# UBL Control<sup>®</sup> 328C/CT

8" Coaxial Ceiling Loudspeaker with HF **Compression Driver** 

#### **Professional Series**

## **Key Features:**

- Consistent 120° broadband pattern control covers an extremely large area.
- ▶ Shaped mounting baffle provides the pattern control of a 300 mm (12 in) horn from a 200 mm (8 in) driver.
- Components
  - 200 mm (8 in) woofer with Kevlarreinforced cone and 50 mm (2 in) voice-coil.
  - 25 mm (1" exit) compression driver.
- Extraordinary clarity for speech and vocals with extended frequency response for music.
- 250 Watt power handling with very high sensitivity provides high SPL capability.
- ► Advanced high-slope crossover network for constant coverage and smooth, natural midrange.
- Clean, contemporary grille and optional backbox available.

# **Applications:**

Control 328C and Control 328CT have been engineered from the ground up to deliver exceptional next-generation performance in a coaxial point source design ceiling loudspeaker. The combination of the low frequency cone and the shaped mounting baffle performs as a true 12 inch (300 mm) diameter waveguide for the high frequencies. A unique metal throat transitions seemlessly to the horn to eliminate high frequency beaming which is common among this category of speaker. The result is a coaxial speaker with wide, extremely consistent 120° coverage on a broadband basis.

Component features include a Kevlarreinforced low frequency cone for reliability, well-damped surround for smooth frequency response, high temperature voicecoil and a reduced distortion design through saturated-gap magnet geometry. The high frequency driver features a pure titanium diaphragm for high sensitivity and long life, with diamond surround for resonance control and FerroFluid<sup>™</sup> for increased power handling.

The Control 328C and Control 328CT are easy to install. The removable multi-pin locking connector, with secure screw-down terminals, allows for pre-wiring the input wires for easy clip-on convenience during installation.

The clean, contemporary look of the optional MTC-RG6/8 round grille is designed to suit high-end venues, offering a simple, elegant appearance that fits into a wide variety of décors.

The optional MTC-300BB8 one cubic foot backcan is made of extra-thick 16 gauge steel and the top is lined with  $\frac{1}{2}$ " medium density fiberboard.

The transformer version Control 328CT comes with a pre-attached top quality, low saturation 68 Watt multi-tap transformer for 70V/100V distributed speaker lines.

To ensure long life and reliability, Control 328C/CT passes JBL's 100-hour torture power test, the toughest standard in the industry.



