

Eluxa high fidelity speaker strobes & speakers



Description

The Firecom Eluxa speakers by Firecom feature high fidelity sound output, and speaker strobe models include an advanced power saving LED technology with a full range of candela settings for indoor wall and ceiling-mount applications. With the widest frequency response range (300 to 8000 Hz) in the industry, the Eluxa FELSPK and FELSPST feature leading intelligibility with crisp, clear voice messages and tone signaling, ideal for emergency communications, mass notification, voice evacuation, and fire alarm.

High efficiency, LED technology

Firecom's high energy efficient technology leads the industry in lowest current draw across the full candela range, which reduces overall power consumption and costs in fire alarm systems. As the first notification appliances in the industry to utilize LED as the light source, this breakthrough and patented optical design, resulting in best-in-class efficiency, enables material and system cost savings, allowing for a greater number of appliances on the notification appliance circuit and fewer power supplies. All strobe models feature six candela settings: 15, 30, 75, 110, 135, 185 cd on wall models and 15, 30, 75, 110, 150, 177 cd on ceiling models.

Low profile design and rich feature set

With the industry's smallest footprint, the Eluxa speakers and speaker strobes are aesthetically pleasing to building owners as the low profile design does not detract from the interior decor. Eluxa is feature rich with 6 candela settings in 1 device, dual voltage (25/70 VRMS) capability, field selectable taps from 1/8 to 2 watts (5W 70V) pre-wire/pre-test via mounting plate with hinged feature for ease-of-installation, and no tools needed for setting changes. These products are suitable for indoor wall and ceiling mount applications. The FELSPST speaker strobes and FELSPK speakers are 24V operation.

Approvals and synchronization

Firecom's Eluxa strobes meet the 20 millisecond light pulse duration requirements of the 2016 edition of NFPA 72. By meeting this latest requirement, xenon and LED devices can now be in the same field of view.

The Eluxa notification appliances are listed under UL Standards 1971, 1638, and 1480 and under CAN/ULC-S526 and CAN/ULC-S541. The appliances are Restriction of Hazardous Substances (RoHS) compliant and contain no mercury or other hazardous substances.

In addition, the Eluxa product line has been UL/ULC listed as compatible with all Fire Alarm Control Panels (FACP) and accessories that have been determined to be compatible with Exceder LED3 and Firecom RSS strobe-based products, including the RSS, CH, E, EH, ET, ST, HS, MT, S8, SA, STH and Z Series. The listing also includes the ability to install the Eluxa strobes in the same notification zone and field of view with any Firecom RSS strobe models.

Features

- High Fidelity Sound Output
 - High intelligibility at minimum wattage across a frequency range of 300 to 8000 Hz
- Energy Efficient
 - LED technology provides industry's lowest current draw
 - Fewer power supplies required, smaller wire gage, reduced wire runs
- Low-Profile Design
 - Smallest footprint with sleek, modern aesthetics
- Special Lettering Available
- 6 Field Selectable Settings in 1 Device
 - Wall: 15, 30, 75, 110, 135, 185 cd
 - Ceiling: 15, 30, 75, 110, 150, 177 cd
- 5 Field Selectable Taps
 - 1/8 watt up to 2 watts (5W 70V)
 - 25 or 70 VRMS operation
- Easy-to-Install
 - Mounting plate included with all models: Convenient capture hinge allows installers to easily hold the device while fastening the single-mount screw in place.
 - Pre-wire/pre-test capability to check for wiring and ground faults prior to appliance installation
 - Finger slide switches—No tools needed for setting changes
 - Built-in level adjustment feature and snap-on grille cover
 - IN/OUT screw terminals using #12 to #18 AWG wires
 - Mounting options include FELSPKBB backboxes and 4" square, 2 1/8" deep backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models.
- Strobe Synchronization Components
 - Meet synchronizing standards with Firecom's DSM Sync Modules, PS Power Supplies or SAFEPATH products
 - Ability to mix xenon and LED strobes in the same field of view
- Compliance
 - NFPA 72 2016 - 20 ms flash duration requirements
 - UL 1971, UL 1628, UL 1480, ULC-S526, ULC-S541
 - California State Fire Marshal (CSFM)
 - Low frequency requirements of UL 464 (520 Hz) to meet NFPA's 520 Hz tone requirements for sleeping areas
 - ADA/NFPA/ANSI/OSHA

Note: Please read these specifications and associated installation instructions, before using, specifying, or installing this product. Contact Firecom Inc for current installation instructions.

