



CMS601 PI



CMS601  
GRILLE FITTED



CMS601 BM

## Product Description

The Tannoy CMS601 is a full bandwidth; high power and high sensitivity ceiling monitor system. The design comprises a 165mm (6.50") 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 CMS601 is equipped with a low insertion loss 60W line transformer easily configurable to the following settings via front baffle mounted rotary tapping switch:

70V systems: 60W / 30W / 15W / 7.5W / OFF & low Impedance operation  
100V systems: 60W / 30W / 15W / OFF & low Impedance operation

Two CMS601 model versions and a separate back can are available to satisfy the vast majority of installation application requirements:

CMS601 BM (Blind Mount) - supplied with an integral back can.  
CMS601 PI (Pre-Install) - supplied without a back can.  
CMS601 PI Back Can (Pre-wire back can) - use with the CMS601 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.

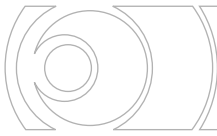
Spring loaded self-aligning clamps make for quick and easy installation, while all models are also supplied with two tile support rails and one C-ring included in the package. A plaster (mud) ring is available as an optional accessory.

## Features

- 165mm (6.50") ICT™ transducer for greater durability and longevity
- High power & high sensitivity with extended frequency response
- 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
- No crossover required
- Easily accessible tapping switch on front baffle.
- Low insertion loss 60w 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



## TECHNICAL SPECIFICATIONS

### System CMS601

**Frequency Response (-3dB) <sup>(1)</sup>** 78Hz - 22kHz  
BM Back can

**Frequency Range (-10dB) <sup>(1)</sup>** 51Hz - 24kHz  
BM Back can

**Frequency Range (-10dB) <sup>(1)</sup>** 46Hz - 24kHz  
PI Back can

**System Sensitivity (1W @1m) <sup>(2)</sup>** 91dB (1W = 2.45V for 6W)

**Nominal Coverage Angle** 90 degrees conical

**Coverage Angle (1kHz to 6kHz)** 92 degrees conical

**Directivity Factor (Q)** 7.1 averaged 1kHz to 6kHz

**Directivity Index (DI)** 7.9 averaged 1kHz to 6kHz

**Rated Maximum SPL** 108dB (average)  
112dB (peak)

**Power Handling <sup>(3)</sup>**  
Average 60W  
Programme 120W  
Peak 240W

**Recommended Amplifier Power** 120W @ 6W

**Nominal Impedance** 6Ω

**Transformer Taps**  
(via front rotary switch)  
70V 60W / 30W / 15W / 7.5W/OFF  
& low impedance operation  
100V 60W / 30W / 15W / OFF  
& low impedance operation

**Distortion**

10% Full Power	2nd Harmonic	3rd Harmonic
250Hz	1%	0.14%
1kHz	1.4%	0.45%
10kHz	1%	0.1%

1% Full Power	2nd Harmonic	3rd Harmonic
250Hz	0.32%	0.14%
1kHz	0.45%	0.22%
10kHz	0.32%	0.1%

**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** 165mm (6") 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 screw terminals with "loop through" facility

**Safety Agency Ratings (pending)** UL-1480, UL-2043, CE

**BM Hole Cutout Diameter** 253mm (10.00")

**PI Hole Cutout Diameter** 253mm (10.00")

**Dimensions**  
Bezel diameter 280mm (11.30")

Front of ceiling to rear of back can (BM) 258mm (10.20")

Front of ceiling to top of safety loop (BM) 275.5mm (10.90")

Back of ceiling surface to rear of back can (PI) 151mm (5.90")

Back of ceiling surface to top of safety loop (PI) 168.5mm (6.60")

