CMS 601DC

LISTED
UL-1480,
UL-2043

Product Description

The Tannoy CMS 601DC is a full bandwidth; high power and high sensitivity ceiling monitor system. The 165mm (6.50") Tannoy Dual Concentric™ is a point source drive unit design comprising a multi fibre paper pulp mid bass cone and a 25mm (1.00") ferrofluid cooled, titanium dome HF unit with neodymium magnet system. The driver and passive frequency dividing network are 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 CMS 601DC BM 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

The CMS 601DC PI is supplied without a transformer. The 60W line transformer is available as an optional accessory pack (7600 1658) for easy connection to the control switch circuit if the product is to be used without a back can.

The recommended option for optimum performance and compliance with safety ratings is to use the CMS 601PI Back Can (8001 4590) in which the transformer is pre-fitted.

Two CMS 601DC model versions and a separate back can are available to satisfy the vast majority of installation application requirements:

CMS 601DC BM (Blind Mount) - supplied with an integral back can.
CMS 601DC PI (Pre-Install) - supplied without a back can.
CMS 601PI Back Can (Pre-wire back can) - use with the CMS 601DC 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") 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 60W line transformer
- Ferrofluid cooled neodymium HF
- 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 and offices
- Business music systems
- Airports, convention centres, hotels
- Reception and waiting rooms
- Houses of worship
- Retail outlets and shopping malls
- Lounges and bars
- Cruise ships
- Courtrooms

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CMS 601DC

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TECHNICAL SPECIFICATIONS

System	CMS 601DC
Frequency Response (-3dB) (1) BM Back can	75Hz - 30kHz
Frequency Range (-10dB) (1) BM Back can	50Hz - 30kHz
Frequency Range (-10dB) (1) PI Back can	46Hz - 30kHz
System Sensitivity (1W @1m) (2)	91dB (1W = 2.83V for 8 Ohms)
Nominal Coverage Angle	90 degrees conical
Coverage Angle (1kHz to 6kHz)	111 degrees conical
Directivity Factor (Q)	4.7 averaged 1kHz to 6kHz
Directivity Index (DI)	6.5 averaged 1kHz to 6kHz
Rated Maximum SPL (2)	
Average	110dB
Peak	116dB
Power Handling	
Average	80W
Programme	160W
Peak	320W
Recommended Amplifier Power	160W @ 8 Ohms
Nominal Impedance	8 Ohms
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%	0.32%
1kHz	0.18%	0.32%
10kHz	1%	0.18%
1% Full Power	2nd Harmonic	3rd Harmonic
250Hz	0.25%	0.25%
1kHz	0.06%	0.18%
10kHz	0.45%	0.14%

Crossover	2kHz - 2nd order LF, 3rd order HF (with dynamic HF protection)

(1) Average over stated bandwidth. Measured at 1 metre on axis.
(2) Unweighted pink noise input, measured at 1 metre in an anechoic chamber
(3) Long term power handling capacity as defined in EIA - 426B test

A full range of measurements, performance data, CLF and Ease™ Data can be downloaded from www.tannoy.com

Full independent verification of published specifications carried out by NWAA Labs, California can also be obtained from the downloads section of www.tannoy.com

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always equal or exceed the published specifications, which Tannoy reserves the right to alter without prior notice. Please verify the latest specifications when dealing with critical applications.

Transducers

Low Frequency	1 x 165mm (6.50") Dual Concentric™ constant directivity point source driver with multi fibre paper pulp cone
High Frequency	1 x 25mm (1.00") titanium dome with neodymium magnet system

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
Min / Max Clamping Range	0.0mm (0.0") / 20.0mm (0.79")
Recommended Clamp Torque	1.5Nm
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 and 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	UL-1480, UL-2043, CE
BM Hole Cutout Diameter	253mm (9.96")
PI Hole Cutout Diameter	253mm (9.96")
Dimensions	
Bezel diameter	280mm (11.02")
Front of ceiling to rear of back can (BM)	258mm (10.16")
Front of ceiling to top of safety loop (BM)	275.5mm (10.84")
Front of ceiling surface to rear of speaker unit (PI)	99.40mm (3.91")
Front of accessory back can bezel to top of safety loop (PI)	168.50mm (6.60")
Net Weight (ea)	
CMS 601DC BM	7.45kg (16.42lbs)
CMS 601DC PI	4.09kg (9.02lbs)
CMS 601DC PI back can	3.685kg (8.12lbs)
Included Accessories	C Ring, tile bridge, paint mask, cutout template, grille
Optional Accessories	Plaster (Mud) Ring

