

SVAN 979 Sound & Vibration Analyser

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The SVAN 979 is our flagship sound & vibration analyser. Your first impression will be formed by the amazing OLED display which offers excellent visibility in all light conditions. The instrument's lightweight and durable aluminium housing not only allows for a firm grip but also protects the valuable electronic device from damage and all forms of electromagnetic interference.

The SVAN 979 can take measurements over a very wide dynamic range - over 110dB. Its high-quality GRAS 40AE microphone can measure frequency ranges as low as 3 Hz. Other microphones can be used with the device, should you want to measure very low frequencies or very high levels of noise. The microphone preamplifier has also been reinforced with a collar to protect it against mechanical damage. One amazing feature of the SVAN 979 is that if you disconnect the microphone preamplifier, you can use the instrument to take vibration measurements - simply by connecting up a cable and a vibration sensor.

The SVAN 979 has an extensive range of hardware and firmware add-ons that includes built-in Bluetooth, a windscreen infrared detector, direct connections to GPS module, 3G or WiFi modem and the a unique built-in vibration shock sensor that warns the user whenever the instrument itself is exposed to vibrations that may disrupt measurements.

Two USB ports allow for the instrument to simultaneously connect to a GPS module and communicate with a computer. The USB port also allows for audio streaming where the data being transferred to a computer and written in the form of a WAV file suitable for further analysis.

Usage of so many advanced features at the same time is possible because the instrument has two high-speed digital signal processors. As a result, the SVAN 979 is capable of taking measurements at 2 ms intervals, which are logged simultaneously to an audio recording (with 48kHz sampling rate, 24 bits) while also performing frequency analysis in real time. Only the SVAN 979 can meet such a challenge.

Setting up such advanced measurements can sometimes be very complicated but not with the SVAN 979. The instrument's intuitive menu structure of this instrument has been designed to make the measurement experience a pleasure.

Features

- Class 1 IEC 61672-1:2002 sound level measurements (PTB type approval 21.21/13.06)
- General vibration measurements (acceleration, velocity and displacement)
- Three parallel independent profiles
- 1/1, 1/3 octave real-time analysis
- 1/6, 1/12 octave real-time analysis (optional)
- FFT analysis 1600 lines in selectable frequency band
- Time-domain signal recording
- Advanced data logger including spectra logging and audio-events recording
- Reverberation time measurements
- Pure tone detection (optional)
- Advanced trigger and alarm functions
- User programmable band-pass filters (optional)
- Windscreen and extension cable auto detection
- Built-in vibration shock sensor
- MicroSD card
- Options for 3G, LAN & WLAN remote communication or GPS time synchronisation
- Bluetooth & SvanMobile app for measurement tracking
- Super contrast (10000:1) colour OLED display
- Built-in signal generator
- All-weather microphone protection SA 279 (optional)
- Hand held, light weight and robust case



Sound Level Meter & Analyser

Standards	Class1: IEC 61672-1:2002 (PTB approval 21.21/13.06)
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 option) 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 Time constants: Slow, Fast, Impulse
Microphone	GRAS 40AE, 50 mV/Pa, prepolarised 1/2" condenser microphone
Preamplifier	SV 17 Voltage type (support 200V polarisation)
Linear Operating Range	22 dBA RMS ÷ 140 dBA Peak (in accordance to IEC 61672)
Dynamic Measurement 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	3.15 Hz ÷ 20 kHz, with GRAS 40AE microphone

Vibration Level Meter & Analyser

Standards	ISO 10816-1
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 meeting Class 1 IEC 61260 1/6 or 1/12 octave ¹ real-time analysis meeting Class 1 IEC 61260 (optional) FFT ¹ 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 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 ¹	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	32 MB non-volatile flash type, micro SD card 8 GB (included)
Interfaces	USB 1.1 Client, USB 1.1 Host, Bluetooth, RS 232 (with optional SV 55), IrDA (optional) GPS time synchronisation and positioning (optional) Extended I/O - AC output (1 V Peak) or Digital Input/Output (Trigger – Pulse)
Power Supply	Four rechargeable AA batteries operation time > 16 h (4.8 V / 2.6 Ah) ² SA 17A external battery pack (option) 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	305 x 79 x 39 mm (with microphone and preamplifier)
Weight	Approx. 0.6 kg with batteries

¹works together with the meter mode

²dependent on instrument operation mode

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.