

# DATA SHEET

## DESONO™

# DX-IC4

TWO-WAY 4.5-INCH 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
- Attractive edgeless magnetic grille design
- Conduit knock-outs on the input cover meet Chicago plenum air space requirements

### TECHNICAL SPECIFICATIONS<sup>1</sup>

Operating Mode	Passive with DSP		
Operating Environment	Indoor		
Operating Range (-10dB) <sup>2</sup>	85 Hz to 19 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 <sup>3</sup>	92 dB (2.83 V)	92 dB (1 W at rated impedance 8 Ω)	
Nominal Continuous Power Handling <sup>4</sup>	Passive	22 V (60 W @ 8 Ω)	
Nominal Maximum SPL <sup>5</sup>	Passive	Peak 114 dB	Continuous 108 dB
Rated Continuous Voltage <sup>6</sup>	Passive	17.8 V (25 dBV)	
Rated Maximum SPL <sup>7</sup> (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	70 Hz, 12 dB/oct. high pass filter		

### APPLICATIONS

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

### DESCRIPTION

The smallest member of the Desono's DX ceiling loudspeakers, the DX-IC4 possesses the advanced features of its larger siblings with performance that belies its small size. Suitable for paging, background music, or to augment larger systems, the DX-IC4 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-IC4 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-IC4 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 70 V/100 V 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 2.5-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 176 mm (10.16" x 6.95")
Weight	3.12 kg (6.9 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-IC4-W - loudspeaker with White grille

### OPTIONS

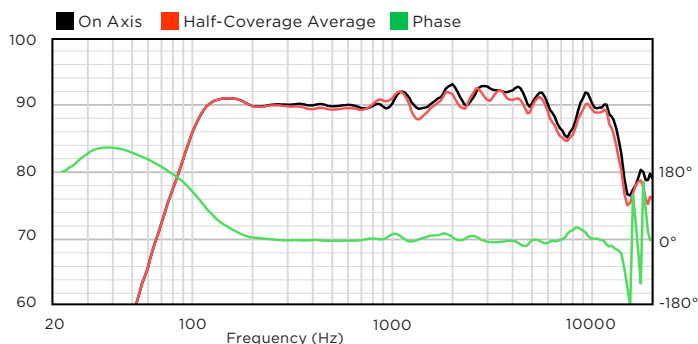
Accessories	New Construction Brackets (SPA-NC300) Trim Rings (SPA-TR300) Black Grilles (SPA-GRB200) High Humidity Grilles (SPA-GHH200) 48" Tile Rails (SPA-RAIL48)
-------------	--

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

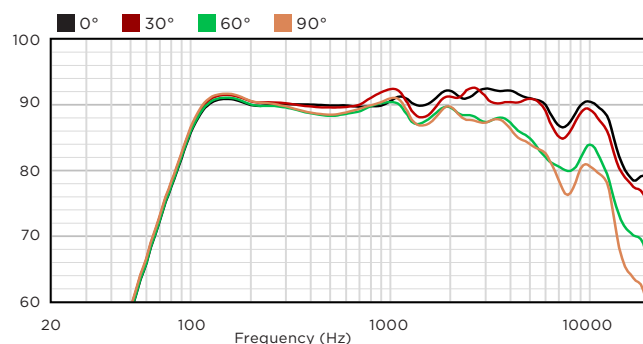
DESONO™

# DX-IC4 TWO-WAY 4.5-INCH HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

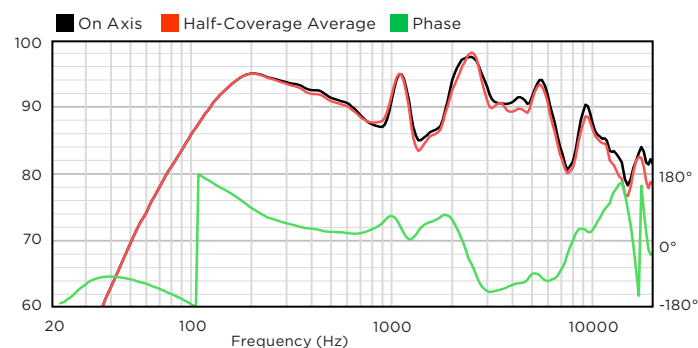
## AXIAL PROCESSED SENSITIVITY (dB SPL)<sup>8</sup>



