

DATA SHEET

DESONO™

DX-IC4LP

TWO-WAY 4.5" LOW PROFILE HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER



zoom Certified

FEATURES

- Zoom Certified
- High intelligibility with exceptional uniform coverage
- Fast installation with SpringLock™ mounting clamps
- Consistent, wide dispersion up to 16 kHz
- Shallow depth to fit into confined ceiling spaces
- Conduit knock-outs on the input cover meet Chicago plenum air space requirements

TECHNICAL SPECIFICATIONS¹

| | | | |
|--|--|--------------------------------------|----------------------|
| Operating Mode | Passive with DSP | | |
| Operating Environment | Indoor | | |
| Operating Range (-10dB) ² | 103 Hz to 19.5 kHz | | |
| Nominal Beamwidth (H x V) | 165°, conical | | |
| Transducers | LF 1 x 4.5" (114 mm) HF 1 x 0.75" (19 mm) exit compression driver | | |
| Sensitivity ³ | 91 dB (2.83 V) | 91 dB (1 W at rated impedance 8 Ω) | |
| Nominal Continuous Power Handling ⁴ | Passive | 22 V (60 W @ 8 Ω) | |
| Nominal Maximum SPL ⁵ | Passive | Peak 114 dB | Continuous 108 dB |
| Rated Continuous Voltage ⁶ | Passive | 17.8 V (25 dBV) | |
| Rated Maximum SPL ⁷ (Processed) | Passive | Peak 118 dB | Continuous 106 dB |
| Autoformer | 70 V: 30 W, 15 W, 7.5 W, 3.75 W; 100 V: 30 W, 15 W, 7.5 W | | |
| Recommended Amplifiers | Passive | 60 W - 120 W into 8 Ω, (22 V - 31 V) | |
| Crossover Frequency | 2 kHz | | |
| Required Accessory | 135 Hz, 12 dB/oct. high pass filter | | |

APPLICATIONS

Conference Rooms · Houses of Worship
Theaters · Sports Facilities · Health Clubs
Convention Centers · Auditoriums
Malls · Airports

DESCRIPTION

Only 3.81" (97 mm) in depth, the DX-IC4LP solves space problems that competing products cannot. Suitable for paging, background music, or to augment larger systems, the DX-IC4LP is a versatile performer. It installs quickly and provides exceptionally uniform coverage with excellent sonic properties.

Uniform voicing among the Desono DX product family makes for an easy match to the other models in the series, while a host of design innovations set the DX family of loudspeakers apart from other products in its size and price range. Featuring genuine coaxial design with separate magnets for the LF and HF drivers, the DX-IC4LP exhibits reduced distortion and industry-leading sensitivity permitting 3 dB to 6 dB greater output level, while requiring half the amplification power of competing products.

Patent-pending SpringLock™ clamps allow single-handed placement to speed installation and reduce labor time. The SpringLock spring-loaded clamps support the back can on the included tile rails and snap-on C-ring, so that the installer can just tighten the clamps, securing it in the ceiling.

A magnetic grille and front-face wattage selector switch enables quick adjustment of 70V/100V tap levels. A variety of installation accessories are available to accommodate different ceiling materials. Typical applications include paging, background music, and to augment larger models in many venues.

PHYSICAL

| | |
|------------------------|---|
| Input Connection | 4-position Euroblock connector |
| Controls | Front-face wattage / low impedance selector switch |
| Mounting Provisions | 2 SpringLock mounting clamps with 1.3-inch grip range |
| Certifications | ETL listed to comply with UL1480A, UL2043 and CSA62368-1 Suitable for use in air handling spaces per NFPA 70 and NFPA 90 |
| Dimensions W x D | 258 mm x 97 mm (10.16 x 3.81") |
| Weight | 2.66 kg (5.8 lbs) |
| Finish | Refer to the Technical Drawing (page 3) |
| Accessories (included) | C-Ring supporting plate, tile support bridge rails, grille, paint mask, cut-out template |
| Model | DX-IC4LP-W - loudspeaker with White grille |

OPTIONS

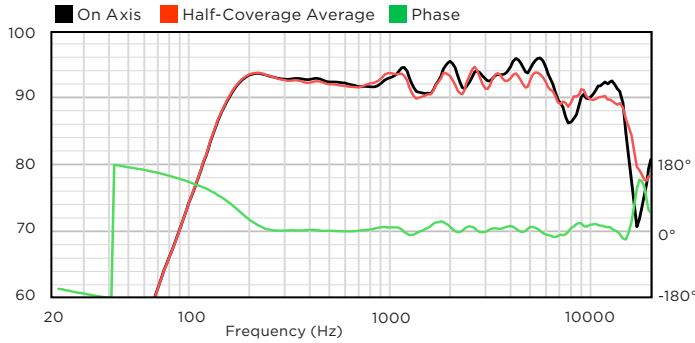
| | |
|-------------|--|
| Accessories | New Construction Brackets (SPA-NC300) Trim Rings (SPA-TR300) Black Grilles (SPA-GRB200) High Humidity Grilles (SPA-GHH200) 48" Tile Rails (SPA-RAIL48) |
|-------------|--|

Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.

