



## RS4-EZ PRODUCT SPECIFICATIONS

System Type	4", full-range, open-ceiling, ported (20 W transformer for 25/70.7/100 V or transformer bypass)
Impedance (Nominal) <sup>1</sup>	8 Ω
Sensitivity dB @ 2.83 V / 1 M	90 dB
Sensitivity dB @ 1 W / 1 M <sup>2</sup>	90 dB
Frequency Response (±3 dB) <sup>3</sup>	185 Hz - 12 kHz
Frequency Response (±10 dB) <sup>3</sup>	98 Hz - 22 kHz
Max. Program Power <sup>4</sup>	40 W
Max. Continuous Power RMS <sup>5</sup>	20 W
Max. Power SPL @ 1 M <sup>6</sup>	103 dB
Coverage Angle (±6 dB @ 2 kHz)	160°
Coverage Angle (±6 dB @ 10 kHz)	60°
Coverage Angle (Avg. 2-10 kHz)	95°
Directivity Factor (Q)	4.3 (averaged 100 Hz - 10 kHz)   3.8 (2 kHz)
Directivity Index (DI)	4.9 dB (averaged 100 Hz - 10 kHz)   5.8 dB (2 kHz)
Tap Selector	Five-position rotary switch with transformer bypass position
Transducer: Full-Range Driver	102 mm (4") paper cone, treated cloth surround
Voice Coil	20 mm   0.79"
Enclosure Material	Injection molded ABS, glass fiber reinforced
Grille	Steel with powder-coat finish
Inputs	Four-pin, 5.08 mm Euroblock for individual or daisy chain connection
Colors	Black or white (paintable)
Height	223.5 mm   8.8"
Diameter	195.6 mm   7.7"
Weight	1.8 kg   3.9 lbs
Packaging	One per box
Included Accessories	Hanging hardware, Euroblock connector and terminal weather boot
Optional Accessories	Surface-mount bracket (AC-RS-SM5)
Certifications	CE, RoHS, UL 2239

## Description

The RS4-EZ is a 4", full-range, ported speaker with an open-ceiling enclosure design. Hanging hardware is included and features a SpeedClamp™ self-locking wire grip for fast, easy and secure installation. SoundTube's custom-engineered driver and electro-acoustic network deliver high-performance sound in a cost-effective speaker design. The RS4-EZ speaker incorporates a low-profile grille and a five-position tap switch with transformer bypass position.

## Features

- One 4" (102 mm) full-range, treated fiber driver mounted to an ABS baffle.
- Weatherized components for indoor and outdoor applications.
- Includes hanging hardware with galvanized steel cables and integrated SpeedClamp™ self-locking wire grip for fast, easy and secure installation. Also includes Euroblock connector and terminal weather boot.
- Patented ZeroReflection™ enclosure technology for optimal sound reproduction and cabinet rigidity.
- Easy access five-position selectable tap switch for 25, 70.7 and 100 V applications with transformer bypass position simplifies ordering and inventory tracking.
- Steel grille with protective powder-coated finish for lasting durability.
- Average sensitivity of 90 dB offers high-output capabilities and reduced amplification costs.
- UL 2239 (hanging cable) approved
- High-quality black or white paint finish. Custom colors available.
- Optional accessory: AC-RS-SM5 bracket for surface-mount applications.

<sup>1</sup> Impedance listed per IEC 60268-5

<sup>2</sup> 1 W/1 M sensitivity determined using nominal impedance

<sup>3</sup> Frequency response measured in half or full space as dictated by speaker mounting configuration

<sup>4</sup> Max program power is 3 dB above max continuous power

<sup>5</sup> Continuous power rating, EIA-426-B test

<sup>6</sup> Max output based on max continuous power

### Transformer Taps

70.7 V	Output	100 V	Output	25 V	Output
20 W	103 dB	20 W	103 dB	2.5 W	94 dB
10 W	100 dB	10 W	100 dB	1 W	91 dB
5 W	97 dB	5 W	97 dB	0.63 W	88 dB
2.5 W	94 dB			0.31 W	85 dB

### Applications

Designed for indoor and outdoor background to mid-level SPL applications, the RS4-EZ includes a single-point mounting system for rapid open-ceiling installations with an optional bracket for surface-mount applications. Cost-effective engineering with high-performance sound makes the RS4-EZ speaker ideal for music and paging applications in retail, grocery stores, restaurants, hotels, casinos, museums, trade shows and conference rooms. For applications where additional bass is required, SoundTube's RS1001i-II-T 10" subwoofer may be used.

