



CMS501 DC PI



CMS501 DC
GRILLE FITTED



CMS501 DC BM

Product Description

The Tannoy CMS501 DC is a full bandwidth; high power and high sensitivity ceiling monitor system. The 130mm (5.00") Tannoy Dual Concentric™ is a point source, constant directivity drive unit design comprising a multi fibre paper pulp mid bass cone and a 19mm (0.75") ferrofluid cooled, titanium dome HF unit with neodymium magnet system. The driver and passive frequency dividing network is mounted in a vented, injection moulded, paintable front baffle manufactured from UV/weather resistant UL94V-0 ABS material.

The mid-bass and tweeter sections of the Tannoy Dual Concentric™ constant directivity driver are coincidentally aligned to a true point source; ensuring a wide and controlled dispersion for optimum coverage; this while avoiding the massive loss of energy, in the vertical plane at the crossover frequency, inherent in two-way discreet designs. This high power and high sensitivity design, with extended frequency response and very low distortion, is equipped with dynamic high frequency protection.

This compact unit is specifically designed for applications requiring the combination of premium sonic quality for music and speech reinforcement and exceptional reliability and intelligibility.

The CMS501 DC is equipped with a low insertion loss 30W line transformer easily configurable to the following settings via front baffle mounted rotary tapping switch:

70V systems: 30W / 15W / 7.5W / 3.75W / OFF & low Impedance operation
100V systems: 30W / 15W / 7.5W / OFF & low Impedance operation

Two CMS501 DC model versions and a separate back can are available to satisfy the vast majority of installation application requirements:

CMS501 DC BM (Blind Mount) - supplied with an integral back can.
CMS501 DC PI (Pre-Install) - supplied without a back can.
CMS501 PI Back Can (Pre-wire back can) - use with the CMS 501 DC PI.

The zinc plated steel back cans have an integrated, recessed termination box. The removable locking connector has screw terminals for secure wire termination and "loop through" facility. Strain relief is provided by a clamping mechanism for use with plenum rated cable or conduit.

Spring loaded self-aligning clamps make for quick and easy installation, while all models are also supplied with two tile support rails and one C-ring included in the package. A plaster (mud) ring is available as an optional accessory.

Features

- 130mm (5.00") Point Source Dual Concentric Driver
- High Power & High Sensitivity with extended frequency response and very low distortion
- Wide, controlled constant directivity dispersion for optimum coverage.
- Does not suffer from massive loss of energy in the vertical plane at crossover caused by two way discreet designs
- UV/weather resistant UL94V-0 ABS front baffle
- Blind Mount & Pre Install options
- Dynamic High Frequency Protection
- Easily accessible tapping switch on front baffle.
- Low insertion loss 30w line transformer
- Ferrofluid cooled Neodymium HF
- Packaged with tile rails and C-ring for quick & easy installation and simple stocking logistics

Applications

- Multi-zone foreground music & paging systems
- Boardrooms & offices
- Business music systems
- Airports, convention centres, hotels
- Reception/ waiting rooms
- Houses of worship
- Retail outlets/ shopping malls
- Lounges/ bars
- Cruise ships
- Courtrooms



TECHNICAL SPECIFICATIONS

System	CMS501 DC	
Frequency Response (-3dB) ⁽¹⁾ BM Back can	85Hz - 50kHz	
Frequency Range (-10dB) ⁽¹⁾ BM Back can	74Hz - 54kHz	
Frequency Range (-10dB) ⁽¹⁾ PI Back can	70Hz - 54kHz	
System Sensitivity (1W @1m) ⁽²⁾	89dB (1W = 2.83V for 8W)	
Nominal Coverage Angle	90 Degrees Conical	
Coverage Angle (1kHz to 6kHz)	109 Degrees Conical	
Directivity Factor (Q)	5.9 averaged 1kHz to 6kHz	
Directivity Index (DI)	6.9 averaged 1kHz to 6kHz	
Rated Maximum SPL	107dB (average) 113dB (peak)	
Power Handling ⁽³⁾		
Average	60W	
Programme	120W	
Peak	240W	
Recommended Amplifier Power	120W @ 8W	
Nominal Impedance	8Ω	
Transformer Taps (via front rotary switch) 70V	30W / 15W / 7.5W / 3.75W / OFF & low impedance operation	
100V	30W / 15W / 7.5W / OFF & low impedance operation	
Distortion		
10% Full Power	2nd Harmonic	3rd Harmonic
250Hz	2.91%	0.1%
1kHz	0.18%	0.9%
10kHz	0.79%	0.14%
1% Full Power	2nd Harmonic	3rd Harmonic
250Hz	0.5%	0.07%
1kHz	0.25%	0.32%
10kHz	0.45%	0.07%
Crossover	2kHz - 2nd order LF, 2nd Order HF (with Dynamic HF protection)	