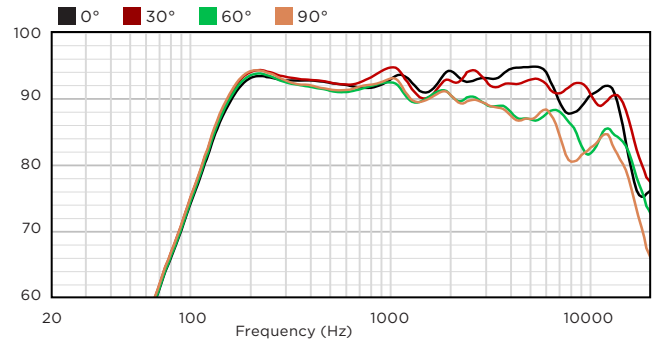
DESONO™

DX-IC4LP TWO-WAY 4.5" LOW PROFILE HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

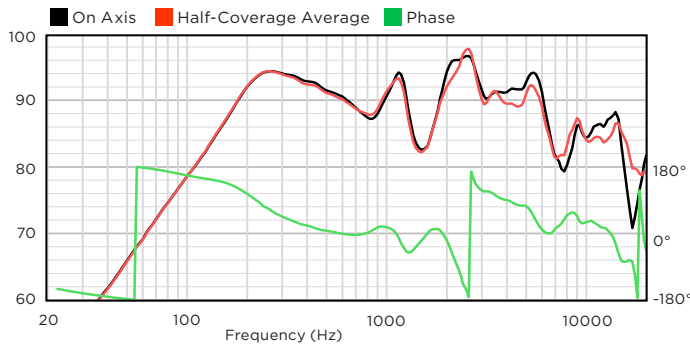
FREQUENCY RESPONSE WITH PROCESSING (SMOOTHED) (dB SPL)⁸



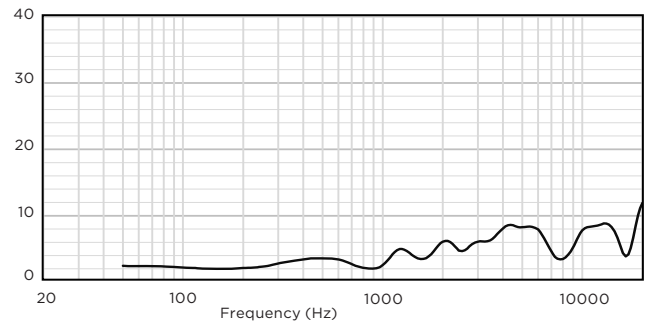
OFF-AXIS RESPONSE (dB SPL)⁹



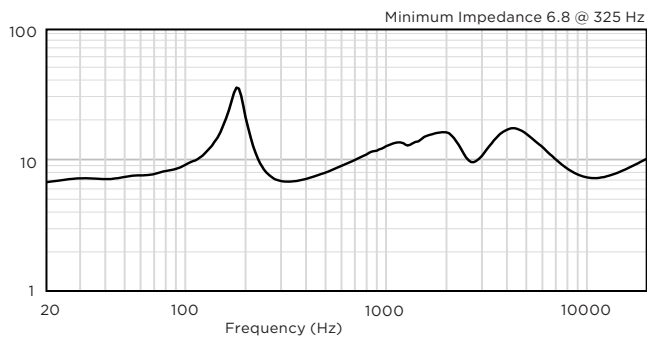
SENSITIVITY (SMOOTHED) (dB SPL)³



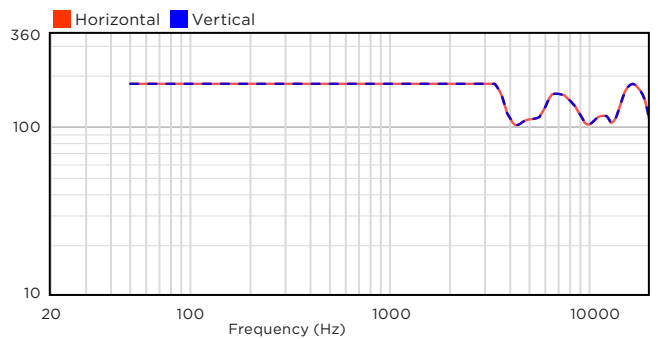
DIRECTIVITY INDEX (dB)¹⁰



IMPEDANCE (Ω)



