svan net

SV 307
All in One
Noise Monitoring Station

MICROPHONE LIFETIME WARRANTY
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INTELLECTUAL PROPERTY
INTELLECTUAL PROPERTY
PATENTED MICROPHONE

SVANTEK
monitoring systems

SV 307 Noise Monitoring Station

The **SV 307** is a new Noise Monitoring Station dedicated for permanent noise monitoring. The SV 307 integrates Class 1 sound level meter with a modem in the compact waterproof housing.

SV 307 is a new **CLASS 1** noise monitoring station designed for permanent noise monitoring with built-in community & airport characteristics.

Wide frequency range up to 20 kHz with lifetime warranty microphone[1] in **MEMS** technology.

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 SV 307 in the field without needing an external handset or reconnection to a PC.

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

The SV 307 is equipped with a new MEMS microphone with a **life-time warranty**. The measurement data is stored on the microSD card.

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 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.

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

The accurate **GPS module** provides information on the localization as well as measurement time synchronization.

SvanNET enables a plug & play connection to Internet and easy management of measurement projects. Regardless of the SIM card type, Public or Private, SvanNET will establish connection, giving full access to the measurement data via **WEB BROWSER**.

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 usage of SvanNET on various devices such as smartphones or tablets.

SvanNET

SvanNET is an advanced server solution supporting remote connection with SV 307. The SvanNET allows usage of all types of SIM cards with the SV 307 modem regardless if they have public or private IP. The connection over the SvanNET allows users to use a web browser to watch real time measurement results, download manually files and reconfigure the station as well.

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

SvanNET Projects offers powerful functions such as automatic files download, data storage, status and measurement alarms, data sharing, public website creation and automatic reporting. The Projects functionality can be activated at any time by ordering the upgrade.

The accurate **GPS module** provides information on the localization as well as measurement time synchronization.

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.
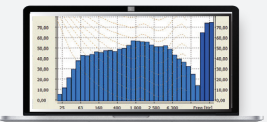
The option for **1/3 octave REAL-TIME** analysis allows the analysis of the noise frequency contents and is used for verification of noise sources in the environment. It can be activated at any time by ordering the activation code.
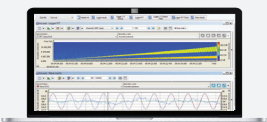
The option of **TIME DOMAIN SIGNAL RECORDING** to WAVE format works during measurement and is logged in parallel to a time history. Once downloaded to PC it can be played back. Settings such as triggers or recording time are adjustable. In addition to audio play-back, WAVE file can be post-processed 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
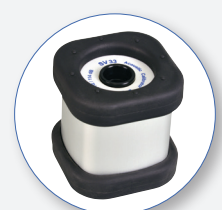
SP 276
Weather Station
based on GILL
module

SA 206
Mast for
Microphone
Protection Kit

SB 371
Solar Panel
to Monitoring
Station

SB 275
External 33 Ah
Battery
to Monitoring
Station

SV 36
Class 1 Acoustic
Calibrator
94 dB/114 dB at
1 kHz

What's inside the SV 307 kit?

The SV 307 is an integrated Noise Monitoring Station which means that the sound level meter has been integrated with a 4G 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**[1] **with a lifetime warranty.**

SV 307 Technical Specifications

Standards	Class 1: IEC 61672-1:2013, Class 1: IEC 61260-1:2014
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 30A in 1/2" housing
Preamplifier	Integrated
Linear Operating Range	30 dBA RMS ÷ 128 dBA Peak (in accordance to IEC 61672)
Dynamic Measurement Range	23 dBA RMS ÷ 128 dBA Peak (typical from noise floor to the maximum level)
Internal Noise Level	less than 23 dBA RMS
Frequency Range	20 Hz ÷ 20 kHz
Meter Mode Results	Elapsed time, Lxy, Lxeq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymin (MIN), LxyE (SEL),
	2 x LR (ROLLING LEQ),10 x LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5, GPS coordinates
	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] (optional)	Real-time analysis meeting class 1 requirements of IEC 61260 (31,5 Hz ÷ 16 kHz)
1/3 Octave Analysis[2] (optional)	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] (optional)	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	Real-time system check[1] and Built-in sound source producing level of 100 dB at 1 kHz
Memory	Micro SD card 16 GB (removable)
Display & Keyboard	OLED colour display 128 x 160 px and 10 push-button keyboard
Communication Interfaces	USB, 4G modem
GPS	for time synchronization and localization
Power Supply	Li-Ion rechargeable battery (non-removable)
	Operation time on battery (7.2 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
	Humidity	up to 95 % RH
Dimensions	680 mm length; 80 mm diameter excluding windscreen (windscreen diameter 130 mm)	
Weight	Approx. 1.8 kg	

[1]patent pending
[2]function operates together with sound level meter mode
[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.

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