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Invented for life

E90 Series Speaker-Strobes with Colored Lenses



- ▶ **Choice of two strobe lens colors with range of intensity options**
- ▶ **Field-selectable voltages of 25 VRMS or 70 VRMS and powers from 1/8 W to 2 W**
- ▶ **Ceiling mount on standard electrical boxes**
- ▶ **Operates from 16 V to 33 V at 1 flash/sec using filtered or full-wave rectified DC voltage**
- ▶ **Synchronize with SM or DSM Synchronization Modules**

The Wheelock E90 Series Colored-lens Speaker Strobes are effective for alerting personnel in industrial, military, or government applications. They are ideal for mass notification systems and for emergency, warning, or trouble notification in many industrial operations. They are not listed for fire alarm use but are built with the same high-quality circuits and parts used in Wheelock's life safety speaker strobes.

The E90 Series Colored-lens Speaker Strobes are available in amber or blue lens colors and include multi-candela models with four field-selectable settings and high-candela (110 cd) models. The speakers have field-selectable voltages (25 VRMS or 70 VRMS) and powers (1/8 W, 1/4 W, 1/2 W, 1 W, or 2 W). They are designed for indoor use and can be ceiling mounted on standard electrical boxes.

Certifications and Approvals

Region	Certification
USA	UL 24MCC models: UUMW: Speakers and Amplifiers for Fire Protective Signaling Systems (UL1480, UL1711, and UL2043)

Installation/Configuration Notes

Compatible Products

The following products are compatible with the E90 Series Speaker Strobes:

Category	Product ID	Product Description
Control Panels	D7022 ¹	Conventional FACP
	D7024 ²	Addressable FACP
	D7024	Conventional FACP
	D8024 ¹	Analog FACP
	D9124 ¹	Addressable FACP
	D10024A ¹	Analog FACP
Modules	SM-12/24-R	Synchronization module (red)
	DSM-12/24-R	Dual synchronization module (red)

These speakers are compatible with Wheelock SAFEPATH4 Facility Communication Systems and Bosch Voice Evacuation Systems.

¹ For synchronization, use the SM or DSM modules with these control panels. The synchronization module must be set for 24 V operation. When used, the D7022 must be set for 24 VDC operation.

² When used with a D7039 Multiplex Expansion Module, the D7024 becomes an addressable fire alarm control panel (FACP).

Mounting Considerations

Flush mount on indoor ceilings on a 4-inch square by 2-1/8-inch deep electrical back box with a 1-1/2-inch deep extension ring.

Wiring

Note Do not use these strobe units in coded or pulsed signaling circuits.

The input terminals accept wires with diameters between 18 AWG (1.2 mm) and 12 AWG (2.3 mm).

Parts Included

Quant.	Component
1	Speaker Strobe
1	Hardware pack
1	Literature pack

Technical Specifications

Environmental Considerations

Relative Humidity:	Up to 85%, non-condensing
Temperature (Operating):	+32°F to +120°F (0°C to +49°C)

Mechanical Properties

Candela Settings:	24110W models: 110 cd 24MCC models ¹ : 15 cd, 30 cd, 75 cd, 95 cd
Dimensions ² (diameter x D):	7.25 in. x 2.9 in. (18.4 cm x 7.5 cm)
Material:	Molded plastic enclosure incorporating a Xenon flash-tube and Lexan lens.

¹ 24MCC model settings are rated for clear lenses. Lower the candela rating by approximately 25% for amber and 70% for blue.

² When flush mounted the unit extends 0.4 in. (1.1 cm) from the mounting surface.

Power Requirements

Voltage (Input):	24 VDC nominal; 16 VDC or FWR to 33 VDC or FWR
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Strobe Current at 16 V

Filtered DC Input	
24110W Models:	110 cd: 300 mA RMS maximum
24MCC Models:	15 cd: 68 mA RMS maximum 30 cd: 112 mA RMS maximum 75 cd: 211 mA RMS maximum 95 cd: 292 mA RMS maximum

FWR Input

24110W Models:	110 cd: 455 mA RMS maximum
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24MCC Models:	15 cd: 112 mA RMS maximum 30 cd: 178 mA RMS maximum 75 cd: 310 mA RMS maximum 95 cd: 400 mA RMS maximum
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Strobe Current at 24 V

Filtered DC Input	
24110W Models:	110 cd: 195 mA RMS maximum
24MCC Models:	15 cd: 45 mA RMS maximum 30 cd: 72 mA RMS maximum 75 cd: 128 mA RMS maximum 95 cd: 171 mA RMS maximum

FWR Input

24110W Models:	110 cd: 320 mA RMS maximum
24MCC Models:	15 cd: 80 mA RMS maximum 30 cd: 125 mA RMS maximum 75 cd: 205 mA RMS maximum 95 cd: 263 mA RMS maximum

Strobe Current at 33 V

Filtered DC Input	
24110W Models:	110 cd: 145 mA RMS maximum
24MCC Models:	15 cd: 35 mA RMS maximum 30 cd: 52 mA RMS maximum 75 cd: 89 mA RMS maximum 95 cd: 118 mA RMS maximum

FWR Input

24110W Models:	110 cd: 270 mA RMS maximum
24MCC Models:	15 cd: 69 mA RMS maximum 30 cd: 99 mA RMS maximum 75 cd: 163 mA RMS maximum 95 cd: 218 mA RMS maximum

Speaker Rating (dBA at 10 ft [3 m])

1/8 W:	75 dBA
1/4 W:	78 dBA
1/2 W:	81 dBA
1 W:	84 dBA
2 W:	87 dBA

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Ordering Information

E90A-24MCC-NW Multi-candela Speaker Strobe with Amber Lens **E90A-24MCC-NW**

Multi-candela (15 cd, 30 cd, 75 cd, or 95 cd) ceiling-mount speaker strobe with amber lens. Not listed for fire alarm use.

E90B-24MCC-NW Multi-candela Speaker Strobe with Blue Lens **E90B-24MCC-NW**

Multi-candela (15 cd, 30 cd, 75 cd, or 95 cd) ceiling-mount speaker strobe with blue lens. Not listed for fire alarm use.

E90A-24110W-NW High-candela Speaker Strobe with Amber Lens **E90A-24110W-NW**

High-candela (110 cd) ceiling-mount speaker strobe with amber lens. Not listed for fire alarm use.

E90B-24110W-NW High-candela Speaker Strobe with Blue Lens **E90B-24110W-NW**

High-candela (110 cd) ceiling-mount speaker strobe with blue lens. Not listed for fire alarm use.

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