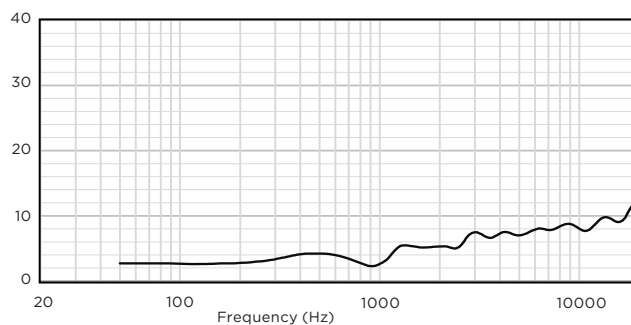
## OFF-AXIS RESPONSE (dB SPL)<sup>9</sup>



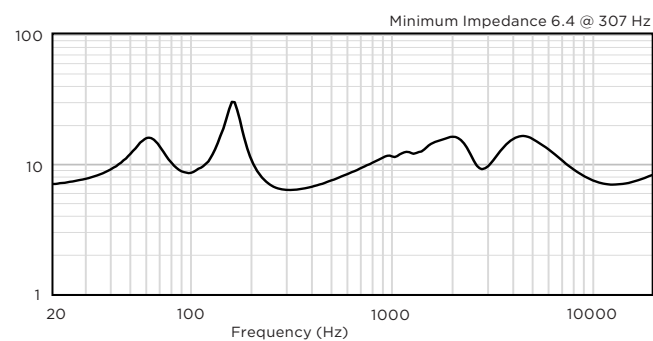
## AXIAL SENSITIVITY (dB SPL)<sup>8</sup>



