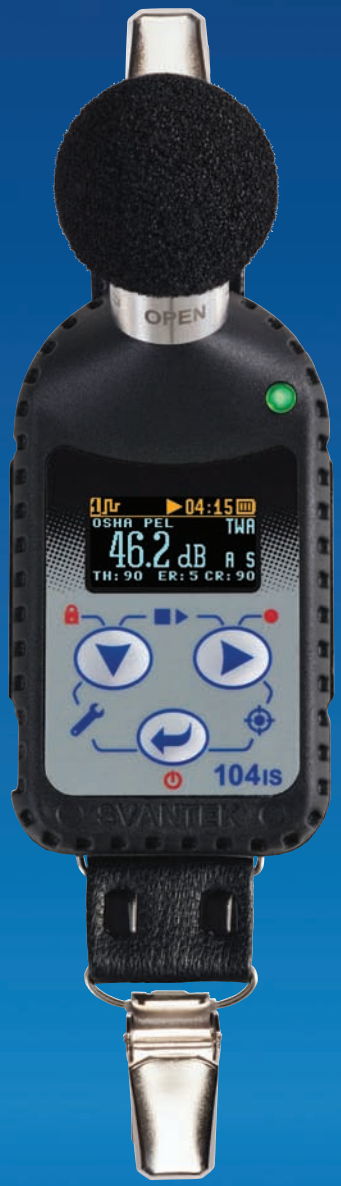
SV104IS
Intrinsically Safe Noise Dosimeter



SVANTEK

INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

SV104IS Intrinsically Safe Noise Dosimeter

Features

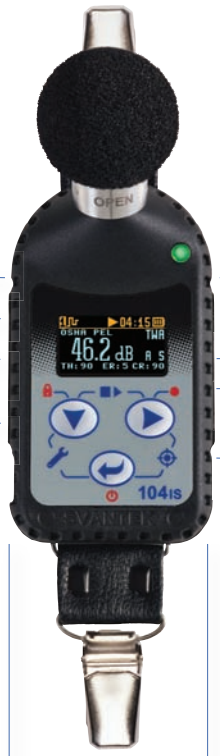
The SV104IS is the **INTRINSICALLY SAFE** personal noise dosimeter in accordance to **ATEX** directive and **IECEx** certification scheme.

The dosimeter has been designed to meet requirements of the **ANSI S1.25** and **IEC 61252** standards for noise dosimeters and the **IEC 61672** standard for class 2 sound level meters.

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

The SV104IS is **FULLY CONFIGURABLE** in Supervisor software. Settings such as exchange rate, time constants, measurement time, start, stop or pause can be adjusted and saved in the instruments' memory as setup files.

The **TIME HISTORY LOGGING** of results such as Leq, Max, Min and Peak with two simultaneous logging steps is saved in internal memory. All dosimetry results such as DOSE, TWA, Lav are also included.



The dosimeter is suitable for noise exposure measurements in accordance to the **ISO 9612** as well as **OSHA, MSHA** and **ACGIH** standards.

The **MEMS MICROPHONE** is resistant to mechanical shocks and accidental drop-downs. Additionally it provides for an excellent stability of measurement parameters over the years of use.

The **AUTO-CALIBRATION** facility detects a calibration signal and automatically starts the calibration process, saving the calibration data together with the measurement file, both before and after measurement.

The inbuilt tri-axial **VIBRATION SENSOR** detects shocks and vibrations that influence noise measurement results and provides the information on the time when dosimeter is not used by the worker.

The **VOICE ANNOTATIONS** before or after the measurements allow easy identification of data files.

Petrochemical Plants

Underground Mines

Oil Refineries

About

The SV104IS is an intrinsically safe noise dosimeter with a robust 1/2" MEMS microphone enabling easy calibration using most commonly available acoustic calibrators. A new microphone has a large dynamic range of the 90 dB which allows to measure noise from 60 dBA Leq to 140 dB Peak. The long list of microphone advantages includes also the auto-calibration feature and TEDS memory that stores the calibration info in the microphone itself. The auto-calibration means performing acoustic calibration automatically once the microphone is inserted into the calibrator.
The SV104IS is a cable-free dosimeter and is typically attached to the user's shoulder, close to the ear using the mounting clips supplied. All results are clearly displayed on the amazing OLED screen which offers excellent visibility even in a full daylight or darkness.
The instrument works with Svantek's health and safety software package, "Supervisor", that provides various tools for data analysis and reporting. The docking station supports data transfer to the PC through the infrared interface as well as handles battery charging. The SV104IS rechargeable batteries usually power the instrument up to 50 hours.
Additional features like 1/1 octave band real-time analysis and audio events recording can be activated at any time, by entering an activation code.

