Expanders are intended for indoor wall mounted applications only. They can be flush mounted to a recessed North American 4" square electrical box (minimum 1.5" deep). Units may also be surface mounted using the optional G4EWB (white) or G4ERB (red) backboxes. Refer to installation sheet for mounting height details. As always, check and comply with applicable codes and regulations. 2



Specifications 4

Installation type	Indoor, dry
Housing	Red or white textured UV stabilized, color impregnated engineered plastic. Exceeds 94V-0 UL flammability rating.
Dimensions	7.81" h x 5.06" w x 2.27" d (198 mm h x 129 mm w x 58 mm d) With wallbox: 7.81" h x 5.06" w x 4.02" d (198 mm h x 129 mm w x 102 mm d)
Mounting (indoor wall mount only)	Flush: North-American 4" square box, at least 1½" (38 mm) deep. Surface: model G4EWB (white) or G4ERB (red) surface mount box.
Wire Connections	Screw terminals 18 to 16 AWG (UL 1971), 18 to 14 AWG (UL 1638)
Operating environment	32-120° F (0-49° C) ambient temperature; 0-93% relative humidity.
Agency Listings	UL 1971, UL 1638 (All models comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule.)
Operating Voltage	16 to 33 VDC, 16 to 33 VFWR (This device was tested to the regulated 24 VDC/FWR operating voltage limits of 16 V and 33 V. Do not apply 80% and 110% of these values for system operation.)
UL ratings	Regulated 24 DC, Regulated 24 FWR
Strobe Flash Rate	Default: One flash per second. Selectable by jumper: 3-3-3 temporal.
Supervisory voltage	30 V maximum
Synchronization	Meets UL 1971 requirements. Maximum allowed resistance between any two devices is 20 Ω. Refer to specifications for the synchronization control module, this strobe, and the control panel to determine allowed wire resistance.
Synchronization Sources	SIGA-CC1S, SIGA-MCC1S, SIGA-CC2A, SIGA-MCC2A, G1M-RM BPS6A, BPS10A, APS6A, APS10A, iO64, iO500, Fireshield Plus 3, 5 and 10 zone.
Compliance	Meets year 2004 UL requirements for standards UL1638 and UL1971, and complies with UL1480 fifth edition

Ordering Information ¹

Strobe Expander with multicandela strobe				Notes
Model	Housing	Marking	Lens	
G4ERA-A	Red	Alert	Amber	Expanders are listed for use only for G4 Speaker-strobes with the same housing color and with a different lens color. Clear lens models configured for private mode are listed to UL 1971 and UL 1638. Clear lens models configured for public mode and colored lens models are only listed to UL 1638. Units with clear lens available only with Fire or no markings. Shipping weight for all models: 0.77 lb. (0.35 kg).
G4ERN-A		None	Amber	
G4EWA-A	White	Alert	Amber	
G4EWF-C		Fire	Clear	
G4EWN-A		None	Amber	

Accessories ³

Model	Description
G4ERB	G4 Dual-strobe Format Surface box, Red
G4EWB	G4 Dual-strobe Format Surface box, White