Notes

- (1) Average over stated Bandwidth. Measured in an IEC baffle in an Anechoic Chamber
 (2) Unweighted Pink noise input, measured at 1m on axis
 (3) Long term power handling capacity as defined in EIA - 426B test

Transducers	
Low Frequency	130mm (5.00") Dual Concentric constant directivity driver with multi fibre paper pulp cone
High Frequency	19mm (0.75") titanium dome with neodymium magnet system
Physical	
Enclosure	Zinc Plated Steel
Back can	Reflex loaded UL 94V-0 rated ABS
Baffle	Steel, with weather resistant coating
Grille	
Safety Features	Safety ring located at rear of enclosure for load bearing safety bond
Clamping Design	Security toggle clamp
Back Can Options	
Blind Mount (BM)	Complete with fixed back can
Pre Install (PI)	Separate backcan for Pre Installation
Cable Entry Options	Cable clamp & squeeze connector for conduit up to 22mm
Conduit Knockouts	3 Sets of horizontal positions 19 / 22 / 28mm (0.75" / 0.87" / 1.10")
Connectors	Removable locking connector with screw terminals with "loop through" facility
Safety Agency Ratings (pending)	UL-1480, UL-2043, CE
BM Hole Cutout Diameter	190mm (7.50")
PI Hole Cutout Diameter	190mm (7.50")
Dimensions	
Bezel diameter	210mm (8.20")
Front of ceiling to rear of back can (BM)	189.5mm (7.50")
Front of ceiling to top of safety loop (BM)	207mm (8.10")
Back of ceiling surface to rear of back can (PI)	136mm (5.40")
Back of ceiling surface to top of safety loop (PI)	154mm (6.00")
Net Weight (ea)	
CMS501 DC BM	TBA
CMS501 DC PI	TBA
CMS501 PI back can	TBA
Included Accessories	C Ring, tile bridge, paint mask, cutout template, grille
Optional Accessories	Plaster (mud) ring

Ordering Information

Item number	Item name	Packaging	Quantity	Gross Weight	Gross Depth	Gross Width	Gross Height
8001 3840	CMS501 DC BM		2	4.9	30.5	18.25	15.75
8001 3850	CMS501 DC PI		2	3.85	30	18	12.75
8001 3830	CMS501 DC PI Back can		1	3.1	16.75	16.75	10.5

