

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.

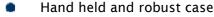
Thanks to built-in maintenance-free, large capacity rechargeable battery and robust case, instrument can be used in hard environmental conditions more than 8 hours.

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





Easy in use







INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS



TECHNICAL SPECIFICATIONS

SOUND LEVEL METER / ANALYSER

Standards Type 1: IEC 651, IEC 804, IEC 61672-1

 $SPL,\,L_{_{eq}},\,L_{_{Max}},\,L_{_{Min}},\,L_{_{Peak}},\,SEL,\,L_{_{den}},\,Statistics\,\cdot\,L_{_{n}}\,(L_{_{1}}\cdot L_{_{qq}})\,\,with\,\,time\,\,history\,\,logging$ Meter Mode

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

FFT1 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

1 Hz ÷ 20 kHz, with GRAS 40AN 1/2" microphone Frequency Range 10 Hz ÷ 90 kHz with GRAS 40BF 1/4" microphone

VIBRATION LEVEL METER / ANALYSER

Standards TYPF 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 FFT1 real time analysis 1920 lines

Filters W, W, W, W, W, W, HP, Vel, Dil, MF - Vel, KB

RMS & RMQ Detectors Digital True RMS & RMQ detectors with Peak detection, resolution 0.1 dB

> from 10 ms to 10 s Time Constants:

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 100 mV/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

1 function 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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