SVAN 979

Sound & Vibration Analyser

SVANTEK

INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

SVAN 979 Sound & Vibration Analyser

The SVAN 979 is a **CLASS 1 TYPE APPROVED** Sound Level Meter and Analyser with the superior technical specifications. Its measuring range starts from as low as **12 dBA**!

Signal input consists of high quality omnidirectional GRAS 40 AE microphone allowing sound measurements from **3.15 Hz**. Thanks to SV 17 preamplifier it is also possible to use microphones requiring **200 V** polarisation voltage.

The preamplifier has been **REINFORCED** with a metal collar for additional protection of the measurement path.

SVAN 979 can be used as a **VIBRATION** meter - simply by connecting a cable and a vibration sensor.

OLED 2.4" color display (320 x 240 pixels) provides a **SUPER CONTRAST VISIBILITY** even in sunny weather.

Aluminum **ROBUST** housing gives the comfort of a secure grip to the user and protects the hardware against the electromagnetic interference.

SVAN 979 is powered from 4xAA **RECHARGEABLE** batteries which come with a dedicated charger. External power supply is also provided.

Two dedicated interfaces provide capability of cooperation with two external devices at the same time, for example **GPS** device and **3G** modem.

The frequency analyser offers **1/1 AND 1/3 OCTAVE** real-time analysis and **FFT.**

Time domain signal recording with **48 kHz** enables **AUDIO LISTENING** as well as **WAVE** recalculation in SvanPC++ software.

RT60, SIGNAL GENERATOR, millisecond spectra logging allows users to perform all the measurements necessary to obtain facade, airborne or impact **SOUND INSULATION** results. The measurement is supported by the smartphone application.

Built-in **Bluetooth®** interface provides additional advantages such as device configuration by usage of a smartphone or tablet with Android platform and **SvanMobile** application.

The **Building Acoustics Assistant** application supports SVAN 979 in acoustic insulation measurements.

Standard kit includes 16 GB **microSD** card which can be easily exchanged to a card with maximum storage capacity of **128 GB.**

About SVAN 979

SVAN 979 is a device combining all necessary measurement functionalities in one hand-held tool.
The instrument is dedicated for acoustic engineering applications such as sound insulation measurements, precise frequency or signal tonality analysis.
In standard, this sophisticated tool has been equipped with frequency analysis in 1/1 & 1/3 octave bands, FFT analysis and audio recording for noise source recognition. Basic kit also includes building acoustic pack: RT 60 measurement and signal generator functions.
Additional options such as Tonality or unique 1/6 & 1/12 octave analysis make this unit a complete accessory for acoustic engineers.
Thanks to implementation of the G weighting filter, the instrument is a perfect choice for measurements on wind farms where infrasound measurements are often necessary.

What's inside the SVAN 979 kit?

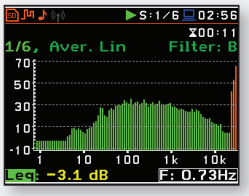
The kit consists of SVAN 979 Class 1 sound & vibration level meter with a detachable preamplifier SV 17 and high quality omni-directional GRAS 40AE microphone, compliant to IEC 61094-4. The list of accessories includes: SA 143 carrying case, SA 22 windscreen, 16 GB microSD card, four rechargeable AA batteries, USB cable, and CD with user manual. Each SVAN 979 has its factory calibration certificate and 36 months warranty card.

Software for SVAN 979

SvanPC++ is a PC software supporting functions such as measurement data downloading from instruments to PC, measurement setups creation, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to a spread sheet or text editor applications. New version of SvanPC++ software also supports analysis of wave files from Svantek's instruments (for example calculation of tonality).

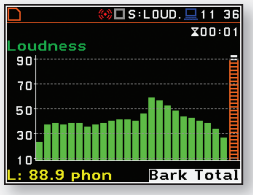
SvanMobile is an application for Android devices that uses the Bluetooth® connection to control the SVAN 979. It allows the user to trigger measurements, edit settings, rename files and view the results remotely. Anyone who makes measurements in the environment will appreciate the ability of SvanMobile to automatically add weather data and GPS position to the measurement report. SvanMobile also allows to link measurement files from the sound level meter to media files from the smartphone such as photos, video or audio recordings.

Optional functions



Thanks to its powerful computing processors, SVAN 979 can perform very sophisticated real-time frequency analysis in **1/6** or **1/12 OCTAVE BANDS**. It can be activated at any time by ordering the activation code.

TONALITY is a common sound quality analysis in relation to human hearing. Tonality determines annoying tones considered as a negative attribute of sound and calculates penalty value in dB which should be added to the noise level to indicate its annoyance. In accordance with ISO 1996-2 tonal analysis is obligatory if noise characteristics includes audible tones. It can be activated at any time by ordering the activation code.