Ordering Information

PART NUMBER	MODEL NAME	BAFFLE / GRILLE COLOUR	PACKED QUANTITY
8001 4530	CMS 601DC BM	White / paintable	2
8001 4540	CMS 601DC PI	White / paintable	2
8001 4181	CMS 601DC Plaster (Mud) Ring	Zinc plated steel	10
8001 4590	CMS 601DC PI 8 Ohm back can	Zinc plated steel	1
7600 1658	CMS 601DC 60W transformer kit 8 Ohm	N/A	1

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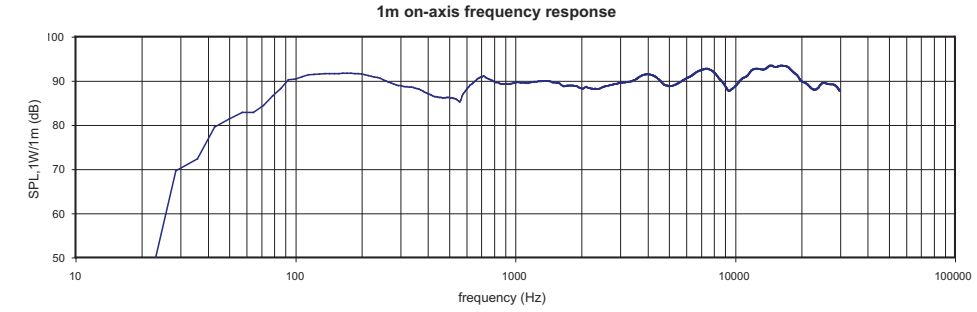
PERFORMANCE MEASUREMENTS

ANECHOIC FREQUENCY RESPONSE



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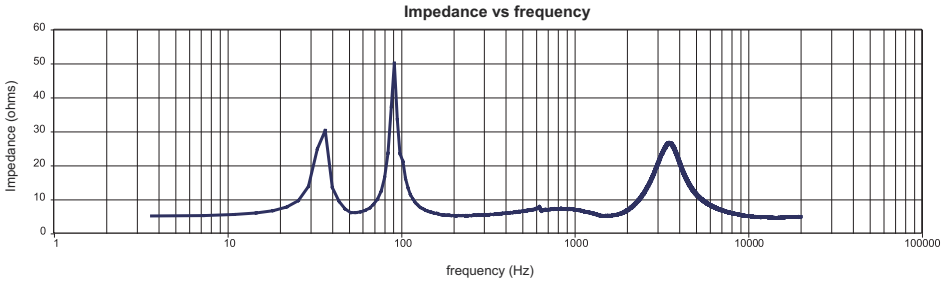
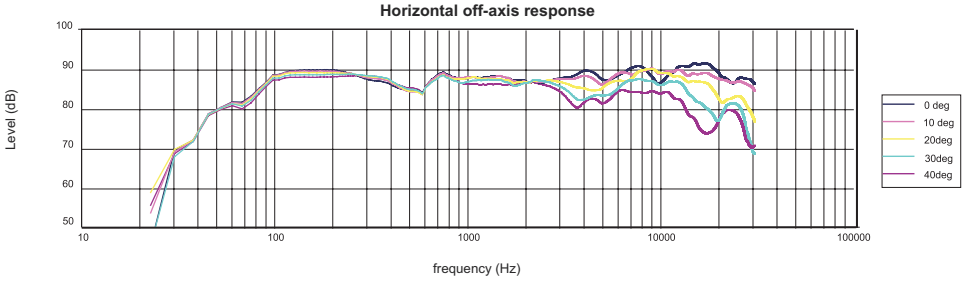


