



CIS400

Two-Way Ceiling Monitor

CIS400 — TWO-WAY CEILING MONITOR

The CIS400 is a complete two-way bass-reflex flush-mount loudspeaker assembly designed for fixed installations into typical ceiling plenum spaces. Employing a unique HF waveguide design based on the Mackie HR824 studio monitors, the CIS400 delivers superior dispersion and pattern control over conventional coaxial designs. The waveguide integrates the HF driver with a 6.5" LF driver optimized for smooth frequency response and seamless transition through the crossover point. The result is extraordinary acoustic performance not generally associated with a commercial ceiling speaker in this price range.

The CIS400 is supplied fully assembled, complete with a sealed zinc-coated steel backcan and cam-style installation clamps. The metal enclosure includes a recessed Euroblock input connector with detachable mating plug, concealed behind a hinged metal cover plate. A welded tab is provided for seismic restraint. Two steel T-Bar support channels are provided to facilitate installation to a standard tile ceiling. Also supplied is a steel split C-ring, which serves to disperse the clamping pressure of the mounting cams.

The CIS400 is supplied with an integral 70/100V line transformer rated to a maximum of 30 watts. Power is adjustable by



means of a recessed rotary switch on the front bezel, and allows selection of 30, 15, 7.5 and 3.7 watt taps. A second recessed rotary switch is provided to engage a 16-Ohm tap for use with low-impedance amplifiers, or a 150 Hz high-pass filter.

The speaker assembly is shipped with a detachable plastic cover fitted over the transducers inside the bezel. This protective cover protects the drivers from damage during installation and also serves as a paint cover, allowing convenient spray painting to match interior décor. A powder-coated perforated steel grille is supplied, and easily installed once the desired Tap Selector and Full-Range/High-Pass switches have been set.

The entire assembly is fully tested at the time of manufacture and is warranted to be free from defects in materials and workmanship for a period of five years from the date of purchase. The speaker is designed for use in ceiling plenum spaces and meets UL 1480 and UL 2043 regulations governing signaling devices and plenum applications.

FEATURES

- .. 6.5" cast steel basket, high-efficiency carbon fiber woofer
- .. 110° x 110° constant directivity horn with Ferrofluid® cooled, 1" Neodymium dome tweeter
- .. Built-in LICC low-inductance passive crossover with high frequency dynamic protection
- .. Lightweight, UV/weather resistant, high density polystyrene
- .. Integrated mounting system and hardware included
- .. UL/cUL/CE listed

APPLICATIONS

- .. Meeting Rooms
- .. Hotels
- .. Houses of Worship
- .. Boardrooms
- .. Courtrooms
- .. Multizone Paging/Music Systems
- .. Multi-Purpose Facilities



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SPECIFICATIONS

SYSTEM

Freq. Range (-10 dB):	70 Hz–22 kHz
Freq. Response (-3 dB):	89 Hz–20 kHz
Horizontal Coverage Angle (-6 dB):	110° averaged 1 kHz to 6 kHz
Vertical Coverage Angle (-6 dB):	110° averaged 1 kHz to 6 kHz
System Sensitivity:	92 dB, 1W @ 1m
Rated Maximum SPL:	107 dB @ 1m
System Input Power Rating:	120W peak, 60W program, 30W long term
Transformer Taps	
70V:	3.75W, 7.5W, 15W, 30W
100V:	7.5W, 15W, 30W
Operation in Low-Impedance Mode	
Frequency Response:	89 Hz–20 kHz (-3 dB)
Control Features	
Front-mounted Rotary Switch:	Full Range (70/100 Volt Systems) High Pass (70/100 Volt Systems) Full Range (16 ohm, Low-Impedance Systems)
Front-mounted Rotary Switch:	Secondary Tap Positions
Crossover:	2.0 kHz

TRANSDUCERS

Low-Frequency:	6.5 in/165 mm polypropylene woofer
High-Frequency:	1 in/25 mm damped cloth Neodymium dome tweeter

