

# SV973

Class 2 Sound Level Meter  
& Sound Exposure Meter

**SENSIDYNE**<sup>®</sup>  
Industrial Health & Safety Instrumentation



MICROPHONE LIFETIME WARRANTY  
MICROPHONE LIFETIME WARRANTY

INTELLECTUAL PROPERTY  
PATENTED MICROPHONE  
INTELLECTUAL PROPERTY



**SVANTEK**



# SV 973 Sound Level Meter & Sound Exposure Meter

SV 973 **Sound Level Meter** is a CLASS 2 instrument in accordance to IEC 61672.

**Sound Exposure Meter / Noise Dosimeter** in accordance with ANSI S1.25.

Wide frequency range up to **20 kHz** in sound level meter mode.

The rugged microphone uses **MEMS** technology with lifetime warranty.

**Automatic calibration** starts the calibration and saves the calibration data together with the measurement file, both before and after measurement.

The **OLED display** is full color and high contrast so it can be used in bright sunlight or even at night. OLED technology does not need back lighting giving the SV 973 extended operating time on 4 x AA batteries. The size of the display is a perfect compromise between power saving and visibility.



Regular **time history logging** of results such as Leq, Max, Min and Peak are saved onto the large 8 GB non-volatile memory.

The SV 973 can perform real-time frequency analysis in **1/1 octave** and **1/3 octave** bands (optional).

**Audio recording** works during the measurement and is logged into memory in parallel with the time history results (optional).

**Voice comments** before or after the measurements allow easy identification of data files.

The **USB connector** can be used for communication with PC software as well as for powering the instrument from an external battery or PC.



## What's Inside the SV 973 Kit?

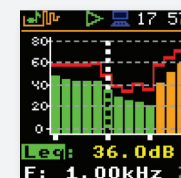
The SV 973 includes a Class 2 sound level meter equipped with a new rugged and robust MEMS microphone offered with a lifetime warranty. Also included are: SA 22 windscreen, 8 GB built in memory, four AAA batteries, USB cable, and CD with user manual and PC software. Each SV 973 comes with its own factory calibration certificate and 36 month warranty card.

**Supervisor** software supports data download, instrument configuration and provides a 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, NHO-01 or NR-15. The data files from the SV 973 can be used for calculation of all required measurement results and uncertainties in accordance to the three measurement strategies described in ISO 9612.

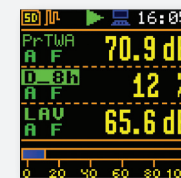
## Optional Functions



**AUDIO EVENT RECORDING** is synchronized with the sampled time history results and can be opened and played back using Supervisor software enabling source recognition. The audio recording is programmable and can be triggered on threshold or time. The length of the recording can be set as well. It can be activated at any time by ordering the activation code.



**FREQUENCY ANALYSIS** of the measured signal into 1/1 or 1/3 octave bands. 1/1 octave band analysis is often used for the correct prescription of hearing protectors while 1/3 octave bands are used by noise control engineers to reduce high noise levels. It can be activated at any time by ordering the activation code.



**DOSIMETER** option provides results such as: DOSE, DOSE\_8h, PrDOSE, LAV, LAE (SEL), LAE8 (SEL8), PLAE (PSEL), E, E\_8h, LEPd, PTC, PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, Lc-a and the selection of exchange rate between 2, 3, 4, 5, 6. It can be activated at any time by ordering the activation code.

## About the SV 973

The SV 973 combines Class 2 sound level meter and noise dosimeter in a single device. The meter has been designed in accordance with IEC 61672 and offers a wide frequency range up to 20 kHz in sound level meter mode.

The unique feature of the SV 973 is the microphone in MEMS technology with a lifetime warranty.

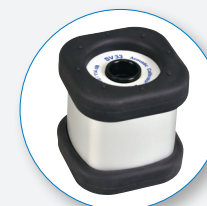
The meter's measurement range from 25 to 126 dB enables its use in industrial and environmental noise measurements. For measurements of noise at work, the dedicated sound exposure meter function shifts the dynamic measuring range of sound level meter to 141 dB Peak.

The instrument is easily calibrated in the field using an acoustic calibrator as the calibration begins automatically when the microphone is inserted into the calibrator.