BEAMWIDTH (degrees)¹¹



DESONO™

DX-IC4LP TWO-WAY 4.5" LOW PROFILE HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

TECHNICAL DRAWING / DIMENSIONS / FINISH

W (bezel diameter) x D

258 mm x 97 mm
(10.16" x 3.81")

Cutout Diameter

222 mm (8.74")

Unit Weight

2.66 kg (5.8 lbs)

Shipping Weight (shipped in pairs)

9.2 kg (20.23 lbs)

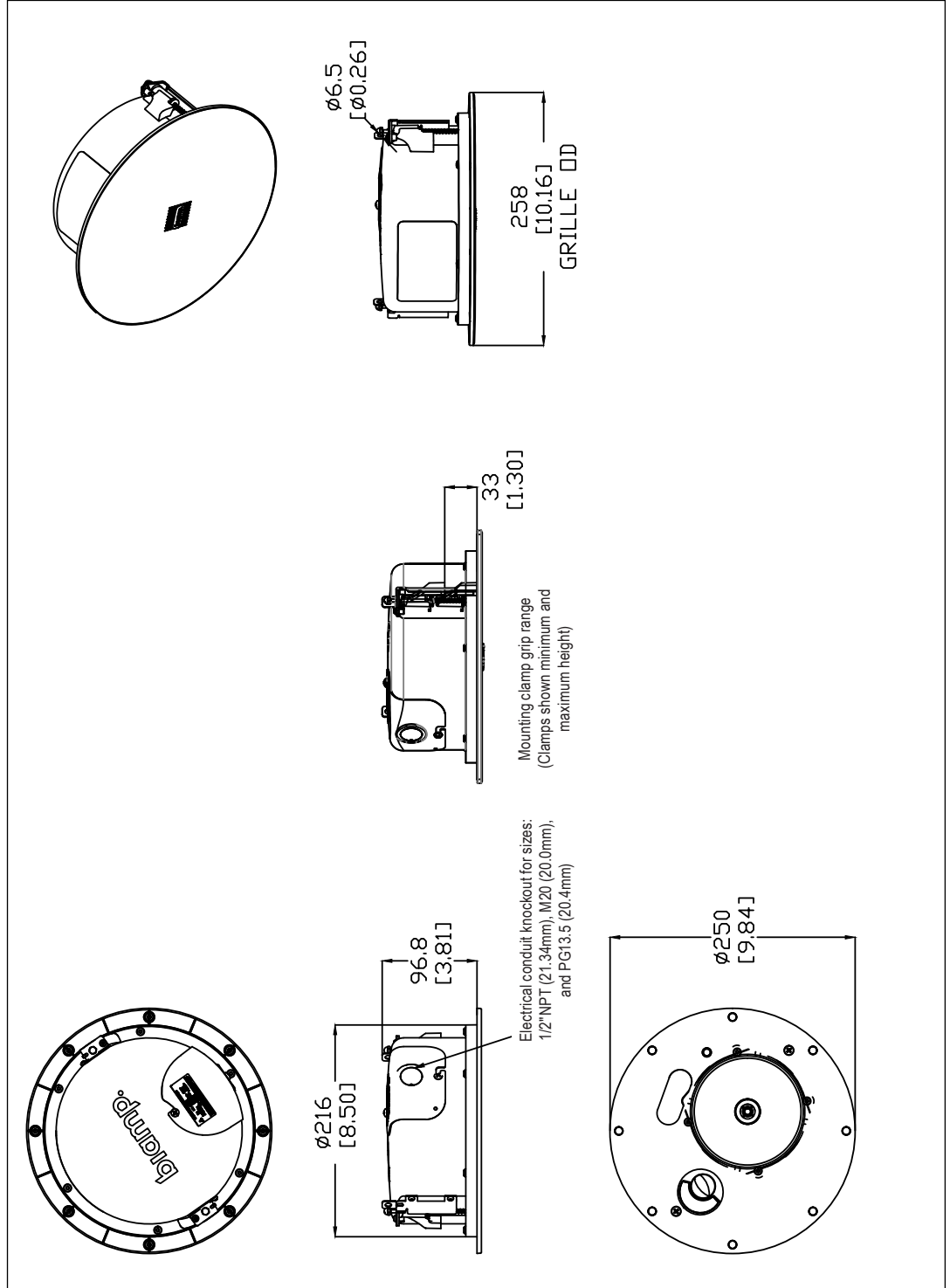
Grille:

Powder-coated perforated steel backed with color-matched woven fabric with safety line. White finish.