PHYSICAL

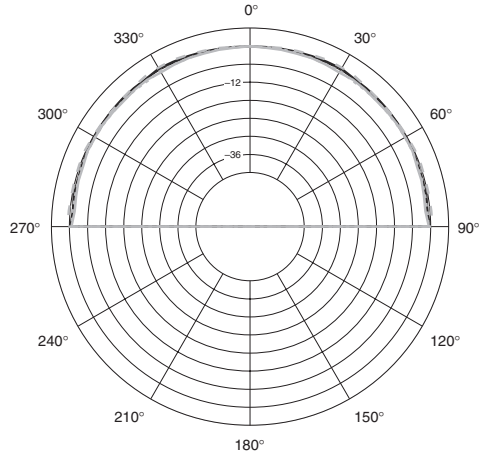
Enclosure:	2-way, front loaded
Bezel Material:	UL94V-0 rated material
Rear Enclosure Material:	Steel
Grille:	Perforated metal with weather-resistant coating
Safety Features:	Rear safety loop located at rear of enclosure for attachment of load bearing safety strap
Safety Agency Ratings	
UL1480:	General Signaling Fire Standard
UL2043:	Fire Tests for Heat and Visible Smoke Release for Discrete Products and Their Accessories in Air-handling Spaces
Input/Output Connectors:	Removable locking connector with screw-down terminals. Two input terminals and two loop-thru output terminals.
Dimensions (Diameter x Height):	11.8 in/300 mm x 6.6 in/168 mm
Front of Ceiling Tile to Back of Can:	5.6 in/142 mm
Cutout Size:	10.8 in/274 mm
Net Weight:	7.9 lb/3.6 kg
Included Accessories:	Grille, Support Rails, C-Ring, Removable Locking Connector, Cut-out Template, Paint Shield



