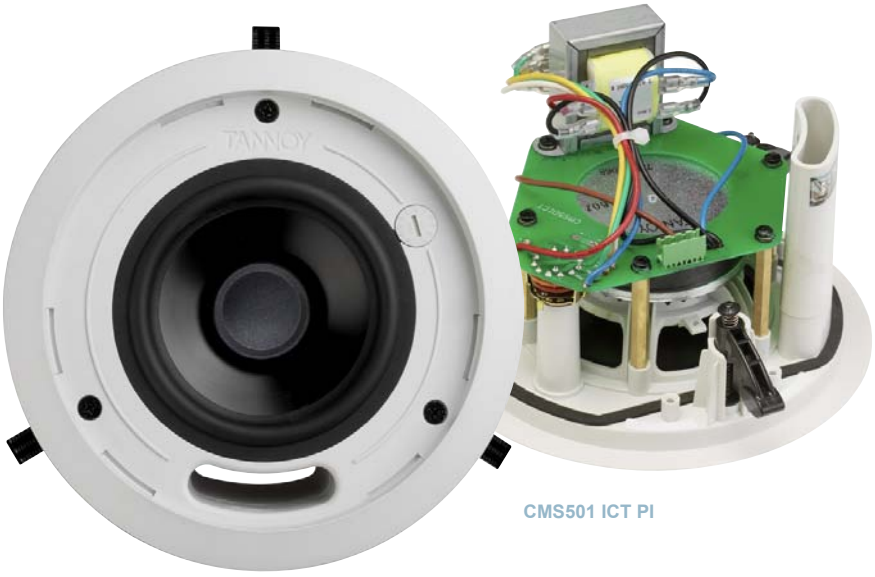
CMS501



CMS501 ICT PI

CMS501 ICT GRILLE FITTED

CMS501 ICT BM

Product Description

The Tannoy CMS501 is a full bandwidth; high power and high sensitivity ceiling monitor system. The design comprises a 130mm (5.00") transducer mounted in a vented, injection moulded, paintable front baffle manufactured from UV/weather resistant UL94V-0 ABS material.

The point source configuration of the Tannoy ICT™ driver's mid-bass and tweeter sections ensures 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. The (Inductive Coupling Technology) drive unit also address the two most common component failures experienced in background music and sound reinforcement systems, the tweeter and the crossover reliability. The use of a wireless electromagnetic tweeter means that no crossover is required in the design; this therefore ensures that an ICT™ unit cannot be burned out through system misuse or by constant heavy usage. The mineral loaded polypropylene cone material and nitrile rubber surround further enhance durability and long-term reliability.

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

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

CMS501 BM (Blind Mount) - supplied with an integral back can.
CMS501 PI (Pre-Install) - supplied without a back can.
CMS501 PI Back Can (Pre-wire back can) - use with the CMS 501 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") ICT™ transducer for greater durability and longevity
- High power & high sensitivity with extended frequency response
- Wide, controlled constant directivity dispertion 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
- No crossover required
- Easily accessible tapping switch on front baffle.
- Low insertion loss 30w line transformer
- Packaged with tile rails and C-ring for quick & easy installation and simple stocking logistics
- Five year warranty

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

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CMS501

TECHNICAL SPECIFICATIONS

System	CMS501
Frequency Response (-3dB) (1) BM Back can	85Hz - 22kHz
Frequency Range (-10dB) (1) BM Back can	74Hz - 24kHz
Frequency Range (-10dB) (1) PI Back can	71Hz - 24kHz
System Sensitivity (1W @1m) (2)	89dB (1W = 2.45V for 6W)
Nominal Coverage Angle	90 degrees conical
Coverage Angle (1kHz to 6kHz)	105 degrees
Directivity Factor (Q)	5.6 averaged 1kHz to 6kHz
Directivity Index (DI)	7.0 averaged 1kHz to 6kHz
Rated Maximum SPL	106dB (average) 112dB (peak)
Power Handling (3)	
Average	50W
Programme	100W
Peak	200W
Recommended Amplifier Power	100W @ 6W
Nominal Impedance	6Ω
Transformer Taps	
(via front rotary switch)	30W / 15W / 7.5W / 3.75W / OFF
70V	& low impedance operation
100V	30W / 15W / 7.5W / OFF & low impedance operation

