SVAN 974
Machine Vibration Analyser

The SVAN 974 is the next generation of vibration instruments and is designed to vibration measurements of various machinery and hand-held tools. Weighting filters necessary to perform vibration measurements according to ISO 10816 or ISO 20643 are built-in.
The instrument is using the SV 80 accelerometer which is an ideal choice for walk-around vibration measurement in the rugged environments of industrial machinery monitoring, such as pumps, motors or fans.
The flexible accelerometer input supports also different types of vibration sensors including: IEPE, Charge and Direct.
Parallel to the vibration measurement, the RPM measurement with dedicated tachometer can be enabled.
The FFT analysis is performed in a selectable frequency band from 78 Hz to 20 kHz with resolution of 1600 lines. This solution provides a very accurate frequency analysis of the signal of interest.

The SVAN 974 provides the parallel vibration acceleration, velocity and displacement results along with frequency analysis and wave recording, all at the same time!
The powerful digital signal processor enables an incredible fast time-history logging capability providing RMS, PEAK, PEAK-PEAK and MAX results together with frequency spectra with two adjustable logging steps. Manual and automatic triggering of measurement and wave recording is also available.
Measurement stored on a microSD card can be easily downloaded to a PC using SvanPC++ software over USB.
The instrument is powered by four AA alkaline or rechargeable NiMH batteries (separate charger is required), from an external DC power source or USB interface. The robust and light weight design accomplishes the exceptional features of this instrument.

Features

- Vibration analyser that supports IEPE and Charge type accelerometers
- Built-in machine filter (10 Hz ÷ 1 kHz) complying to ISO 10816
- Built-in hand-guided machinery filter meeting ISO 20643
- Three independent profiles - parallel acceleration, velocity and displacement measurements
- FFT analysis
- 1/1 or 1/3 octave real-time analysis (option)
- Time-domain signal recording to WAV format (option)
- Advanced data logger including spectral analysis
- MicroSD card providing almost unlimited logging capacity
- RPM measurement (option)
- Advanced trigger function
- OLED color display with super brightness and contrast
- Hand held, light weight and robust case
- Easy to use

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continuous innovation

SVAN 974
Technical Specification

Vibration Level Meter

Standards	ISO 10816, ISO 20643
Results	RMS, Peak, Peak-Peak, Max
	Simultaneous measurement in three profiles with independent set of filters and detectors
Weighting	Filters HP1, HP3, HP10, Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, HP, Wh
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Time Constants	from 100 ms to 10 s
Accelerometer	SV 80 IEPE type, sensitivity 100 mV/g
Measurement Range	0.01 ms^{-2} RMS ÷ 438 ms^{-2} Peak (with SV 80, accelerometer dependent)

Vibration Analyser

Data Logger	Time-history logging including spectra
1/1 Octave	Real-time analysis, 15 filters with centre frequencies from 1 Hz to 16 kHz meeting Type 1: IEC 61260 (option)
1/3 Octave	Real-time analysis, 45 filters with centre frequencies from 0.8 Hz to 20 kHz meeting Type 1: IEC 61260 (option)
FFT	Real-time analysis up to 1600 lines with Hanning, Kaiser-Bessel, Flat Top, Rectangular windows
RPM Measurements	1 ÷ 99999 rotation speed measurement parallel to the vibration measurement (option)
Time-Domain Recording	Time-domain signal recording to WAV format (option)

Basic Data

Input	IEPE, Charge amplifier or Direct with TNC connector	
IEPE Current	Selectable: 1.5 mA, 3.0 mA, 4.5 mA	
Dynamic Range	More than 100 dB in single range	
Internal Noise Level	Less than 10 µV RMS (IEPE input & HP1 filter)	
Frequency Range (-3 dB)	0.7 Hz ÷ 22.6 kHz, sampling rate 48 kHz	
Display	Colour OLED 2.4", 320 x 240 pixels	
Memory	MicroSD flash card slot (supports 4 GB ÷ 16 GB cards)	
Interfaces	USB 1.1 Client, Extended I/O - AC output 1 V RMS Sine (1.41 V Peak) or Digital Input/Output (Trigger - Pulse)	
Power Supply	Four AA batteries (alkaline)	operation time > 12 h (6.0 V / 1.6 Ah)[1]
	Four AA rechargeable batteries (not included)	operation time > 16 h (4.8 V / 2.6 Ah)[1]
	USB interface	500 mA HUB
Environmental Conditions	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	140 x 83 x 33 mm (without accelerometer)	
Weight	Approx. 390 grams including batteries (without accelerometer)	

[1]depends on instrument's operation mode

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

DISTRIBUTOR:

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