Control 416C/T

Standard Coverage Series – Two-Way 6.5” Coaxial Ceiling Loudspeaker

JBL PROFESSIONAL

SPEC SHEET



Shown both with and without included white, round grille.

KEY FEATURES

- Coaxially mounted 165 mm (6.5 in) woofer and 20 mm (0.75 in) soft-dome tweeter
- Stylish bezel-less grille blends elegantly into room design
- Combined 70 V/100 V and low impedance direct operation
  - 50 W (200 W peak) at 8Ω nominal setting
  - 30 W multi-tap transformer
- 61 Hz – 20 kHz Frequency Range

HIGHLIGHTS

Part of the Control 400 collection’s Standard Coverage Series, the Control 416C/T is a two-way ceiling speaker with a 165 mm (6.5 inch) woofer and 20 mm (0.75 inch) soft-dome tweeter mounted coaxially. The drivers are mounted in a ported baffle, with a pre-attached backcan for quick and easy installation. The Control 416C/T is designed to provide exceptional sound quality for a wide range of low to medium volume applications such as music café’s, business music systems, retail stores, music/paging systems, airports, reception/waiting rooms, lounges, courtrooms, convention centers, hotels, educational facilities, and more.

The 120° coverage delivers consistent sound quality for listeners located both off and on axis.

High power handling, wide frequency response and low distortion make the Control 416C/T ideal for sound systems requiring a higher fidelity sound. The premium performance capability ensures excellent sound character, providing pleasant, enveloping sound throughout the listening space. For applications where more bass is desired, the Control 416C/T is tuned to pair well with the Enhanced Coverage Series Control 419CS/T subwoofer.

The direct input’s high 8Ω impedance allows paralleling of up to 2 speakers on a 4Ω rated amplifier channel. For distributed systems, the UL-registered transformer is designed for exceptionally low-saturation, even at high drive levels, providing top quality, low distortion distributed sound character.

The full-face bezel-less grille blends beautifully into room décor, and the magnetic attachment of the grille is supplemented with an easy-to-apply safety tether. The speaker is packaged with grille, integral backcan, C-ring, and tile rails for fast installation. The included white grille is paintable (grille backing is removeable and re-applicable for painting), and optional accessory grilles are available in black (JBL-MTC-416BG) and in square (JBL-MTC-416SG, white only).

The Control 416C/T is UL 1480A and UL 2043 listed.

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SPECIFICATIONS

SYSTEM	
Frequency Range (-10 dB)[1]:	61 Hz – 20 kHz
Frequency Response (±3 dB)[1]:	84 Hz – 19 kHz
Power Capacity[2]:	150 W Continuous Program (2 hrs) 75 W (300 W Peak), Continuous Pink Noise (2 hrs) 50 W (200 W Peak), Continuous Pink Noise (100 hrs)
Sensitivity[3]:	89 dB
Nominal Coverage Angle[3]:	120° conical
Directivity (Q)[3]:	4.5
Directivity Index (DI)[3]:	6.5 dB
Rated Maximum SPL @ 1m[4]:	108 dB continuous pink noise (114 dB peak)
Nominal Impedance:	8Ω
Minimum Impedance:	6.6Ω @ 250Hz
Transformer Taps:	70 V: 30 W, 15 W, 7.5 W & 3.8 W 100 V: 30 W, 15 W, 7.5 W
Recommended Protective High-Pass Filter Frequency:	70 Hz (24 dB/oct LR)
Transformer Insertion Loss:	0.9 dB @ 3.8 W; 0.8 dB @ 7.5 W; 0.8 dB @ 15 W; 0.9 dB @ 30 W
Maximum Input Voltage:	22.2 V RMS. 44.5 V Peak (2hrs at 8Ω Input)
Overload Protection:	PTC power limiting to protect network and transducers from occasional overload.
Safety Agency Ratings:	Suitable for use in air handling spaces per UL 2043, NFPA 90A & NFPA 70. S7232/UL Listing per UL 1480A Speakers for Commercial and Professional Use. Listed per CSA C22.2, no. 205 Signal Equipment. Transformer UL registered.
Environmental:	IP rating: IP33 per EN/IEC 60529. RoHS: Per EU RoHS Directive 2011/65/EU, as amended by EU Delegated Directive (EU) 2015/863. Operating temperature: 0° C to 45 °C.
TRANSDUCERS:	
LF Driver:	165 mm (6.5 in) with paper cone, Polymerized Styrene Butadiene Rubber surround.
HF Driver:	20 mm (0.75 in) with highly damped treated soft-dome, neodymium magnet assembly, polyimide voice coil, wide dispersion waveguide.
ENCLOSURE	
Enclosure Material	**Backcan:** Powder-coated formed steel **Baffle:** PC/ABS, flammability rated UL 94 5VB
Grille:	Bezel-less, SPCC grille with powder-coat finish, flammability-rated backing (removable and re-applicable for painting). Stock grille is white (RAL9003), round. Black (RAL9004) round and white square available as optional accessories. Safety tether with tether stake pre-attached to grille.
Termination:	Two removable locking euro-block 2-pin connectors with screw-down terminals for bare wire. Connectors paralleled for input and loop-thru. Min. wire 20 AWG (0.5 mm²); Max. wire 12 AWG (3.3 mm²). Terminal cover hinged with 1 captive screws for attachment (no loose hardware).
Wire Entrance/Exit Location:	Multi-use strain relief (for wires or flex conduit) provided. Optional positioning on either top panel (for easiest installation through ceiling cutout) or side of backcan (for lowest depth profile above ceiling).
Attachment Fastening:	4 dog-ear attachment tabs for ceiling thicknesses between 1 mm and 60 mm ceiling board thickness.