### Patented Technologies

SoundTube Entertainment and the MSE Audio Group constantly develop new technologies which enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. and international patents, which explicitly cover SoundTube dome, enclosure and dispersion technologies. The MSE Audio Group actively defends its patents in order to protect SoundTube resellers and end-users.

### Technical Data and Specification Tools

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data is available from SoundTube Entertainment or at [www.soundtube.com](http://www.soundtube.com).

Technical data and downloads include:

- EASE™ data - 3-D polar plots.
- EASE™ Address - 2-D modeling for distributed systems
- AutoDesk® Revit® software
- Tech Sheets - technical information and architectural specs for system engineers
- SoundTubeSPEC™ - Proprietary speaker placement software

### Independent Data Acquisition and Verification

All data for SoundTube speakers is independently collected from and verified by NWAALabs ([www.nwaalabs.com](http://www.nwaalabs.com)) using their proprietary MACH testing system. All data is collected and analyzed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

### Architectural Specifications

The loudspeaker shall consist of a 102 mm (4.0") full-range driver. The voice coil diameter shall be 20.0 mm (0.79").

Performance specifications of a typical production unit shall be as follows: Usable frequency response shall extend from 98 Hz – 22 kHz ( $\pm 10$  dB). Measured sensitivity (2.83 V input, 1 meter) shall be at least 90 dB. The speaker shall have a nominal impedance of 8  $\Omega$ . The speaker shall be available for 25, 70.7, and 100 V modes and shall include a five-position tap switch with a transformer bypass position. Rated power capacity shall be at least 20 W continuous (RMS) and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be 103 dB.

The transducer shall have a treated fiber cone with a treated cloth surround and shall be mated to an ABS baffle.

Installation and safety attachment for the speaker shall be by galvanized steel cable affixed to the speaker chassis via an integrated forged-steel clasp with safety gate. The external wiring input connector shall be a four-pin, 5.08 mm Euroblock for 8  $\Omega$  or distributed systems and shall accept from 10 – 22-gauge wire. The system shall be for indoor and outdoor applications and shall have a weather-resistant boot covering all wire connectors.

The enclosure shall be constructed of injection-molded ABS. The grille shall be constructed of powder-coated steel for lasting performance in the elements. Overall cabinet dimensions shall be no more than 223.5 mm (8.80") in height by 195.6 mm (7.70") in diameter. The unit shall weigh no more than 1.8 kg (3.9 lbs) and shall include hanging hardware, Euroblock connector and weather-resistant terminal boot.

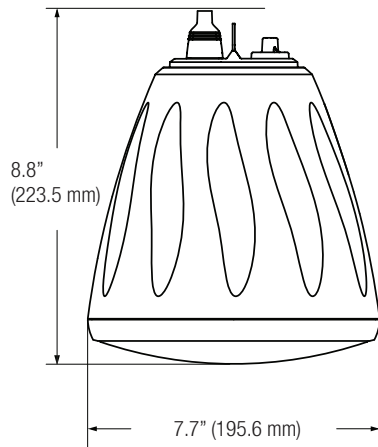
The system shall be the SoundTube RS4-EZ with hanging hardware for both low and high impedance applications.

### SoundTube®

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All SoundTube speakers come with a 5-year limited warranty and 3-year warranty on all electronics.

