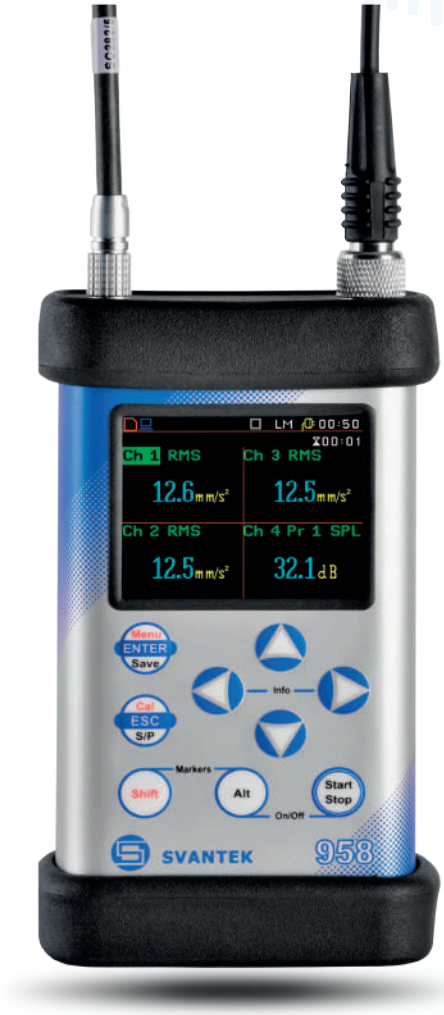
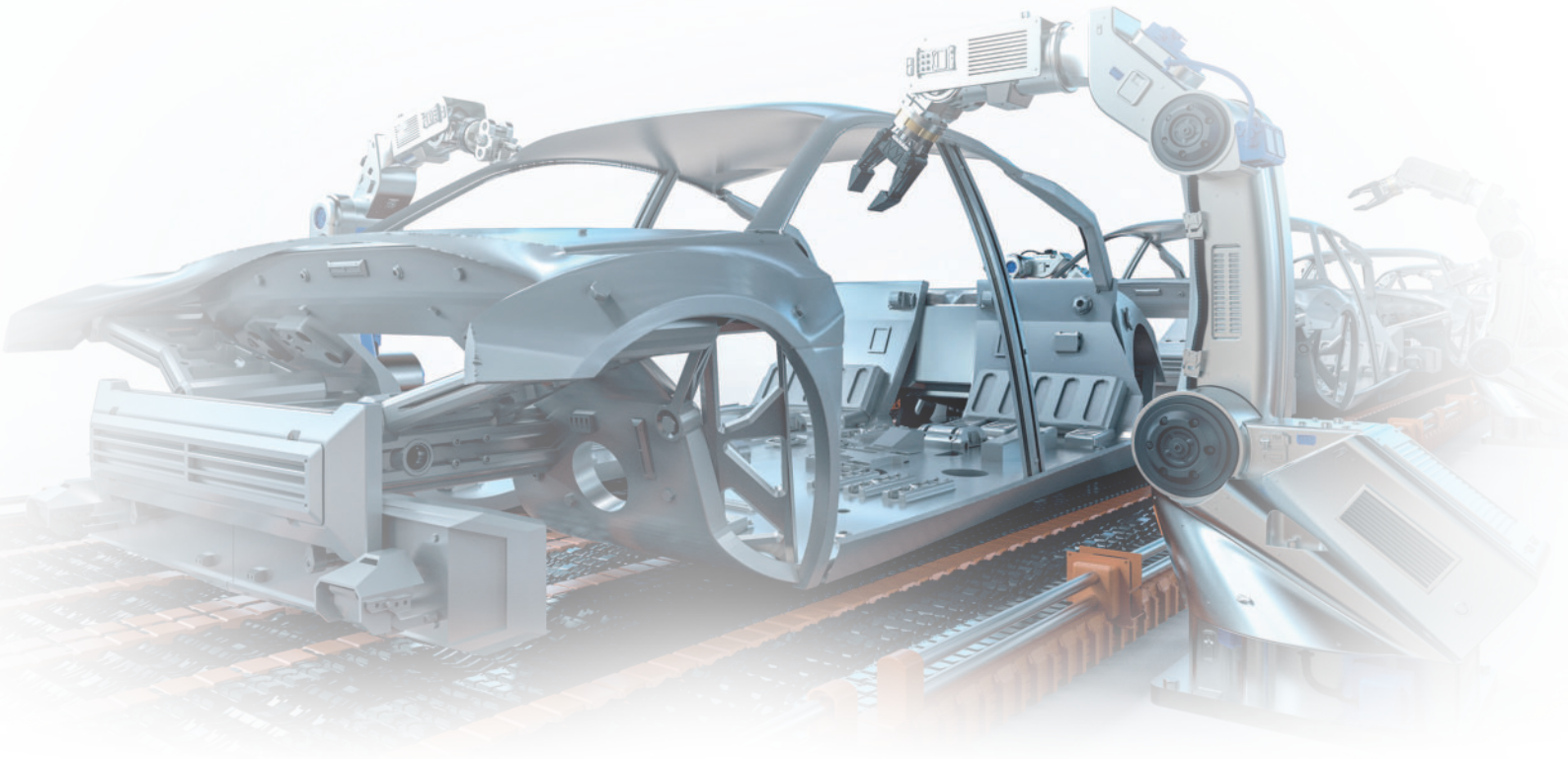
SVANTEK
sound and vibration