**Net Weight (ea)**  
CMS601 BM TBA  
CMS601 PI TBA  
CMS601 PI back can TBA

**Included Accessories** C Ring, tile bridge, paint mask, cutout template, grille

**Optional Accessories** Plaster (Mud) Ring

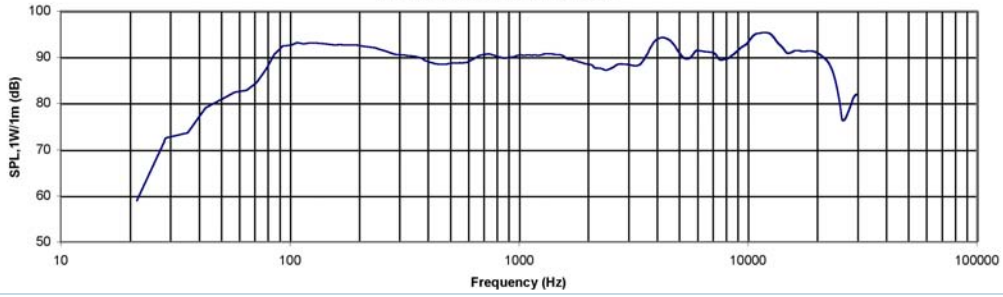
### Ordering Information

Item number	Item name	Packaging	Quantity	Gross Weight	Gross Depth	Gross Width	Gross Height
8001 3860	CMS601 BM		2	7.5	35.25	20.25	18.5
8001 3870	CMS601 PI		2	5.45	34.75	20	10.5
8001 3880	CMS601 PI Back can		1	3.9	20	20	11.25