Distortion		
10% Full Power	2nd Harmonic	3rd Harmonic
250Hz	2.81%	0.14%
1kHz	0.5%	0.25%
10kHz	1.77%	0.04%
1% Full Power	2nd Harmonic	3rd Harmonic
250Hz	0.18%	0.09%
1kHz	0.16%	0.22%
10kHz	0.32%	0.09%

Crossover	7kHz inductively coupled

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") Mineral Loaded Polypropylene ICT™

Physical

Enclosure	
Back can	Zinc plated steel
Baffle	Reflex loaded UL 94V-0 rated ABS
Grille	Steel, with weather resistant coating
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 back can 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 sctrew 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 BM	TBA
CMS501 PI	TBA
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 3810	CMS501 BM	2	4.95	30.5	18.25	15.75
8001 3820	CMS501 PI	2	3.9	30	18	12.75
8001 3830	CMS501 PI Back can	1	3.1	16.75	16.75	10.5

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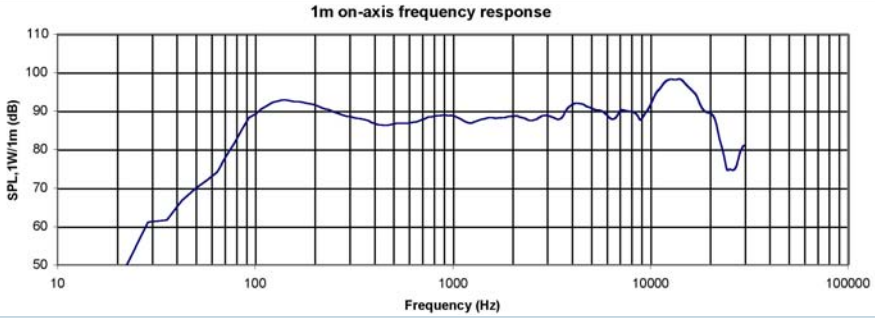
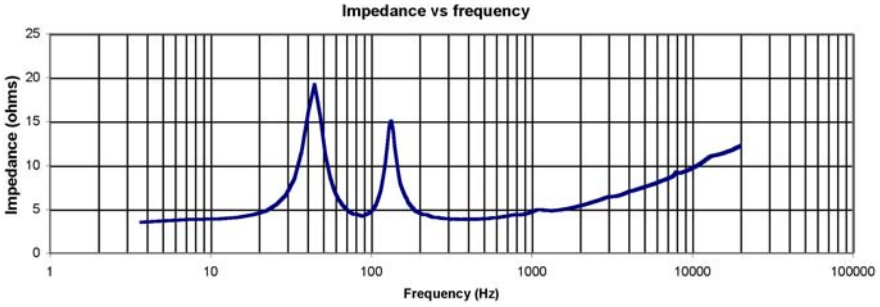
CMS501