OFF AXIS RESPONSE



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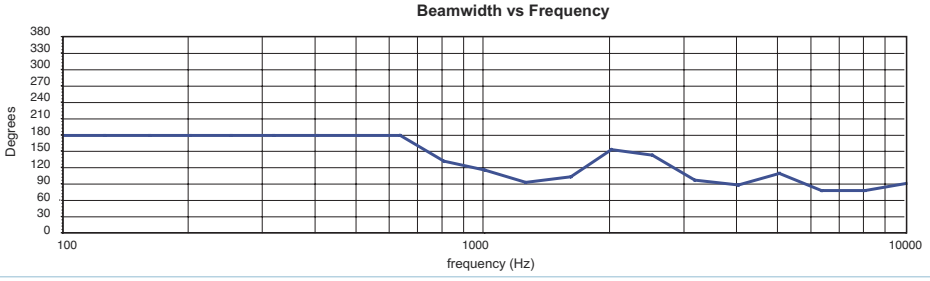
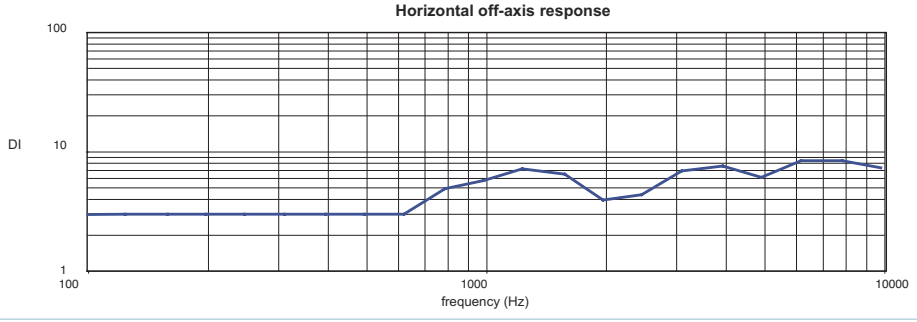


DIRECTIVITY INDEX



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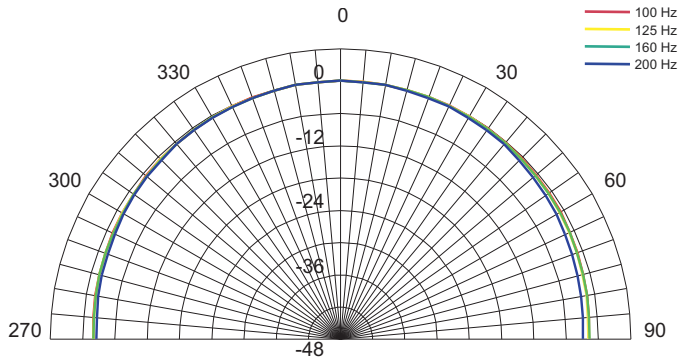
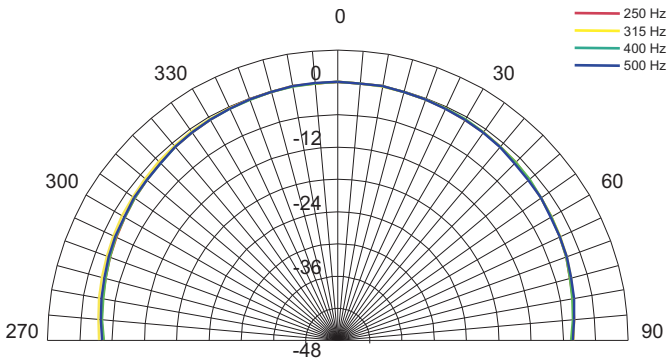
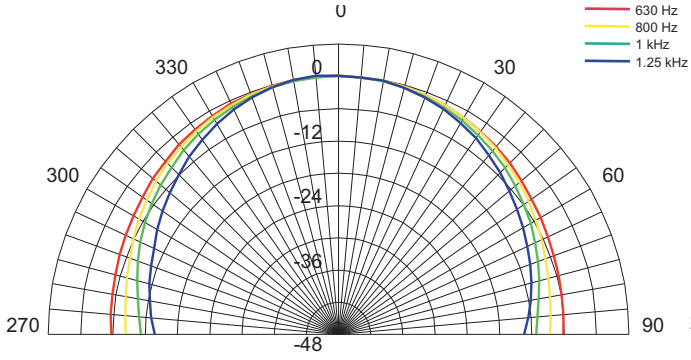
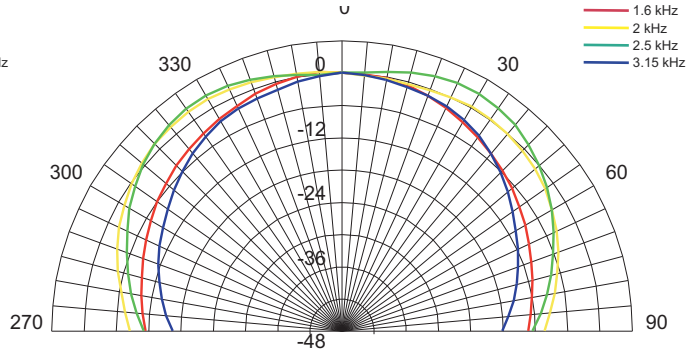
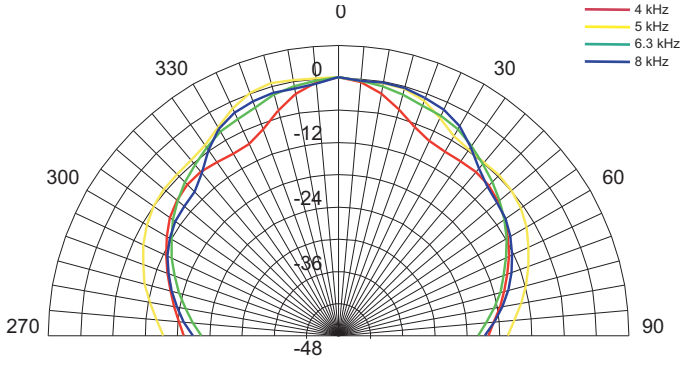
PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

