

PRELIMINARY

SVAN 979

Sound & Vibration Analyser

SVAN 979 is the most advanced and powerful single channel instrument for general acoustic and vibration measurements ever made.

The list of the instrument outstanding features and functionality includes:

- high accuracy sound and vibration measurements
- most powerful frequency analysis package
- time domain (wav) and Audio Events recording to Micro SD card
- very high dynamic and measurement range
- extremely flat frequency response (digitally compensated)
- extremely flexible set of interfaces (USB, Bluetooth, IrDA, RS232 and more)
- USB Host port providing very flexible functional extensions capabilities
- firmware ready for GPRS and WLAN communication
- super contrast colour display
- built-in signal generator
- automatic windscreen and extension cable detection
- all weather microphone protection with Community and Airport response.

SVAN 979 can record a raw audio data to micro SD flash card in WAV format, so the sources of noise can be played back and identified by listening (Time Domain Signal Recording). The audio events recording function is very useful in measurements requiring unattended monitoring.

Moreover, instrument is able to perform advanced measurement techniques like MLS, TDS etc. thanks to built-in sophisticated signal generator.

SVAN 979 is designed for easy communication with computers using built-in ports USB client and USB host. In practice it means full remote control over the instrument from the PC.


Fast USB 1.1 interface (12 MHz) creates real-time link for the PC "front-end" application of the SVAN 979 instrument

Easy communication with the PC and instrument settings editor is supported by SvanPC+ software. This already advanced and user-friendly application can optionally provide remote communication with instrument by the GPRS, LAN or WLAN transmission. This exceptional feature makes SVAN 979 the leading product for measurements in field (environmental monitoring).

SVAN 979 is powered from standard or rechargeable AA batteries. The powering of the instrument from the External DC power source or USB interface is also provided.

Robust and light weight design accomplishes the exceptional features of this new generation instrument.

FEATURES

- Type 1 IEC 61672:2002 sound level measurements
- General vibration measurements (acceleration, velocity and displacement) and HVM meeting ISO 8041:2005 standard
- Three parallel independent profiles
- 1/1, 1/3 octave real-time analysis
- 1/6 or 1/12 octave real-time analysis
- FFT real-time analysis 1600 lines in up to 22.4 kHz band (option)
- Reverberation Time measurements
- Time-domain signal recording
- Advanced data logger including spectra's logging and audio events recording
- Pure tone detection
- Acoustic loudness measurements
- Advanced trigger and alarm functions
- User programmable Band-Pass Filters
- Built in micro SD card for mass data memory
- USB 1.1 Host interface providing remote communication by GPRS, LAN & WLAN or GPS and many other functional extensions
- USB 1.1 Client interface (real-time PC "front end")
- Bluetooth, RS 232 and IrDA interfaces
- Super contrast (10000:1) colour OLED display 
- Built-in signal generator
- All weather microphone protection SA 203
- Self-vibration monitoring
- Hand held, light weight and robust case
- Easy in use



SOUND LEVEL METER / ANALYSER

Standards	Type 1: IEC 61672-1:2002
Meter mode	SPL, L_{eq} , SEL, L_{den} , L_{tm3} , L_{tm5} , Statistics - L_n (L_{l-99}), L_{Max} , L_{Min} , L_{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 (option - under development) FFT ¹ real time analysis 1600 lines, up to 20.0 kHz band (option) Loudness ¹ Based on ISO 532B standard and Zwicker model (option) Pure tone detection meeting ISO 1996-2 (Tonality ¹ option) Reverberation Time analysis in 1/3 octave bands (RT 60 option) User programmable second order band pass filters ¹ (option) and more...
Weighting Filters	A, C and Z
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 with SV 12L IEPE preamplifier
Measurement Range	22 dBA RMS ÷ 140 dBA Peak
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 8041:2005 and ISO 10816-1
Meter mode	RMS, VDV, MTVV or 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 (option - under development) FFT ¹ real time analysis 1600 lines, up to 20.0 kHz band (option) RPM ¹ rotation speed measurement parallel to the vibration measurement (option) Advanced enveloping option dedicated for bearing diagnostics (option) User programmable second order band pass filters ¹ (option) and more...
Filters	W_k , W_c , W_d , W_j , W_n , W_m , W_b , W_g HP1, HP3, HP10, Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, KB
RMS & RMQ Detectors	Digital True RMS & RMQ detectors with Peak detection, resolution 0.1 dB Time Constants: from 100 ms to 10 s
Accelerometer (option)	Dytran 3185D general purpose accelerometer with 100 mV/g sensitivity
Measurement Range	0.003 ms ⁻² RMS ÷ 500 ms ⁻² PEAK (with Dytran 3185D accelerometer)
Frequency Range	2 Hz ÷ 10 kHz, with SV 3185D accelerometer

BASIC DATA

Input	IEPE type with TEDS, Direct (AC or DC coupling) or 200 V polarisation built-in self-vibration monitoring
Dynamic Range	110 dB
Frequency Range	0.5 Hz ÷ 22.4 kHz, sampling rate 48 kHz
Data Logger ¹	Time-history logging with logging step down to 1 millisecond Time-domain signal recording and audio events recording function, Micro SD Card or USB Memory Stick (not included)
Signal generator	Sine, Sweep, White noise, Pink noise etc. (option)
Display	Super contrast (10000:1) OLED 2.4" colour display (320 x 240 pixels)
Memory	32 MB non-volatile flash type, micro SD card or external USB Memory Stick
Interfaces	USB 1.1 Client, USB 1.1 Host, Bluetooth, RS 232 (with SV 55 option), IrDA (option) External I/O - AC output (1 V Peak) or Digital Input/Output (Trigger - Pulse)
Power Supply	Four NiMH rechargeable batteries (option) operation time > 8h ÷ 12 h (4.8 V / 2.6 Ah) ² SA 17A external battery pack (option) operation time > 24 h (option) 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

¹each function parallel to the meter mode ²depends on instrument settings

Continuous product development and innovation are the policy of our company. Therefore, we reserve the right to change the specifications without prior notice.



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