

SV 101 Whole Body Vibration Dosimeter & Analyser

SV 101 is all digital Human Vibration Meter & Analyser integrated with triaxial Whole-Body accelerometer designed to measure floor vibrations affecting standing operators. This is a complete HVM (Human Vibration Meter) provided with the ultrasound presence detection sensor and user interface (display with push-buttons) indicating current instrument state and measurement results. Instrument meets ISO 8041:2005 standard and it is an ideal choice for the measurements according to the ISO 2631-1, 2 & 5.

The RMS, Peak, Peak-Peak, VDV, MTVV results with all required weighting filters for the Whole-Body vibration measurements are available including weighting filter for motion sickness measurements. Using computational power of its digital signal processor the SV 101 instrument can perform real-time 1/1 or 1/3 octave analysis simultaneously to the meter mode. Advanced time-history logging, in non-volatile 64 MB internal memory, completes the very powerful functionality.

USB interface provides an easy connection with computers. Device is fully supported by SvanPC+ software in the means of setup management, measurement results downloading and reporting. Thanks to the multilingual menu, simple and advanced modes of operation, the SV 101 meets requirements of a very wide group of users.

The time-domain signal recording (according to the ISO 2631-5) is also available as an exceptional option. The USB 1.1 interface (12 MHz) creates very fast link for the data download and remote programming of the SV 101.

SV 101 is delivered with built-in spirit level and adjustable spikes what makes instrument positioning very easy. Instrument is powered from internal batteries or the USB interface.

FEATURES

- Whole-Body Human Vibration measurements meeting ISO 8041:2005 and ISO 2631-1,2&5 including VDV and MTVV
- Advanced data logger including spectral analysis
- Time-domain signal recording meeting ISO 2631-5
- 1/1 and 1/3 octave real-time analysis
- Motion sickness measurements
- 64 MB non-volatile internal memory
- Built-in ultrasound presence detection sensor
- USB 1.1 Client interface
- Measurement of exposure time
- Integration time programmable up to 24 h
- User interface - two navigation push-buttons and built-in 16 x 104 pixels OLED display
- LED Over-Dose alarm indicator
- SvanPC+ software for easy remote programming and data download
- Adjustable spikes and spirit level
- Powered by internal batteries or the USB interface



TECHNICAL SPECIFICATIONS

VIBRATION LEVEL METER / ANALYSER

Standards	ISO 8041:2005; ISO 2631-1, 2 & 5
Meter Mode	RMS, VDV, MTVV or Max, Peak, Peak-Peak, Vector, A(8), Dose, ELV, EAV
Analyser ¹	1/1 octave real-time analysis, 10 filters, Type 1: IEC 61260 with centre frequencies from 0.25 Hz to 125 Hz (option) 1/3 octave real-time analysis, 30 filters, Type 1: IEC 61260 with centre frequencies from 0.2 Hz to 160 Hz (option not available yet)
Filters	Wd, Wk, Wm, Wb (ISO 2631) Wf for motion sickness measurements according to ISO 2631 (option)
RMS & RMQ Detectors	Digital True RMS & RMQ detectors with Peak detection, resolution 0.1 dB Time constants: from 100 ms to 10 s
Data Logger ¹	Time-history data including meter mode results (standard) and spectra (option)
Time-Domain Recording ¹	Simultaneous x, y and z time-domain signal recording, sampling frequency 312.5 Hz, over 8 hours recording-time (option)
Accelerometer	Integrated triaxial accelerometer for Whole-Body measurements
Measurement Range	0.01 ms ⁻² RMS ÷ 50 ms ⁻² Peak
Frequency Range	0.1 Hz ÷ 180 Hz

BASIC DATA

Input	Integrated MEMS accelerometers (axes x, y, z)	
Dynamic Range	80 dB, 3 x 16 bits A/D converters (axes x, y, z)	
Memory	64 MB non-volatile flash type	
Communication Interface	USB 1.1 Client Digital Input/Output (Trigger – Pulse)	
User Interface	Display	OLED, 16 x 104 pixels
	Navigation	2 x push-buttons
	Menu modes	simple & advanced
	Menu description	multilingual
Power Supply	Six NiMH rechargeable batteries (option)	operation time > 16 h
	Six AA alkaline batteries	operation time > 12 h
	USB interface	150 mA HUB
Environmental Conditions	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	140 mm x 140 mm x 5 mm (without levelling spikes)	
Weight	Approx. 2 800 grams (including batteries)	

¹each function parallel to the 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.



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