Enclosure / Finish

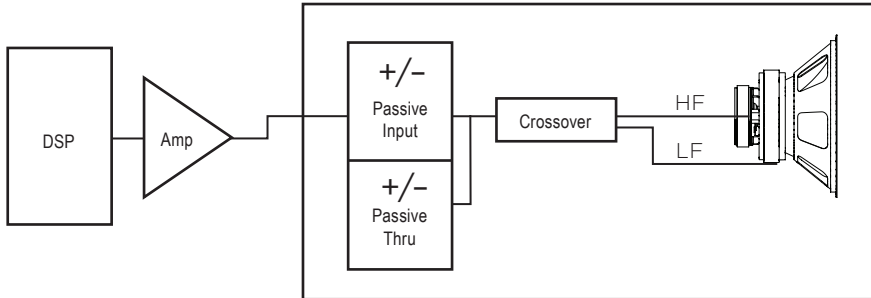
Back Can: Black, Matte finish Steel

Face: UL 94V-0 rated ABS plastic, paintable Black finish.

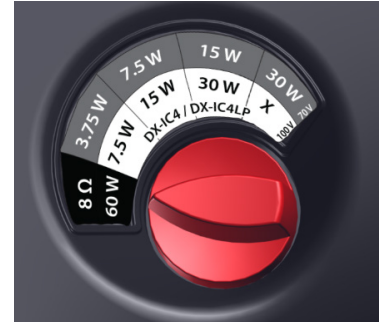


DX-IC4LP TWO-WAY 4.5" LOW PROFILE HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

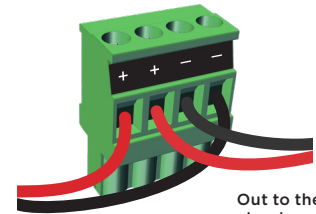
CONNECTION DIAGRAMS



Single amp



Tap Switch (on face)



In from the amplifier or previous loudspeaker, terminals 1[+] & 4[-]
Out to the next loudspeaker, terminals 2[+] & 3[-]

Input

NOTES

- PERFORMANCE SPECIFICATIONS**
All measurements are performed using a time-windowed impulse response to eliminate reflections, approximating an anechoic environment, at a distance of at least 6 m. All acoustic specifications are rounded to the nearest whole number. An external DSP using settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp's Community Amplified Loudspeaker Controllers (ALC SERIES).
 - OPERATING RANGE** The frequency range over which the on-axis equalized/processed response remains within 10 dB of the rated sensitivity, in accordance with IEC 60268-5.
 - SENSITIVITY** The broadband SPL of the loudspeaker when pink noise is applied (band limited to the loudspeaker's Operating Range) at an input voltage of 2.83 V, in accordance with IEC 60268-5. Also listed for a voltage that would produce 1 watt into the rated impedance. Measured in whole space with no external processing applied, except where indicated. Shown graphically as the response to a 2.83 V swept-sine input signal referenced to 1 m.
 - NOMINAL CONTINUOUS POWER HANDLING**
The maximum continuous nominal input voltage at the rated impedance that the system can withstand, without damage, for a period of 2 hours using an IEC 60268-1 defined spectrum with recommended signal processing and protection filters.
 - NOMINAL MAXIMUM SPL** The SPL produced when an IEC 60268-1 signal is applied, at the maximum continuous nominal input voltage, to the equalized/processed loudspeaker system. Referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6 dB) crest factor of the IEC 60268-1 test signal.
 - RATED CONTINUOUS VOLTAGE** The maximum continuous rated input voltage for the system that results in no more than a 3 dB change in the system's response during operation using an IEC 60268-1 defined spectrum with recommended signal processing and protection filters.
 - RATED MAXIMUM SPL** The SPL produced when a typical program material signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 4:1 (12 dB) crest factor of the program signal.
 - FREQUENCY RESPONSE WITH PROCESSING**
The variation in acoustic output level with frequency for a swept-sine measurement signal. The measurement uses the recommended signal processing for the loudspeaker system. All data are referenced to 1 meter. The on-axis magnitude and phase responses, as well as the average magnitude response, calculated over one-half of the nominal coverage angles, are shown. The responses have 1/6 octave smoothing applied.
 - HORIZONTAL / VERTICAL OFF-AXIS RESPONSES**
The loudspeaker's magnitude response at various off-axis angles using the recommended signal processing in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.
 - DIRECTIVITY INDEX** The ratio of the on-axis SPL to the mean SPL at the same distance for all points within the measurement sphere for each given frequency; expressed in dB. The response has 1/3 octave smoothing applied.
 - BEAMWIDTH** The included angle between the -6 dB points in the polar response of the loudspeaker when driven in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.
- Data presented on this data sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker's performance, please download the GLL file and/or the CLF file from our website: www.biamp.com