SVAN 948
Four Channels Sound & Vibration Analyser / Data Logger

The SVAN 948 is all digital, 4 channels, Type 1 sound and vibration meter along with analyser. It is an ideal choice for the "Human Vibration" (according to the ISO 2631-1&2 and ISO 5349-1&2 standards) and noise measurements in the occupational health and safety monitoring tasks. All required weighting filters, transducers and adapters for triaxial Whole-Body and triaxial Hand-Arm vibration measurements are available with this instrument.

Four sound/vibration channels can work simultaneously with independently configurable inputs (transducers) filters and RMS detector time constants in each channel (e.g. simultaneous three axis measurement of the Whole-Body vibration and noise dose).

Large 32 MB or 64 MB (option) internal memory of the SVAN 948 instrument supports advanced time history (RMS or Peak values) logging of all four channels over the whole working day.

Measurement results can be easy downloaded to any PC using the USB 1.1 interface and SvanPC+ software.

The SVAN 948, using computational power of its built-in state of the art digital signal processor, can perform simultaneously real time 4 channels 1/1, 1/3 octave or FFT analysis.

Thanks to advance trigger function it is possible to achieve more than four channel measurements applying several SVAN 948/94x instruments (one master SVAN 948 instrument and several slaves SVAN 948/94x instruments).

The SVAN 948 can be used in hard environmental conditions like the industrial machinery condition monitoring.

Robust, lightweight construction completes the exceptional features of this unique instrument.

FEATURES

- Four channels simultaneous real time vibration and/or sound measurements in 20 kHz band
- Human Vibration measurements Type 1 accuracy (ISO 8041) including VDV and MTVV
- Whole-Body and Hand-Arm vibration dose (EAV & ELV) calculator
- Noise measurements Type 1 IEC 61672 - 1
- 32 MB or 64 MB (option) internal memory for logging measurement results
- Acoustic dose meter function (option)
- 1/1 and 1/3 octave real time analysis (option)
- FFT analysis (option)
- Reverberation Time (RT 60 option)
- Advanced trigger function
- Easy in use
- USB 1.1 interface
- Light weight robust case (only ca 500 grams including batteries)

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INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

TECHNICAL SPECIFICATIONS

VIBRATION LEVEL METER / ANALYSER

Standards	Type 1: ISO 8041 (meeting ISO 2631-1&2 and ISO 5349-1&2), ISO 10816
Meter mode	RMS, VDV, MTVV, Peak, Peak-Peak, Max, Min, Time History
Analyser (option)	Real time four channels 1/1, 1/3 octave analysis (with time history logging down to 10 ms step) or FFT analysis (each analysis option parallel to the meter mode)
Filters	W_k , W_c , W_d , W_j , W_h , W_m , 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
Accelerometers (option)	SV 39A/L seat accelerometer for Whole-Body measurements SV 50 set for Hand-Arm measurements (incl. SV 3023M2 triaxial accelerometer)
Measurement Range	0.003 ms^{-2} RMS ÷ 1000 ms^{-2} Peak (with SV 39A/L seat accelerometer)
Internal Noise Level	less than 0.1 mms^{-2} RMS with W_m filter

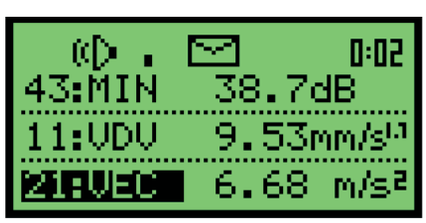
SOUND LEVEL METER / ANALYSER

Standards	Type 1: IEC 651, IEC 804 and IEC 61672-1
Meter mode	SPL, L_{eq} , SEL, L_{den} , L_{tm3} , L_{tm5} , statistics - L_n (L_1 ÷ L_{99}), L_{Max} , L_{Min} , L_{Peak} , Time History Three profiles per channel measurement at once with independent set of filters and detector time const.
Analyser (option)	Real time four channels 1/1, 1/3 octave (Type 1 IEC 61260) with time history analysis, FFT analysis, Reverberation Time (RT 60) analysis (each analysis option parallel to the meter mode)
Weighting Filters	A, C and Lin (Z) (Type 1: IEC 651, IEC 804 and IEC 61672-1)
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB, Time Constants: Slow, Fast, Impulse
Microphones (option)	SV 22 (Type 1), 50 mV/Pa, prepolarised 1/2" condenser microphone with SV 12 IEPE preamplifier
Measurement Range	22 dBA RMS ÷ 140 dBA Peak (with SV 22 microphone and 5 dB margin from internal noise level)
Internal Noise Level	less than 17 dBA RMS

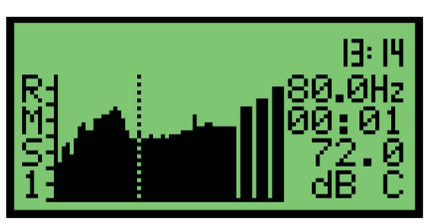
BASIC DATA

Input	4 channels (channels 1, 2, 3 - Lemo 4 pin connector & channel 4 - TNC connector) with IEPE power supply for the accelerometers or microphone preamplifiers	
Dynamic Range	100 dB, 4 x 20 bits A/D converters	
Frequency Range	0.5 Hz ÷ 20 kHz (input transducers dependent), sampling rate: 51.2 kHz	
Display	LCD 97 x 32 pixels plus icons with backlighting	
Memory	32 MB or 64 MB (option) non-volatile (flash type)	
Interface	USB 1.1, analogue output AC 1 V Peak	
Power Supply	Internal 4 x AA batteries	operation time > 8 h (alkaline batteries)
	With external battery pack SA 17A	operation time > 16 h (option)
	External power supply	6 ÷ 24 V DC (1.5 W)
	USB interface	5 V @ 300 mA
Environmental Conditions	Temperature	-10°C to 50°C
	Humidity	up to 90 % RH, non condensed
Dimensions	140 x 82 x 42 mm (without transducers)	
Weight	Approx. 0.5 kg with batteries	

Main result in one channel view



Main results in 3 channels view



1/3 octave spectrum

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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ISO 9001 CERTIFIED

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