SV 307

Noise Monitoring Terminal

SVANTEK
monitoring systems

SV 307 Noise Monitoring Terminal

The SV 307 is a new Noise Monitoring Terminal (NMT) dedicated for permanent noise monitoring. The SV 307 integrates Class 1 sound level meter with a modem in the removable waterproof housing. The SV 307 is equipped with a new MEMS microphone with a life-time warranty. The measurement data is stored on the microSD card.

SV 307 is a new **CLASS 1** noise monitoring terminal designed for permanent noise monitoring with the community & airport characteristics available.

Wide frequency range up to 20 kHz with microphone in **MEMS** technology with lifetime warranty.

Patented **system check** with an inbuilt reference sound source producing level of 100 dBA at 1 kHz

As an option, the SV 307 can perform real time frequency analysis in **1/1 and 1/3 octave bands** and save results with the time history data. Additionally, it can record the audio signal as standard **WAVE** files for noise source recognition. *

A large colour **OLED** display and 10 push-buttons enable easy configuration of the NMT in the field without needing an external handset or reconnection to a PC.

The **large windscreen** is highly efficient in reduction of a wind noise effects even at high wind speeds. Metal spikes protects station against birds.

The **removable** & **weatherproof** housing protects the SV 307 noise monitoring terminal against extreme weather conditions while fulfilling **Class 1 accuracy**.

The system is specially designed for **easy installation** - SV 307 is small, light weight and easy to install by a single person.

The **GSM MODEM** provides fast data transfer over the Internet to PC with standard Internet connectivity.

The SV 307 has an internal Li-Ion battery and interface for connecting **solar panels**. A waterproof mains adapter for charging the battery and powering the station is also included.

On-line data in SvanNET

SvanNET cloud service monitors the wireless communication, powering and access to the SV 307 data. The scope of the basic SvanNET can be extended with multipoint project management that offers data storage in the cloud, data sharing, advanced alarming and reporting features.

SvanNET is an on-line solution which means it doesn't require software installation and is accessible through a web browser. The responsive design enables use of SvanNET on various devices such as smartphones or tablets.

What's inside the SV 307 kit?

The SV 307 is an integrated Noise Monitoring Terminal which means that the sound level meter has been integrated with a 3G modem and outdoor enclosure. The waterproof power supply is also provided for continuous operation in the field. Each SV 307 has its factory calibration certificate and **36-MONTHS WARRANTY CARD**. The part of the kit is the new MEMS **microphone with a life-time warranty.**

PC Software

SvanPC++ is a PC software supporting functions such as measurement data downloading from instruments to PC, measurement setups creating, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to a spread sheet or text editor applications. New version of SvanPC++ software also supports analysis of wave files from Svantek's instruments (for example calculation of tonality).

Optional functions

The accurate **GPS module** provides information on the localization as well as measurement time synchronization. GPS is a hardware option that can be added at time of ordering.

SvanPC++ Environmental Measurements module is designed for post-processing of data recorded by monitoring station. The module offers a powerful calculator and an automated noise event finder for noise source identification. Thanks to its "Projects" functionality, SvanPC++_EM allows to combine and compare data from multiple measurements as well as create and save reports in MS Word™ templates. It can be activated at any time by ordering an activation code or hardware key.
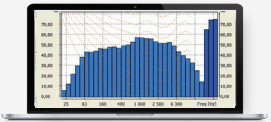
The option for **1/3 octave REAL-TIME** analysis allows the analysis of the noise frequency contents and is used for verification of noise sources in the environment. It can be activated at any time by ordering the activation code.
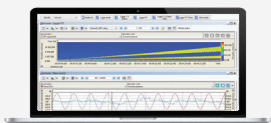
The option of **TIME DOMAIN SIGNAL RECORDING** to WAVE format works during measurement and is logged in parallel to a time history. Once downloaded to PC it can be played back. Settings such as triggers or recording time are adjustable. In addition to audio play-back, WAVE file can be post-processed in SvanPC++ software that provides calculation of overall results such as Leq, Lmax, Lmin, Lpeak as well as 1/3 octave and FFT calculations or tonality. It can be activated at any time by ordering the activation code.

