

AIW25

Data Sheet Genelec AIW25 Active In-Wall Loudspeaker



GENELEC®



Genelec's new AIW25 Active In-Wall loudspeaker system consists of a two-way loudspeaker enclosure and a matched remote amplifier module RAM2. It has been designed to the same rigorous standards as Genelec's high-performance HT series active Home Theater loudspeakers, ensuring that no other in-wall loudspeaker of similar size can match the low distortion, neutrality and sound pressure capability of Genelec AIW25. The AIW25 can be used in demanding applications: as the main L-C-R array of a small Home Theater system, a critical Stereo listening or rear/side channels of a medium sized, high quality Home Theater for example.

The AIW25 loudspeaker has a 5" bass driver loaded with a 4.7 liter enclosure and a 3/4" treble driver with a proprietary

Directivity Control Waveguide™ (DCW™) giving a precise and uncolored acoustic response. The RAM2 remote amplifier module includes an active crossover circuitry and 40 + 40 W power amplifiers for the bass and treble driver respectively. RCA and balanced XLR line level input connectors and adjustable input sensitivity ensure convenient connection to all types of decoders. Connectors for remote power/standby mode switching are also provided. The active crossover unit allows accurate Bass Tilt, Bass Roll-Off and Treble Tilt adjustments for fine-tuning the sound balance to suit various acoustical conditions and listener tastes.

The solid, carefully dimensioned enclosure gives far better control of bass reproduction than typical in-wall loudspeakers.

The loudspeaker fits into a standard 2 x 4" wall structure and can easily be retrofitted to existing construction and the visible parts of the loudspeaker can be painted to match the wall colour.

The RAM2 amplifier module can be rack mounted with its dedicated Rack Mount Kit (optional) or placed on a shelf or into a cabinet. The wiring between the amplifier module and loudspeaker can be made of standard 18 to 10 gauge 4-conductor wire. Expensive proprietary cables are not needed. Each loudspeaker/amplifier combination has been carefully tested and matched together before delivery for maximum accuracy.

Visit Genelec's Home Theater website www.genelec-ht.com for information of Genelec's Home Theater loudspeaker line.

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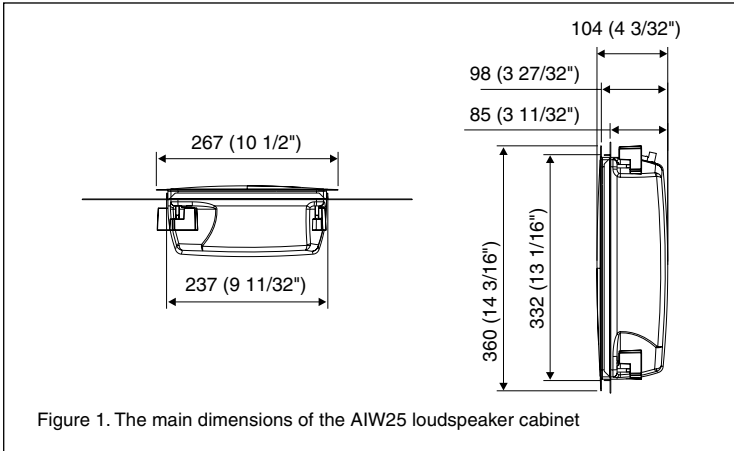


Figure 1. The main dimensions of the AIW25 loudspeaker cabinet

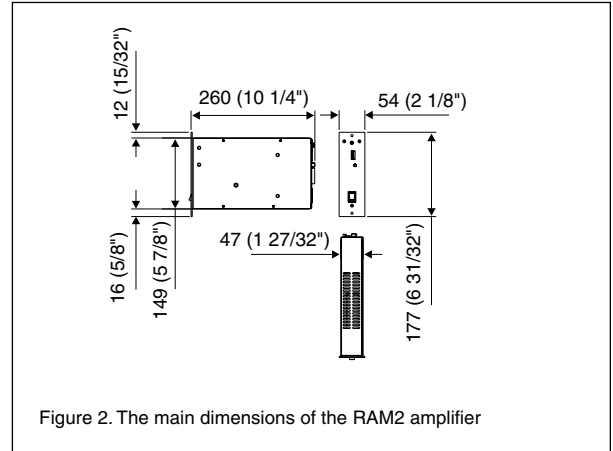


Figure 2. The main dimensions of the RAM2 amplifier

SYSTEM SPECIFICATIONS

	AIW25
Lower cut-off frequency, -3 dB	≤ 68 Hz
Upper cut-off frequency, -3 dB	≥ 20 kHz
Free field frequency response	70 Hz – 18 kHz (± 2.5 dB)
Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz	@ 1 m ≥ 100 dB SPL
Maximum peak acoustic output per pair with music material	@ 1 m ≥ 110 dB SPL
Self generated noise level in half space at 1 m on axis (A-weighted)	≤ 10 dB
Harmonic distortion at 85 dB SPL at 1 m on axis	
Freq: 70...200 Hz	< 3%
> 200 Hz	< 0.5 %
Drivers	
Bass	130 mm (5") cone
Treble	19 mm (3/4") metal dome
Weight	
Loudspeaker cabinet	3.7 kg (8.1 lb)
Amplifier	2.2 kg (4.8 lb)
Dimensions	
Loudspeaker cabinet max. height	360 mm (14 ³ / ₁₆ ")
Loudspeaker cabinet max. width	267 mm (10 ¹ / ₂ ")
Loudspeaker cabinet max. depth	104 mm (4 ³ / ₃₂ ")
Cutout height	334 mm (13 ⁵ / ₃₂ ")
Cutout width	240 mm (9 ⁷ / ₁₆ ")
Minimum free depth measured from the surface of the wall	98 mm (3 ²⁷ / ₃₂ ")
Amplifier height	177 mm (6 ³¹ / ₃₂ ") (4U)
Amplifier width	54 mm (2 ¹ / ₈ ")
Amplifier depth*	260 mm (10 ¹ / ₄ ")
*Note that the cable connectors require at least 100 mm (4") of space behind the amplifier	

AMPLIFIER SECTION

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Bass amplifier short term output power	40 W at 8 Ohm load
Treble amplifier short term output power (Long term output power is limited by driver unit protection circuitry)	40 W at 8 Ohm load
Amplifier system THD at nominal output	≤ 0.08 %
Mains voltage	100, 120 or 230 V
Power consumption (average)	
Idle	10 VA
Full output	80 VA
Recommended loudspeaker cable gauge	0.8 to 5.0 mm ² (18 to 10 AWG)

Standby/On switching by signal sensing Autostart function or +12 V DC remote control

CROSSOVER SECTION

	AIW25
Connectors:	
XLR female input, balanced 10 kOhm	pin 1 gnd, pin 2 +, pin 3 -
RCA female input, unbalanced 10 kOhm	pin +, ring gnd
"LINK OUT" XLR male output, balanced 10 kOhm	pin 1 gnd, pin 2 +, pin 3 -
Input level for 100 dB SPL output at 1 m	-6 dBu
Input Sensitivity adjustment range	+6 dBu to -6 dBu
Crossover frequency, Bass/Treble	3.0 kHz
Treble Tilt control operating range	0 to -2 dB @ 15 kHz
Bass Tilt control operating range in -2 dB steps	From 0 to -6 dB @ 100 Hz
Bass Roll-Off control	-6 dB @ 85 Hz

The 'CAL' position is with all tone controls set to 'off' and the input sensitivity control to maximum (fully clockwise).