## Mechanical Drawings



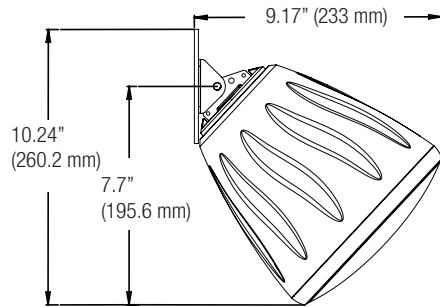
### Included Accessories



Hanging Hardware: Main and Safety Cables w/ SpeedClamp™

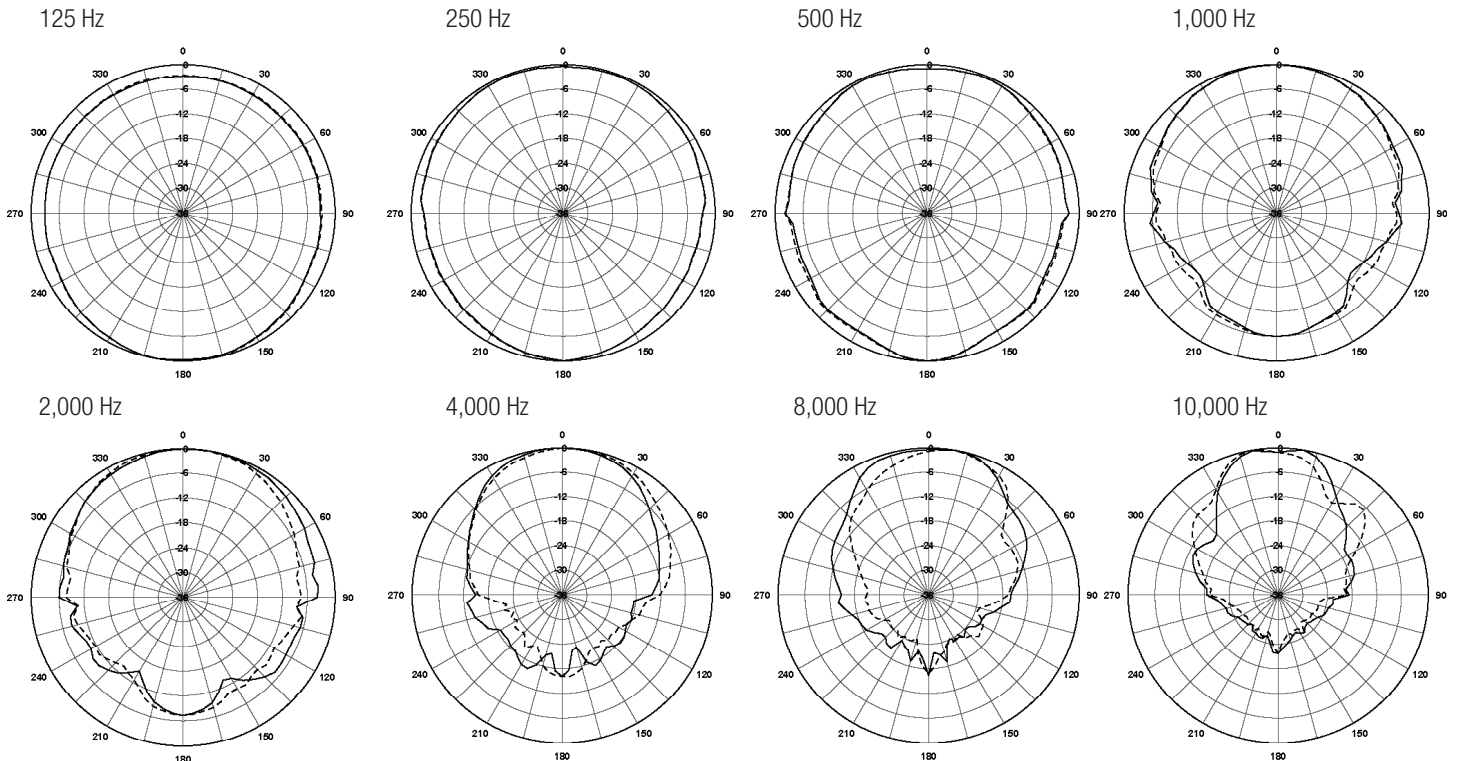
SoundTube's hanging cable kit incorporates hanging and safety cables and fasteners for an integrated and easy-to-install system. Hanging and safety cables are infinitely adjustable to 2.74 m (9.0 ft).

