TECHNICAL DATA

DesignMax DM8C
in-ceiling loudspeaker

Product Overview
With coaxial two-way drivers, the 150-watt DesignMax DM8C loudspeaker delivers powerful SPL suitable for foreground music — along with premium aesthetics that complement any commercial sound installation. The DM8C features a two-way, 8-inch woofer and a center-firing coaxial 1-inch compression driver, delivering a 52 Hz – 20 kHz frequency range. The in-ceiling DM8C is installed easily via QuickHold mounting arms.

Key Features
Combine DesignMax models to complete any design, big or small — 12 loudspeakers to mix and match, from 2-inch, low-profile models to 8-inch, high-SPL compression-driver loudspeakers and outdoor-rated options.

Deliver rich lows and clear, intelligible highs with coaxial two-way drivers — no DSP or EQ required. For even better sound, use select Bose DSPs and amplifiers to enable Bose loudspeaker EQ and SmartBass processing, which expands performance and response at any listening level.

Blend with any room design with elegant form factors, minimum-bezel grilles available in black or white, and removable logos.

Reduce installation time with the patented QuickHold mounting system, which also reduces strain, hassle, and the chance of product damage.

Install easily with industry-standard accessories — all models include Euroblock connectors; in-ceiling models include plenum-rated backcans, tile bridges, and front-access audio wiring that makes installation and troubleshooting easier.

Deliver high SPL for demanding applications, including high-ceiling venues such as ballrooms, concourse, and convention centers.

Technical Specifications

<table>
<thead>
<tr>
<th>SINGLE LOUDSPEAKER PERFORMANCE</th>
<th>AES transducer test (4)</th>
<th>Bose extended-lifecycle test (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response (-3 dB) (1)</td>
<td>60 – 20,000 Hz</td>
<td></td>
</tr>
<tr>
<td>Frequency Range (-10 dB) (2)</td>
<td>52 – 20,000 Hz</td>
<td></td>
</tr>
<tr>
<td>Nominal Coverage Angle (1 – 4 kHz)</td>
<td>135° conical</td>
<td></td>
</tr>
<tr>
<td>Nominal Coverage Angle (1 – 10 kHz)</td>
<td>120° conical</td>
<td></td>
</tr>
<tr>
<td>Power Handling, long-term continuous</td>
<td>150 W</td>
<td>125 W</td>
</tr>
<tr>
<td>Power Handling, peak</td>
<td>600 W</td>
<td>500 W</td>
</tr>
<tr>
<td>Sensitivity (SPL/ 1W @ 1 m) (2)</td>
<td>91 dB</td>
<td>91 dB</td>
</tr>
<tr>
<td>Calculated Maximum SPL @ 1 m (1)</td>
<td>113 dB</td>
<td>112 dB</td>
</tr>
<tr>
<td>Calculated Maximum SPL @ 1 m, peak</td>
<td>119 dB</td>
<td>118 dB</td>
</tr>
<tr>
<td>Crossover</td>
<td>1.5 kHz (passive 2-way crossover)</td>
<td></td>
</tr>
<tr>
<td>Loudspeaker EQ</td>
<td>Not Required, Bose EQ voicing and SmartBass processing available</td>
<td></td>
</tr>
<tr>
<td>Recommended High-Pass Protection</td>
<td>48 Hz with recommended 24 dB / octave filter</td>
<td></td>
</tr>
<tr>
<td>Overload protection</td>
<td>Resistor-network power reduction with automatic reset</td>
<td></td>
</tr>
<tr>
<td>Transformer taps</td>
<td>70V: 2.5, 5, 10, 20, 40, 80 W; bypass</td>
<td>100V: 5, 10, 20, 40, 80 W, bypass</td>
</tr>
</tbody>
</table>

TRANSUDERS

Low Frequency | 1 x 8-inch woofer (203 mm) |
High Frequency | 1 x 1-inch compression driver, coaxial center-firing (25 mm) |
Nominal Impedance | 8 ohms (transformer bypass) |
# DesignMax DM8C
in-ceiling loudspeaker