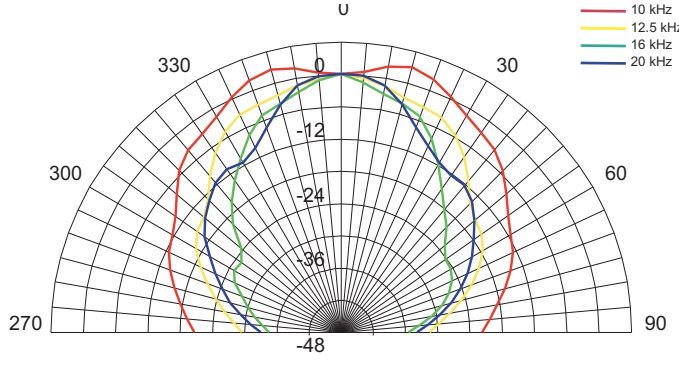












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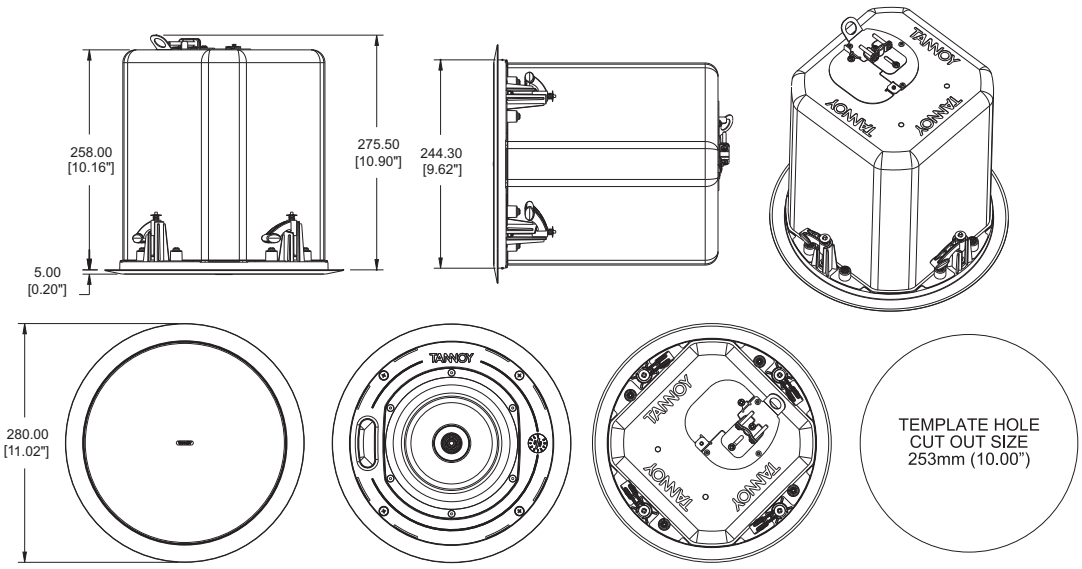
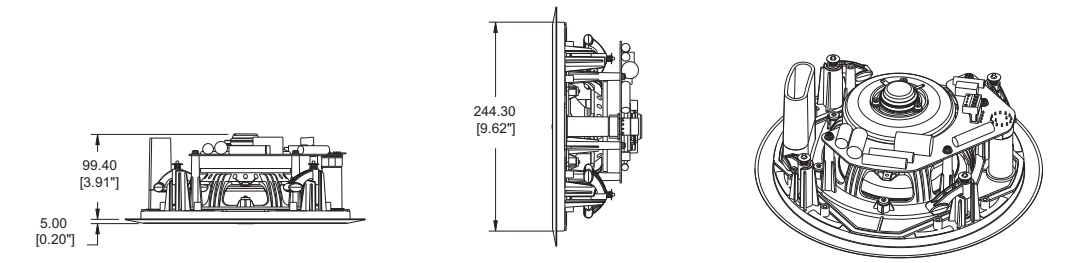
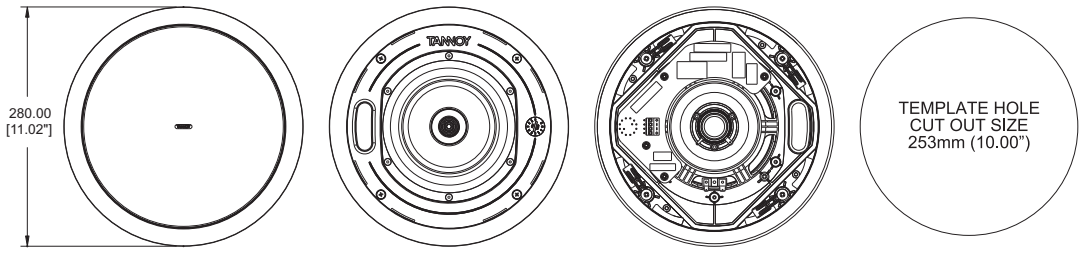
DIMENSIONAL SKETCHES



CMS 601DC BM TEMPLATE HOLE CUTOUT SIZE - 253mm (9.97")





CMS 601DC PI TEMPLATE HOLE CUTOUT SIZE - 253mm (9.97")

Ordering Information

PART NUMBER	MODEL NAME	BAFFLE / GRILLE COLOUR	PACKED QUANTITY
