**FEATURES**

- Exceptional audio clarity with small footprint and attractive styling
- Uniform coverage from coaxially mounted HF/LF drivers
- 6-position switch selects 70 V/100 V taps or low impedance bypass
- ETL listed to comply with UL 1480A, CSA 62368-1, CE marked, and RoHS compliant
- EN54-24 and ISO 7240-24 certification

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Operating Mode</th>
<th>Passive with selectable low-impedance or 70 V/100 V operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Environment</td>
<td>Indoor/Outdoor</td>
</tr>
<tr>
<td>Operating Range (-10dB)²</td>
<td>55 Hz to 20 kHz</td>
</tr>
<tr>
<td>Nominal Beamwidth (H x V)</td>
<td>105° x 105°</td>
</tr>
<tr>
<td>Transducers</td>
<td>LF 1 x 8” (200 mm) treated paper cone</td>
</tr>
<tr>
<td></td>
<td>HF 1 x 1.4” (35 mm) voice coil compression driver</td>
</tr>
<tr>
<td>Sensitivity²</td>
<td>@ 1 m</td>
</tr>
<tr>
<td></td>
<td>90 dB (2.83 V)</td>
</tr>
<tr>
<td></td>
<td>90 dB (1 W, 8Ω)</td>
</tr>
<tr>
<td>Nominal Continuous Power Handling⁶</td>
<td>45 V (250 W, 8Ω Nominal Impedance)</td>
</tr>
<tr>
<td>Nominal Maximum SPL⁶ (Processed)</td>
<td>@ 1 m</td>
</tr>
<tr>
<td></td>
<td>Continuous 115 dB</td>
</tr>
<tr>
<td></td>
<td>Peak 121 dB</td>
</tr>
<tr>
<td>Rated Continuous Voltage⁷</td>
<td>39.8 V (32 dBV)</td>
</tr>
<tr>
<td>Rated Maximum SPL⁷ (Processed)</td>
<td>@ 1 m</td>
</tr>
<tr>
<td></td>
<td>Continuous 112 dB</td>
</tr>
<tr>
<td></td>
<td>Peak 124 dB</td>
</tr>
<tr>
<td>Transformer</td>
<td>70 V: 80 W, 40 W, 20 W, 10 W; 100 V: 80 W, 40 W, 20 W</td>
</tr>
<tr>
<td>Crossover / Protection</td>
<td>1.55 kHz crossover, driver protection circuitry</td>
</tr>
<tr>
<td>Required Accessories</td>
<td>50 Hz, 12 dB / oct. Butterworth high pass filter; DSP preset</td>
</tr>
<tr>
<td>Recommended Amplifiers</td>
<td>250 W - 500 W, 8Ω (45 V - 63 V)</td>
</tr>
</tbody>
</table>

**PHYSICAL**

| Input Connection               | Lever-actuated wire clamping 4-position terminal block with pass-through |
| Controls                       | Wattage / low impedance selector switch                           |
| Mounting Provisions            | ClickMount pan-tilt bracket or ClickMount U-Bracket               |
| Compliance                     | ETL listed to comply with UL 1480A, CSA STD C22.2# 62368-1, EN54-24, ISO 7240-24, IEC 62368-1 |
| Environmental Rating           | IP54 per IEC 60529, IEC 60068-2-5 (Solar Radiation), IEC 60068-2-1 (Salt Mist), IEC 60068-2-42 (SO2), IEC 60068-2-60 (Chlorine) |
| Dimensions H x W x D           | 458mm x 260mm x 263mm (18” x 10.2” x 10.4”)                      |
| Weight (loudspeaker only)      | 11.2 kg [24.73 lbs]                                              |
| Finish                         | Refer to the Technical Drawings (pages 3-4)                      |
| Models (Order by mounting option) | EX-S8-CM [-B,-W] - loudspeaker with large ClickMount pan-tilt bracket |
|                                 | EX-S8-UB [-B,-W] - loudspeaker with ClickMount U-Bracket and ClickPlug |

**OPTIONS**

| Accessories                     | CMX-LG [-B,-W] - Large ClickMount Pan-tilt Bracket Kit |
|                                 | EXUB-S8 [-B,-W] - EX-S8 ClickMount U-Bracket kit     |

**APPLICATIONS**

DISTRIBUTED
Bars and Restaurants · Hotels · Casinos
Shopping Malls · Health and Fitness Clubs
Houses of Worship · Presentation Spaces
Sports Facilities · Outdoor Entertainment
Exhibit Halls · Amusement and Theme Parks

**DESCRIPTION**

The Desono™ EX surface mount loudspeakers provide excellent acoustic performance in elegant, attractive aesthetics for a diverse range of indoor and outdoor distributed applications. EX Series includes three two-way, full-range models and one matching-enclosure subwoofer. All full-range models include 70 V/100 V transformers and low impedance inputs. They deliver high voice intelligibility, wide bandwidth and exceptional uniform coverage.

The Desono EX-S8 is an 8” two-way surface mount loudspeaker that provides detailed voicing with projection. It is an excellent fill or distributed loudspeaker for systems where pristine voice clarity, higher output and more bass is desired.

