

# SV 106

## Human Vibration Meter & Analyser

The SV 106 is a new six-channel human vibration meter and analyser. Instrument meets requirements of ISO 8041:2005 standard and it is an ideal choice for measurements according to ISO 2631-1,2&5 and ISO 5349.

This revolutionary, pocket-size instrument enables simultaneous measurements with two triaxial accelerometers (e.g. both-hands vibration or triaxial SEAT transmission measurements are possible).

The RMS, Peak, Peak-Peak, VDV, MTVV or dose results such as A(8) and AEQ with all required weighting filters for human vibration measurements, including band-limiting filters, are available with this instrument.

Using computational power of its digital signal processor, the SV 106 can perform 1/1 or 1/3 octave real-time analysis simultaneously to the meter mode.

Advanced time-history logging and time-domain signal recording (according to the ISO 2631-5) to the microSD flash card offer a great data input for detailed signal analysis. Results can be easily downloaded to PC using USB interface. The instrument works with Svantek's specialist health and safety software package, "Supervisor", and also with the full analysis package SVAN PC++.

The whole-body vibration measurement is easier thanks to SV 38V seat-accelerometer which can be placed directly on the seat cushion, floor or fixed to the back of the seat.

The SV 105A set with triaxial accelerometer enables hand-arm vibration measurements regardless of the type of evaluated tool.

### Features

- Human Vibration measurements meeting ISO 8041:2005, ISO 2631-1,2&5 (including VDV and MTVV) and ISO 5349
- Six channels for acceleration and two inputs for static force measurements
- Each acceleration channel with two profiles
- Whole-body measurements:
  - Low-cost and low power seat accelerometer SV 38V
- Hand-arm measurements:
  - SV 105A integrated triaxial accelerometer including hand straps
  - SV 150 triaxial accelerometer with adapter for direct attaching to hand-held power tools
- Option for time-domain signal recording (meeting ISO 2631-5)
- 1/1 and 1/3 octave real-time analysis (option)
- Advanced data logger including spectral analysis
- microSD flash card for mass data storage
- USB 1.1 Client interface
- A(8) daily exposure automatic calculation
- SvanPC++ software for data download and analysis
- Easy in use, user friendly interface with colour display



# SV 106

## Technical Specification

### Vibration Level Meter & Analyser

Standards	ISO 8041:2005, ISO 2631-1,2&5, ISO 5349-1:2001
Meter Mode	RMS, VDV, MTVV or Max, Peak, Peak-Peak, Vector, A(8), Dose, ELV, EAV Simultaneous measurement in six channels with independent set of filters and detector constants
Filters	$W_d$ , $W_k$ , $W_m$ , $W_b$ , $W_c$ , $W_j$ , $W_g$ , $W_f$ (ISO 2631), $W_h$ (ISO 5349) and corresponding Band Limiting filters
RMS & RMQ Detectors	Digital true RMS & RMQ detectors with Peak detection, resolution 0.1 dB Time constants from 100 ms to 10 s
Measurement Range	Transducer dependent: _____ $0.01 \text{ ms}^{-2}$ RMS $\div$ $50 \text{ ms}^{-2}$ Peak (with SV 38 V and $W_d$ filter) _____ $0.1 \text{ ms}^{-2}$ RMS $\div$ $500 \text{ ms}^{-2}$ Peak (with SV 105A or SV 107 and $W_h$ filter)
Frequency Range	0.1 Hz $\div$ 2 kHz (transducer dependent)
Data Logger*	Time-history data including meter mode results and spectra
Time-Domain Recording*	Simultaneous 6-channel time-domain signal recording, sampling frequency selectable: 375 Hz, 3 kHz or 6 kHz (option)
Analyser*	1/1 octave real-time analysis with centre frequencies from 0.5 Hz to 2000 Hz (option) 1/3 octave real-time analysis with centre frequencies from 0.4 Hz to 2500 Hz (option)
Accelerometer (option)	SV 38V low cost and low power triaxial accelerometer for Whole-Body measurements SV 105A integrated triaxial accelerometer including hand straps SV 150 triaxial accelerometer with adapter for direct attaching to hand-held power tools

\* function parallel to the meter mode

### Basic Data

Input	2 x LEMO 5-pin: six channels Direct or IEPE type and two channels for force transducers
Dynamic Range	90 dB
Force Range	0.2 N $\div$ 200 N (dedicated channels for force transducers)
Sampling Rate	6 kHz
Memory	Internal 16 MB non-volatile memory Micro SD flash card slot (supports 4 GB $\div$ 16 GB cards)
Display	Colour OLED 2.4", 320 x 240 pixels Super contrast 10000 : 1
Interfaces	USB 1.1 Client, Extended I/O - AC output (1 V Peak) or Digital Input/Output (Trigger - Pulse)
Power Supply	Four AA batteries (alkaline) _____ operation time > 12 h (6.0 V / 1.6 Ah) ** Four AA rechargeable batteries (not included) _____ operation time > 16 h (4.8 V / 2.6 Ah) ** 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)

\*\* with one SV 38V triaxial accelerometer in meter 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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