



# SV104A Noise Dosimeter

The SV 104A is the first noise dosimeter on the market with a life-time warranty for the MEMS microphone. It is resistant to accidental mechanical shocks and even drops. The SV 104A Bluetooth® interface enables current results to be previewed on a smart-phone or tablet using our Assistant application. The smart-phone application also signals an alarm when pre-selected noise limits are exceeded. The dosimeter is suitable for noise exposure measure-ments in accordance with the following standards: ISO 9612, OSHA, MSHA and ACGIH.







### **MEMS Microphone**

#### Life-time warranty on microphone

Our patented MEMS microphone is resistant to accidental mechanical shocks and even drops. The excellent stability of measurement parameters over years of use is confirmed by its lifetime warranty.





# Smart & Automatic

# Noise sources recognition

The octave analysis can be used for quick verification of noise sources in the time history. Simultaneously, the audio events recording can be logged so it can be played back in the PC software. It can be activated at any time, by ordering an activation code.



# Mobile applications

# Remote connection via Bluetooth

The SV 104A Bluetooth interface enables current results to be previewed on a smartphone or tablet using our Assistant application. The smartphone application also sounds an alarm when the pre-selected noise limits are exceeded.

### **Key Functions**



Occupational noise measurements

The dosimeter is suitable for measurements of noise at work in compliance with standards such as: ISO 9612, OSHA, MSHA and ACGIH.



Real-time frequency analysis

The 1/1 octave analysis is often used for the selection of hearing protectors. The 1/3 octave function allows the determination of the influence of high or low frequencies on overall values. Functions are available as firmware options.



Audio recording is synchronized with a noise time-history and it can be opened and played back in PC software enabling noise source recognition. Audio recording can be triggered on threshold or by time. It can be activated at any time by ordering the activation code.



The time history logging of results such as Leq, Max, Min and Peak with two simultaneous logging steps is saved on a 8 GB memory.



The inbuilt triaxial VIBRATION SENSOR detects shocks and vibrations that influence noise measurement results and provides the information during the times when dosimeter is not used by the worker.



The colour graphical display is an OLED screen with a high contrast visibility even in full daylight or in low ambient light areas.



The USB interface provides fast data download and is used for battery charging.

### Software



Supervisor software supports data download, instrument configuration and provides complete set of tools for determination of occupational noise exposure from noise level measurements in accordance to all standards using TWA and DOSE such as OSHA, ACGIH, MSHA, ISO 9612.



Assistant is a smartphone application for devices running on Android and iOS platforms enabling current results to be previewed on a smartphone or tablet as well as controlling the measurement Start / Stop and Markers. The Assistant also signals an alarm when set noise limits are exceeded.

### **Optional accessories**









SV 34 Class 2 Acoustic Calibrator 114 dB at 1 kHz



SF 104\_30CT License of 1/1 & 1/3 octave



SF 104\_WAV License of audio recording



#### <u>SV 104A – Noise Dosimeter</u>





# **Technical Specifications**

Standards	IEC 61252 ed1.1 (2002); ANSI S1.25-1991 (R2007) Class 2 IEC 61672-1 ed2.0 (2013)
Weighting Filters	A, C and Z
Time Constants	Slow, Fast, Impulse
Exchange Rates	2, 3, 4, 5, 6
Microphone	ST 104A MEMS microphone, 1/2" housing, patented
Linear Operating Range	53 dBA Leq ÷ 141 dBA Peak (in accordance to IEC 61672)
Dynamic Measurement Range	43 dBA Leq $\div$ 141 dBA Peak (typical from noise floor to the maximum level)
Frequency Range	20 Hz ÷ 10 kHz
Dynamic Range	98 dB
Measurement Results	Time, Lpeak, Lmax, Lmin, SPL (L), DOSE, D_8h, PrDOSE, Lav, Leq, SEL (LE), SEL8, E, E_8h, LEPd, PSEL, Ltm3, Ltm5, Leq statistics (Ln), PTC, PTP, ULT, TWA, PrTWA, Lc-a. Measurement time, OVL (OVERLOAD TIME %), No Motion time PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, Lc-a
Measurement Profiles	3 with independent settings of filters (x) and time constants (y)
Data Logger	Summary results for the measurement time and time-history logging of Leq/Max/Min/Peak with adjustable logger step down to 1 s
1/1 Octave Analysis (option)	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 31.5 Hz to 8 kHz
1/3 Octave Analysis (option)	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 20 Hz to 10 kHz
Audio Recording (option)	Audio events recording, trigger and continuous mode, 12 kHz sampling rate, wav format
Voice Comments	Audio records on demand, created before or after measurement, added to measurement file
Memory	8 GB
Display	OLED 128 x 64 pixels
Keyboard	4 push buttons
Communication Interfaces	USB 2.0, Bluetooth® 4.0 Electrical contacts (SA 104-1 and SA 104-5 docking stations compatible)
Power Supply	Li-Ion rechargeable cell operation time 48 hours <sup>1</sup>
Environmental Conditions	Temperaturefrom -10 °C to 50 °C (14 °F to 122 °F)Humidityup to 95 % RH, non-condensed
Dimensions	88 x 49.5 x 19.2 mm
Weight	121 grams

<sup>1</sup>depending on configuration and environmental conditions



The policy of our company is to continually innovate and develop our products. Therefore, we reserve the right to change the specifications without prior notice.

SVANTEK Sp. z o. o. Strzyglowska 81, 04-872 WARSAW, POLAND phone (+48) 22 51 88 320 | www.svantek.com/contact

SOUND AND VIBRATION MEASUREMENT SOLUTIONS