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SPECIFICATIONS (Cont.)

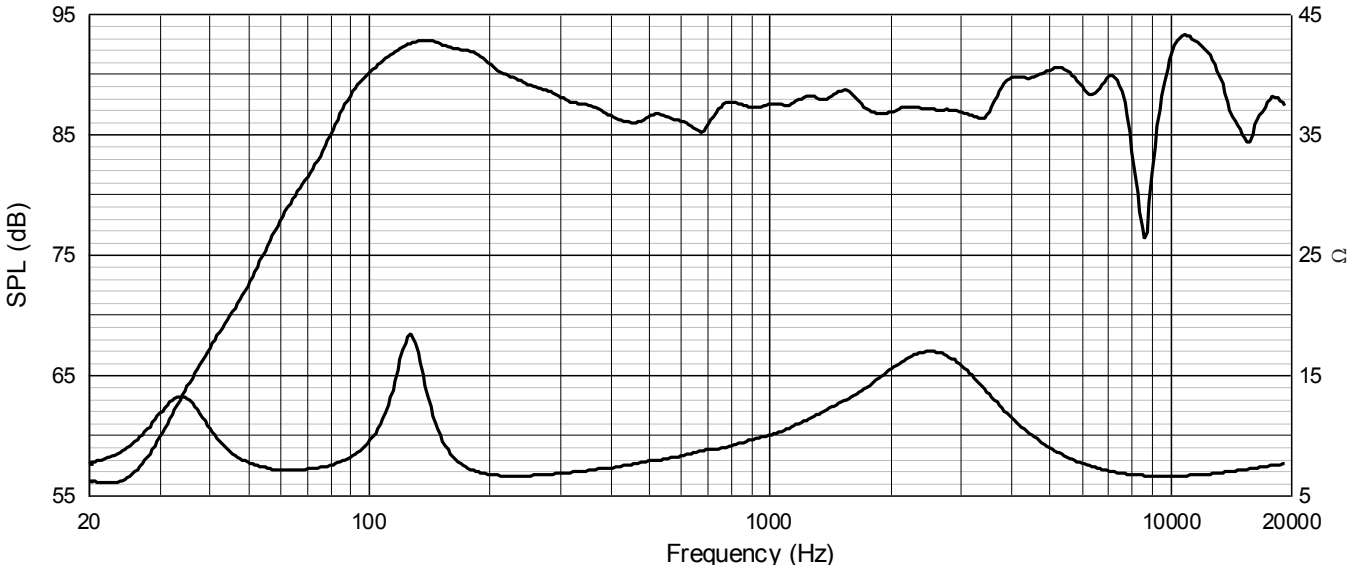
ENCLOSURE (Cont.)	
Reinforcing Brackets:	Zinc-plated C-ring and 2 tile rails included for additional support above ceiling. Additional safety tab on backcan for secondary safety cable..
Dimensions (H x Dia):	143 mm (5.7 in) H x 203 mm (8.1 in) dia. 134 mm (5.4 in) from bottom of ceiling tile to top of backcan (with wire exit positioned on side of backcan).
Ceiling Cutout Size:	223 mm (8.8 in)
Net Weight (each):	3.75 kg (8.27 lbs)
Shipping Weight (pair-packed in carton):	12.64 kg (27.87 lbs)
Included Accessories (per speaker):	Two 2-pin removable locking euro-block connectors, 1 cable strain relief, white round bezel-less grille (with pre-attached safety tether and tether clip), cutout template (labeled part of the packaging), C-ring, 2 tile rails (fits both 2 x 4 ft and 600 x 1200 mm tiles), c-ring/tile-rail screws, 1 seal cover, 2 rubber boots.
Optional Accessories:	JBL-MTC-416BG black (RAL9004) round grille JBL-MTC-416SG white (RAL9003) square grille JBL-MTC-416WG weather grille JBL-MTC-426NC new construction bracket JBL-MTC-426MR mud-ring construction bracket JBL-MTC-48TRX4 tile rail for 4’ x 4’ ceiling tiles
Colors:	Stock grille is white (RAL9003), paintable.
SKU #:	JBL-C416C/T