What's inside?

The standard SV104IS kit includes SV27IS shock resistant MEMS microphone, a windscreen with a stainless steel mounting thread. The dosimeter has inbuilt 64 MB memory and an Infrared interface for communication with PC software (license for PC software is included). Each SV104IS has its factory calibration certificate and **36-MONTHS WARRANTY CARD** that is also applicable to the microphone.

Software

The **SUPERVISOR SOFTWARE** is a complete tool used to determine an occupational noise exposure from noise level measurements in accordance to all the standards using TWA and DOSE, like **OSHA, ACGIH, MSHA**, **NHO-01** or **NR-15**. The data files from the SV 104IS can be used to calculate all the required measurement results and uncertainties, in accordance to the three measurement strategies described in **ISO 9612**, i.e. task-based, job-based and full-day.

Optional functions

*The option for **1/1 OCTAVE REAL-TIME ANALYSIS** allows accurate and correct selection of hearing protectors. When presented as a spectrogram, the 1/1 octave can be used for quick verification of noise sources in the time history. It can be activated at any time, by entering an activation code.*

*The **AUDIO EVENTS RECORDING** option works during measurement and is logged in parallel to time history so it can be played back in the PC software. The settings, like triggers or recording time, are adjustable. It can be activated at any time, by entering an activation code.*

Optional accessories

SA104-1
Docking Station for Single Dosimeter

SA104-5
Docking Station for 5 Dosimeters

SA147
Waterproof Carrying Case for Noise Dosimeter and Single Docking Station

SV34Class 2
Acoustic Calibrator 114 dB at 1 kHz

SA144
Carrying Case for 5 Dosimeters and Docking Station for 5 Units

SV104IS K1 and SV104IS K5 kits

The SV104IS dosimeter is also available in price attractive kits. The K1 kit includes a SV104 IS dosimeter together with docking station for a single unit and Class 2 acoustic calibrator. The kit comes in a waterproof carrying case.
The K5 kit includes: five SV 104IS dosimeters, docking station for five dosimeters, Class 2 acoustic calibrator and carrying case for 5 dosimeters.

Technical Specifications

SV104IS Noise Dosimeter

Standards	IEC 61252 ed1.1 (2002); ANSI S1.25-1991 (R2007); Class 2 IEC 61672-1 ed2.0 (2013) CAN/CSA C22.2 No 61010-1; CAN/CSA C22.2 No 60079-0; CAN/CSA C22.2 No 60079-11 ANSI/UL 61010-1; ANSI/UL 60079-0; ANSI/UL 60079-11 NRTL certification for USA and Canada: QPS file no LR1356-1 NRTL device marking: cQPSus, Ex ia IIC T4 Ga, Class I, Zone 0, AEx ia IIC T4 Ga ATEX: EN 50303:2000, EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007; certificate number: FTZU 14 ATEX 0055X IEC 60079-0 ed6.0 (2011), IEC 60079-11 ed6.0 (2011), certificate number IECEx FTZU 15.0001X Hazardous locations markings: I M1 Ex ia I Ma; II 1G Ex ia IIC T4 Ga;
Weighting Filters	A, C and Z
Time Constants	Slow, Fast, Impulse
Exchange Rates	2, 3, 4, 5, 6
Measurement Results	Lxy (SPL), Lxeq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymin (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
Measurement Profiles	3 with independent settings of filters (x) and time constants (y)
Microphone	SV 27IS MEMS microphone, 1/2" housing
Measurement Range	60 dBA RMS ÷ 140.1 dBA Peak
Frequency Range	20 Hz ÷ 10 kHz
Dynamic Range	90 dB
Data Logging[1]	Summary results for the measurement time and time-history logging of Leq/Max/Min/Peak with adjustable logger step down to 1 s
Voice Comments	Audio records on demand, created before or after measurement, added to measurement file
Audio Recording[1] (optional)	Short audio events recording on trigger during measurement
1/1 Octave[1] (optional)	1/1 octave real-time analysis, IEC 61260: Class 1 9 filters with centre frequencies from 31.5 Hz to 8 kHz

General Information

Display	OLED 128 x 64 pixels	
Ingress protection	IP 65	
Memory	64 MB	
Interface	Infrared (docking station required)	
Keyboard	3 push buttons	
Power Supply		
	Li-Ion rechargeable cell[2]	operation time 50 hours[3]
Environmental Conditions		
	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	88 x 49.5 x 19.2 mm	
Weight	117 grams with batteries	

[1]function works with the acoustic dosimeter mode
[2]docking station required for battery recharging
[3]dependent on configuration

Proudly distributed by:

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