

SV 102A

Type 1 Acoustic Dosimeter

The dual-channel SV 102A is a Type 1 instrument presenting completely new approach to occupational health and safety acoustic monitoring task. This dosimeter can be also used as a dual-channel Type 1 sound level meter and real-time 1/1 octave analyser.

Octave analysis, providing direct data for the design of the ear-protectors, together with Audio Events Recording (AER) function show the new reference standard on acoustic dose measurement field. The binaural dose measurement and octave analysis are simultaneously performed by this compact-size instrument. Three acoustic profiles per channel allow parallel measurements with independently defined filters and RMS detector time constants. Advanced time-history logging in each profile, together with spectra saving and Audio Events Recording provide a complete information about the measured signal. Data is stored in non-volatile 64 MB internal memory and can be easily downloaded to any PC using USB interface and SvanPC+ software.

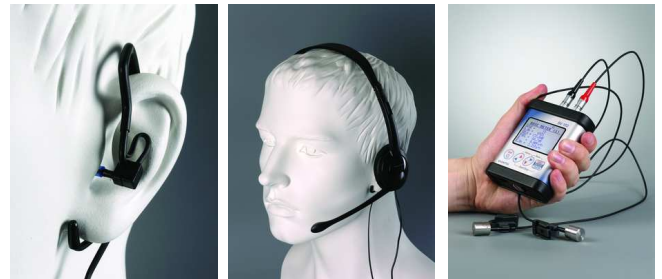
Dosimeter is offered with one or two dedicated measurement sets: SV 15 preamplifier with an automatic calibration function (TEDS) and prepolarised microphone. Calibration by measurement can be easily performed by direct usage of common acoustic calibrators.

The small and compact SV 15 preamplifier together with special mounting clip and dedicated headband enables an easy attachment of the microphone in extremely short distance to human ears.

SV 102A is also able to perform the measurement inside human ear - with the usage of SV 25S - smart microphone with an automatic calibration function (TEDS). The SV 102A together with SV 25S are designed for individual real-world test of the earmuffs noise reduction ratio in means of MIRE technique (Microphone-In-Real-Ear)-measurements under headphones or earmuffs. With a special adapter, SV 25S can be also calibrated with commonly available 1/2" acoustic calibrators.

FEATURES

- Dual-channel Sound Level Meter conforming to Type 1: IEC 61672
- Type 1, prepolarised 1/2" microphone
- Dual channel 1/1 octave analysis
- Single measurement range
- Measurement range 45 dBA RMS ÷ 141 dBA Peak
- MIRE measurement technique with SV 25S
- Individual evaluation of the HPDs attenuation in real-world
- Three parallel independent profiles
- Advanced data logger, up to 12 results per channel logged simultaneously including spectral analysis
- Audio-events-recording
- Automatic calibration thanks to the TEDS technology
- Built-in non-volatile memory up to 64 MB
- USB 1.1 interface
- Large LCD with backlight
- Integration time programmable up to 24 h
- Power supply by two AA rechargeable or standard batteries
- Operational time > 24 h
- Extremely compact, light weight (260 grams with batteries) and robust case volume comparable to PDA devices



TECHNICAL SPECIFICATIONS

DOSIMETER / SLM / ANALYSER

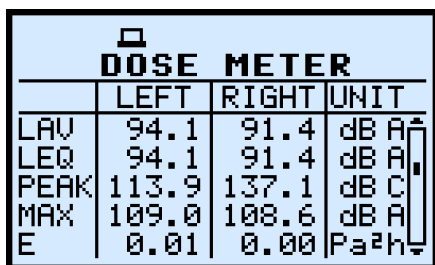
Standards	IEC 61252; ANSI S1.25-1991, Type 1 : IEC 61672:2002
Acoustic Dosimeter Mode	Leq, Spl, Peak, SEL, DOSE, D_8h, LAV, SEL8, PSEL, E, E_8h, TWA, "Peaks Counter" and more Measurement simultaneous to the 1/1 octave analysis (option)
SLM Mode	Leq, Spl, SEL, LEP,d, Lden, Ltm3, Ltm5, statistics - Ln (L1- L99), LMax, LMin, LPeak Simultaneous measurement in three profiles with independent set of filters and detectors
Weighting Filters	A, C and Z
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB Time Constants: Slow, Fast, Impulse
Microphone	SV 15 preamplifier with integrated cable and 7052, 1/2" prepolarised microphone SV 25S, Type 2, ceramic microphone, for measurements based on microphone in real ear technique MIRE (option) SV 15 and SV 25S have built in TEDS functionality for the automatic calibration
Measurement Range	45 dBA RMS ÷ 141 dBA Peak
Frequency Range	20 Hz ÷ 20 kHz, sampling rate 48 kHz
Dynamic Range	100 dB
Data Logger*	Time History logging of RMS / Max / Min / Peak results to internal memory with time step down to 1 second, up to 24 measurement results logged simultaneously
Audio Recorder*	Time domain signal events recorder (option)
Dual Channel Mode	Dual channel measurement mode with second microphone (option)
1/1 Octave*	Dual channel 1/1 octave real-time analysis and spectra logging, 10 filters with centre frequencies from 31.5 Hz to 16 kHz, Type 1, IEC 61260 (option)

BASIC DATA

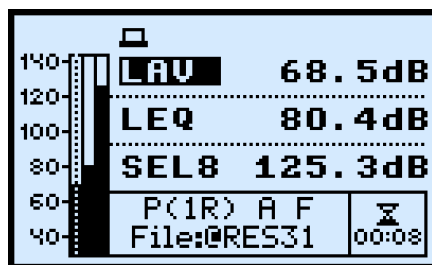
Input	2 x Lemo 2 pin	
Display	LCD 128 x 64 pixels plus icons with backlighting	
Memory	Up to 64 MB non-volatile flash type	
Interfaces	USB 1.1 Client, External I/O - AC output (1 V Peak) / Digital Output (Alarm trigger) / Digital Input (Input trigger)	
Power Supply	Two AA batteries (alkaline)	operation time > 20 h (3.0 V / 1.6 Ah) **
	Two rechargeable batteries (not included)	operation time > 24 h (2.4 V / 2.6 Ah) **
	USB interface	150 mA HUB
Environmental Conditions	Temperature	from -10 °C to 50 °C
	Humidity	up to 90 % RH, non-condensed
Dimensions	95 x 83 x 33 mm (without microphones)	
Weight	260 grams with batteries (without microphones)	

*function parallel to the acoustic dosimeter mode or meter mode

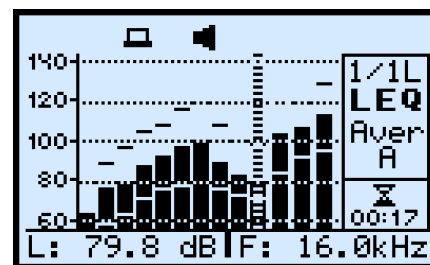
**in single channel dose meter mode and backlight off



Acoustic dose measurements



SLM results in 3 profiles view



1/1 octave analysis

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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