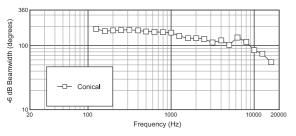
# **Specifications:**

System:	Frequency Range (-10 dB) <sup>1</sup> :	45 Hz – 18 kHz
	Frequency Response (±3 dB)1:	60 Hz – 16 kHz
	Coverage Pattern <sup>2</sup> :	120° conical, broadband
	Directivity Factor (Q):	7.0 (Avg 1k - 16kHz)
	Directivity Index (DI):	8.5dB (Avg 1k - 16kHz)
Lor	ng-Term System Power Rating, IEC3:	250 W (1000 W peak), 2 hrs
		150 W (600 W peak), 100 hrs
	Sensitivity (2.83V@ 1m):	93 dB <sup>4</sup> measured half-space 98 dB <sup>5</sup> computed for competitive comparison
	Maximum SPL <sup>6</sup> :	118 dB cont ave (124 dB peak)
	Crossover Network:	1.9 kHz, 3rd order (18 dB/oct) high-pass plus conjugate to HF, 2nd order low-pass to LF.
	Nominal Impedance (328C):	8 ohms
	Transformer Taps (328CT):	70V: 68W, 34W, 17W, 8.5W 100V: 68W, 34W, 17W
Transducers:	Low Frequency Driver:	Kevlar reinforced cone, 50 mm (2 in) voice coil.
	High Frequency Driver:	JBL 2412H-1 compression driver, 25 mm (1 in) voice coil.
Physical:	Input Connector (328C):	Removable locking connector with screw-down terminals. Max wire 12 AWG (2.5 mm2) 328C: 1) + in, 2) + loop out, 3) – loop out, 4) – in
	Tap Connection (328CT):	328CT: A) Common B) 8.5W@70V, 17W@100V C) 17W@70V, 34W@100V D) 34W@70V, 68W@100V E) 68W@70V, n/c@100V
	Safety Agency Rating:	Suitable for use in air handling spaces per UL1480, UL2043, NFPA90 & NFPA 70 when installed with UL listed backcan such as JBL MTC-300BB8. S7232/UL Listed, Signaling Speaker. Transformer UL registered per UL1876. In accordance with IEC60849/EN60849.
	Baffle:	Metal, round, 305 mm (12.0 in) diamter, driver pre- mounted to baffle, ported.
Baffle Attachment to MTC-300BB8 Backbox:		Attach via 4 #10 x .75 in (19 mm) sheet metal screws.
Grille Attachment to Baffle:		4 pcs 4 mm machine screws.
	Dimensions (H x W x D):	305 mm (12.0 in) diameter round baffle x depth from back of baffle of 160 mm (6.3in) on 328C & 218 mm (8.6 in) on 328CT.
	Net Weight:	328C: 4.5 kg (10.0 lbs) 328CT: 5.4 kg (12.0 lbs)
	Shipping Weight:	328C: 5.8 kg (12.7 lbs) 328CT: 6.7 kg (14.7 lbs)
	Included Accessories:	Ported baffle pre-attached, plus transformer on 328CT.
	Optional Accessories:	MTC-RG6/8 Grille, round contoured, white.
	-	MTC-SG6/8 Grille, square, contoured, white.
		MTC-300BB8 Backbox, 25 liters (1 cubic feet)

 <sup>&</sup>lt;sup>1</sup> In half space (in ceiling)
<sup>2</sup> Average 1 kHz to 10 kHz
<sup>3</sup> IEC standard, full bandwidth pink noise with 6 dB crest factor.
<sup>4</sup> Measured in half space (in ceiling), ave 100 Hz – 10 kHz.
<sup>5</sup> Measured in full space with 6 dB added for half-space calculation. Method used by some European manufacturers, for <sup>6</sup> Calculated based on power rating and measured half-space sensitivity, exclusive of power compression.

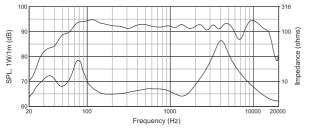
JBL continually engages in research related to product improvement. Changes introduced into existing products without notice are an expression of that philosophy.

#### Beamwidth:



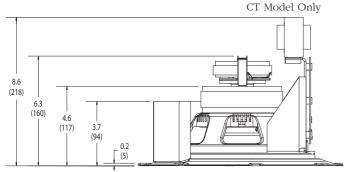
#### **Frequency Response:**

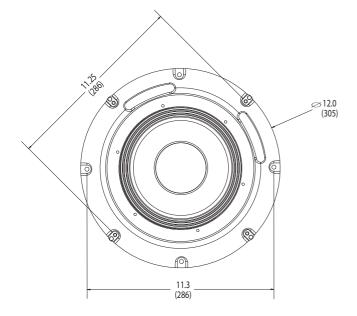
Half-space (2 $\pi$ , mounted in ceiling) in 1 cu ft backbox



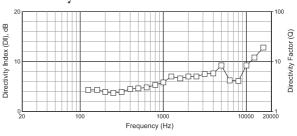
## **Dimensions:**

Transformer on

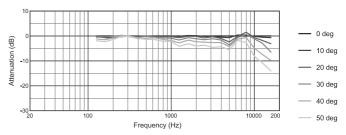




#### **Directivity Index:**

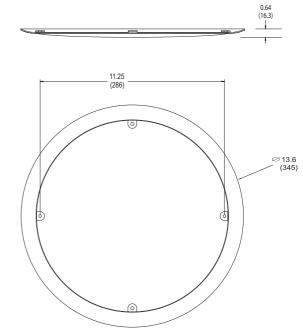


## Conical Off-Axis Frequency Response:



All measurements obtained with no signal processing. Graphics are from unaltered measurement data

# MTC-300RG8 Grill (optional):



Dimensions in inches (mm)

JBL

SSC328C/CT-50 CRP 03/10