E90 Family Low-profile Speakers

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BOSCH
Invented for life

- 24 VDC, filtered or unfiltered
- 25 VRMS or 70 VRMS operation at a choice of five taps from 0.125 W to 2 W
- Cost-effective two-wire design
- Easy wiring via screw terminals
- Supervised inputs

The E90 Speakers provide high audio output with clear audibility, and are designed to meet the critical needs of the life safety industry for effective emergency voice communications and tone signaling. The high-efficiency speakers are designed for maximum output at a minimum wattage across a frequency range of 400 Hz to 4 kHz.
A speaker mounting plate with a built-in level adjustment allows for a faster and easier installation. The two-screw grill cover creates an attractive appearance.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

CBFP	City of Chicago Bureau of Fire Protection
NYC/MEA	151-93-E, Vol. 21
ANSI	Complies with American National Standards Institute ANSI 117.1
NFPA	Complies with National Fire Protection Association NFPA 72
OSHA	Complies with Occupational Safety and Health Administration OSHA 29 Part 1910.165

Region	Certification	
USA	UL	UEAY: Speakers (UL464), UUKC: Signaling Appliances and Equipment for the Hearing Impaired (UL1971), UUMW: Speakers and Amplifiers for Fire Protective Signaling Systems (UL1480, UL1711, and UL2043)
	CSFM	7320-0785:0134

Installation/configuration notes

Compatible Products
The following products are compatible with the E90 Series Speakers:

Category	Product ID	Product Description
Control Panels	D7022[1]	Conventional FACP
	D7024	Conventional or Addressable[2] FACP

FPD-D7024	Conventional or Addressable[2] FACP
D8024	Analog FACP
D9124	Addressable FACP
D10024A	Analog FACP

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

[1] When used, the D7022 must be set for 24 VDC operation.
[2] When used with a D7039 Multiplex Expansion Module, the D7024 or FPD-7024 becomes an addressable fire alarm control panel (FACP).

Mounting
The low profile design of these notification appliances creates more wiring space in standard electrical back boxes. The speaker mounting plate incorporates a built-in level adjustment feature allowing for a faster and easier installation. These speakers mount on the indicated back boxes for the indicated applications:

	Conduit Applications	Surface Mounted	Flush Mounted
Four-inch square*			•
SBB Back Box	•	•	

* Requires an SER extension ring.

Wiring
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
1	Mounting Plate
1	Hardware pack
1	Literature pack

Technical specifications

Environmental Considerations

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

Mechanical Properties

Dimensions (diameter x D):	7.25 in. x 2.9 in. (18.4 cm x 7.5 cm)
Material:	Molded plastic

Power Requirements

Power Requirements	
Voltage (input):	24 VDC nominal; 16 VDC or FWR to 33 VDC or FWR

Speaker Volume at 10 ft (3 m)

0.125 (1/8) W:	77.5 dBA
0.25 (1/4) W:	80.4 dBA
0.5 (1/2) W:	83.2 dBA
1 W:	85.7 dBA
2 W:	87.8 dBA

Ordering information

E90-N Low-Profile Speaker (nickel)
Nickel finish, 24 VDC device with high audio output with clear audibility, dual voltage capability (25 VRMS or 70 VRMS), and field-selectable taps from 1/8 W to 2 W
Order number **E90-N**

E90-R Low-Profile Speaker (red)
Red, 24 VDC device with high audio output with clear audibility, dual voltage capability (25 VRMS or 70 VRMS), and field-selectable taps from 1/8 W to 2 W
Order number **E90-R**

E90-W Low-Profile Speaker (white)
White, 24 VDC device with high audio output with clear audibility, dual voltage capability (25 VRMS or 70 VRMS), and field-selectable taps from 1/8 W to 2 W
Order number **E90-W**

SBB-R Surface-mount Back Box (red)
14 cm (5.5 in.) x 14.2 cm (5.6 in.) x 9.1 cm (3.6 in.)
Order number **SBB-R**

SBB-W Surface-mount Back Box (white)
14 cm (5.5 in.) x 14.2 cm (5.6 in.) x 9.1 cm (3.6 in.)
Order number **SBB-W**

SER-R Square Semi-flush Extension Ring (red)
12.7 cm (5 in.) square by 4 cm (1.5625 in.) deep
Order number **SER-R**

SER-W Square Semi-flush Extension Ring (white)
12.7 cm (5 in.) square by 4 cm (1.5625 in.) deep
Order number **SER-W**

SSB-4 Ceiling Support Bridge
60.3 cm (23.75 in.) long by 16.5 cm (6.5 in.) wide
Order number **SSB-4**

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