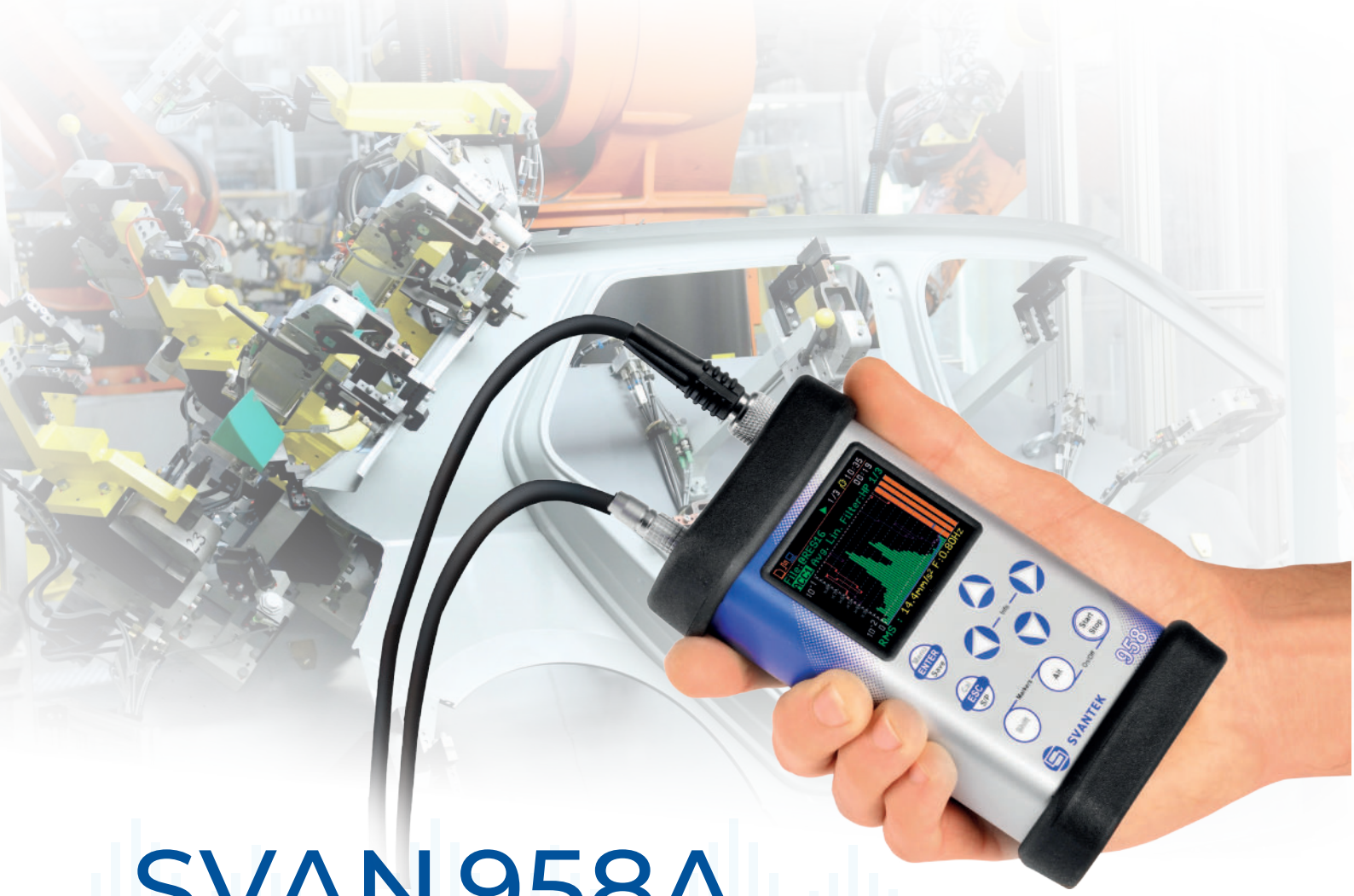



# SVAN 958A

## Four-Channel Sound and Vibration Analyser

SVAN 958A is a unique four-channel instrument offering 20 kHz-band sound & vibration analysis. It is a perfect choice for all applications that require simultaneous Class 1 noise measurements & triaxial vibration assessment. The real advantage of SVAN 958A is the capability to perform advanced analysis simultaneously in four-channel analysis such as FFT or octave band analysis. The list of analyser functions available includes: FFT, 1/1 or 1/3 octave, cross spectra, sound intensity, RT 60 and more.






# SVAN 958A

## Four-Channel Sound and Vibration Analyser

### Four-channel

Class 1 sound and vibration analysis

This four-channel Class 1 sound & vibration analyser is dedicated for engineering applications. Depending on an application, each channel can be independently configured e.g. one tri-axial and one mono-axial vibration sensor or four microphones etc. The meter enables the simultaneous four-channel real-time frequency analysis in 1/1 or 1/3 octave bands or FFT.

### Wide application

Production lines, and acoustics, production

The building vibration mode offers simultaneous velocity and acceleration measurements with the automatic indication of a dominant frequency. The meter can be also used for building acoustic measurements e.g. simultaneous 4-channel RT 60 measurements. Moreover, the RS 232 interface enables integration with the production line.

### Data logging

Four channel time history logging

In practise the SVAN 958A allows the collection of broad-band results such as Leq, RMS, Lmax, Lmin, Lpeak together with four-channel analysis like FFT or octave band analysis. The list of analyser functions available includes FFT, 1/1 or 1/3 octave, cross spectra, sound intensity, RT 60 and more. All measurement results are stored in the internal memory and can be easily downloaded to a PC with SvanPC++ software.