The SV 973 can measure broad-band results with all the necessary weighting filters as well as 1/1 octave or 1/3 octave band filters. Audio events recording function works together with sound level meter mode.

The saved results are stored on the built in 8 GB memory and can be easily downloaded to a PC using the Svantek Supervisor or SvanPC++ software.

## Optional Accessories for the SV 973



SV 34A Class 2  
Acoustic Calibrator  
114 dB at 1 kHz



SA 72 Waterproof Kit  
Case



SA 80 Pocket Pouch



# SV 973 Technical Specifications

## Sound Level Meter

Standards	Class 2: IEC 61672-1:2013
Weighting Filters	A, C, Z
Time Constants	Slow, Fast, Impulse
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Microphone	MEMS ST 973 microphone in 1/2" casing
Preamplifier	Integrated
Total Dynamic Range	25 dBA RMS ÷ 126 dBA Peak (typical from noise floor to the maximum level)
Linear Operating Range	35 dBA RMS ÷ 126 dBA Peak (in accordance to IEC 61672)
Internal Noise Level	Less than 25 dBA RMS
Frequency Range	20 Hz ÷ 20 kHz
Meter Mode Results	Elapsed time, Lxy (SPL), Lx <sub>eq</sub> (LEQ), Lx <sub>peak</sub> (PEAK), Lx <sub>ymax</sub> (MAX), Lx <sub>ymin</sub> (MIN), where x - weighting filter A/ B/ C/ Z; y - time constant Fast/ Slow/ Impulse Ovl (OVERLOAD), Lx <sub>ye</sub> (SEL), LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5 Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y) Ln (L1-L99), complete histogram in meter mode Time-history logging of summary results, spectra with two adjustable logging steps down to 100 ms Audio events recording, trigger and continuous mode, 12 kHz sampling rate, WAV format Audio records on demand, created before or after measurement, added to measurement file
Measurement Profiles	
Statistics	
Data Logger1	
Audio Recording1 (optional)	
Voice Comments	

## Sound Exposure Meter

Total Dynamic Range	40 dBA RMS ÷ 141 dBA Peak (typical from noise floor to the maximum level)
Linear Operating Range	50 dBA RMS ÷ 141 dBA Peak (in accordance to IEC 61672)
Frequency Range	20 Hz ÷ 10 kHz
Exchange Rates	2, 3, 4, 5, 6
Measurement Results	Lxy (SPL), Lx <sub>eq</sub> (LEQ), Lx <sub>peak</sub> (PEAK), Lx <sub>ymax</sub> (MAX), Lx <sub>ymin</sub> (MIN), where x - weighting filter A/ C/ Z; y - time constant Fast/ Slow/ Impulse Lc-a, DOSE, DOSE_8h, PrDOSE, LAV, LAE (SEL), LAE8 (SEL8), PLAE, (PSEL), E, E_8h, LEPd, PTC (PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, LN (LEQ STATISTICS), Measurement time, OVL (OVERLOAD TIME %), No Motion time

## Frequency Analyser

1/1 Octave Analysis Filters1	Real-time analysis meeting Class 1 requirements of IEC 61260-1:2014, centre frequencies from 31.5 Hz to 16 kHz (optional)
1/3 Octave Analysis Filters1	Real-time analysis meeting Class 1 requirements of IEC 61260-1:2014, centre frequencies from 20 Hz to 16 kHz (optional)

## General Information

Ingress Protection Rating	IP 64 (excluding microphone)
Memory	Built-in 8 GB memory
Display	Color 96 x 96 pixels OLED type
Keyboard	8 push buttons
Communication Interfaces	USB 2.0
Power Supply	Four AAA alkaline or rechargeable NiMH batteries (not included) operation time 12 h2
Environmental Conditions	Temperature: 14°F to 122°F (-10 °C to 50 °C) Humidity: Up to 95 % RH, non-condensed
Physical Characteristics	Dimensions: 9.5" x 2.21" x 0.8" (235 mm x 56 x 20 mm) with microphone and preamplifier Weight: Approx. 0.5 lbs with batteries

<sup>1</sup>function parallel to the meter mode

<sup>2</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.

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