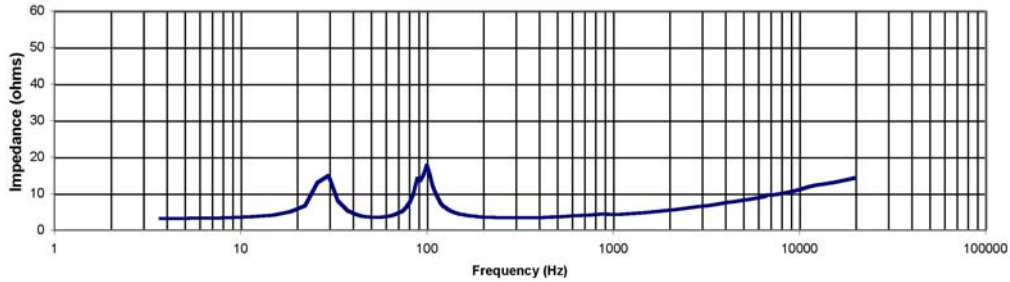
## PERFORMANCE MEASUREMENTS

1m on-axis frequency response

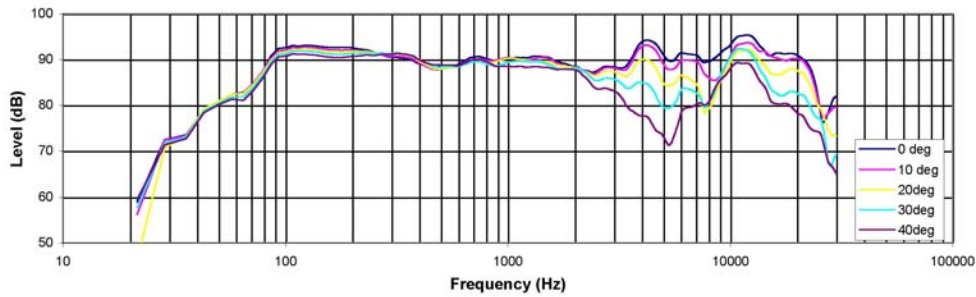


ANECHOIC  
FREQUENCY  
RESPONSE

Impedance vs frequency

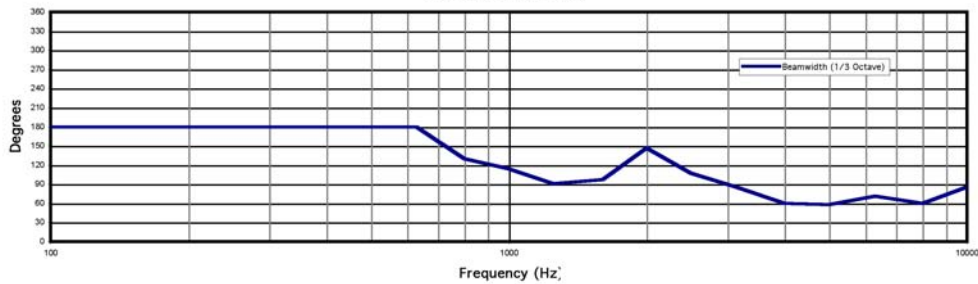


IMPEDANCE

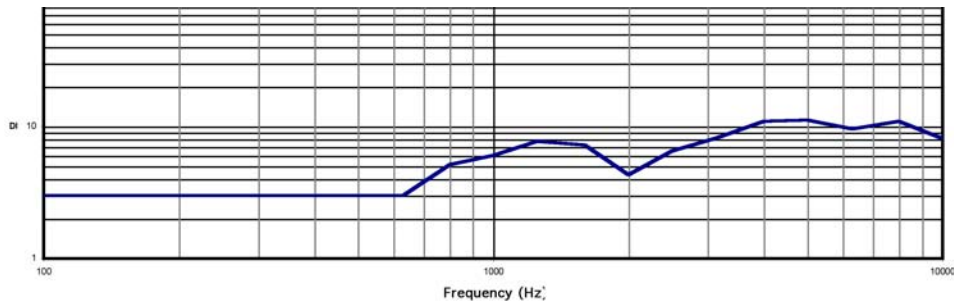


OFF AXIS  
RESPONSE