## Key Functions

Class 1 accuracy and precission

SVAN 958A is a unique Class 1 four-channel instrument offering 20 kHz-band sound & vibration analysis.

Four channel sound & vibration

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

Real-time frequency analysis

The simultaneous four-channel real-time frequency analysis in 1/1, 1/3 octave or FFT bands. Functions can be activated at any time by ordering the activation code.

Building acoustics mode

The meter can be used for building acoustic measurements e.g. simultaneous 4-channel RT 60 measurements. Function can be activated at any time by ordering the activation code.

Building vibration firmware

The building vibration mode offers simultaneous velocity and acceleration measurements with the automatic indication of a dominant frequency.

Remote communication

The RS 232 interface connects with 4G, LAN or WLAN modems. Together with the SvanNET cloud service, these interfaces provide easy remote access to instrument settings & data over the Internet and local area networks.

Robust hardware with 3-year warranty

Robust aluminium housing protects the hardware against electromagnetic interference and also provides the comfort of a secure grip to the user. Each SVAN 958A is supplied with its factory calibration certificate and a 36-month warranty card.

## PC software

SvanPC++ is a PC software supporting functions such as measurement data downloading from instruments to a PC, measurement setups creation, basic Leq/RMS recalculation, measurement results in text, table and graphical presentation forms, the export of data to a spread sheet and text editor applications.

