ZX1i-100 2-Way Passive Speaker Install

Electro-Voice

- Integrated QuickSAM Heavy-Duty Strong-Arm Mounting Bracket Included

- Patented ASC (Automatic Saturation Compensation) on Transformer Versions

- EV8L 8 inch Weatherized Cone High-Output LF Transducer

- DH2005 1 inch Exit True Compression Driver

- EN54-24 type B certification 1438/CPR/0323 with TC-ZX1i cover (*Sold separately*) installed **(Only available in select regions)**

The Electro-Voice ZX1i is the standard of no compromise audio performance and versatility in an easy to install compact package.

The high-tech enclosure uses injection-molded high-impact ABS resin to make the ZX1i extremely durable. The enclosure geometry has been engineered to provide maximum rigidity and acoustic performance. The velocity compensated port design overcomes the limitation of many small cabinet loudspeakers and enables exceptional low-frequency response. Two rotatable horn coverage patterns are available; 90° x 50° for longer throw and cluster applications, 100° x 100° for broad even dispersion. A multilayer grille with hydrophobic cloth and weatherized components allows both indoor and outdoor use. An optional weatherized input panel cover with a gland nut is available for additional protection.

Installing the ZX1i is quick and easy with the included QuickSAM mounting system. The QuickSAM allows the installer to simply snap the speaker onto the bracket, and then tighten it to the desired position. For array mounting, there is an optional AB-ZE array bracket kit which allows multiple units to be mounted together in a variety of configurations.

The ZX1i's long excursion, high output 8 inch woofer with a weatherized treated cone delivers smooth low-frequency performance with exceptional reliability. A sophisticated crossover network integrates it with

the DH2005, a 1.25 inch voice coil true compression driver for maximum output with extended frequency response. Full-bandwidth overload protection is provided for reliable, long term operation without audible effect.

Best overall system design practice always includes a high-pass filter in the signal chain before the driving amplifier to protect the loudspeaker from over-excursion below box tuning or in the case of a distributed constant voltage installation, to protect the driving amplifier from the ill-effects of transformer saturation. The ZX1i -T incorporates patented ASC (Automatic Saturation Compensation) technology to prevent transformer saturation at low frequencies. Unlike typical transformer equipped loudspeaker systems, an installation of Electro-Voice ZX1i -T loudspeakers does not require the high-pass filter frequency to be raised as more loudspeakers are added to the line because the driving amplifier is protected by ASC from saturation-induced overload, distortion, and possible failure. Best of all, *there is no perceivable difference in sound quality between transformer and non-transformer versions of ZX1i loudspeakers*. The same 50 Hz high-pass filter is used for both, regardless of the number of loudspeakers on the line.

Technical specifications

Frequency response (-3 dB)[1]:	60 Hz - 20 kHz
Frequency range (-10 dB)[1]:	48 Hz - 20 kHz
Rec. hi-pass frequency:	40 Hz
Axial sensitivity[1]:	92 dB (1W/1m)
Axial sensitivity[1]:	80 dB (1W/4m)
Max calculated SPL (1m)[1]:	121 dB
Max calculated SPL (4m)[1]:	109 dB
Coverage (H x V):	100 x 100
Rated system power:	200 W cont[2], 400 W prog., 800 W peak
LF transducer:	EV8L, 203 mm (8 in) driver
HF transducer:	DH2005, 25 mm (1 in) exit compression driver
Crossover frequency:	1.7 kHz
Nominal impedance:	8 Ω
Minimum impedance:	6 Ω
"T" version transformer taps rated impedance:	**100 V:** 12.5W - 800Ω 25W - 400Ω 50W - 200Ω 100W - 100Ω Bypass - 8 Ω **70V:** 6.5W - 800 Ω 12.5W - 400 Ω 25W - 200 Ω 50W - 100 Ω 100W - 49 Ω Bypass - 8 Ω
Connectors:	4-Pin Phoenix connector
Enclosure material:	ABS resin
Suspension:	Integrated QuickSAM heavy-duty strong-arm mounting bracket
Grille:	Polyester powder coated, 18GA galvanized steel
Color:	Black or white
Dimensions (H x W x D):	451 mm x 282 mm x 263 mm (18 in x 11 in x 10 in)
Net weight:	8.4 kg (18.5 lb) without transformer 10.4 kg (23.0 lb) with transformer
Shipping weight:	10.2 kg (22.5 lb) without transformer 12.3 kg (27.0 lb) with transformer

[1]Half-space measurement.
[2]IEC Pink Noise, 6 dB Crest Factor.