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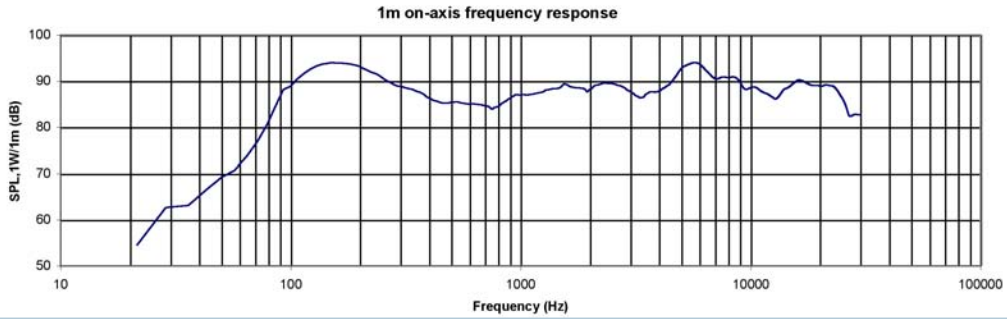
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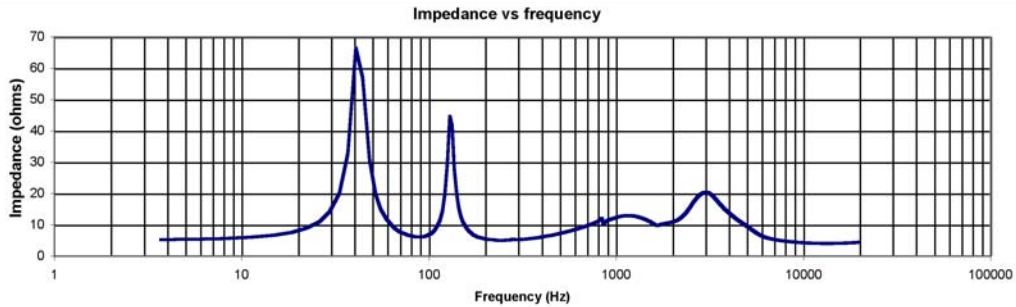


PERFORMANCE MEASUREMENTS

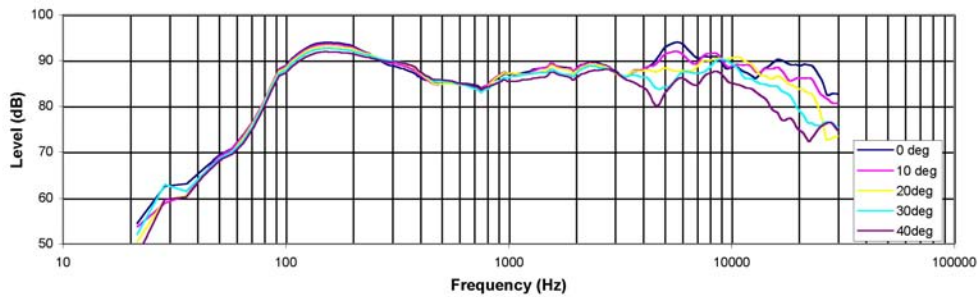
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FREQUENCY
RESPONSE



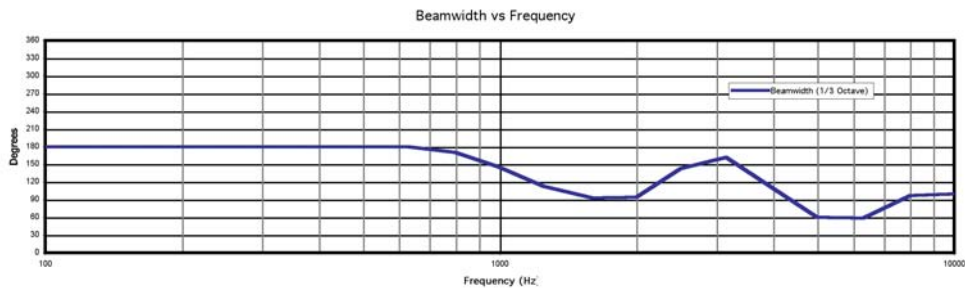
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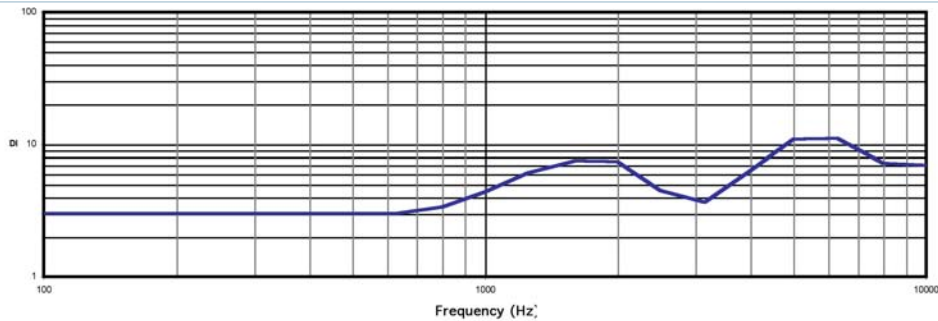
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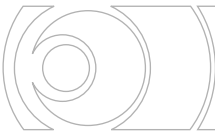