PERFORMANCE MEASUREMENTS

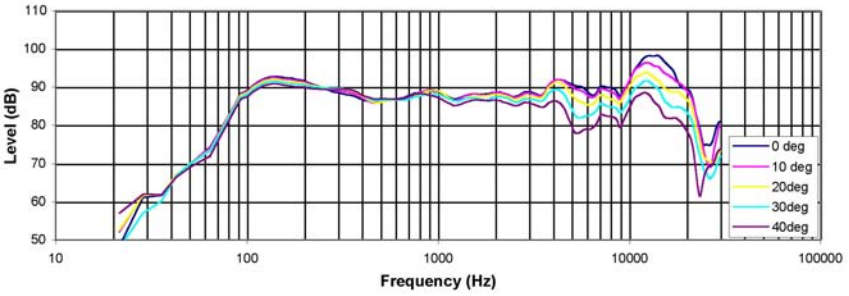
ANECHOIC FREQUENCY RESPONSE



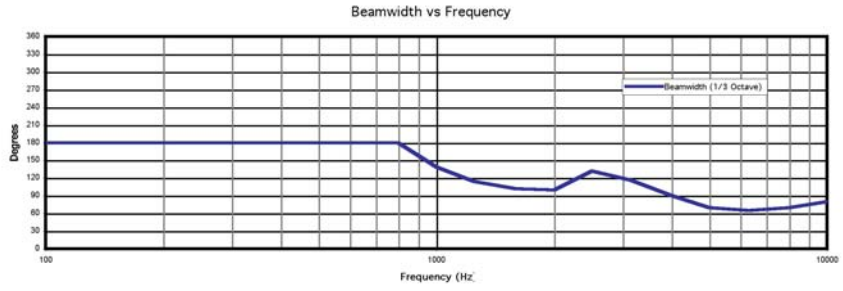
IMPEDANCE



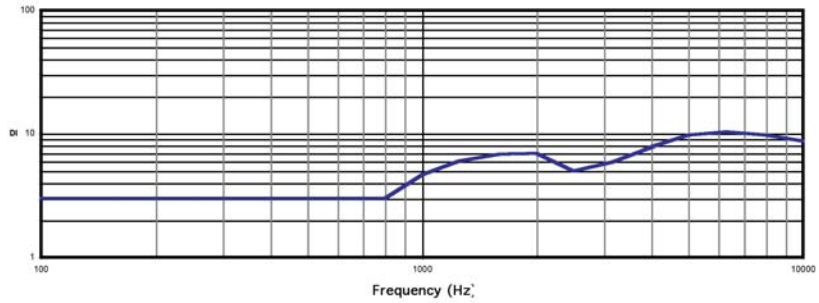
OFF AXIS RESPONSE



BEAMWIDTH



DIRECTIVITY INDEX