Notice!
The specifications data was measured in an anechoic chamber according to EN 54-24.
Reference axis: Axis is on the center of grille surface and perpendicular to the grille surface.
Reference plane: Plane is on the grille surface and perpendicular to the reference axis.
Horizontal plane: Plane is containing the reference axis and perpendicular to the reference plane.

CE

1438

Bosch Security Systems Inc.
130 Perinton Pkwy, Fairport, NY, 14450, USA
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1438-CPR-0323

EN 54-24:2008
Loudspeaker for voice alarm systems
for fire detection and fire alarm systems for buildings
Passive full-range loudspeakers ZX1i-90, ZX1i-90T, ZX1i-90W,
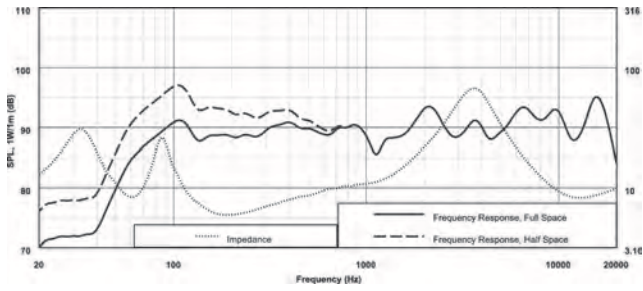ZX1i-100, ZX1i-100T, ZX1i-100W
Type B
DOP: REG000569000

Caution!
This Electro-Voice loudspeaker should be suspended overhead only in accordance with the procedures and limitations specified in the User's Manual. This system should be suspended with certified rigging hardware by an authorized rigging professional and in compliance with local, state, and federal overhead suspension ordinances.
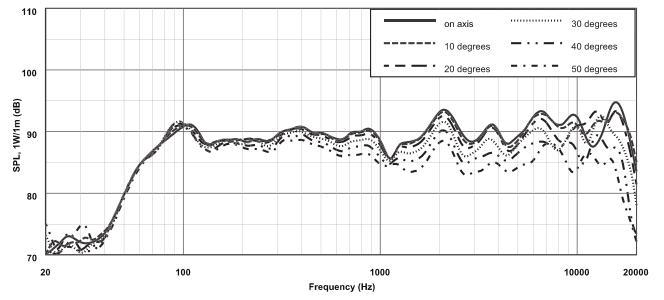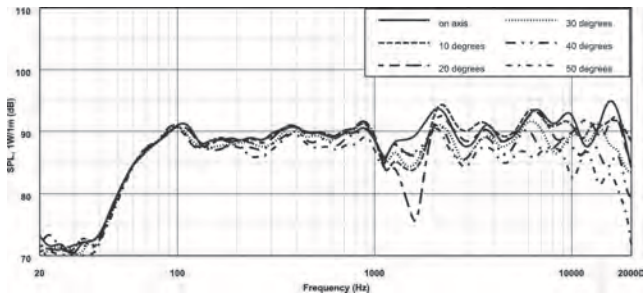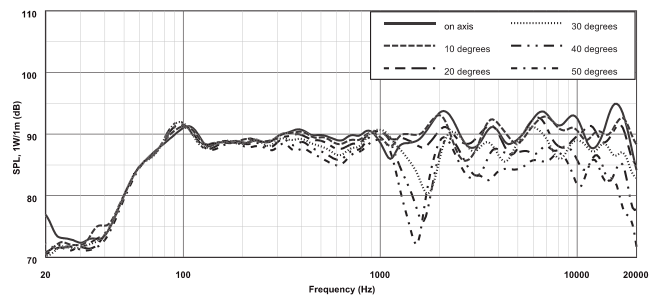
Frequency response and impedance:
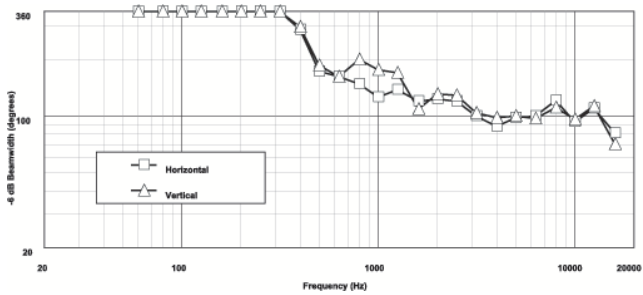
Horizontal off-axis frequency response:

Vertical off-axis frequency response (up):

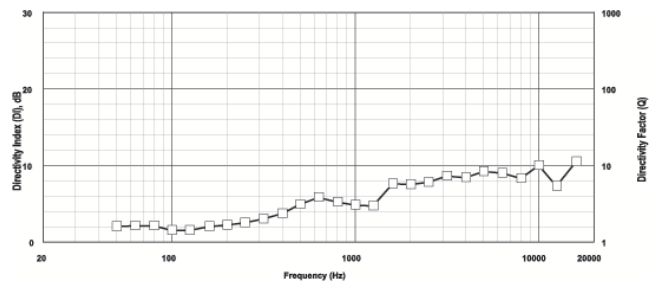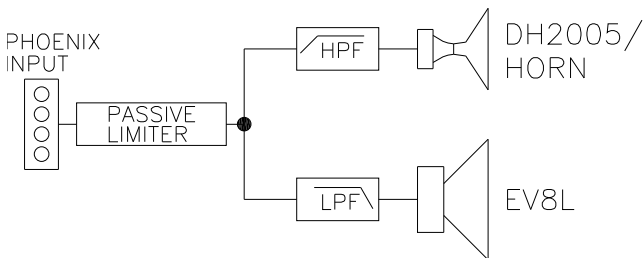**Vertical off-axis frequency response (down):**
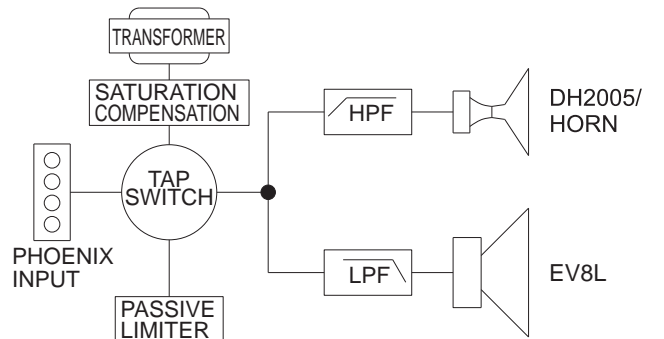
Beamwidth:

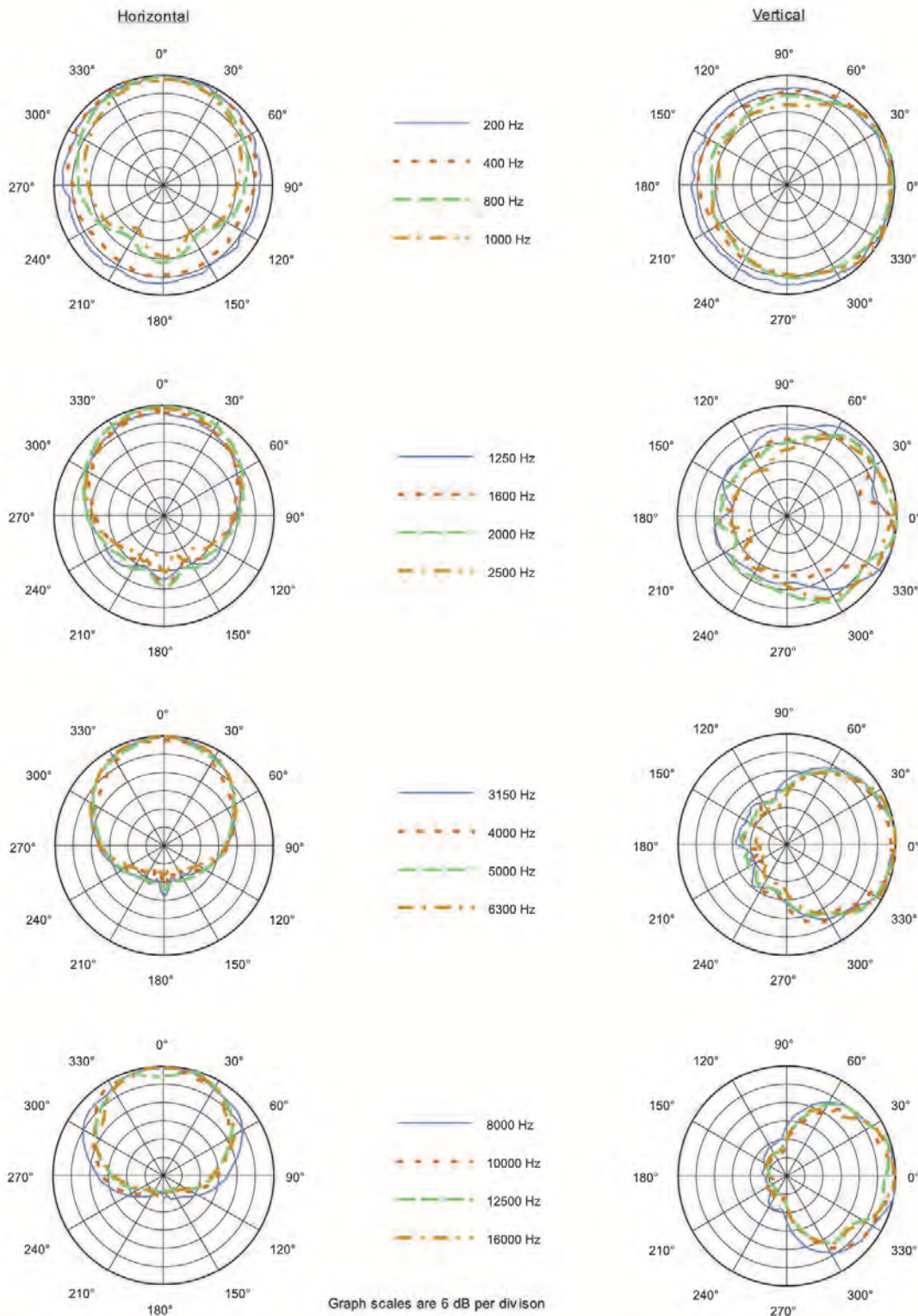**Directivity:**

Block diagrams:

ZX1i (Non-Transformer) and ZX1i (With transformer) in 8 Ω mode

ZX1i (With transformer)

Horizontal and vertical polar response:
(Polar plots 1/3 octave)

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Horizontal

Vertical

- 200 Hz
- 400 Hz
- 800 Hz
- 1000 Hz

- 1250 Hz
- 1600 Hz
- 2000 Hz
- 2500 Hz

- 3150 Hz
- 4000 Hz
- 5000 Hz
- 6300 Hz

- 8000 Hz
- 10000 Hz
- 12500 Hz
- 16000 Hz

Graph scales are 6 dB per divison

Architectural and engineering specifications:
The loudspeaker shall be a two-way system consisting of one 8 inch (102 mm) low-frequency transducer, a 1.25 inch titanium diaphragm true high frequency compression driver with rotatable horn and a frequency dividing network installed in a vented enclosure. The network shall include a full-range passive limiter for total system protection. The high frequency compression transducer shall drive a horn to evenly cover a pattern of either 90° by 50° or 100° by 100°. The horn shall be rotatable to allow for horizontal or vertical mounting of the cabinet. The enclosure shall be molded of high impact ABS resin. The finish shall be a paintable black or white. The grille shall be zinc plated, powder coated for corrosion resistance, and equipped with both hydrophobic cloth and acoustic foam. The loudspeaker position shall be adjustable over a range of 100° horizontally and 45° vertically.

The support bracket shall be low profile and integral with the enclosure. The bracket shall allow for a quick snap fit mounting of the speaker enclosure for placement before securing. The speaker terminals shall include a 4-pin removable Phoenix style connector to allow for signal pass through. The system shall be weather resistant to MIL Spec 810 and IEC 529 test conditions.

The loudspeaker shall be available with a 100 watt transformer for 70 or 100 volt operations. The speaker shall have ASC for protection against transformer saturation overload. There shall also be an 8 ohm bypass position on the wattage selector switch to enable 8 ohm operation from these models.