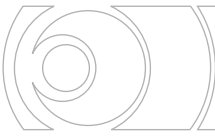
beamwidth vs frequency



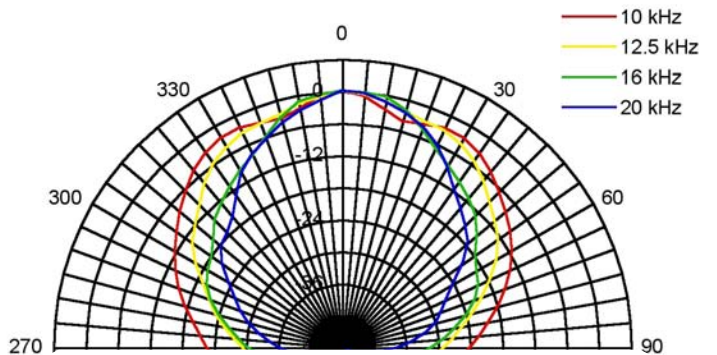
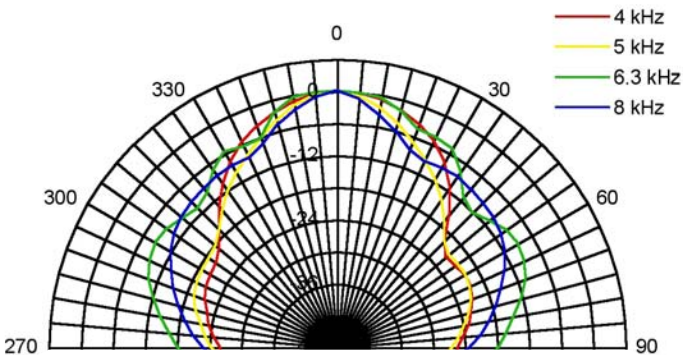
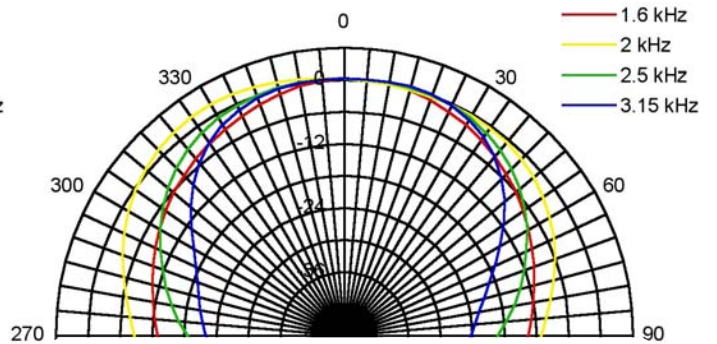
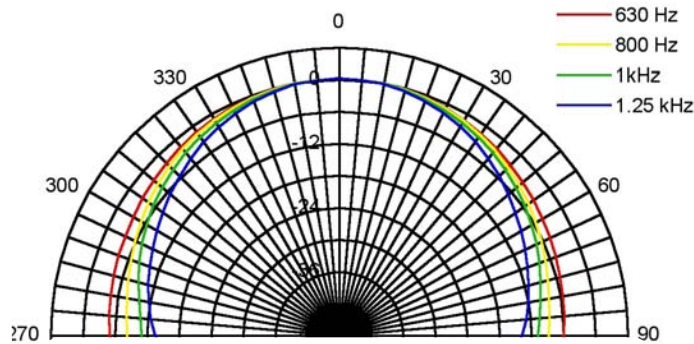
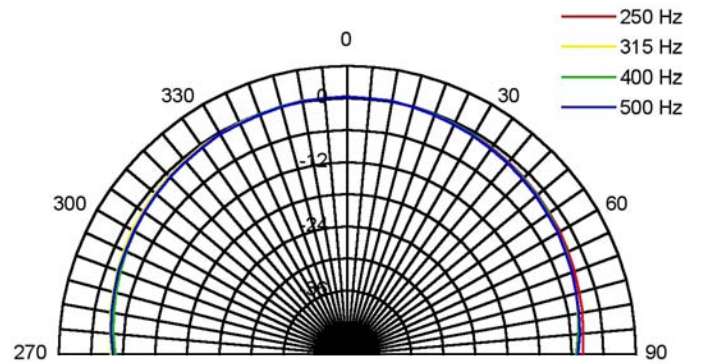
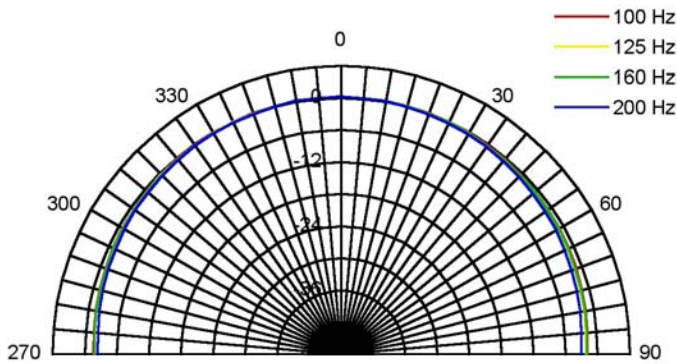
BEAMWIDTH



