

SV 30A, SV 33, SV 34

Acoustic Calibrators

Is my result correct? The only way to be sure that you can answer 'yes' to this questions is to perform an acoustic calibration using a calibrator that fully conforms to current standards. The norms and standards impose the requirement to calibrate the measurement channel before each measurement or measurement session and after the measurement as well for result verification purposes. If you don't perform these basics checks then what do your results actually mean? An acoustic calibrator is a device which produces an acoustic pressure of defined level and frequency. In other words, an acoustic calibrator is a template of acoustic pressure. With the help of such a reference template we can check the accuracy of the measurements performed with the sound level meter and adjust it if a drift error in sensitivity is indicated.

The accuracy of acoustic calibrators used for the calibration of the measurement path should match the class of sound level meter. Depending on the instrument's performance Class 1 or Class 2 calibrators are used. A sound level meter is calibrated correctly only if the measurement error is within the allowed range of tolerance defined by the standards for the meter of a given class (defined by IEC 61672: 2002).

Unlike many others, the Svantek calibrators feature a robust housing that gives the comfort of a secure grip to the user. The interior design of our acoustic calibrators is based on the reference microphone and microprocessor controlled signal source including digital static pressure and temperature compensation. Due to the feedback regulation control loop our calibrators do not require any adjustments by the user and operate over a wide range of ambient temperature and humidity assuring excellent stability of the calibration levels and their frequency.

Each acoustic calibrator is provided with a statement of the calibration which allows the user to be certain that their instruments will measure correctly.



Features

- SV 30A & SV 33 class 1 sound calibrators meeting IEC 60942:2003
- SV 34 class 2 sound calibrator meeting IEC 60942:2003
- Frequency 1 kHz
- 94 dB or 114 dB levels (SV 30A)
- 114 dB level (SV 31, SV 34)
- Built-in 1/2" reference microphone
- Microphone presence detection (SV 30A)
- Built-in temperature and static pressure compensation
- Automatic power on/off
- Dimensions 65 x 65 x 70 mm
- Robust housing



SV 30A, SV 33, SV 34

Technical Specification

SV 30A

SV 33

SV 34

Calibration signal parameters:

Sound Pressure Level (SPL)	114 dB or 94 dB	114 dB	114 dB
Accuracy to IEC 60942:2003	Class 1	Class 1	Class 2
SPL accuracy	± 0.3 dB	± 0.3 dB	± 0.5 dB
Frequency accuracy	± 0.2 %	± 0.2 %	± 0.2 %
Total Harmonic Distortion (THD)	< 0.25 % for 94 dB < 0.75 % for 114 dB level	< 0.75 %	< 0.75 %

General information:

Effective load volume sensitivity	0.00027 dB / mm ³	0.00027 dB / mm ³	0.00027 dB / mm ³
Level stabilisation time	typically 7 s, max 10 s	typically 15 s, max 30 s	typically 15 s, max 30 s
Calibrated microphones	1/2" and 1/4" with SA 30 adapter	1/2" and 1/4" with SA 30 adapter	1/2"
Storage temperature range	-25 °C ÷ +70 °C	-25 °C ÷ +70 °C	-25 °C ÷ +70 °C
CE classification	EMC: EN 50081-1, EN 50082-1 Safety: EN 61010-1:2001	EN 61010-1: 2010 EN 61326-1:2006 EN 55022:2010 EN 60942:2003	EN 61010-1: 2010 EN 61326-1:2006 EN 55022:2010 EN 60942:2003

Working conditions:

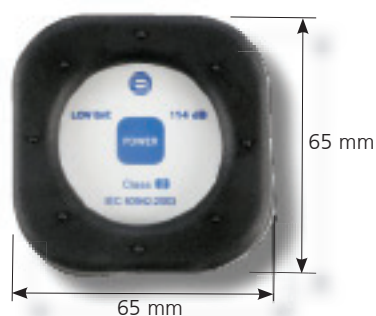
Temperature range	from -10 °C to +50 °C (related SPL error ≤ ±0.15 dB)	from -10 °C to +50 °C (related SPL error ≤ ±0.15 dB)	from 0°C to +40 °C (related SPL error ≤ ±0.2 dB)
Atmospheric pressure range	from 65 kPa to 108 kPa (related SPL error ≤ ±0.10 dB)	from 65 kPa to 108 kPa (related SPL error ≤ ±0.10 dB)	from 65 kPa to 108 kPa (related SPL error ≤ ±0.10 dB)
Humidity range	from 25 % to 90 % RH (related SPL error ≤ ±0.05 dB)	from 25 % to 90 % RH (related SPL error ≤ ±0.05 dB)	from 25 % to 90 % RH (related SPL error ≤ ±0.05 dB)

Reference conditions:

Ambient temperature	23 °C	23 °C	23 °C
Atmospheric pressure	101.3 kPa	101.3 kPa	101.3 kPa
Humidity	30 % ÷ 80 % RH	30 % ÷ 80 % RH	30 % ÷ 80 % RH
Effective microphone load volume	250 mm ³ for microphone type B&K 4134	250 mm ³ for microphone type B&K 4134	250 mm ³ for microphone type B&K 4134

Power supply:

Battery type	2 x LR03 (IEC) / AAA (ANSI) alkaline batteries	2 x LR03 (IEC) / AAA (ANSI) alkaline batteries	2 x LR03 (IEC) / AAA (ANSI) alkaline batteries
Continuous operating time	40 hours for 94 dB level, 30 hours for 114 dB level	30 hours	30 hours
Stand-by period	around two years (auto switch ON / OFF)	around two years (auto switch OFF)	around two years (auto switch OFF)
Minimal voltage requirements	2.1 V	2.1 V	2.1 V



Continuous product development and innovation are the policy of our company. Therefore, we reserve the right to change the specifications without prior notice.

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