The loudspeaker system shall meet the following performance criteria: Power handling, 200 watts long term program using IEC268-5 shaped pink noise; Frequency response, 48 Hz-20 kHz (-10 dB from rated sensitivity); Pressure sensitivity, 94 dB at one watt, 60 Hz-20 kHz at one meter; Impedance, 8 ohms nominal, 6 ohms minimum. The enclosure shall be 18 inch (451 mm) high, 11 inch (282 mm) wide, 10 inch (263 mm) deep. Net weight shall be 18.5 lb (8.4 kg) for non-transformer versions and 23.0 lb (10.4 kg) for transformer versions.
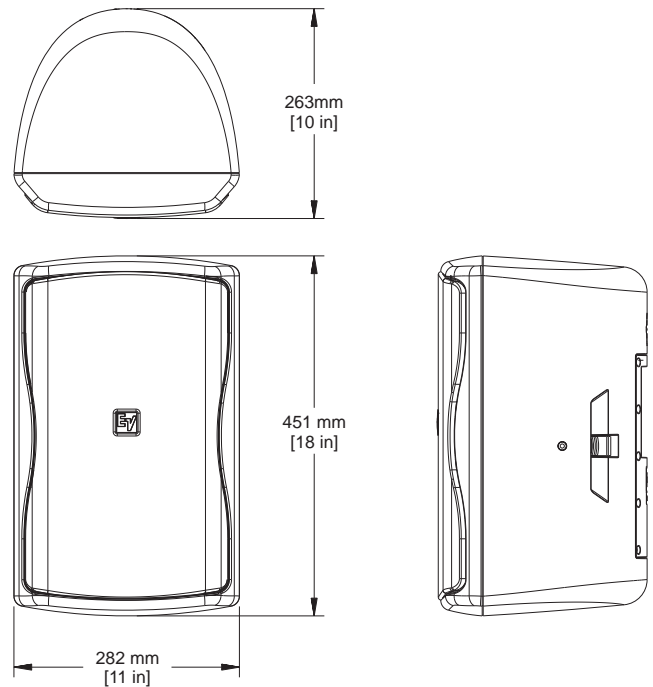
Compatible System Solutions:

CPS2T Power Amplifier[1]

CPS2.8 Power Amplifier[1]

[1]Contact your sales representative for voltage information.

Dimensions:

263mm [10 in]

451 mm [18 in]

282 mm [11 in]

Ordering information

ZX1I-100_HE ZX1I-100, BLACK 2-WAY LOUDSPEAKER SYSTEM
8" 2-way, 200 W, 100° x 100°, install version, strong arm mount, EN 54-24 certified, black
Order number **ZX1I-100_HE**

ZX1I-100W_HE 8" 2-Way Passive Speaker Install White
8" 2-way, 200 W, 100° x 100°, install version, strong arm mount, EN 54-24 certified, white
Order number **ZX1I-100W_HE**

ZX1I-100T_HE 8" 2-Way Passive TransformerInstallBlack
8" 2-way, 200 W, 100° x 100°, install version, 100 V transformer, strong arm mount, EN 54-24 certified, black
Order number **ZX1I-100T_HE**

ZX1I-100TW_HE 8" 2-Way Passive TransformerInstall-White
8" 2-way, 200 W, 100° x 100°, install version, 100 V transformer, strong arm mount, EN 54-24 certified, white
Order number **ZX1I-100TW_HE**

Accessories

MP1-B MP1-B, MNTG PLT KIT, ZX1 SPKR SYS, BLK
MP1-B, Mounting plate kit, ZX1 speaker system, black
Order number **MP1-B**

AB-ZE-LB ARRAY BRACKET ADAPTER FOR 2 OR4 ZX1I
Array bracket adapter for 2 or 4 ZX1I
Order number **AB-ZE-LB**

TCA-ZX1-LB TCA-ZX1 TRUSS CLAMP ADAPTER FOR ZX1
TCA-ZX1 truss clamp adapter for ZX1, black
Order number **TCA-ZX1-LB**

TC-ZX1I-BLK-LB TC-ZX1I, TERMINAL COVER BLACK
Terminal cover, black
Order number **TC-ZX1I-BLK-LB**

TC-ZX1I-WHT-LB TC-ZX1I-WHT, TERMINAL COVER WHITE
Terminal cover, white
Order number **TC-ZX1I-WHT-LB**

CB1 CB1, CARRYING BAG, CONVERTIBLE, ZX1, BLK
ZX1 carrying bag, includes shoulder strap and
accessory pockets, black
Order number **CB1**

SC-ZX1 SC-ZX1, COVER, SLIP ON, ZX1 SPEAKER SYST
ZX1 slip cover
Order number **SC-ZX1**