### Optional Accessories



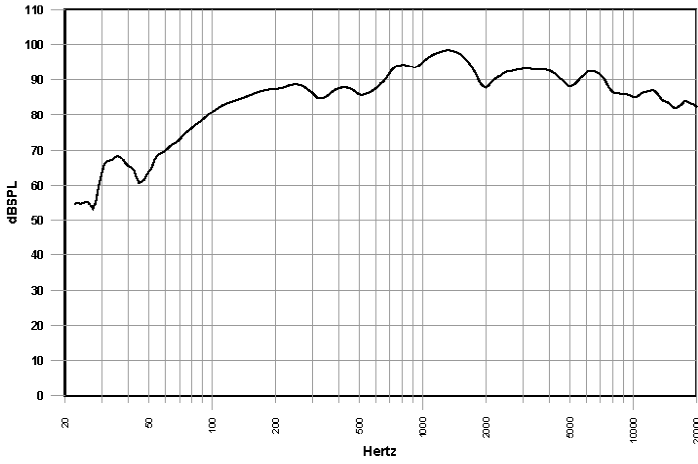
Surface-Mount Bracket  
(AC-RS-SM5)

## Plots

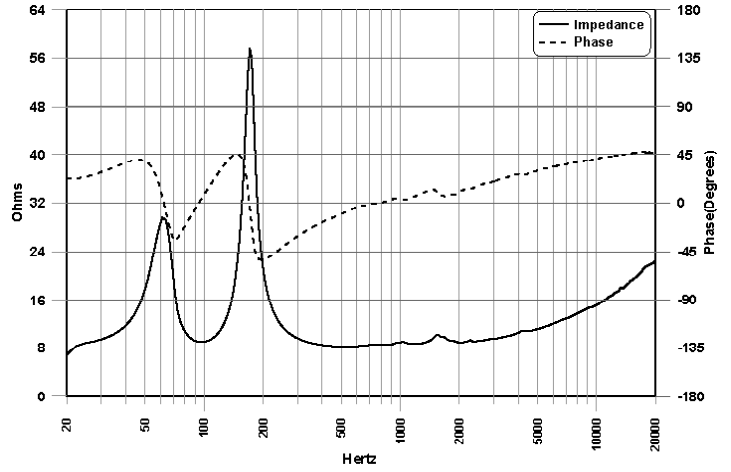


## Graphs

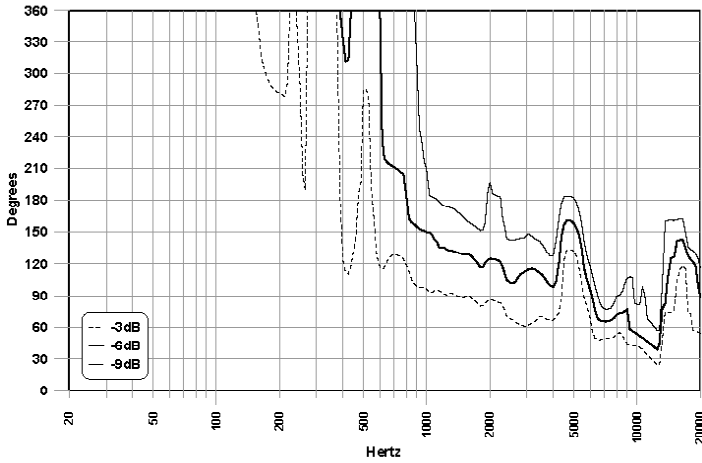
Frequency Response



Phase/Impedance Response



Vertical Beamwidth



Directivity Index (DI)