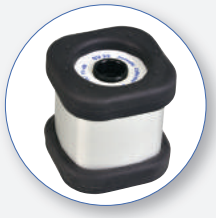
LOUDNESS is a measure of sound that corresponds to the subjective perception of humans, by taking into account the sensitivity of human hearing for different frequencies (Zwicker method according to ISO 532B standard). In many cases, loudness has been proven to be more reliable than A-weighted levels (and time history) in quantifying relatively low-level broadband sounds in agreement with subjective impression. It can be activated at any time by ordering the activation code.

Optional accessories to SVAN 979

SC 93
Extension Cable
for Preamplifier

SA 279
Microphone
Outdoor
Protection Kit

SM 279 PRO
Outdoor
Monitoring
Case



SV 36 Class 1
Acoustic Calibrator
94 dB / 114 dB
at 1 kHz

SA 420B
Tripod Up To
4 m Height

SVAN 979 Technical Specifications

Sound Level Meter & Analyser

Standards	Class 1: IEC 61672-1:2013 (type approved); Class 1: IEC 61260-1:2014
Meter Mode	Elapsed time, Lxy (SPL), Lxeq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymin (MIN), Ovl (OVERLOAD %), Lxye (SEL), LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5 Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)
Analyser	1/1 or 1/3 octave[1] real-time analysis; 1/6 or 1/12 octave[1] real-time analysis (optional) FFT[1] 1600 lines, up to 20.0 kHz band; Reverberation time analysis in 1/1 or 1/3 octave bands (RT 60) Loudness[1] based on ISO 532B standard and Zwicker model (optional) Pure tone detection meeting ISO 1996-2 Tonality[1] (optional) User programmable second order band pass filters[1] (optional)
Weighting Filters	A, C , Z , B, G
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Detector Time Constants	Slow, Fast, Impulse
Microphone	GRAS 40AE, 50 mV/Pa, prepolarised 1/2" condenser microphone
Preamplifier	SV 17 Voltage type (support 200 V polarisation)
Linear Operating Range	22 dBA RMS ÷ 140 dBA Peak (in accordance to IEC 61672)
Total Dynamic Range	12 dBA RMS ÷ 140 dBA Peak (typical from noise floor to the maximum level)
Internal Noise Level	Less than 12 dBA RMS
Frequency Range	3.5 Hz ÷ 20 kHz, with GRAS 40AE microphone

Vibration Level Meter & Analyser

Standards	ISO 20816-1
Meter Mode	RMS, MAX, Peak, Peak-Peak Simultaneous measurement in three profiles with independent set of filters and detectors
Analyser	1/1 or 1/3 octave[1] real-time analysis; 1/6 or 1/12 octave[1] real-time analysis (optional) FFT[1] real-time analysis 1600 lines, up to 20.0 kHz band RPM[1] rotation speed measurement parallel to the vibration measurement (optional) User programmable second order band pass filters[1] (optional)
Filters	HP1, HP3, HP10, Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, Wh
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Detector Time Constants	From 100 ms to 10 s
Accelerometer (optional)	Any IEPE accelerometer
Measurement Range	Transducer dependent
Frequency Range	0.5 Hz ÷ 22.4 kHz (transducer dependent)

General Information

Input	LEMO 7-pin: Direct AC, Direct AC with 200 V polarisation, Direct DC or IEPE type with TEDS	
Self-vibration Monitoring	Built-in	
Dynamic Range	115 dB	
Frequency Range	0.5 Hz ÷ 22.4 kHz, sampling rate 48 kHz	
Data Logger	Time-history logging with logging step down to 2 millisecond, Time-domain signal recording and audio events recording function	
Signal Generator	Sine, White noise, Pink noise	
Display	Super contrast (10000:1) OLED 2.4" colour display (320 x 240 pixels)	
Memory	MicroSD card 16 GB (included)	
Interfaces	USB 1.1 Client, USB 1.1 Host, Bluetooth, RS 232 (with optional SV 55) GPS time synchronisation and positioning (optional) Extended I/O - AC output (1 V Peak) or Digital Input/Output (Trigger – Pulse)	
Power Supply	Four NiMH AA rechargeable batteries (included)	operation time > 8 h ÷ 12 h (4.8 V / 2.6 Ah)[2]
	SA 17A external battery pack (optional)	operation time > 24 h[2]
	External power supply	6 V/500 mA DC ÷ 15 V/250 mA DC
	USB interface	500 mA HUB
Environmental Conditions	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	310 x 79 x 39 mm (with microphone and preamplifier)	
Weight	Approx. 0.6 kg with batteries	

[1]function parallel to the meter mode
[2]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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