

# SVAN 958A

## Four-Channel Sound & Vibration Analyser

The SVAN 958A is a unique four-channel instrument offering 20kHz-band sound & vibration analysis. It is a perfect choice for all applications that require simultaneous class 1 noise measurements & tri-axial vibration assessment.

Each of four input channels can be independently configured for sound or vibration detection with different filters and RMS detector time constants giving users an enormous measurement flexibility.

The real advantage of SVAN 958A is the capability to perform advanced analysis simultaneously to the level meter mode.

In practise this allows to obtain broad-band results such as Leq, RMS, LMax, LMin, LPeak together with four-channel analysis like FFT or octave band analysis. List of available analyser functions includes FFT, 1/1 or 1/3 octave, cross spectra, sound intensity, RT 60 and more. The 4-channel time-domain signal recording to .wav format is available as well as an exceptional feature!

All measurement results are stored in non-volatile 32 MB internal memory or USB memory stick and can be easily downloaded to a PC with SvanPC++ software.

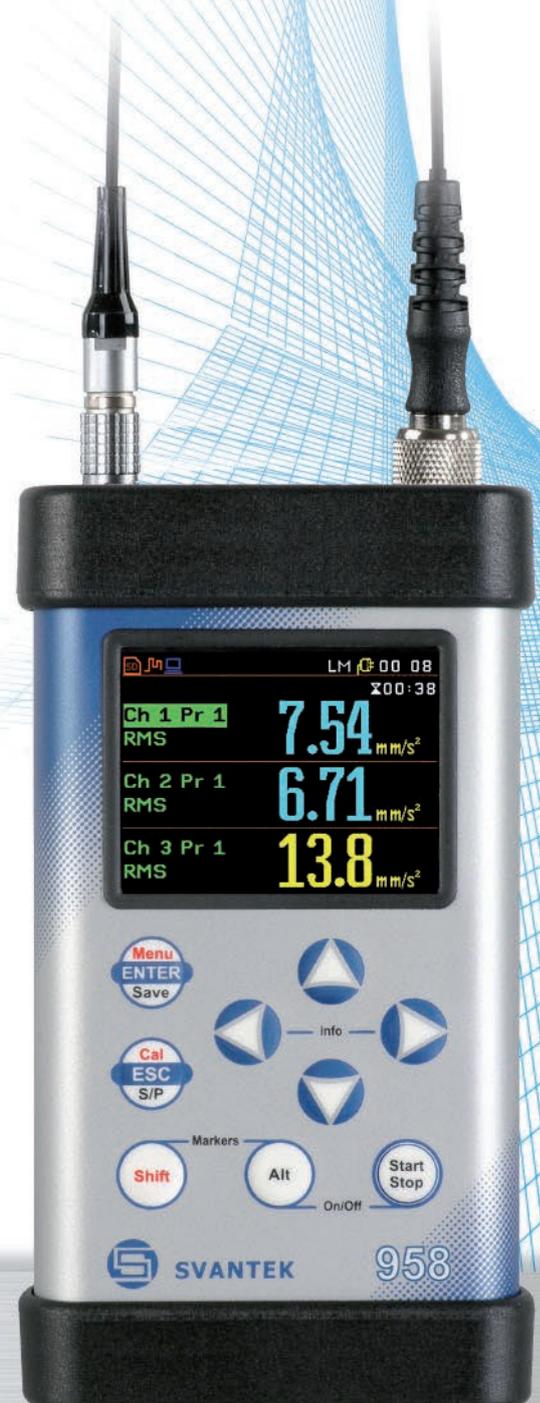
SVAN 958A with RS 232 interface (SV 55) can be offered with GPRS modem or LAN & WLAN connection module. Together with SvanPC++\_RC remote communication software, these interfaces provide easy remote access to instrument settings & data over Internet and local area network.

Instrument is powered from four AA standard or rechargeable batteries as well as from the external DC power source or USB interface.

Robust case and light weight design accomplish the exceptional features of this new generation instrument.

### Features

- Four-channel, 20 kHz real-time, simultaneous sound and vibration measurements
- Analyser options:
  - FFT analysis up to 1600 lines in 20 kHz band
  - 1/1 and 1/3 octave real-time analysis
  - Time-domain signal recording
  - Sound intensity
  - FFT cross spectra
  - RT 60 reverberation time
  - Acoustic dose meter
- Human Vibration measurements meeting ISO 8041:2005 including VDV and MTVV
- Sound level meter class 1, IEC 61672
- Advanced data logger including spectral analysis
- USB memory stick providing almost unlimited logging capability
- Advanced trigger and alarm functions
- USB 1.1 Client and USB Host interfaces
- RS 232 for modems support (GPRS, Ethernet, WLAN)
- Powered by four AA standard or rechargeable batteries
- Easy in use, hand held, light weight and robust



