

SVAN 971

Sound Level Meter
& Analyser



INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

SVAN971 Sound Level Meter

Features

SVAN 971 Sound Level Meter is **CLASS 1** instrument in accordance to IEC 61672. The accuracy of SVAN 971 has been confirmed by number of pattern approval certificates.

The meter is suitable for noise at work measurements in accordance to **ISO 9612** as well as **OSHA, MSHA and ACGIH** standards.

It is the **SMALLEST** Class 1 instrument on the market. The size and weight are very convenient when making the hand-held measurements.

The **TIME HISTORY LOGGING** of results such as Leq, Max, Min and Peak with two simultaneous logging steps is saved on a 8 GB **microSD** card (upgradeable to 128 GB).

The **OLED DISPLAY** is a full color and high contrast so it can be used in a sunlight or even at night. The OLED technology doesn't use back-light giving SVAN 971 more battery operating time. The size of display is a perfect compromise between power savings and visibility.

Once the calibration signal is detected, SVAN 971 starts the **AUTO-CALIBRATION**, saving the calibration data together with the measurement file, both before and after measurement.

The inbuilt **VIBRATION SENSOR** informs meter about vibrations that interfere with noise measurements. In addition, the sensor detects the horizontal position of meter so the meter knows when to rotate the display.

VOICE ANNOTATIONS (voice comments) before or after the measurements allow easy identification of data files.

SVAN 971 has **USB SOCKET** which can be used for communication with PC software as well as for powering the instrument from an external battery.

One of the biggest advantages of using SVAN 971 is its **POWER EFFICIENCY**. It can run up to 2-3 working days (16-24 hours) on one set of small AAA batteries.



About

The SVAN971 is a Class 1 sound level meter in accordance to IEC 61672. The Class 1 accuracy has been confirmed by type approvals in countries such as Austria, Poland or Czech Republic.

The instrument is extremely small but offers unprecedented state of the art technology. The instrument's user interface makes both configuration and measurement easier than ever before. For those who do not need to alter the measurement settings, the SVAN971 has an extremely simple operational mode with only Start/Stop controls. This means that the SVAN971 is the ideal choice for many applications including industrial noise measurement for health and safety, short term environmental noise monitoring and general noise measurements for acoustic consultants or technical engineers.

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 instrument also includes a built-in vibration sensor that provides information about vibrations that could influence the measurements.

The SVAN971 measures broad-band results with all the necessary weighting filters as well as 1/1 octave or 1/3 octave band filters. It also offers time-history logging providing broad-band results and spectra with adjustable logging steps.

The audio events recording function works together with sound level meter mode.

The data are stored on a microSD card and can be easily downloaded to a PC using the Supervisor software.

What's inside?



The kit consist of SVAN 971 Class 1 sound level meter with detachable preamplifier SV18 and high quality omni-directional SV7052 microphone, compliant to IEC61094-4. The list of accessories includes: SA22 windscreen, 8 GB microSD card, four AAA batteries, USB cable, and CD with user manual. Each SVAN 971 has its factory calibration certificate and **36 MONTHS WARRANTY** card.

Software

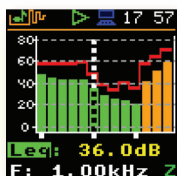


Supervisor software supports data download, instrument configuration and provides complete set of tools for determination of occupational noise exposure from noise level measurements in accordance to all standards using TWA and DOSE such as OSHA, ACGIH, MSHA, NHO-01 or NR-15. The data files from the SVAN 971 can be used for calculation of all required measurement results and uncertainties in accordance to the three measurement strategies described in ISO 9612.

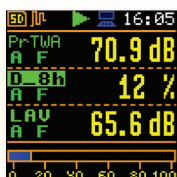
Optional functions



AUDIO RECORDING in a WAVE format with 12 kHz sampling rate. The WAVE file is synchronized with a noise time-history and it can be opened and played back in Supervisor software enabling noise source recognition. The recording is programmable, it can be triggered on threshold or time and the length of recording can be set as well. Recorded WAVE files can be also analyzed in SvanPC++ software that offers WAVE module designed for analysis of wave files. The module provides calculation of overall results such as L_{eq} , L_{max} , L_{min} , L_{peak} as well as 1/3 octave and FFT calculations or tonality. It can be activated at any time by entering the activation code.