BEAMWIDTH

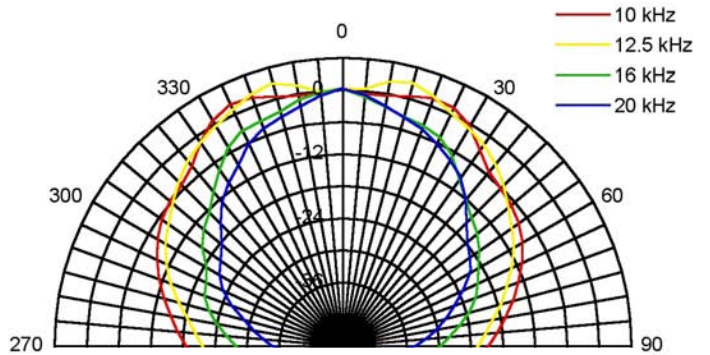
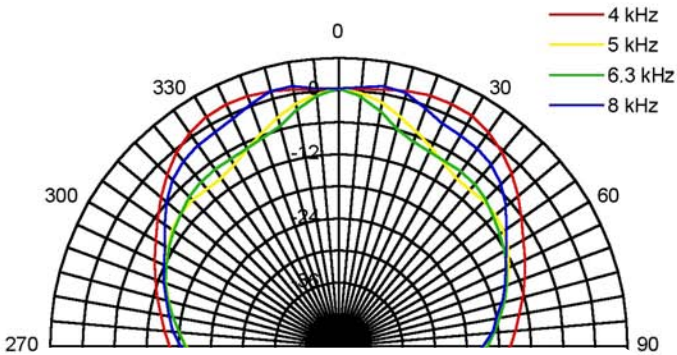
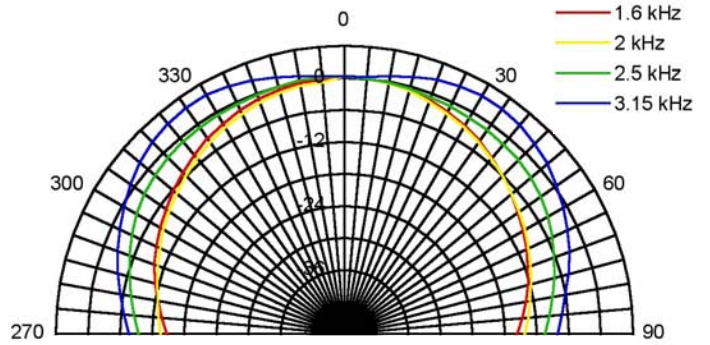
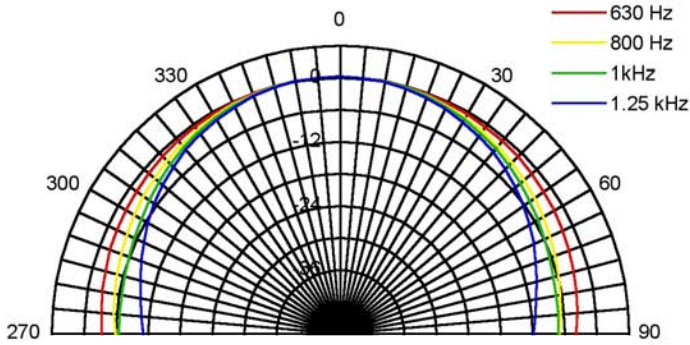
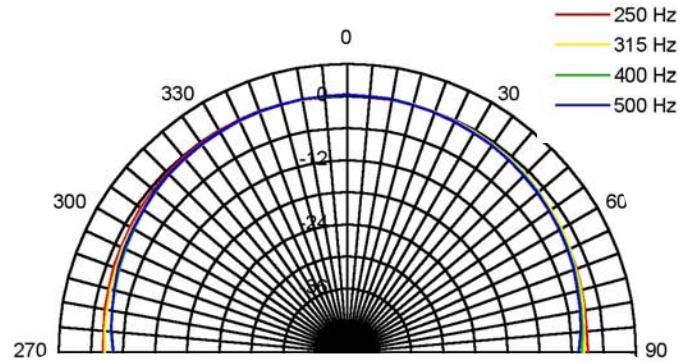
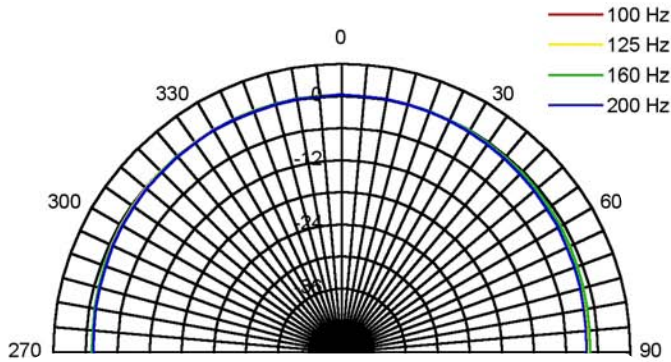