[1] Half-space (mounted in ceiling, 2π, half-space of free-field), with no high-pass filter.
[2] Continuous Pink Noise rating is IEC-shaped pink noise with a 6 dB crest factor for 100 hours and 2 hours continuously. Continuous Program power is a conservative expression of the system’s ability to handle normal speech and music program material and is defined as 3 dB above the Continuous Pink Noise Rating.
[3] Half-space (mounted in ceiling, 2π, half-space of free-field), average 1kHz to 6 kHz.
[4] 8Ω mode, calculated from sensitivity and 2 hr power handling, exclusive of power compression.

For additional information, see Control Contractor 410 Series Ceiling Loudspeakers Owner’s Manual, C410_CLGSPKMAN.
JBL continuously engages in research related to product improvement. Changes introduced into existing products without notice are an expression of that philosophy.

FREQUENCY RESPONSE & IMPEDANCE

Half-space, 8Ω, on-axis (typical for coverage area)



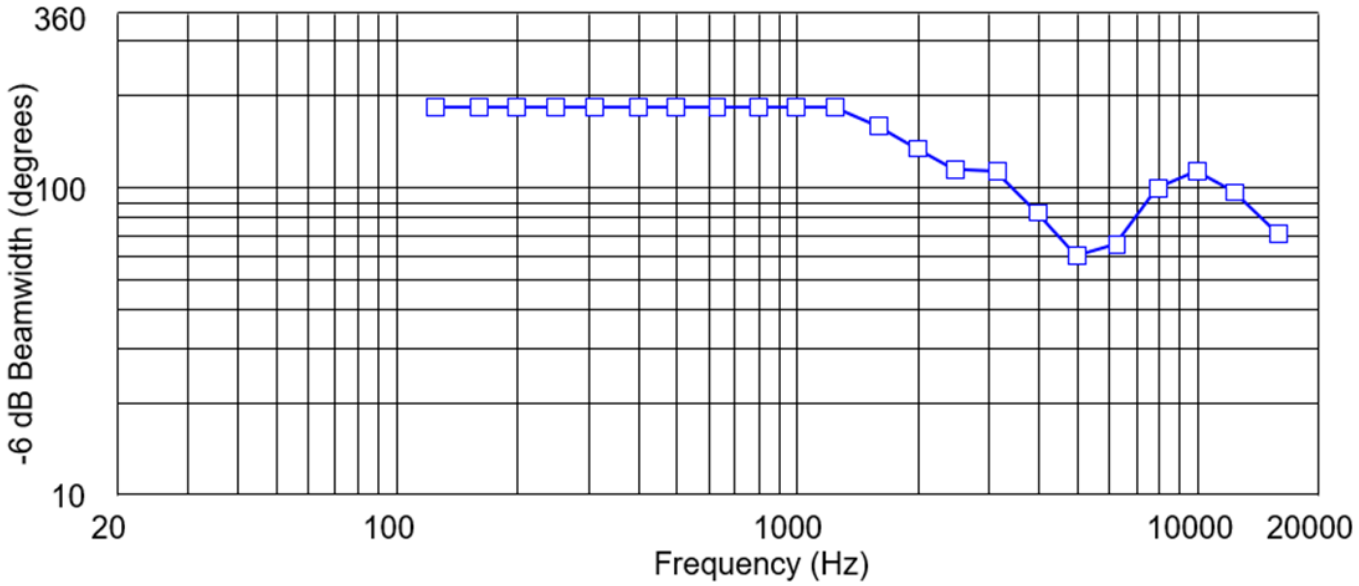
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BEAMWIDTH ■