Designed for easy and fast installation, our innovative, patented ClickMount™ brackets provide installers with two distinct mounting options. The ClickMount pan-tilt bracket provides indexed aiming control and allows for mounting EX Series quickly in either vertical or horizontal orientation without moving the bracket position. The ClickMount U-Bracket is also available for low-profile mounting or exterior use and includes the ClickPlug with an integrated gland nut for weather-resistant applications. Both brackets are theft and tamper resistant.
DESONO EX-S8 TWO-WAY COAXIAL 8-INCH SURFACE MOUNT LOUDSPEAKER

AXIAL PROCESSED SENSITIVITY (dB SPL)\(^8\)

HORIZONTAL OFF-AXIS RESPONSE (dB SPL)\(^9\)

AXIAL SENSITIVITY (dB SPL)\(^8\)

VERTICAL OFF-AXIS UP RESPONSE (dB SPL)\(^9\)

IMPEDANCE (Ω)

VERTICAL OFF-AXIS DOWN RESPONSE (dB SPL)\(^9\)

DIRECTIVITY INDEX (dB)\(^10\)

BEAMWIDTH (degrees)\(^11\)
**TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S8-CM]**

**H x W x D**
442mm x 260mm x 263mm
[17.4” x 10.2” x 10.4”]

**Unit Weight**
11.2 kg [24.73 lbs] loudspeaker only
11.8 kg [25.96 lbs] loudspeaker + bracket

**Shipping Weight**
TBD

**Grille**
Powder-coated perforated Marine Grade aluminum backed with hydrophobic cloth
Black or White

**Enclosure / Bracket / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Bracket: Heavily reinforced glass-filled nylon with UV-resistant painted matte finish cover
Color: Black (RAL 9017) or White (RAL 9016)

**Dimensions**

- Outer dimensions:
  - Width: 10.2" (260mm)
  - Depth: 10.4" (263mm)
  - Height: 17.4" (442mm)

- Weight:
  - Loudspeaker: 24.73 lbs (11.2 kg)
  - Loudspeaker + Bracket: 25.96 lbs (11.8 kg)

**Grille**
Powder-coated perforated Marine Grade aluminum backed with hydrophobic cloth. Available in Black or White.

**Enclosure / Bracket / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish.
Bracket: Heavily reinforced glass-filled nylon with UV-resistant painted matte finish cover.
Color options: Black (RAL 9017) or White (RAL 9016).
TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S8-UB]

H x W x D
458 mm x 260 mm x 263 mm
[18” x 10.2” x 10.4”]

Unit Weight
11.2 kg [24.73 lbs] loudspeaker only
11.8 kg [26.01 lbs] loudspeaker + bracket

Shipping Weight
TBD

Grille and U-Bracket
Powder-coated Marine Grade aluminum. Grille is perforated and backed with hydrophobic cloth
Black (RAL 9017) or White (RAL 9016)

Enclosure / Finish
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Black (RAL 9017) or White (RAL 9016)
**DESONO**

**EX-S8**

TWO-WAY COAXIAL 8-INCH SURFACE MOUNT LOUDSPEAKER

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**EX-S8-CM**

EX-S8 Loudspeaker with ClickMount pan-tilt bracket

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**EX-S8-UB**

EX-S8 Loudspeaker with ClickMount U-Bracket and ClickPlug

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**Large ClickMount Pan-tilt Bracket**

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**Pivot angle (portrait orientation)**

Horizontal 120° in 10° increments
Vertical 56° in 8° increments (32° down-tilt)

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**Pivot angle**

200° in 10° increments

---

**SPECIFICATIONS FOR EN54-24**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (1 W, 4 m)</td>
<td>76.7 dB</td>
</tr>
<tr>
<td>Maximum SPL (4 m)</td>
<td>97.8 dB (Low Z)</td>
</tr>
<tr>
<td></td>
<td>95.5 dB (80 W tap)</td>
</tr>
<tr>
<td>Coverage (-6 dB)</td>
<td>500 Hz: 180°/145°</td>
</tr>
<tr>
<td>Horiz/Vert</td>
<td>1 kHz: 120°/115°</td>
</tr>
<tr>
<td></td>
<td>2 kHz: 95°/110°</td>
</tr>
<tr>
<td></td>
<td>4 kHz: 85°/85°</td>
</tr>
<tr>
<td>Rated Impedance for Taps</td>
<td>Low Z: 8 Ω; 80 W: 55 Ω; 40 W: 110 Ω; 20 W: 230 Ω; 10 W: 460 Ω</td>
</tr>
</tbody>
</table>

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**AXES AND PLANES**

1. Reference Plane (green) is coincident with the front of the LF mounting ring
2. Reference Axis (black) perpendicular to the reference plane, passing through the center of the coaxial LF/HF driver
3. Horizontal Plane (red) intersects the reference plane and the vertical plane at a right angle and includes the reference axis
4. Vertical Plane (blue) intersects the reference plane at a right angle including the reference axis and the center point of the cabinet’s front radius

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Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice. Data presented on this data sheet represents the basic performance specifications for the model. For a detailed analysis of this loudspeaker’s performance, please download the GLL file and/or the CLF file from our website: biamp.com
CONNECTION DIAGRAMS

Single amp

Amp

/+–

Passive

Input

Crossover

/+–

Passive

Thru

Tap Switch / Input Panel

CAUTION: Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting design.

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 PIR 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 input voltage at the stated nominal impedance that the system can withstand, without damage, for a period of 2 hours using an IEC 60268-5 defined spectrum with recommended signal processing and protection filters.

5. NOMINAL MAXIMUM SPL The SPL produced when an IEC 60268-5 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 2:1 (6 dB) crest factor of the IEC 60268-5 test signal.

6. RATED CONTINUOUS VOLTAGE The maximum continuous 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 2.83 V, 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 responses have 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