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8001 4590	CMS 601DC PI 8 Ohm back can	Zinc plated steel	1
7600 1658	CMS 601DC 60W transformer kit 8 Ohm	N/A	1

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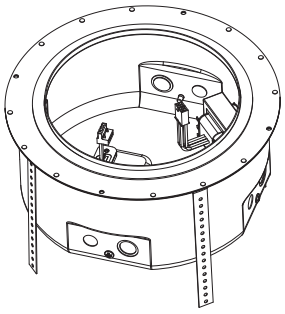
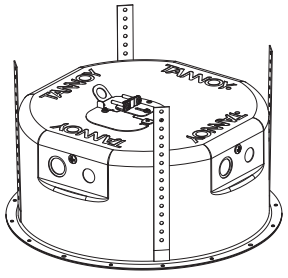
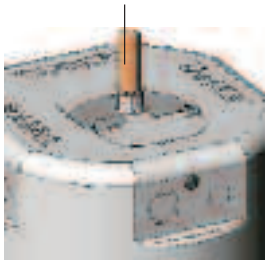


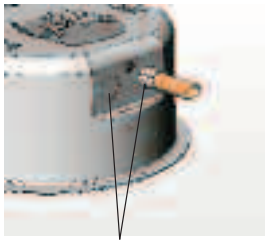


TEMPLATE HOLE
CUT OUT SIZE
253mm (10.00")

