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, CE marked, and RoHS compliant
- CSA 62368-1, EN54-24 and ISO 7240-24 certification pending

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^a</td>
<td>58 Hz to 20 kHz</td>
</tr>
<tr>
<td>Nominal Beamwidth (H x V)</td>
<td>110°, conical</td>
</tr>
<tr>
<td>Transducers</td>
<td>LF 1 x 6.5&quot; (165 mm) treated paper cone</td>
</tr>
<tr>
<td></td>
<td>HF 1 x 1&quot; (25 mm) horn-loaded treated soft dome</td>
</tr>
<tr>
<td>Continuous Power Handling^a @ Nominal Impedance</td>
<td>Passive</td>
</tr>
<tr>
<td>Sensitivity^a</td>
<td>1 W / 1 m 89 dB @ 1 W / 4 m 89 dB</td>
</tr>
<tr>
<td></td>
<td>1 W / 4 m</td>
</tr>
<tr>
<td>Nominal Maximum SPL^a</td>
<td>Passive</td>
</tr>
<tr>
<td></td>
<td>1 W / 1 m 118 dB</td>
</tr>
<tr>
<td></td>
<td>1 W / 4 m</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>Declared values of SPL</td>
<td>1/3 Oct band CPB, 1 W / 4 m, per EN54-24 (Hz : dB)</td>
</tr>
<tr>
<td>Coverage (-6 dB)</td>
<td>500 Hz: TBD 2 kHz: TBD 4 kHz: TBD</td>
</tr>
<tr>
<td>Horiz/Vert per EN54-24</td>
<td>500 Hz: TBD 2 kHz: TBD 4 kHz: TBD</td>
</tr>
<tr>
<td>Crossover / Protection</td>
<td>1600 Hz crossover, dynamic 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>200 W - 400 W @ 8 ohms (40 V-57 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, pending EN54-24, ISO 7240-24, IEC 62368-1 pending |
| Environmental Rating | IIP54 per IEC 60529, IEC 60068-2-5 (Solar Radiation), IEC 60068-2-11 (Salt Mist), IEC 60068-2-42 (SO2), IEC 60068-2-60 (Chlorine) |
| Dimensions H x W x D | 13.8" x 8.5" x 8.7" (350 mm x 217 mm x 220 mm)                     |
| Weight (loudspeaker only) | 14.4 lbs (6.5 kg)                                                 |
| Finish           | Refer to the Technical Drawings (pages 3-4)                       |
| Models (Order by mounting option) | EX-S6-CM [-B,-W] - loudspeaker with small ClickMount pan-tilt bracket EX-S6-UB [-B,-W] - loudspeaker with ClickMount U-Bracket and ClickPlug |

OPTIONS

| Accessories | CMX-5M [-B,-W] - Small ClickMount pan-tilt bracket kit EXUB-S6 [-B,-W] - EX-S6 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-S6, the smallest member of EX Series, 6.5” two-way surface mount loudspeaker provides discreet, distributed sound in applications requiring exceptional audio clarity with a small visual footprint. With its wide coverage angle at 110° wide and flat response down well below 80 Hz, EX-S6 is optimal for near-field listening.

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.

DATA SHEET

DESONO™
EX-S6 TWO-WAY COAXIAL 6.5-INCH SURFACE MOUNT LOUDSPEAKER
**DESONO**
**EX-S6**
**TWO-WAY COAXIAL 6.5-INCH SURFACE MOUNT LOUDSPEAKER**