DIRECTIVITY
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PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

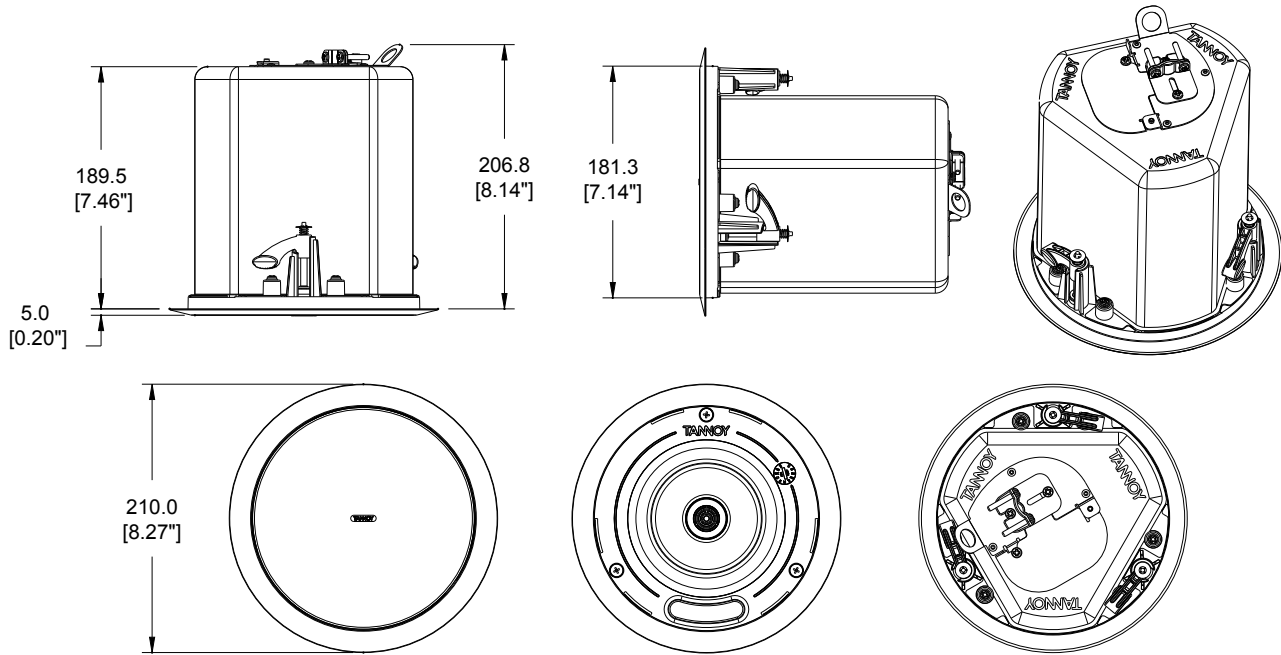




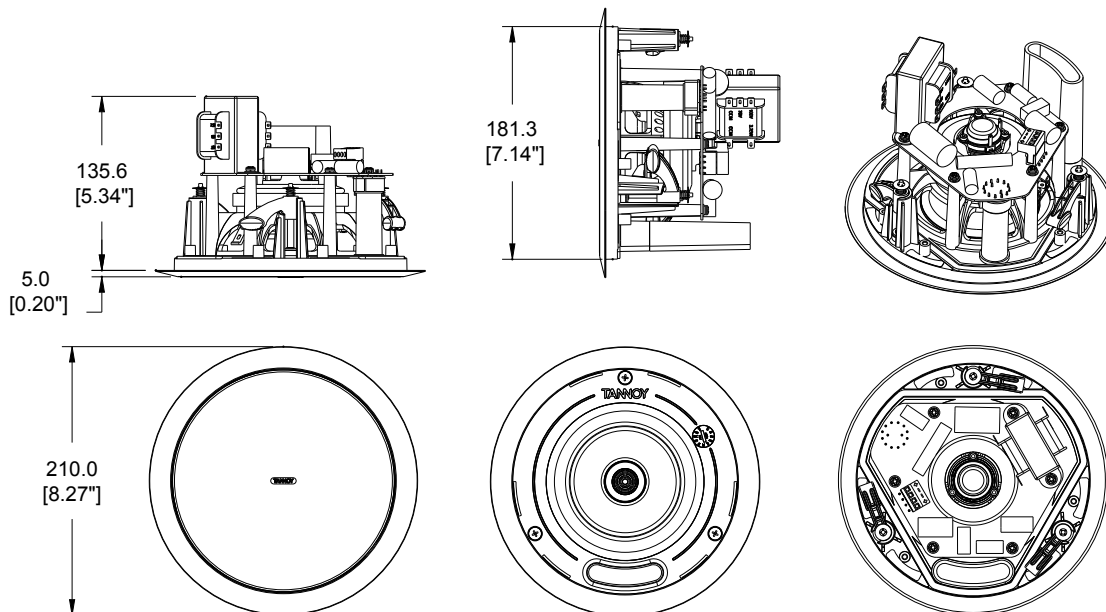
CMS501 DC

TANNOY®

DIMENSIONAL SKETCHES



CMS501DC BM TEMPLATE HOLE CUTOUT SIZE - 190mm (7.48")



CMS501DC PI TEMPLATE HOLE CUTOUT SIZE - 190mm (7.48")