-6 dB coverage by frequency



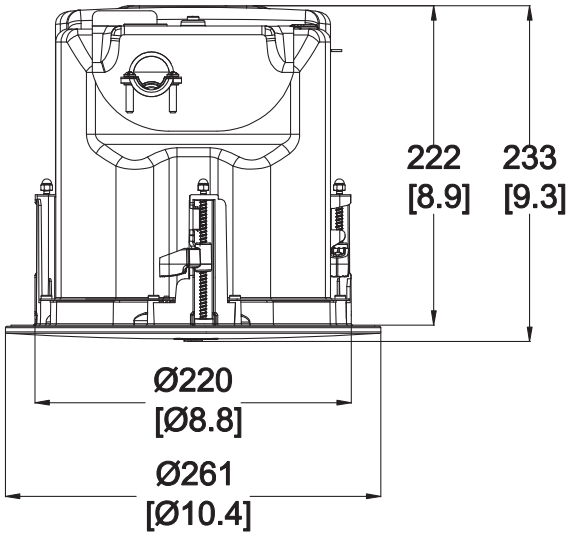
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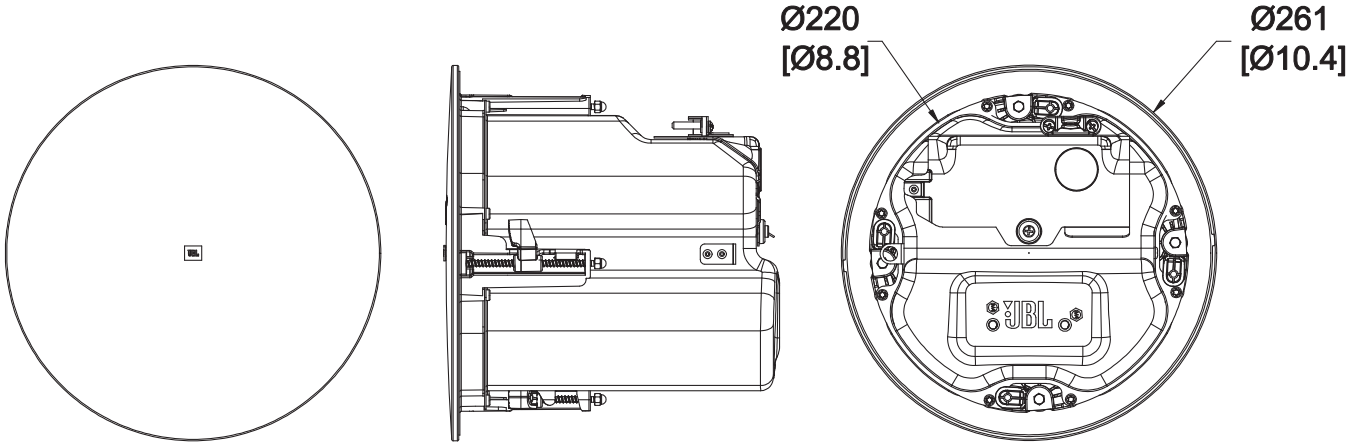
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DIMENSIONS ■

Dimensions in mm (in)





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Issued: 07/30/2025