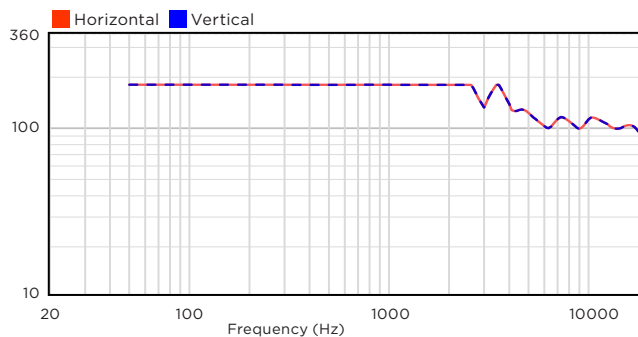
## DIRECTIVITY INDEX (dB)<sup>10</sup>



## IMPEDANCE (Ω)



## BEAMWIDTH (degrees)<sup>11</sup>



DESONO™

# DX-IC4 TWO-WAY 4.5-INCH HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

## TECHNICAL DRAWING / DIMENSIONS / FINISH

**W (bezel diameter) x D**  
258 mm x 176 mm  
(10.16" x 6.95")

**Cutout Diameter**  
222 mm (8.74")

**Unit Weight**  
3.12 kg (6.9 lbs)

**Shipping Weight (shipped in pairs)**  
10.4 kg (22.93 lbs)

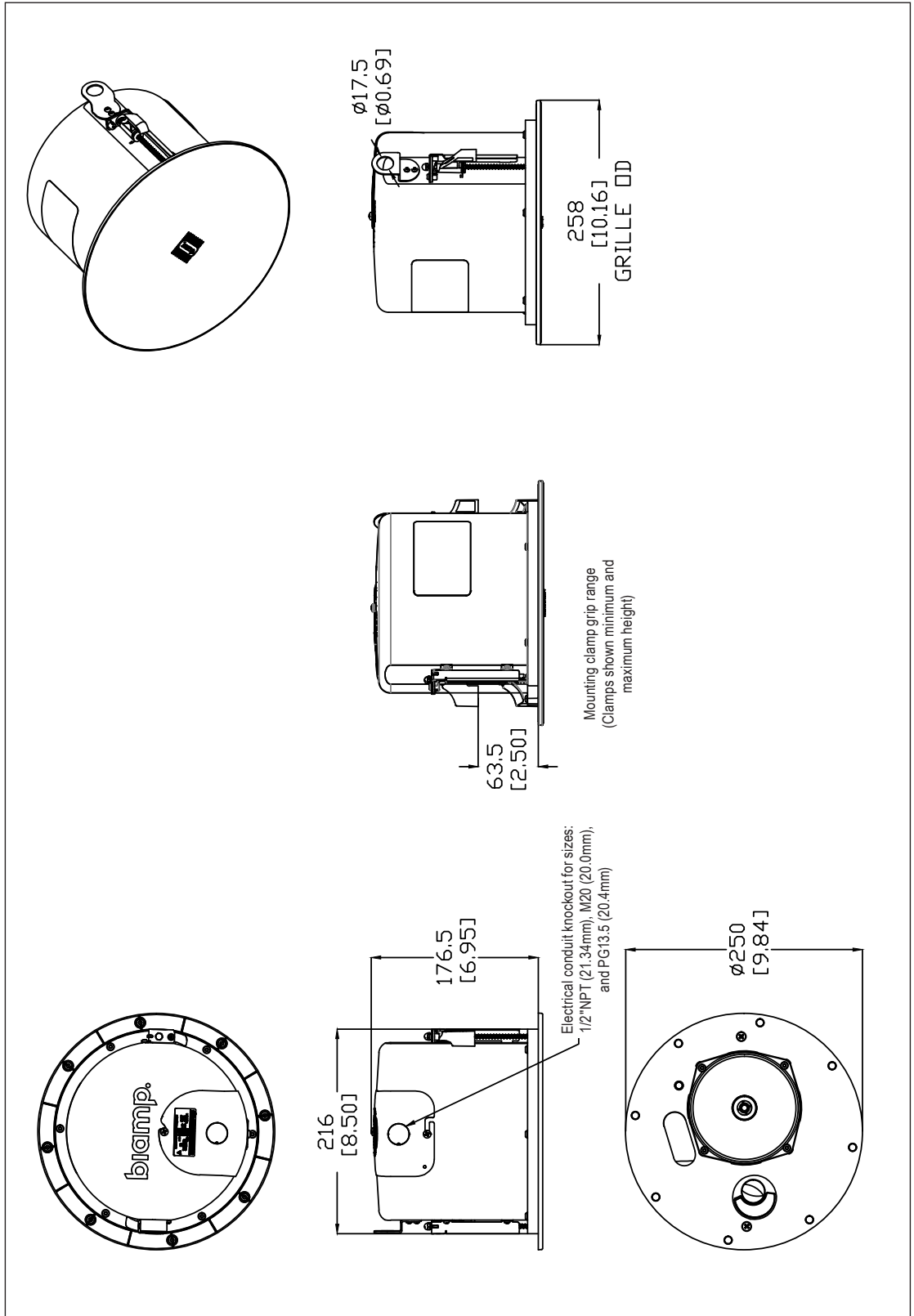
### Grille:

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.



**biamp.**

A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA

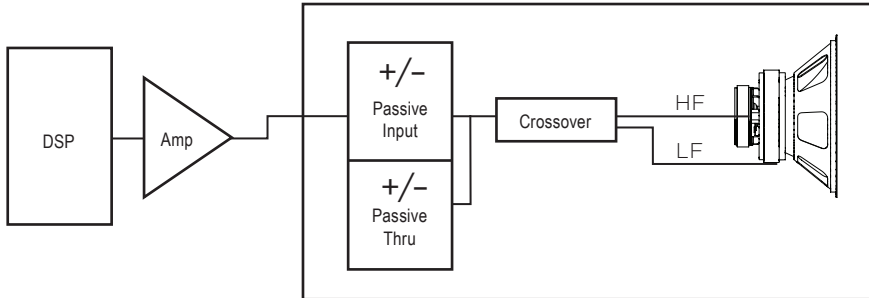
T: +1 503.641.7287

W: [www.biamp.com](http://www.biamp.com)

DESONO™

# DX-IC4 TWO-WAY 4.5-INCH HIGH EFFICIENCY CEILING MOUNT LOUDSPEAKER

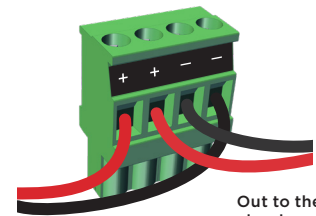
## CONNECTION DIAGRAMS



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

- 1. 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 6.0 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).
  - 2. 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.
  - 3. 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 nominal impedance. Measured in whole space with no external processing applied, except where indicated.
  - 4. 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.
  - 5. NOMINAL MAXIMUM SPL** The SPL produced when an IEC 60268-1 signal is applied, at the 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.
  - 6. 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.
  - 7. 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.
  - 8. AXIAL (PROCESSED) SENSITIVITY** The variation in acoustic output level with frequency for a swept-sine measurement signal. The Processed measurement uses the recommended signal processing for the loudspeaker system. The other sensitivity measurements use no additional external processing. 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.
  - 9. 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.
  - 10. 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.
  - 11. 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](http://www.biamp.com)