# SVAN 958A

## Technical Specification

### Vibration Level Meter & Analyser

Standards	ISO 8041:2005, ISO 10816-1
Meter Mode	RMS, VDV, MTVV or Max, Peak, Peak-Peak
Analysers (option)	Simultaneous measurement in up to four channels with independent set of filters and detector constants 1/1 octave* real-time analysis, 15 filters with centre frequencies from 1 Hz to 16 kHz (class 1, IEC 61260) 1/3 octave* real-time analysis, 45 filters with centre frequencies from 0.8 Hz to 20 kHz (class 1, IEC 61260) FFT* analysis up to 1600 lines with Hanning, Kaiser-Bessel or Flat Top window FFT* cross spectra measurements RPM* rotation speed measurements parallel to the vibration measurement (1 ÷ 99999) and more...
Filters	$W_d, W_k, W_c, W_j, W_m, W_b, W_g$ (ISO 2631), $W_h$ (ISO 5349), HP1, HP3, HP10, Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, KB (DIN 4150)
RMS & RMQ Detectors	Digital true RMS & RMQ detectors with Peak detection, resolution 0.1 dB Time constants: from 100 ms to 10 s
Accelerometer (option)	SV 84 triaxial high sensitivity accelerometer for ground or building vibration measurements (1 V/g) SV 38 low-cost triaxial accelerometers for whole-body measurements (1 V/g MEMS type)
Measurement Range	Accelerometer dependent (with SV 84: 0.0005 ms <sup>-2</sup> RMS ÷ 50 ms <sup>-2</sup> PEAK)
Frequency Range	0.5 Hz ÷ 20 kHz; accelerometer dependent

### Sound Level Meter & Analyser

Standards	Class 1: IEC 61672-1:2002
Meter Mode	SPL, $L_{eq}$ , SEL, $L_{den}$ , $L_{tm3}$ , $L_{tm5}$ , Statistics - $L_n$ ( $L_1$ - $L_{99}$ ), $L_{Max}$ , $L_{Min}$ , $L_{Peak}$ Simultaneous measurement in three profiles per channel (up to four channels) with independent set of filters and detector time-constants
Analysers (option)	1/1 octave* real-time analysis, 15 filters with centre frequencies from 1 Hz to 16 kHz (Type 1, IEC 61260) 1/3 octave* real-time analysis, 45 filters with centre frequencies from 0.8 Hz to 20 kHz (Type 1, IEC 61260) RT 60 reverberation time analysis in 1/3 octave bands FFT* analysis up to 1600 lines with Hanning, Kaiser-Bessel or Flat Top window FFT* cross spectra measurements Sound Intensity measurements and more...
Weighting Filters	A, C, Z and G
RMS Detector	Digital true RMS detector with Peak detection, resolution 0.1 dB Time constants: Slow, Fast, Impulse
Microphone (option)	MK 250, Class 1, 50 mV/Pa, prepolarised 1/2" condenser microphone with SV 12L preamplifier SV 25, Class 2, dose meter, ceramic 1/2" microphone with integrated preamplifier
Measurement Range	Total Dynamic Range: 16 dBA RMS ÷ 140 dBA Peak Linearity Range (IEC 61672): 26 dBA RMS ÷ 140 dBA Peak
Frequency Range	0.5 Hz ÷ 20 kHz; microphone dependent, with MK 250 microphone: 3.5 Hz ÷ 20 kHz

### Basic Data

Input	IEPE type (channels 1, 2, 3 - LEMO 4-pin & channel 4 - TNC connector)
Dynamic Range	100 dB, 4 x 20 bits A/D converters
Frequency Range	0.5 Hz ÷ 20 kHz, sampling rate 48 kHz
Data Logger*	Time-history logging to internal memory or USB memory stick Time-domain signal recording on USB memory stick (option)
Display	Super contrast (10000:1) OLED 2.4" colour display (320 x 240 pixels)
Memory	32 MB non-volatile flash type, external USB memory stick (not included)
Interfaces	USB 1.1 Client, USB 1.1 Host, RS 232 (option: SV 55 required) Extended I/O - AC output (1 V Peak) or Digital Input/Output (Trigger / Pulse)
Power Supply	Four AA batteries (alkaline) operation time > 10 h (6.0 V / 1.6 Ah)** Four AA rechargeable batteries (not included) operation time > 14 h (4.8 V / 2.6 Ah)** SA 17A external battery pack (option) operation time > 24 h** External power supply 6 V DC ÷ 24 V DC (1.5 W) USB interface 500 mA HUB
Environmental Conditions	Temperature from -10 °C to 50 °C Humidity up to 90 % RH, non-condensed
Dimensions	140 x 82 x 42 mm
Weight	510 grams with batteries

\*each function parallel to the meter mode \*\*with USB 1.1 Host function not active and backlight off

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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