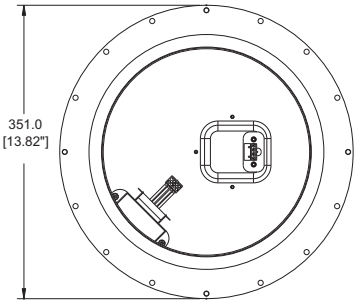
The PI back can accepts direct connection to installed conduit in two ways using squeeze connectors:

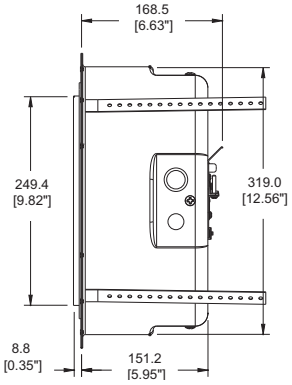


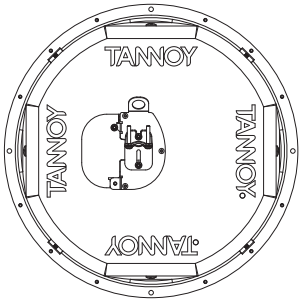
1 22mm (0.87") via the clamp location at the rear after first removing cable clamp



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



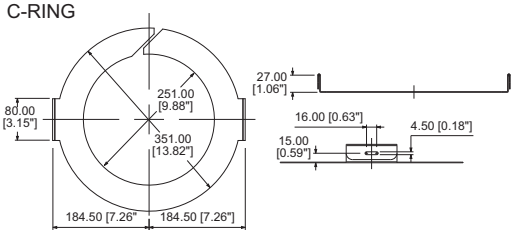




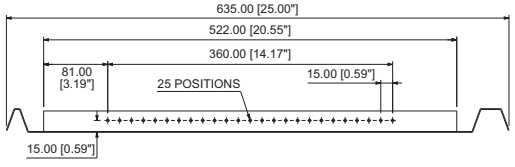
CMS 601PI BACK CAN

SUPPLIED ACCESSORIES

C-RING

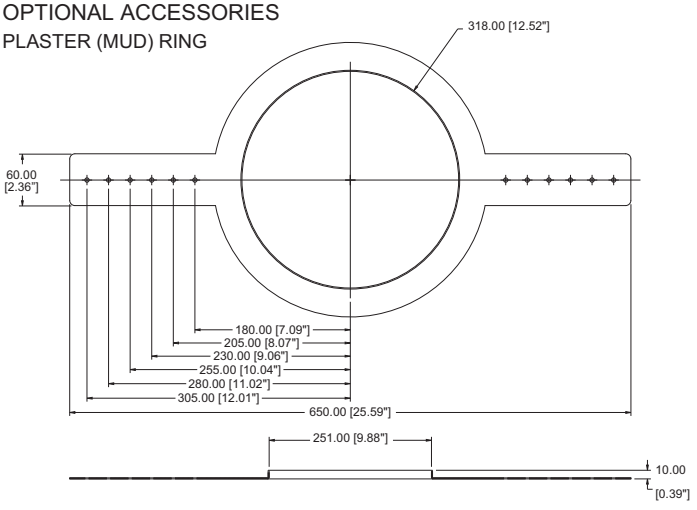


TILE BRIDGE



OPTIONAL ACCESSORIES

PLASTER (MUD) RING



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Architectural specifications

The Ceiling Monitor System shall consist of a 165mm (6.50") 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 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 System shall meet or exceed the following criteria: The system shall have a conical coverage pattern of 111 degrees (1kHz to 6kHz). Frequency response measured on axis shall be 50Hz - 30kHz (-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 80W, recommended amplifier power 160W. Dynamic high frequency protection is provided for occasional overpowering. The nominal system impedance shall be 8 Ohms (in low impedance setting).

The Ceiling Monitor System shall be equipped with a 60W 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 grille covers the transducer and switch.

Two support rails and one C-Ring shall be included with the ceiling monitor system.

Bezel diameter 280mm (11.02")

BM Front of ceiling to rear of back can 258mm (10.16"), Front of ceiling to top of safety loop 275.5mm (10.84")
PI Front of ceiling surface to rear of speaker unit 99.40mm (3.91"), Front of accessory back can bezel to top of safety loop 168.50mm (6.60")

The Ceiling Monitor System shall be the...CMS 601DC.

*70 Volt only

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