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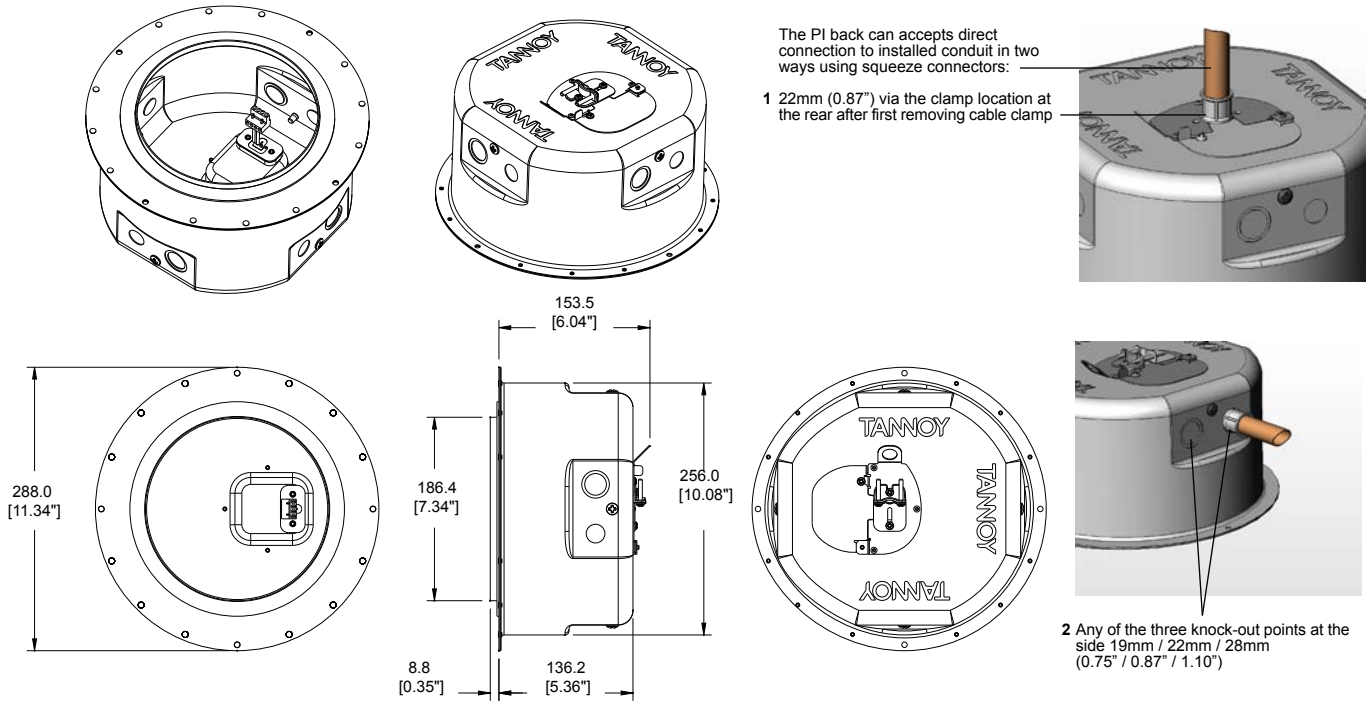
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DIMENSIONAL SKETCHES



CMS501 PI BACK CAN

Architectural Specifications

The Ceiling Monitor System shall consist of a 130mm (5.00") full range, point source, constant directivity Dual Concentric™ transducer and passive frequency dividing network mounted in a vented, injection moulded, paintable front baffle in UL94V-0 ABS material.

The backcan in both PI (pre-install) & BM (Blind-mount variants) shall be constructed of zinc plated steel. A recessed termination box shall be integrated with the backcan, a removable locking connector with screw terminals for secure wire termination with "loop through" facility shall be provided. Strain relief will be provided by a clamping mechanism for use with plenum rated cable or conduit.

For prewiring the PI (pre-install) backcan is provided with conduit knockouts (19mm / 22mm / 28mm , 0.75" / 0.87" / 1.14"). A safety ring is located on the rear of the backcan for a load bearing safety bond.