FREQUENCY ANALYSIS of the signal in 1/1 or 1/3 octave bands. The 1/1 octave analysis is often used for selection of hearing protectors, diagnostics of faulty equipment or measuring room criteria such as Noise Criterion or Noise Rating. The 1/3 octave function allows to determine the influence of high or low frequencies on overall values. It can be activated at any time by entering the activation code.

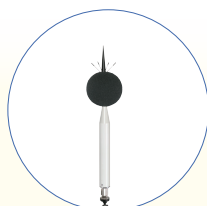


DOSIMETER option provides results such as: DOSE, DOSE_8h, PrDOSE, LAV, LAE (SEL), LAE8 (SEL8), PLAE (PSEL), E, E_8h, LEPd, PTC PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, Lc-a and the selection of exchange rate between 2, 3, 4, 5, 6. It can be activated at any time by entering the activation code.

Optional accessories



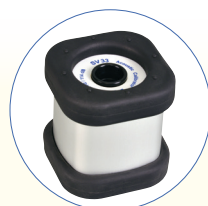
SC 91
Extension Cable
for Preamplifier



SA 271
Microphone
Outdoor
Protection Kit



SM 271 LITE
Outdoor
Monitoring
Case



SV 35A Class 1
Acoustic Calibrator
94 dB / 114 dB
at 1 kHz



SA 420B
Tripod Up To
4 m Height

SVAN971 Technical Specifications

Sound Level Meter

Standards	Class 1: IEC 61672-1:2002
Weighting Filters	A, B, C, Z
Time Constants	Slow, Fast, Impulse
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Microphone	ACO 7052E, 35 mV/Pa, prepolarised 1/2" condenser microphone
Preamplifier	SV 18 detachable
Linear Operating Range	25 dBA RMS ÷ 140 dBA Peak (in accordance to IEC 61672)
Total Dynamic Measurement Range	15 dBA RMS ÷ 140 dBA Peak (typical from noise floor to the maximum level)
Internal Noise Level	less than 15 dBA RMS
Dynamic Range	>110 dB
Frequency Range	10 Hz ÷ 20 kHz
Meter Mode Results	Elapsed time, L _x y (SPL), L _x eq (LEQ), L _x peak (PEAK), L _x y _{max} (MAX), L _x y _{min} (MIN), where x - weighting filter A/ B/ C/ Z; y - time constant Fast/ Slow/ Impulse LR (ROLLING LEQ OPTION), Ovl (OVERLOAD), L _x ye (SEL), LN (LEQ STATISTICS), L _{den} , LEP _d , L _{tm3} , L _{tm5}
Measurement Profiles	Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)
Statistics ¹	Ln (L ₁ -L ₉₉), complete histogram in meter mode
Data Logger ¹	Time-history logging of summary results, spectra with adjustable double logging steps down to 100 ms
Audio Recording ¹ (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

Noise Dosimeter

Dosimeter Mode Results ¹ (option)	L _x y (SPL), L _x eq (LEQ), L _x peak (PEAK), L _x y _{max} (MAX), L _x y _{min} (MIN), DOSE, DOSE_8h, PrDOSE, LAV, L _x ye (SEL), L _x ye8 (SEL8), PL _x ye, (PSEL), E, E_8h, LEP _d , PTC (PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, Lc-a Exchange Rate 2, 3, 4, 5, 6
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Sound Analyser

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

General Information

Ingress Protection Rating	IP 65 (excluding microphone)
Input	Preamplifier (60 UNS thread)
Memory	MicroSD card 8 GB (removable & upgradeable)
Display	Colour 96 x 96 pixels OLED type
Keyboard	8 push buttons
Communication Interfaces	USB 2.0 client SV 75 RS 232 cable (option) or SV 76 RS 232 cable with external power supply connector (option)
Power Supply	Four AAA alkaline or rechargeable NiMH batteries (not included) operation time 16 h ÷ 24 h (depending on usage) USB interface 100 mA HUB
Environmental Conditions	Temperature from -10 °C to 50 °C Humidity up to 95 % RH, non-condensed
Physical Characteristics	Dimensions 232.5 mm x 56 x 20 mm (including microphone and preamplifier) Weight Approx. 225 grams with batteries

¹function operates together with sound level meter mode

Our Company's policy is based upon continuous product development and innovation. Therefore, we reserve the right to change the specifications without any prior notice whatsoever.

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