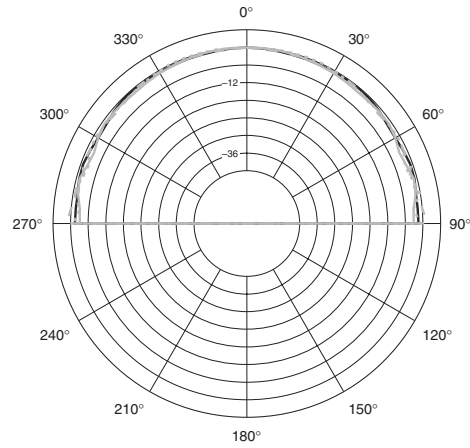
CIS400

Two-Way Ceiling Monitor

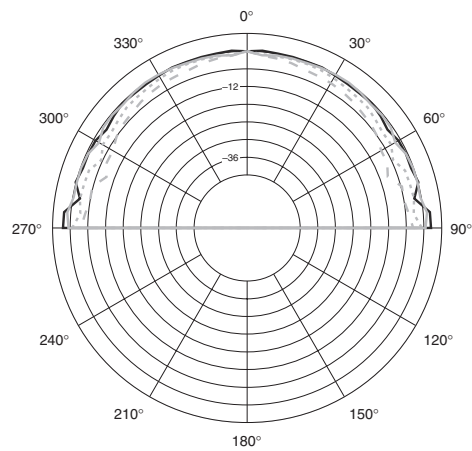
CIS400 HORIZONTAL POLARS



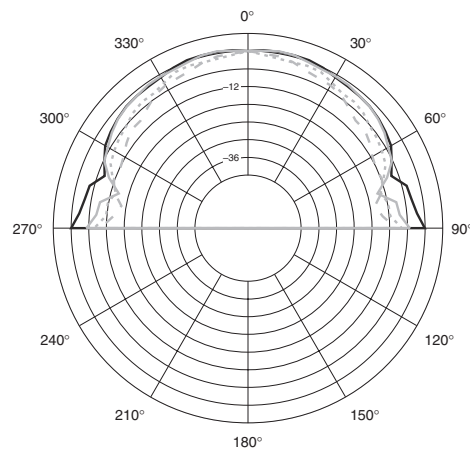
- 200Hz
- 250Hz
- - - 315Hz
- - - 400Hz



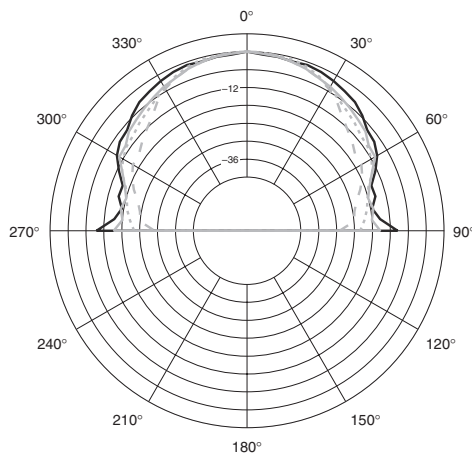
- 500Hz
- 630Hz
- - - 800Hz
- - - 1kHz



- 1.25kHz
- 1.6kHz
- - - 2kHz
- - - 2.5kHz

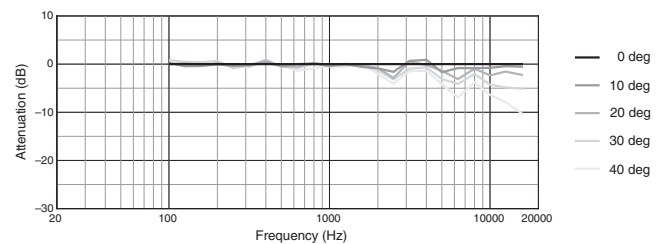


- 3.15kHz
- 4kHz
- - - 5kHz
- - - 6.3kHz



- 8kHz
- 10kHz
- - - 12.5kHz
- - - 16kHz

CIS400 HORIZONTAL OFF-AXIS FREQUENCY RESPONSE



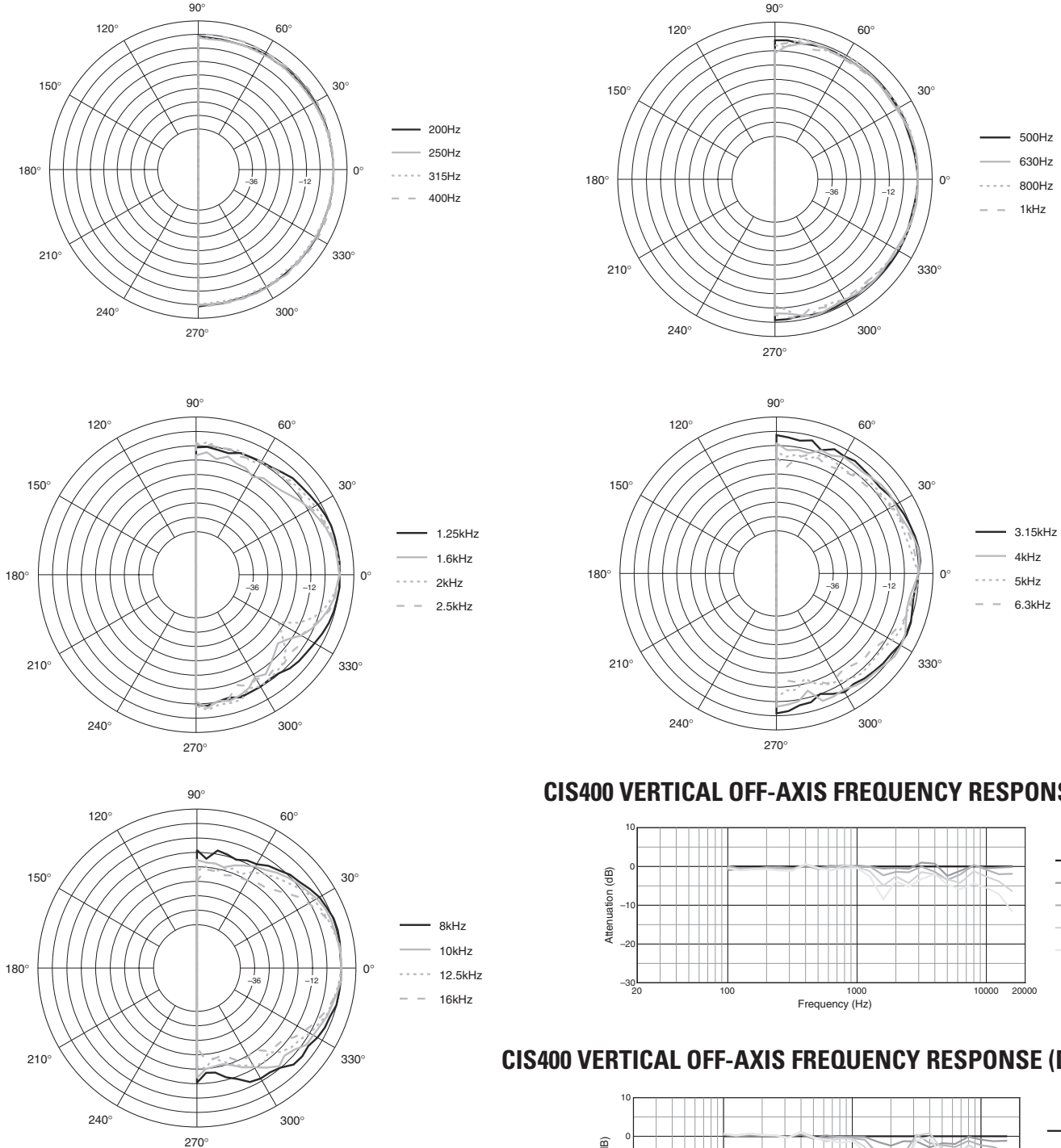
- 0 deg
- 10 deg
- 20 deg
- 30 deg
- 40 deg