Performance of the Ceiling monitor shall meet or exceed the following criteria: The system shall have a conical coverage pattern of 109degrees (1kHz to 6kHz). Frequency response measured on axis shall be 74 Hz -54kHz (-10dB from rated sensitivity, measured in an IEC baffle in an anechoic chamber) with no equalization. Sensitivity shall be 89dB (1W @ 1m). Long term power handling capacity as defined in EIA-426B test shall be 60W, recommended amplifier power 120W. Dynamic high frequency protection is provided for occasional overpowering. The nominal system impedance shall be 8W (in low impedance setting).

The Ceiling monitor system shall be equipped with a 30Watt high performance line transformer for use in 70.7 or 100 Volt distributed audio systems with 30, 15, 7.5, 3.75 Watt taps available. An easily accessible rotary switch located on the front baffle shall be available for selecting transformer and low impedance settings. A weather resistant perforated steel grill covers the transducer and switch.

Two support rails and one C-Ring shall be included with the ceiling monitor system. The front face diameter shall not exceed 210mm (8.20"), overall depth from the front of the ceiling to the top of the safety loop shall not exceed 207mm (8.10") for the blind mount variant, and 154mm (6.00") for the pre install variant.

The Ceiling Monitor System shall be the.....CMS501DC.

*70 Volt only

