

SVAN 946A Vibration Analyser

The SVAN 946A is all digital, Type 1 vibration meter along with analyser. Instrument is intended to general vibration measurements, machinery condition monitoring, occupational health and safety monitoring. It can be used by consultants, maintenance services and industry R&D departments etc.

Three vibration profiles allow parallel measurements with independently defined filters and RMS detector time constants (concurrent acceleration, velocity and displacement measurement is possible). Each profile provides significant number of results (RMS, VDV, Peak, Peak-Peak, Max). Advanced time history logging for each profile provides complete information about measured signal in non-volatile 8 MB or 48 MB (option) internal memory and can be easily downloaded to any PC using USB 1.1 interface and SvanPC+ software.

All required weighting filters (e.g.: W_k , W_c , W_h , VelMF) including the latest

ISO 2631-1&2 standard are available with this instrument. RMQ detector enables direct measurement of the Vibration Dose Value (VDV).

Using computational power of its digital signal processor the SVAN 946A can perform real time 1/1 & 1/3 octave analysis, real time FFT analysis, Enveloping, RPM measurements and balancing of the rotation mass.

Fast USB 1.1 interface (12 MHz) creates real time link for the application of the SVAN 946A as a PC "front-end".

Measurement results can be stored in large 8 MB or 48 MB (option), non-volatile memory and easily downloaded to any PC with SvanPC+ software.

Thanks to built-in rechargeable batteries and robust, lightweight design the SVAN 946A can be used in hard environmental conditions over the whole working day.

FEATURES

- Type 1 Vibration Level Meter
- 8 MB or 48 MB (option) internal memory for results
- Parallel acceleration, velocity and displacement measurements
- Built-in "machine filter" (10 Hz ÷ 1 kHz) meeting ISO 10816
- 1/1 and 1/3 octave real time analysis with time history (option)
- FFT analysis in real time with 1600 lines (option)
- Balancing of the rotating mass (option)
- Human Vibration (ISO 8041) measurement Type 1 accuracy (option)
- RPM measurements (option)
- Enveloping analysis (option)
- Advanced trigger function
- USB 1.1 interface
(real time PC "front end" application supported)
- RS 232 interface
- Hand held, light weight and robust case
(only ca 500 grams including batteries)
- Easy in use



TECHNICAL SPECIFICATIONS

VIBRATION METER

Standards	Type 1: ISO 8041, ISO 10816
Results	RMS, VDV, MTVV or Peak, Peak-Peak, Max, Min, Time History
Weighting Filters	Simultaneous measurement in three profiles with independent set of filters and detector time constants
RMS Detector	$W_k, W_c, W_d, W_j, W_h, W_m, HP1, HP3, HP10, Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, KB$ Digital True RMS & RMQ detectors with Peak detection Time Constants: from 100 ms to 10 s

VIBRATION ANALYSER (option)

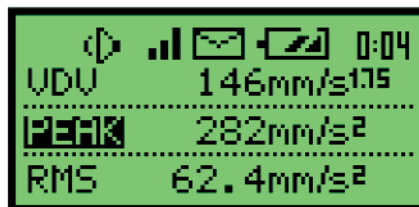
1/1, 1/3 octave*	Real time analysis with spectra logging down to 2 ms step (45 filters with centre frequencies from 0.8 Hz to 20 kHz meeting Type 1 - IEC 61260)
FFT*	Real Time 1600 lines with Hanning, Rectangular or User window and Linear, Exponential or Hold Max. averaging
Balancing*	One or two planes balancing function
RPM measurements	1 ÷ 99999 Rotation speed measurement parallel to the vibration measurement
Enveloping*	Advanced enveloping option dedicated for bearing diagnostics *each option parallel to the meter mode

BASIC DATA

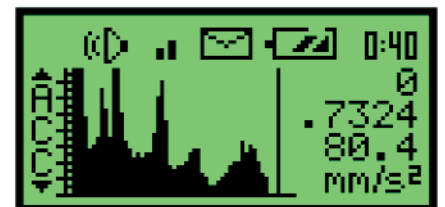
Input	TNC connector with IEPE power supply
Accelerometer	Dytran 3185D accelerometer (sensitivity 100 mV/g)
Measurement Range	0.003 ms ⁻² RMS ÷ 1000 ms ⁻² Peak (accelerometer with 100 mV/g sensitivity)
Dynamic Range	100 dB, A/D conversion: 2 x 20 bits
Resolution	0.1 dB
Frequency Range	2 Hz ÷ 8 kHz with 3185D (1 Hz ÷ 20 kHz with other accelerometer)
Sampling Rate	51.2 kHz
Display	LCD 97 x 32 pixels plus icons with backlighting
Memory	8 MB or 48 MB (option) non-volatile flash type
Interface	USB 1.1 (real time PC "front end" application supported), RS 232, analogue output AC 1 V Peak
Power Supply	Built-in rechargeable batteries operation time > 12 h (4.8 V / 1.6 Ah) With external battery pack SA 17 operation time > 24 h (option) External power supply 6 ÷ 15 V DC (1.5 W)
Environmental Conditions	Temperature -10°C to 50°C Humidity up to 90 % RH, non condensed
Dimensions	140 x 82 x 42 mm (with microphone and preamplifier)
Weight	Approx. 0.6 kg with batteries



Main result in one profile view



Three profiles view



FFT

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



SVANTEK Sp. z o. o.
Pl. Inwalidów 3/62
PL 01-514 WARSAW, POLAND
phone/fax (+48 22) 839 00 31, (+48 22) 839 64 26
<http://www.svantek.com> e-mail: office@svantek.com.pl

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DISTRIBUTION FOR THAILAND	Geonnoise Thailand Co. Ltd. 36FL CRC Tower 87/2 Wireless Rd Bangkok 10330 Phone: 0-2625-3072 www.geonnoise-instruments.com
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