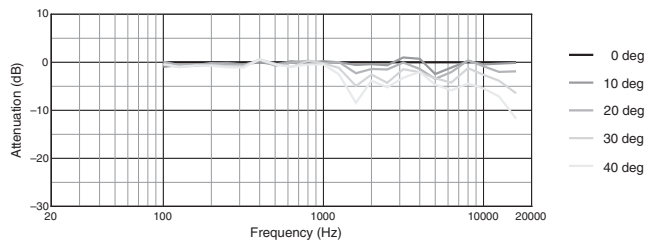
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Two-Way Ceiling Monitor

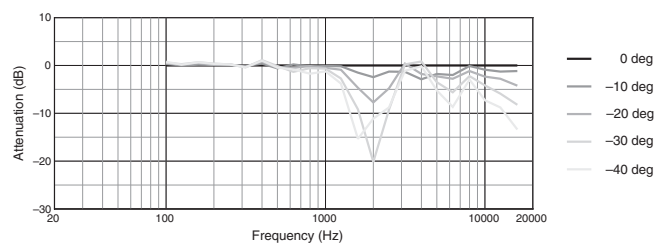
CIS400 VERTICAL POLARS



CIS400 VERTICAL OFF-AXIS FREQUENCY RESPONSE (UP)



CIS400 VERTICAL OFF-AXIS FREQUENCY RESPONSE (DOWN)



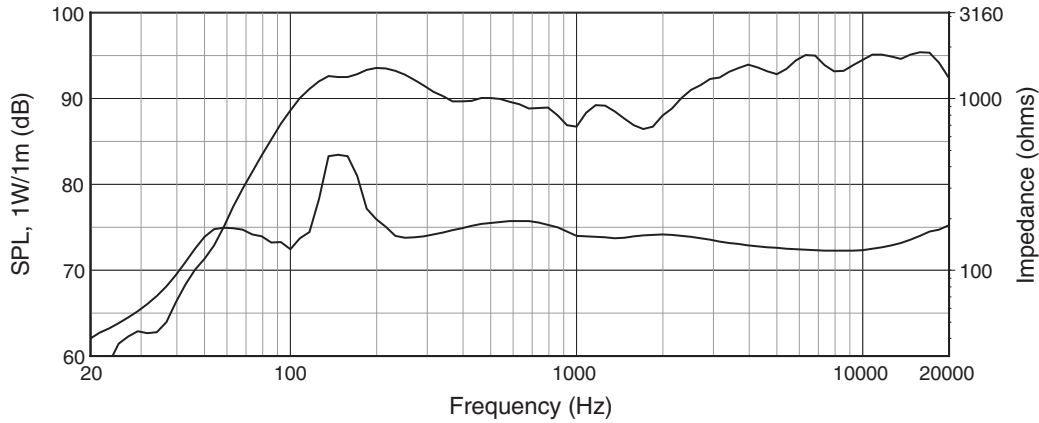


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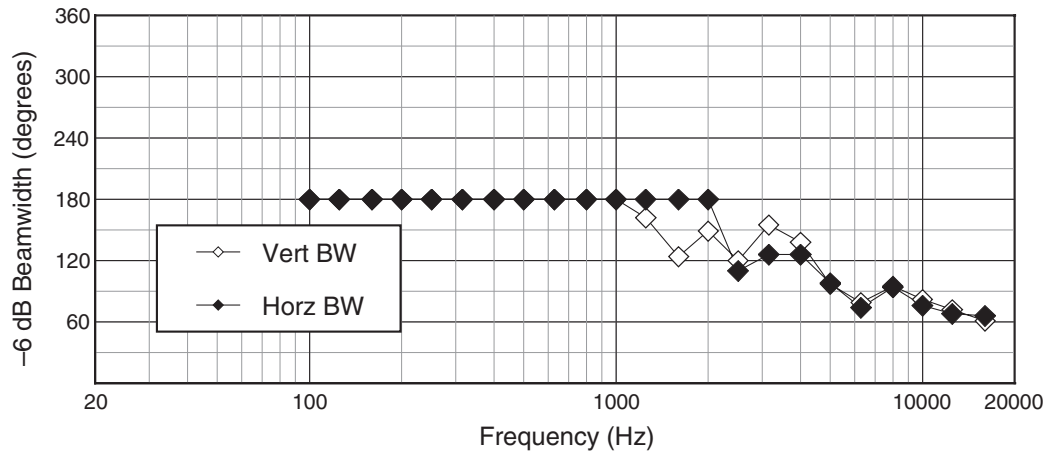
Two-Way Ceiling Monitor

