

MODEL BAS001

OMNIDIRECTIONAL SOUND SOURCE

- Used for ISO 140-4, ISO 140-3, ISO 3382, DIN55210, ASTM E90, E336, E2235, C426 compliant measurements
- High sound power level output
- Acoustically Isotropic Source
- Available lightweight & compact amplifier (BAS002E/U)

TYPICAL APPLICATIONS

- Room acoustics: In-situ reverberation time measurements
- Building acoustics measurements
- Sound insulation
- Evaluation of the acoustic indexes for the transmission loss of horizontal or vertical partitions
- Sweep response technique

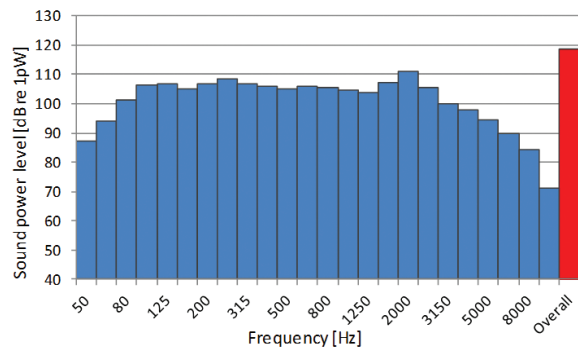
ROOM AND BUILDING ACOUSTICS

The BAS001 Sound Source is designed to generate omnidirectional sound fields for making standard compliant measurements including: reverberation time (ISO 3382, ASTM E2235), building acoustics (insertion loss, acoustic absorption area, etc: ISO 140-4 ISO 140-3, ASTM E336, ASTM E90, DIN 55 210). The BAS001 is typically used to saturate a room with a uniform acoustic field. The available high-efficiency power amplifier has no fan for cooling, allowing measurements in quiet environments, like those in reverberation time applications. The included carrying and shipping case is designed to provide dependable protection for the BAS001 dodecahedral speaker in demanding conditions for many years.

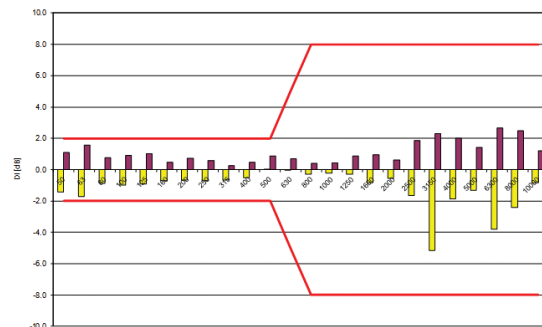
Pairing the Larson Davis Model 831 sound level meter with Reverberation Time option (831-RT) aids you in multiple architectural acoustics applications ranging from simple experimental reverberation time determination for room performance, to calculating absorption coefficients for material performance. Most of the time, these measurements are dictated by various international standards.

Model 831 measures the decays and then computes the reverberation time according to ISO 3382-2 or ASTM 2235-04 standards. When using the Interrupted Noise method, the Model 831 not only triggers the data acquisition, but its built-in Noise Generator can be used to drive the omni-directional sound source. Recent trends show that the Integrated Impulse method is gaining popularity and Model 831 handles the acquisition of the decays and the subsequent T20 or T30 calculations completely and with ease.

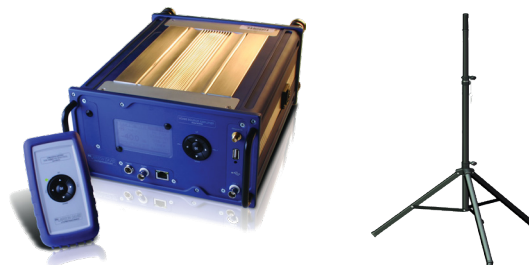
| SPECIFICATIONS | |
|---|---|
| Performance | |
| Sound Power | 117 dB re 1 pW (not-equalized) 109 dB re 1 pW (equalized 50-5 kHz) |
| Sound Pressure Level | 95 dB(Z) at 10 m |
| Operating Range | 50 ~ 12.5 kHz |
| THD | 0.1% |
| Amplitude Linearity | ±2 dB from 50 to 5 kHz |
| Directivity | 20° at -3 dB |
| Compliance | |
| Acoustic | LAB - adjacent room: ISO 140-3, ASTM E90 |
| | FIELD - adjacent room: ISO 140-4, ASTM E336 |
| | Absorption Coefficient: ISO 354, ASTM C426 |
| | Reverberation Time: ISO 3382, ASTM E2235 |
| Electrical, EMC & Safety | 2002/95, 2002/96 and 2003/108/EC Directive |
| | 2004/108/EC Directive |
| | 2002/96/EC WEEE (RAEE) Electronic Waste Disposal |
| | 2002/95/EC ROHS |
| Physical | |
| BAS001 | |
| Dimensions (H x W x D) | 370 x 370 x 390 mm (14.5 x 14.5 x 15.3 in) |
| Weight | 24.5 kg (54 lb) |
| Carrying Case (CCS044) | |
| Dimensions (H x W x D) | 370 x 370 x 390 mm (14½ x 14½ x 15¼ in) |
| Weight | 7.7 kg (17 lb) |
| Speak-on Cable | |
| Length | 10 m |
| Weight | 0.7 kg (1.7 lb) |
| Supplied Accessories | |
| Flight Case for Omni-directional Source | |
| Technical Manual & User's Guide | |
| Signal Cable (speak-on to speak-on), 10 m | |
| Optional Accessories | |
| TRP023 | Heavy Duty Loudspeaker Tripod |
| BAS002E/U | Lightweight Power Amplifier |
| BAS003 | Directional Speaker (Façade) |



1/3 octave band sound power levels – The overall value is 119 dB re 1 pW



Minimum and maximum shift of the directivity index as a function of frequency according to ISO 140 standard.



Optional Accessories

The BAS002 (left) and TRP023 (right) are the recommended accessories for the BAS001.



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Larson Davis offers a full line of noise and vibration measurement instrumentation such as Class 1 and 2 sound level meters, outdoor noise monitoring systems, personal noise dosimeters, human vibration meters, audiometric calibration systems, microphones and preamplifiers, and data analysis software. Instrumentation is used in community and environmental noise monitoring, measurement of building acoustics, managing worker exposure to noise and vibration, and various automotive, aerospace, and industrial applications. Larson Davis is a division of PCB Piezotronics, Inc., a wholly owned subsidiary of MTS Systems Corporations.

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