## Optional accessories

*SV 60*
*Sound Measurement Kit*

*SV 80 / 81 Mono-axial Accelerometers*

*SV 84 / 85*
*Tri-axial Accelerometers*

*SV 207B*
*Building Vibration Kit*

*SM 258 PRO*
*Monitoring Case*

*SV 55*
*Cable for RS 232 devices*

*SV 111*
*Vibration Calibrator*

*SV 208*
*Outdoor Sound Measurement Kit*

*SV 36*
*Class 1 Sound Calibrator*
*94 dB / 114 dB at 1 kHz*

*SvanPC++ EM*
*Post-processing software*

# Technical Specifications

| | | |
|---|---|---|
| **Vibration Level Meter & Analyser** | | |
| Standards | ISO 8041:2005, ISO 20816-1, DIN 4150-3, BS 7385-2 | |
| Meter Mode Results | RMS, VDV, MTVV or Max, Peak, Peak-Peak | |
| Analyser (optional) | 1/1 or 1/3 octave real-time analysis<br>FFT 1600 lines with Hanning, Kaiser-Bessel or Flat Top window<br>FFT cross spectra measurements<br>RPM rotation speed measurements parallel to the vibration measurement (1 ÷ 99999) | |
| Filters | Wd, Wk, Wc, Wj, Wm, Wb, Wg (ISO 2631), Wh (ISO 5349), HP1, HP3, HP10,<br>Vel1, Vel3, Vel10, VelMF, Dil1, Dil3, Dil10, KB (DIN 4150) | |
| RMS Detector | Digital True RMS detector with Peak detection, resolution 0.1 dB<br>Time constants: from 100 ms to 10 s | |
| Accelerometer (optional) | SV 84 triaxial high sensitivity accelerometer for ground or building vibration measurements (1 V/g)<br>SV 38 triaxial accelerometers for whole-body measurements (1 V/g MEMS type) | |
| Measurement Range | Accelerometer dependent (with SV 84: 0.0005 $m/s^2$ RMS ÷ 50 $m/s^2$ PEAK) | |
| Frequency Range | 0.8 Hz ÷ 20 kHz; accelerometer dependent | |
| **Sound Level Meter & Analyser** | | |
| Standards | Class 1: IEC 61672-1:2013 | |
| Meter Mode Results | SPL, Leq, SEL, Lden, LEPd, Overload time, Ltm3, Ltm5, LMax, LMin, LPeak,<br>Simultaneous measurement in three profiles with independent filters and detectors | |
| Analyser (optional) | 1/1 or 1/3 octave real-time analysis<br>FFT 1600 lines with Hanning, Kaiser-Bessel or Flat Top window<br>FFT cross spectra measurements<br>Sound Intensity measurements | |
| Weighting Filters | A, C, Z and G | |
| RMS Detector | Digital True RMS detector with Peak detection, resolution 0.1 dB<br>Time constants: Slow, Fast, Impulse | |
| Microphone (optional) | MK 255, Class 1, 50 mV/Pa, prepolarised 1/2" condenser microphone with SV 12L preamplifier | |
| Measurement Range | Total Dynamic Range: 16 dBA RMS ÷ 140 dBA Peak<br>Linearity Range (IEC 61672): 26 dBA RMS ÷ 140 dBA Peak | |
| Frequency Range | 0.5 Hz ÷ 20 kHz (microphone dependent, with MK 255 microphone: 3.5 Hz ÷ 20 kHz) | |
| **General Information** | | |
| Input | IEPE type (channels 1, 2, 3 - LEMO4-pin & channel 4 - TNC connector) | |
| Dynamic Range | 100 dB, 4 x 20 bits A/D converters | |
| Frequency Range | 0.5 Hz ÷ 22.4 kHz, sampling rate 48 kHz | |
| Data Logger | Time-history logging to internal memory | |
| Display | Super contrast (10000:1) OLED 2.4" colour display (320 x 240 pixels) | |
| Memory | 32 MB non-volatile flash type | |
| Interfaces | USB 1.1 Client, RS 232 (option: SV 55 required)<br>Extended I/O - AC output (1V Peak) or Digital Input/Output (Trigger / Pulse) | |
| Power Supply | Four AA batteries (alkaline)<br>Four AA rechargeable batteries (not included)<br>SA 17A external battery pack (optional)<br>External power supply<br>USB interface | operation time > 10 h (6.0 V / 1.6 Ah)[1]<br>operation time > 14 h (4.8 V / 2.6 Ah)[1]<br>operation time > 24 h<br>6 V DC ÷ 24 V DC (1.5 W)<br>500 mA HUB |
| Environmental Conditions | Temperature<br>Humidity | from -10 °C to 50 °C (14 °F to 122 °F)<br>Up to 90 % RH, non-condensed |
| Dimensions | 140 x 82 x 42 mm | |
| Weight | 510 grams with batteries (Approx. 2.00 lb) | |

[1]depending on configuration and environmental conditions

The policy of our company is to continually innovate and develop our products.
Therefore, we reserve the right to change the specifications without prior notice.

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