CIS400 FREQUENCY RESPONSE

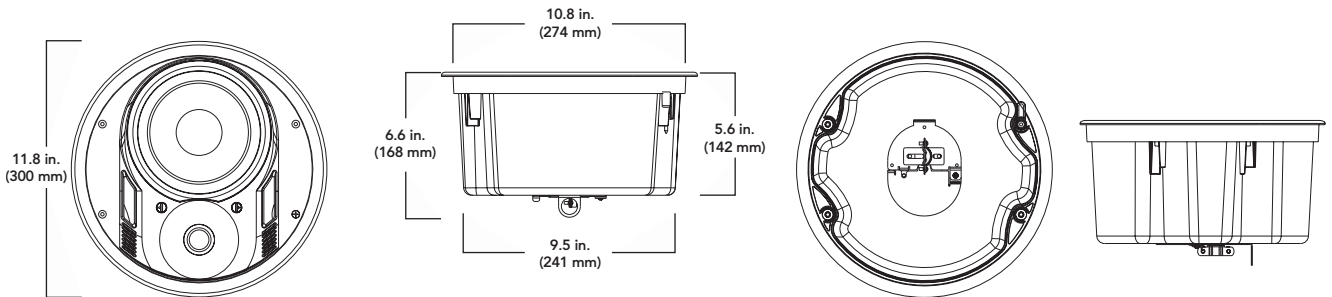
CIS400 Frequency Response vs. Impedance



CIS400 Beamwidth vs. Frequency



CIS400 DIMENSIONS





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CSI PRODUCT SPECIFICATIONS FOR DESIGNERS, SPECIFIERS, AND CONSULTANTS

(Also known as "A&E Specifications")

The following are "Part 2 Products" CSI-type specifications. It is assumed that "Part 1 General – Administrative and Procedures" and "Part 3 Execution – Installation and Maintenance" are part of an overall audio system or project specification.

PART 2 PRODUCTS

2.01 Approved Manufacturer/Product

- A. EAW Commercial, One Main Street, Whitinsville, MA 01588 USA
- B. Model number: CIS400

2.02 Design

- A. Configuration: Two-Way Ceiling Speaker
- B. LF Sub-section: 6.5 in. polypropylene low-frequency driver
- C. HF Sub-section: 1 in. damped cloth Neodymium dome high-frequency driver

2.03 Acoustical Properties

- A. Nominal Dispersion Angle (–6 dB points)
 - 1. Horizontal: 110° averaged 1 kHz to 6 kHz
 - 2. Vertical: 110° averaged 1 kHz to 6 kHz
- B. Axial Frequency Response (–3 dB points):
89 Hz – 20 kHz
- C. Axial Frequency Range (–10 dB points):
70 Hz – 22 kHz
- D. Axial Sensitivity (dB SPL/1 W @ 1 m):
92 dB
- E. Power Handling (recommended amplifier power¹):
120 W
- F. Nominal Impedance:
16 ohms (Full-Range 16 Ohms position)

2.04 Physical Properties

- A. Enclosure Shape: Circular
- B. Enclosure Material: UL94V-0 rated bezel with steel back can
- C. Enclosure Finish: White paintable finish
- D. Connectors: Four-position Phoenix-style locking connector with screw-down terminals
- E. Mounting/Suspension Hardware:
 - Two support rails
 - One C-Ring
 - Four built-in cam-style installation clamps
- F. Grille: Perforated metal with weather-resistant coating
- G. Dimensions
 - 1. Diameter: 11.8 in/300 mm
 - 2. Height: 6.6 in/168 mm
 - 3. Cutout Size: 10.8 in/274 mm
- H. Weight
 - 1. Net Weight: 7.9 lb/3.6 kg

¹ Recommended amplifier power is a power capability value that should be taken as a guide.

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