**PROCESSED AXIAL RESPONSE (dB SPL)**
![Graph showing processed axial response (dB SPL)]

**AXIAL SENSITIVITY (dB SPL)**
![Graph showing axial sensitivity (dB SPL)]

**IMPEDIANCE (ohms)**
![Graph showing impedance (ohms)]

**DIRECTIVITY INDEX (dB SPL)**
![Graph showing directivity index (dB SPL)]

**HORIZONTAL OFF-AXIS RESPONSE (dB SPL)**
![Graph showing horizontal off-axis response (dB SPL)]

**VERTICAL OFF-AXIS UP RESPONSE (dB SPL)**
![Graph showing vertical off-axis up response (dB SPL)]

**VERTICAL OFF-AXIS DOWN RESPONSE (dB SPL)**
![Graph showing vertical off-axis down response (dB SPL)]

**BEAMWIDTH (Degrees)**
![Graph showing beamwidth (Degrees)]
TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S6-CM]

**H x W x D**
13.8" x 8.5" x 8.7"
(350 mm x 217 mm x 220 mm)

**Unit Weight**
14.4 lbs (6.5 kg) loudspeaker only
15.5 lbs (7.0 kg) loudspeaker + bracket

**Shipping Weight**
18.7 lbs (8.46 kg)

**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)
**TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S6-UB]**

**H x W x D (loudspeaker)**
13.8" x 8.5" x 8.7"
(350 mm x 217 mm x 220 mm)

**Unit Weight**
14.3 lbs (6.48 kg) loudspeaker only
15.3 lbs (6.93 kg) loudspeaker + bracket

**Shipping Weight**
18.6 lbs (8.45 kg)

**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-S6**

TWO-WAY COAXIAL 6.5-INCH SURFACE MOUNT LOUDSPEAKER

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**EX-S6-CM**

EX-S6 Loudspeaker with ClickMount pan-tilt bracket

- Small ClickMount Pan-tilt Bracket

**Pivot angle (portrait orientation)**
- Horizontal 120° in 10° increments
- Vertical 56° in 8° increments (32° down-tilt)

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**EX-S6-UB**

EX-S6 Loudspeaker with ClickMount U-Bracket and ClickPlug

- U-Bracket
- ClickPlug

**Pivot angle**
- 200° in 10° increments

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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 spec 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
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. TECHNICAL SPECIFICATIONS  All measurements are performed indoor at 6 m resulting in a time-windowed impulse response minimizing room effects, approximating an anechoic environment. All acoustic specifications are rounded to the nearest whole number. An external DSP using recommended 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 in which the on-axis, processed response remains within 10 dB of the SPL denoted as the Sensitivity.

3. CONTINUOUS POWER HANDLING  Maximum continuous input voltage (and the equivalent power rating, in watts, at the stated nominal impedance) that the system can withstand, without damage, for a period of 2 hours using a signal with an IEC 60268-5 defined spectrum; with recommended signal processing and protection filters applied.

4. SENSITIVITY  SPL of the loudspeaker with a broadband (limited to the loudspeaker’s Operating Range) input voltage of 2.83 V; 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.

5. NOMINAL MAXIMUM SPL  Calculated SPL based on Continuous Power Handling, and Sensitivity; exclusive of power compression. A crest factor of 6 dB is assumed.

6. PROCESSED AXIAL RESPONSE  The on-axis variation of the acoustic output level with frequency of the complete loudspeaker system with recommended signal processing applied. The response has 1/6 octave Gaussian smoothing applied.

7. AXIAL SENSITIVITY  On-axis variation of the acoustic output level with frequency for a 1 Watt swept sine wave, referenced to 1 meter. No external signal processing is applied. The response has 1/6 octave Gaussian smoothing applied.

8. HORIZONTAL / VERTICAL OFF-AXIS RESPONSES  The variation of the acoustic output level at various off-axis angles. The recommended external signal processing is applied employing the operating mode which utilizes the largest number of individually amplified pass bands. The response has 1/6 octave Gaussian smoothing applied.

9. DIRECTIVITY INDEX  The variation with frequency for the ratio of the on-axis SPL to the mean SPL at the same distance for all points within the measurement sphere around the loudspeaker. The response has 1/6 octave Gaussian smoothing applied.

10. BEAMWIDTH  The 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 response has 1/6 octave Gaussian smoothing applied.

Data presented on this spec 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