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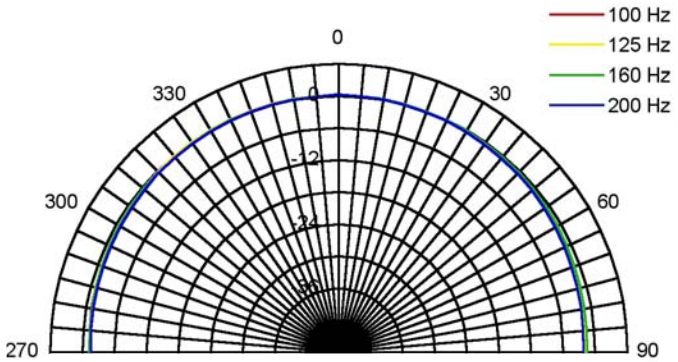
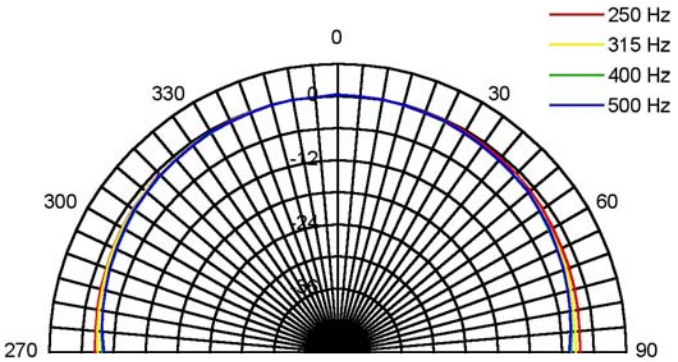
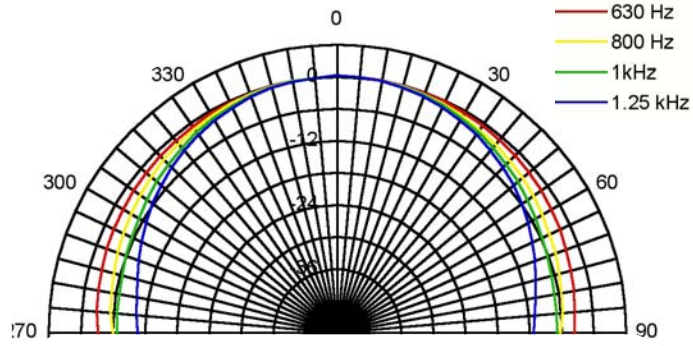
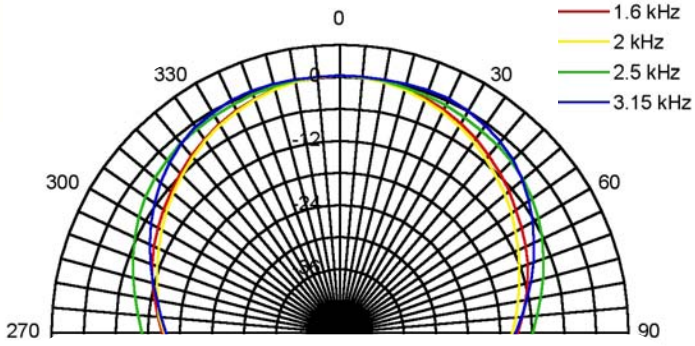
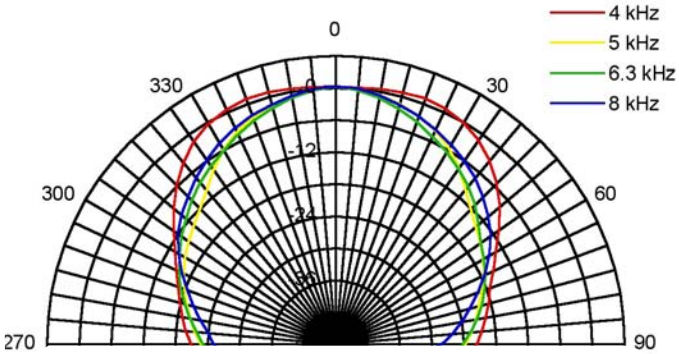
PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