DIRECTIVITY  
INDEX



## PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)



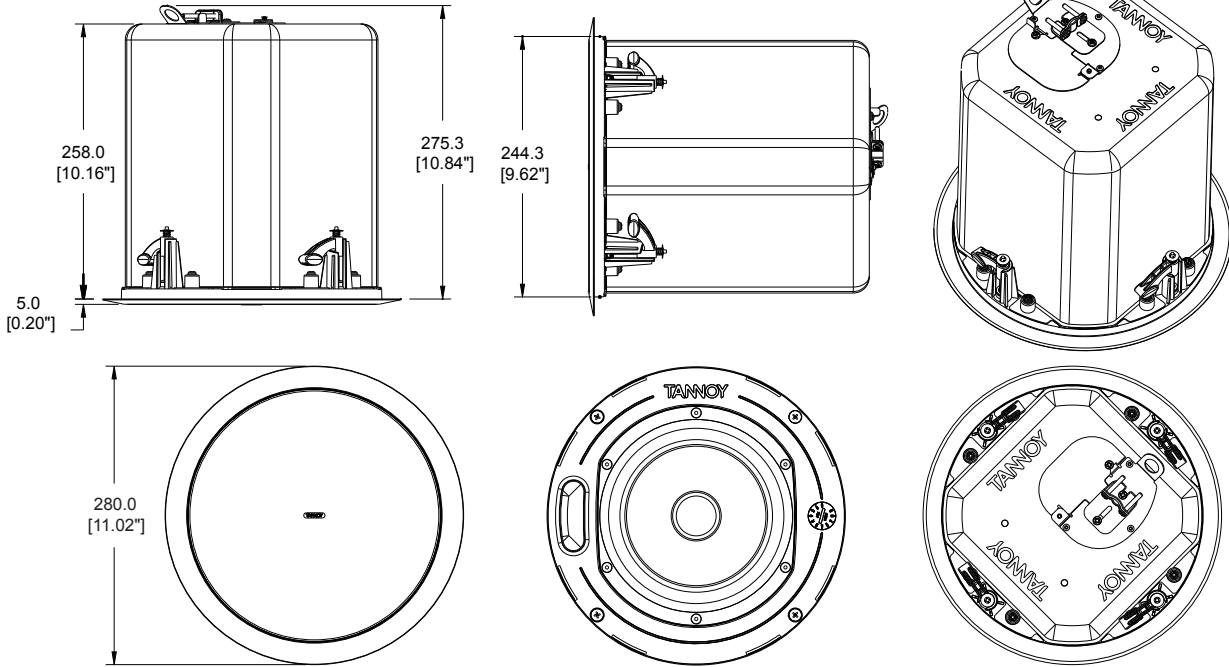




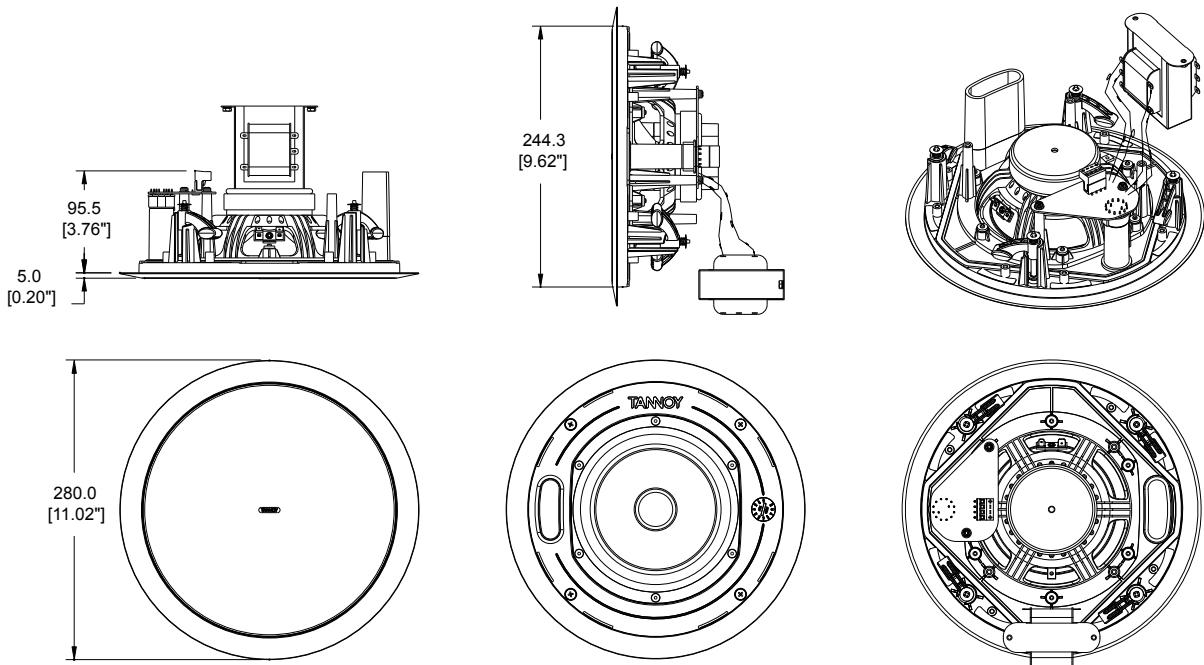
# CMS601

# TANNOY®

## DIMENSIONAL SKETCHES



CMS601 BM      TEMPLATE HOLE CUTOUT SIZE - 253mm (9.96")



