

PRELIMINARY
DATA

SVAN 912AE

Sound & Vibration Analyser

The SVAN 912AE is all digital, Type 1 sound & vibration meter and analyser. It is intended to acoustic measurements, environmental noise monitoring, occupational health and safety monitoring, human vibration measurements and machine health monitoring. It can be used by acoustic consultants and safety engineers, in Public Services, in acoustic laboratories, in industry R&D departments etc.

The unique feature of this hand held analyser is ultrasound measurements with 1/4" condenser microphone and hydrophones.

Implemented two powerful digital signal processors makes that SVAN 912AE can perform real time narrow band (FFT) analysis and 1/1 octave or 1/3 octave analysis (including statistical calculations) simultaneously in 90 kHz band. The SVAN 912AE has built-in all necessary weighting filters. Measurements results are displayed as RMS

and Peak values, statistical diagrams, plots of levels versus time or frequency spectra's.

Measurement results can be stored in 64 MB Flash memory and easy downloaded to any PC using the RS 232 or USB interfaces and SvanPC software. Additional AES / EBU interface ensures data exchange with other digital audio signal processing systems.

Thanks to built-in maintenance-free, large capacity rechargeable battery and robust case, instrument can be used in hard environmental conditions more than 8 hours.

The SVAN 912AE can be supplied with various types of transducers and accessories like microphones, microphones preamplifiers, accelerometers, acoustic calibrators and cables.

FEATURES

- Type 1 IEC 61672:2002 sound level measurements
- Type 1 vibration measurements
- Wide measurement band from 0.1 Hz to 90.5 kHz
- Five parallel independent profiles
- 1/1 or 1/3 octave real time analysis parallel to the FFT analysis
- FFT real time analysis 1920 lines
- Large 64 MB flash memory
- Very low internal noise level
- Time domain signal recording
- Large display
- RS 232 and USB interfaces
- Galvanic separation between communication interfaces and measurement path
- Hand held and robust case
- Easy in use



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INSTRUMENTATION FOR SOUND & VIBRATION
MEASUREMENTS

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TECHNICAL SPECIFICATIONS

SOUND LEVEL METER / ANALYSER

Standards	Type 1: IEC 651, IEC 804, IEC 61672-1
Meter Mode	SPL, L_{eq} , L_{Max} , L_{Min} , L_{Peak} , SEL, L_{den} , Statistics - L_n (L_1 - L_{99}) with time history logging Simultaneous measurement in five profiles with independent set of filters and detectors constants
Analyser	1/1 octave real time analysis 1/3 octave real time analysis FFT ¹ real time analysis with 1920 lines
Weighting Filters	A, C, G and Z
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB Time Constants: Slow, Fast, Impulse
Microphone (option)	GRAS 40AN, 50 mV/Pa, prepolarised 1/2" condenser microphone
Preamplifier (option)	SV 01A preamplifier
Measurement Range	22 dBA RMS ÷ 140 dBA Peak (with GRAS 40AN microphone, sensitivity 50 mV/Pa)
Internal Noise Level	less than 6 dBA RMS
Frequency Range	1 Hz ÷ 20 kHz, with GRAS 40AN 1/2" microphone 10 Hz ÷ 90 kHz with GRAS 40BF 1/4" microphone

VIBRATION LEVEL METER / ANALYSER

Standards	TYPE 1: ISO 8041
Meter Mode	RMS, VDV, MTVV or MAX, Min, Peak, Peak-Peak with time history logging Simultaneous measurement in five profiles with independent set of filters and detectors constants
Analyser	1/1 octave real time analysis 1/3 octave real time analysis FFT ¹ real time analysis 1920 lines
Filters	W_k , W_c , W_d , W_j , W_h , W_m , HP, Vel, Dil, MF - Vel, KB
RMS & RMQ Detectors	Digital True RMS & RMQ detectors with Peak detection, resolution 0.1 dB Time Constants: from 10 ms to 10 s
Accelerometer (option)	Charge transducers and IEPE (ICP) accelerometers
Measurement Range	0.001 ms ⁻² RMS – 1000 ms ⁻² PEAK (among accelerometer with 100mV/g)
Internal Noise Level	less than 0.1 mms ⁻² RMS with W_m weighting filter and 100mV/g accelerometer

BASIC DATA

Input	7-pin LEMO connector - microphone (dedicated for SV 01A microphone preamplifier) - charge - IEPE (ICP) - direct (voltage)	
Dynamic Range	90 dB, 16 bits A/D converter	
Frequency Range	0.1 Hz ÷ 90.5 kHz, sampling rate 48 kHz	
Sampling Rate	48 kHz, 96 kHz and 192 kHz	
Display	LCD 128 x 128 pixels with backlighting	
Memory	64 MB non-volatile flash type	
Interfaces	USB 1.1 Client, RS 232, AES/EBU, AC output, External trigger	
Power Supply	Internal rechargeable battery	operation time > 8 h
	External power supply	8 V ÷ 27 V, 800 mA DC
Environmental Conditions	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	250 x 112 x 68 mm (without transducers)	
Weight	Approx. 1.8 kg with batteries without transducers	

¹function can work simultaneously with 1/1 octave or 1/3 octave analysis

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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