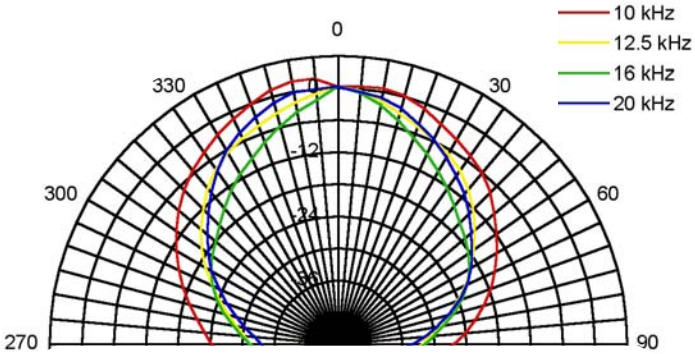












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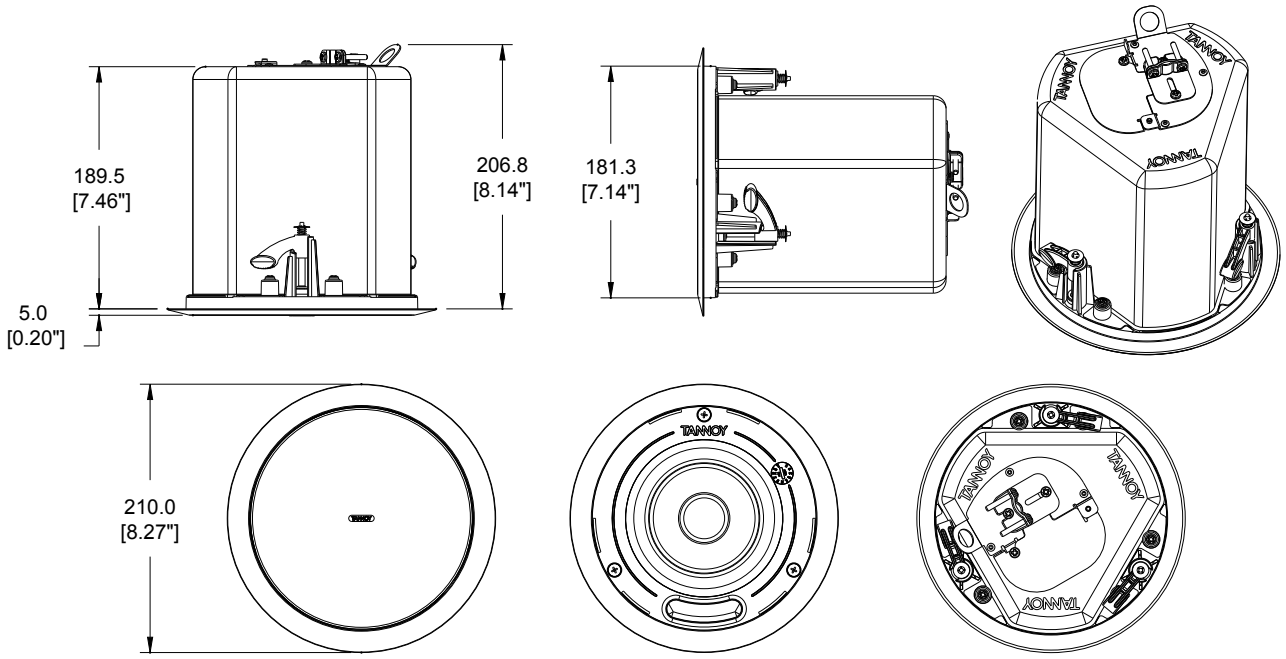
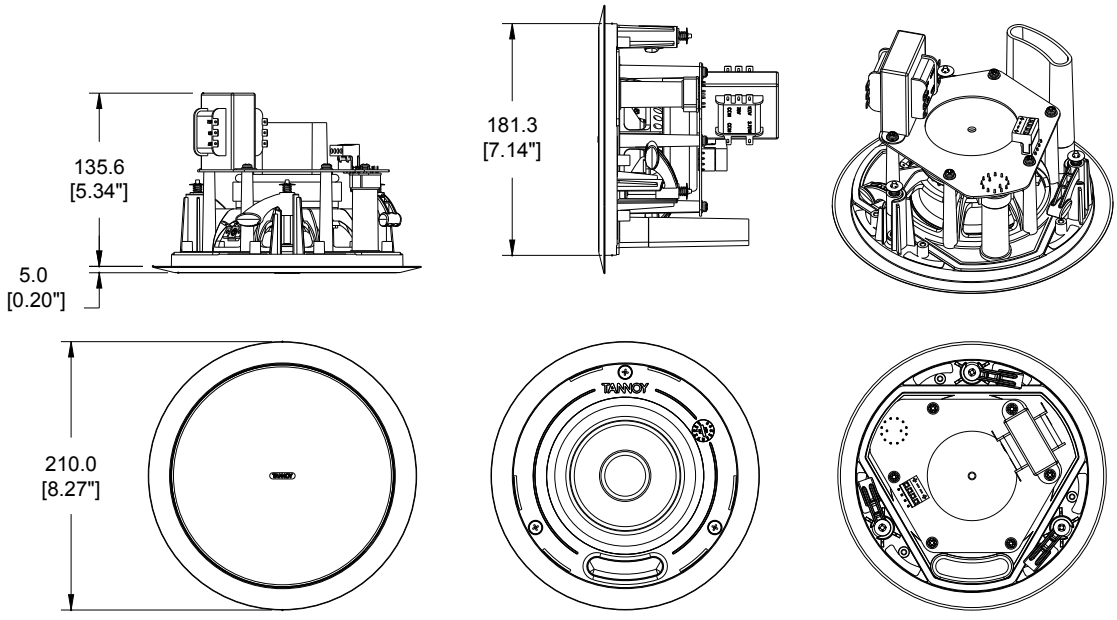
DIMENSIONAL SKETCHES