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL 1971.

Drawings

Eluxa high fidelity speaker strobes & speakers

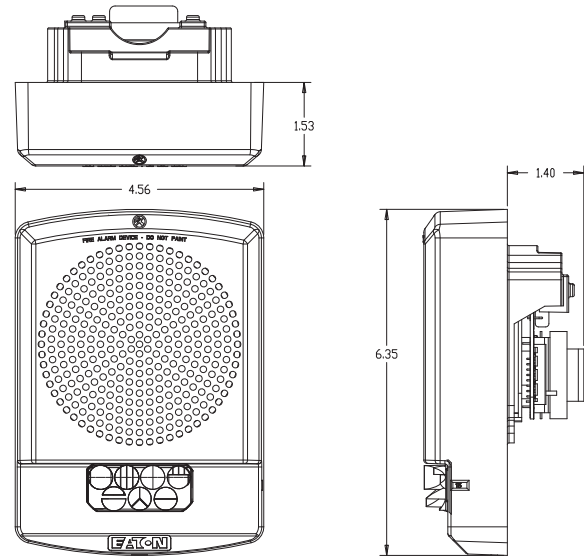


Figure 1. Wall speaker strobe

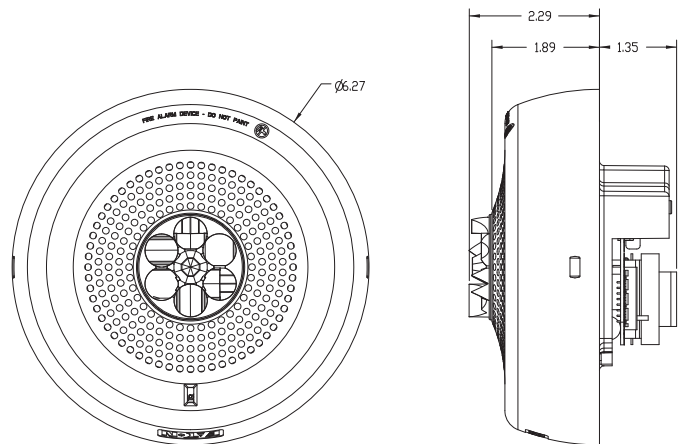


Figure 2. Ceiling speaker strobe

Mounting plate images

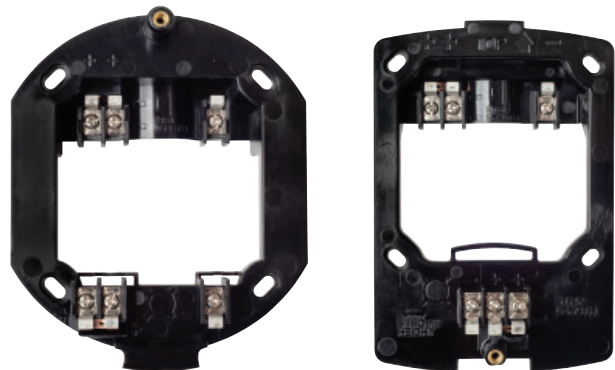


Table 1. Strobe ratings

Model	Regulated Voltage Range VDC	UL/ULC Max Current - 24VDC ①							
		15	30	75	110	135	150	177	185
FELSPST	16.0-33.0	0.022	0.030	0.060	0.086	0.125			0.185
FELSPSTC	16.0-33.0	0.022	0.030	0.060	0.086		0.125	0.185	