## PHYSICAL

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure Material</td>
<td>Engineered plastics front baffle with integrated steel formed backcan</td>
</tr>
<tr>
<td>Grille</td>
<td>Magnetically attached perforated steel, powder-coated finish, paintable, with safety-tether</td>
</tr>
<tr>
<td>Logo</td>
<td>Rotatable, removable</td>
</tr>
<tr>
<td>Color</td>
<td>Black: RAL 9005, White: Bose Arctic White, similar to RAL 9003, Paintable</td>
</tr>
<tr>
<td>Environmental</td>
<td>Indoor only</td>
</tr>
<tr>
<td>Safety Agency</td>
<td>UL-1480A, 55591/ UL Listed, in compliance with UL2043 for plenum-space installation, NFPA70 &amp; NFPA90-A, CE compliant</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>0 °C to 50 °C (32 °F to 122 °F)</td>
</tr>
<tr>
<td>Connectors</td>
<td>Euroblock 6-pin connector with loop-through, front-baffle mounted. Accepts 18 AWG (0.8 mm²) to 14 AWG (2.5 mm²) size wire</td>
</tr>
<tr>
<td>Wire / Conduit Entry</td>
<td>Single top wire entry point allows for 9.5 mm (3/8 in) conduit</td>
</tr>
<tr>
<td>Suspension / Mounting</td>
<td>Three (3) QuickHold, spring-loaded long travel mounting arms plus three (3) safety cable locations</td>
</tr>
<tr>
<td>Product Dimensions (Grille Diameter × Depth)</td>
<td>409 × 255 mm (16.1 × 10.0 in)</td>
</tr>
<tr>
<td>Backcan Dimensions (Diameter × Depth)</td>
<td>340 × 240 mm (13.4 × 9.5 in)</td>
</tr>
<tr>
<td>Cutout size [Diameter]</td>
<td>349 mm (13.75 in)</td>
</tr>
<tr>
<td>Maximum Ceiling Thickness</td>
<td>76 mm (3.0 in)</td>
</tr>
<tr>
<td>Net Weight, Loudspeaker with Grille</td>
<td>9.6 kg (21.1 lb)</td>
</tr>
<tr>
<td>Net Weight, Tile Bridge</td>
<td>1.0 kg (2.2 lb)</td>
</tr>
<tr>
<td>Shipping Weight, Single</td>
<td>12.7 kg (28.0 lb)</td>
</tr>
<tr>
<td>Included Accessories</td>
<td>Adjustable Tile-Bridge, Template</td>
</tr>
<tr>
<td>Optional Accessories</td>
<td>Rough-in 6-pack for new construction</td>
</tr>
</tbody>
</table>

## PRODUCT CODES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>802080-0110</td>
<td>DESIGNMAX DM8C SINGLE BLK</td>
</tr>
<tr>
<td>802080-0210</td>
<td>DESIGNMAX DM8C SINGLE WHT</td>
</tr>
</tbody>
</table>

---

Footnotes

(1) Frequency response and range measured on-axis in half-space environment with Bose EQ voicing
(2) Sensitivity measured on-axis in half-space environment averaged 100 Hz to 10 kHz using recommended High-Pass protection
(3) Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.
(4) AES standard 2-hour duration with IEC system noise
(5) Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
(6) Measured in whole-space conditions

For additional specifications and application information, please visit PRO.BOSE.COM.
Specifications subject to change without notice. 09/2020
DesignMax DM8C
in-ceiling loudspeaker

On-Axis Frequency Response

Impedance

Beamwidth

For additional specifications and application information, please visit PRO.BOSE.COM.
Specifications subject to change without notice. 09/2020
DesignMax DM8C
in-ceiling loudspeaker

Dimensions

For additional specifications and application information, please visit PRO.BOSE.COM.
Specifications subject to change without notice. 09/2020

NOTES:
1. DIMENSIONS ARE IN MILLIMETERS OVER INCHES
2. WEIGHT APPROX 9.8kg [21.1lbs]