Optional accessories to SV 307

| SP 276 Weather Station based on GILL module | SA 206 Mast for Microphone Protection Kit | SB 272 External Battery to Monitoring Station 33Ah | SB 271 Solar Panel to Monitoring Station | SV 35A Class 1 Acoustic Calibrator 94 dB / 114 dB at 1 kHz |

SV 307 Technical Specifications
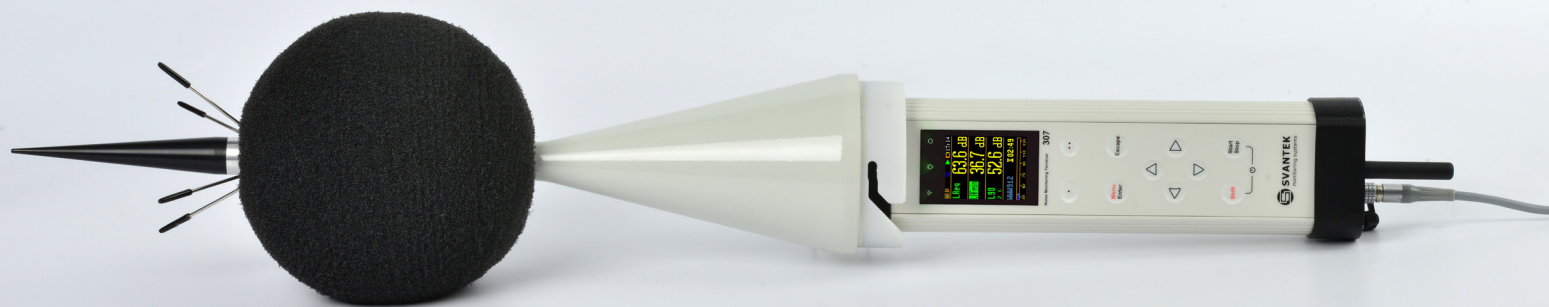
Sound Level Meter and Analyser

Standards	Class 1: IEC 61672-1:2013, Class 1: IEC 61260:2014
Weighting Filters	A, B, C, Z, LF
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
	Time constants: Slow, Fast, Impulse
Microphone	Patented[1] MEMS design microphone ST 30 in 1/2" housing
Preamplifier	Integrated
Linear Operating Range	30 dBA RMS ÷ 126 dBA Peak (in accordance to IEC 61672)
Dynamic measurement range	20 dBA RMS ÷ 126 dBA Peak (typical from noise floor to the maximum level)
Internal Noise Level	less than 20 dBA RMS
Frequency Range	20 Hz ÷ 20 kHz
Meter Mode Results	Elapsed time, Lxy (SPL), Lxeq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymin (MIN),
	Lxye (SEL), 10 x LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5
	Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)
Statistics	L_n (L_1-L_{99}), complete histogram in meter mode and 1/1 & 1/3 octave analysis
	Simultaneous measurement in three profiles with independent set of filters and detectors
1/1 Octave Analysis[2]	Real-time analysis meeting class 1 requirements of IEC 61260 (31,5 Hz ÷ 16 kHz)
1/3 Octave Analysis[2]	Real-time analysis meeting class 1 requirements of IEC 61260 (20 Hz ÷ 20 kHz)
Data Logger	Logging of summary results (SR) and spectra data with interval step down to 1 second and time history (TH) of selected parameters with shorter interval step down to 100 milliseconds.
Audio Recording[2]	Time domain records to wav file format on demand with selectable bandwidth and recording period
Ingress Protection Rating	IP 65
Inputs	Power supply LEMO 4-pin, extended I/O port LEMO 5-pin
Remote system check	Inbuilt reference sound source producing level of 100 dB at 1 kHz[1]
Memory	Micro SD card 16 GB (removable)
Display & Keyboard	OLED colour display 128 x 160 px and 10 push-button keyboard
Communication interfaces	USB, 3G modem
Power Supply	Li-Ion rechargeable battery (non-removable)
	Operation time on battery (8.2 V / 10 Ah)
	Modem off — up to 6 days
	Modem on — up to 5 days[3]
	Solar Panel (not included) — MPPT voltage 17.0 V ÷ 20.0 V
	AC power supply (included) — Input 100 ÷ 240 VAC, output +15 VDC 2.5 A, IP 67 housing
	External DC source (not included) — voltage range 10.5 V – 24 V, e.g. 12 V or 24 V accumulator
Environmental Conditions	Temperature — from -20 °C to 50 °C (-4 °F to 122 °F)
	Humidity — up to 95 % RH
Dimensions	680 mm length; 80 mm diameter (26.8 in; 3.15 in), excluding windscreen (windscreen diameter 130 mm)
Weight	Approx. 1,8 kg (Approx. 3.96 lbs.)

[1] patent pending
[2] optional
[3] depends on modem usage

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.