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Table 2. Speaker ratings

Model	UL Reverberant dBA at 10 Feet ①					Anechoic dBA per CAN/ULC-S541 ①				
	1/8 watts	1/4 watts	1/2 watts	1 watts	2 watts (5W 70V)	1/8 watts	1/4 watts	1/2 watts	1 watts	2 watts (5W 70V)
FELSPK/FELSPKC	75	79	82	85	87	75	79	82	85	87
FELSPST/FELSPSTC	75	79	82	85	87	75	79	82	85	87

Table 3. Specification & Ordering Information

Order#/Model	Strobe Candela	Red	White	Lettering	Wall/Ceiling	Sync w/ DSM or Firecom Power Supplies
Speaker Strobes						
80152 FELSPSTR	15/30/75/110/135/185	X		FIRE	Wall	X
80153 FELSPSTW	15/30/75/110/135/185		X	FIRE	Wall	X
80154 FELSPSTW-AL	15/30/75/110/135/185		X	ALERT	Wall	X
80155 FELSPSTR-AL	15/30/75/110/135/185	X		ALERT	Wall	X
80156 FELSPSTW-N	15/30/75/110/135/185		X	No Lettering	Wall	X
80157 FELSPSTR-N	15/30/75/110/135/185	X		No Lettering	Wall	X
80158 FELSPSTR-M	15/30/75/110/135/185	X		EMERGENCY	Wall	X
80159 FELSPSTW-M	15/30/75/110/135/185		X	EMERGENCY	Wall	X
80160 FELSPSTRC	15/30/75/110/150/177	X		FIRE	Ceiling	X
80161 FELSPSTWC	15/30/75/110/150/177		X	FIRE	Ceiling	X
80162 FELSPSTRC-AL	15/30/75/110/150/177	X		ALERT	Ceiling	X
80163 FELSPSTWC-AL	15/30/75/110/150/177		X	ALERT	Ceiling	X
80164 FELSPSTWC-N	15/30/75/110/150/177		X	No Lettering	Ceiling	X
Speakers						
80165 FELSPKR		X		FIRE	Wall	X
80166 FELSPKW			X	FIRE	Wall	X
80167 FELSPKR-N		X		No Lettering	Wall	X
80168 FELSPKW-N			X	No Lettering	Wall	X
80169 FELSPKW-AL			X	ALERT	Wall	X
80170 FELSPKR-AL		X		ALERT	Wall	X
80171 FELSPKRC		X		FIRE	Ceiling	X
80172 FELSPKWC			X	FIRE	Ceiling	X
80173 FELSPKRC-N		X		No Lettering	Ceiling	X
80174 FELSPKWC-N			X	No Lettering	Ceiling	X
80175 FELSPKRC-AL		X		ALERT	Ceiling	X
80176 FELSPKWC-AL			X	ALERT	Ceiling	X
80177 FELSPKBC		Black		FIRE	Ceiling	X
Backboxes						
80200 FELSPKBB-R		X			Wall	
80201 FELSPKBB-W			X		Wall	
80198 LSPKBB-CR		X			Ceiling	
80199 LSPKBB-CW			X		Ceiling	

Table 4. Specifications

Physical	
Material	Red or white textured UV stabilized, colored impregnated engineered plastic. Exceeds 94V-0 UL flammability rating
Weight	Wall speaker strobe: 1.54 lbs (700g); Ceiling speaker strobe: 1.54 lbs (700g); Speaker Backbox: .44 lb (200g)
Lens	Light Emitting Diode (LED) in a rugged Lexan lens
Dimensions	FELSPK: 6.35" H x 4.56" W x 1.54" D; FELSPST: 6.35" H x 4.56" W x 1.54" D; FELSPKC: 6.27" Diameter x 1.9" D; FELSPSTC: 6.27" Diameter x 2.29" Depth
Operating Temperature	Indoor: 32°F to 122°F (0°C to 50°C) and maximum humidity of 93%
Mounting & Wire Connections	
Mounting (indoor only)	Mounting plate included with all models. FELSPST speaker strobes are for wall-mount applications only. FELSPK speakers can be used for wall or ceiling-mount applications. Mounting options include FELSPKBB backboxes and 4" square, 2 1/8" deep backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models.
Wire Connections	#12 through #18 AWG
Power & General	
Operating voltage	25/70 VRMS; Strobe: 24VDC/24VFWR
Strobe Output Rating	UL 1971, UL 1638, ULC S526: Wall: Selectable 15, 30, 75, 110, 135, 185 candela output; Ceiling: Selectable 15, 30, 75, 110, 150, 177 candela output
Synchronization Models	Strobes can be synchronized with Firecom's DSM Sync Modules, PS Power Supplies or SAFEPATH products
Frequency Range	300 Hz to 8000 Hz