CMS601 PI      TEMPLATE HOLE CUTOUT SIZE - 253mm (9.96")

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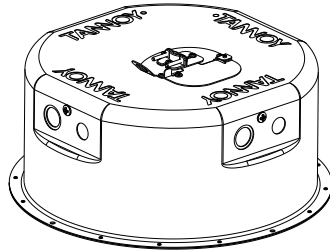
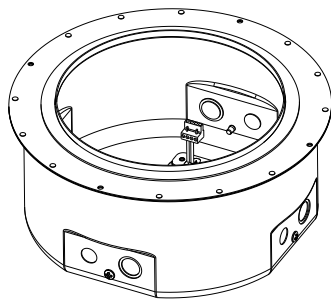
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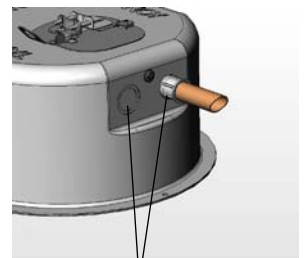
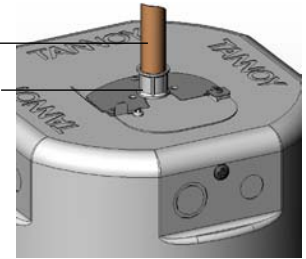
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## DIMENSIONAL SKETCHES

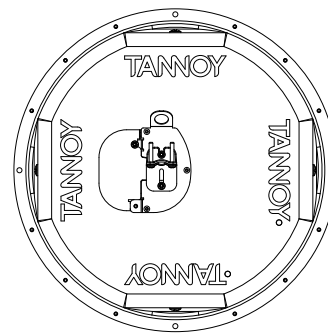
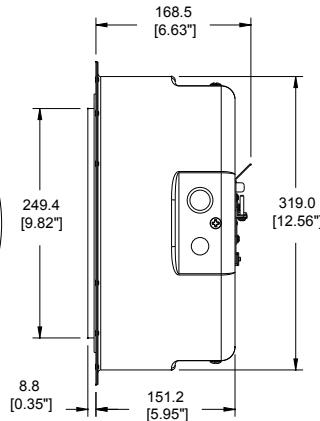
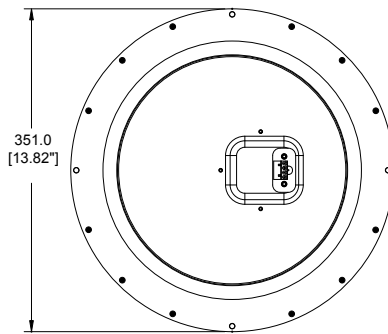


The PI back can accepts direct connection to installed conduit in two ways using squeeze connectors:

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")



CMS601 PI BACK CAN

### Architectural Specifications

The Ceiling Monitor System shall consist of a 165mm (6.00") full range, point source 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 92degrees (1kHz to 6kHz). Frequency response measured on axis shall be 51 Hz - 24kHz (-10dB from rated sensitivity, measured in an IEC baffle in an anechoic chamber) with no equalization. Sensitivity shall be 91dB (1W @ 1m). Long term power handling capacity as defined in EIA-426B test shall be 60W, recommended amplifier power 120W. The nominal system impedance shall be 8W (in low impedance setting).

The Ceiling monitor system shall be equipped with a 60Watt high performance line transformer for use in 70.7 or 100 Volt distributed audio systems with 60, 30, 15, 7.5\* 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 280mm (11.30"), overall depth from the front of the ceiling to the top of the safety loop shall not exceed 275mm (10.90") for the blind mount variant, and 168.5mm (6.60") for the pre install variant.

**The Ceiling Monitor System shall be the.....CMS601.**

\*70 Volt only

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