CMS501 BM TEMPLATE HOLE CUTOUT SIZE - 190mm (7.48”)



CMS501 PI TEMPLATE HOLE CUTOUT SIZE - 190mm (7.48”)

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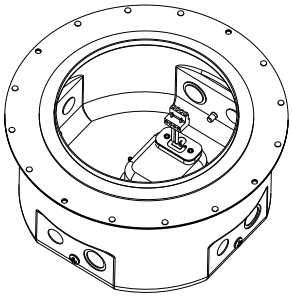
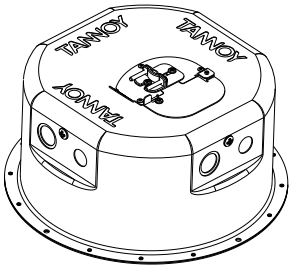
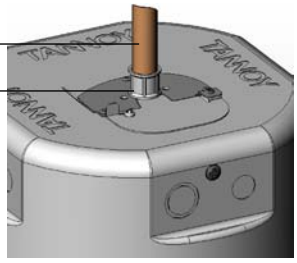
DIMENSIONAL SKETCHES

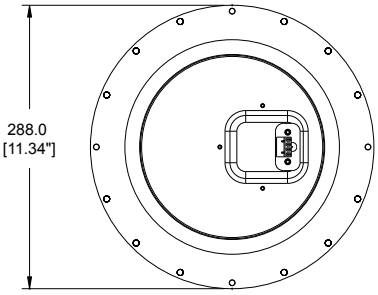


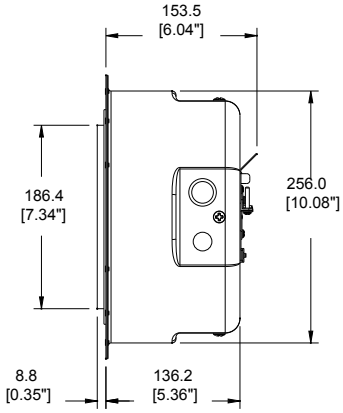


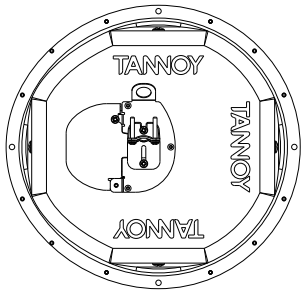
The PI back can accepts direct connection to installed conduit in two ways using squeeze connectors:

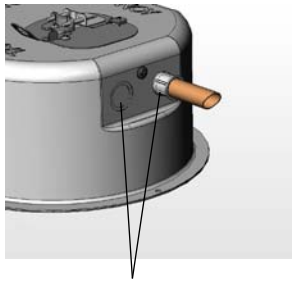
1 22mm (0.87") via the clamp location at the rear after first removing cable clamp











2 Any of the three knock-out points at the side 19mm / 22mm / 28mm (0.75" / 0.87" / 1.10")

CMS501 PI BACK CAN

Architectural Specifications

The Ceiling Monitor System shall consist of a 130mm (5.00") full range, point souce ICT™ transducer mounted in a vented, injection moulded, paintable front baffle in UL94V-0 ABS material.

The back can 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 back can, 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) back can is provided with conduit knockouts (19mm / 22mm / 28mm, 0.75" / 0.87" / 1.14"). A safety ring is located on the rear of the back can 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 105degrees (1kHz to 6kHz). Frequency response measured on axis shall be 74 Hz - 24kHz (-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 50W, recommended amplifier power 100W. The nominal system impedance shall be 6W (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.....CMS501.

*70 Volt only

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