Architects and Engineers Specifications

The LED high fidelity speaker appliances shall be Firecom® FELSPK Speakers and FELSPST Speaker Strobes for wall-mount applications and FELSPKC Speakers and FELSPSTC Speaker Strobes for ceiling-mount applications with a low-profile design or approved equals. Special lettering, including ALERT, EMERGENCY, and no lettering, shall be available. The speakers shall be UL Listed under UL 1480 for Fire Protective Service and speakers equipped with strobes shall be listed under UL 1971 for Emergency Devices for the Hearing-Impaired. In addition, the speaker strobes shall meet the requirements of FCC Part 15 and ICES-003. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to operate from 16 to 33 VDC/VFW.

All speakers shall be designed for a field selectable input of either 25 or 70 VRMS, with selectable power taps from 1/8 watt to 2 watts (5 watts for 70V). All models shall have listed sound output of up to 87 dB at 10 feet and a listed frequency response of 300 to 8000 Hz.

All inputs shall employ terminals that accept #12 to #18 AWG wire sizes. The series FELSPST/FELSPSTC Speaker Strobe appliances shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Light Emitting Diode (LED) as the light source with a rugged Lexan® lens. The series shall be of low current design. The LED strobe flash duration shall be 20 ms. Where Multi-Candela appliances are specified, the strobe intensity shall have 6 field selectable settings at 15, 30, 75, 110, 135 and 185 candela for wall mount applications and 15, 30, 75, 110, 150 and 177 for ceiling applications. The selector switch for selecting the candela shall be tamper resistant. Appliances with candela settings shall show the candela selection in a visible location at all times when installed.

The series FELSPK/FELSPKC and FELSPST/FELSPSTC shall be designed for indoor surface or flush mounting and include a mounting plate. Mounting options shall include FELSPKBB backboxes and 4" square, 2 1/8" deep backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models. The speaker and speaker strobe shall incorporate a speaker mounting plate with a snap-on grille cover and shall mount to standard electrical hardware requiring no additional trimplate or adapter. Removal of an appliance shall result in a supervision fault condition by the Fire Alarm Control Panel (FACP). All notification appliances shall be backwards compatible.

The FELSPK wall model shall have a low profile measuring 6.35" H x 4.56" W x 1.54" D. The FELSPST wall model shall have a low profile measuring 6.35" H x 4.56" W x 1.54" D. The FELSPKC and FELSPSTC ceiling models shall have a low profile measuring 6.27" diameter with 1.9" D for FELSPKC and 2.29" D for FELSPSTC models. Finish shall be red or white. Special lettering shall be available.

When synchronization is required, the appliance shall be compatible with Firecom®'s DSM Sync Modules, PS Power Supplies, SAFEPATH products or other manufacturer's panels. The strobes shall not drift out of synchronization at any time during operation. If the sync protocol fails to operate, the strobe shall revert to a non-synchronized flash-rate and still maintain (1) flash per second over its Regulated Voltage Range.

The speaker shall be listed to the low frequency requirements of UL 464 (520 Hz) to meet NFPA's 520 Hz tone requirements for sleeping areas.

UL 1971, UL 1638, UL 1480, ULC-S526, ULC-S541, CSFM, FCC, ICES

① RMS current ratings are per UL maximum RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

It is our intention to keep the product information up to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information contact: FIRECOM, INC.