

SV 307A

Class 1

Noise Monitoring Station



The SV 307A is a new version of the best-selling monitoring station, which has been equipped with the latest microphone in MEMS technology with a patented dual remote system that checks the correctness of the measurement path. An additional advantage of this solution is the indefinite manufacturer's warranty for the microphone.

The SV 307A uses the built-in 4G modem to send SMS and email alarms and to send measurement data to the SvanNET website where users can view the results and configuration settings.





SV 307A

Noise Monitoring Station



New all-in-one hardware

New microphone
faster data transfer

The new version of the SV 307A has an improved external housing for operation in conditions of high sunlight exposure and low temperatures, a high-speed 4G modem and a unique microphone in the MEMS technology. The all-in-one hardware also includes a large internal battery that can power the system for 5 days with a modem turned on.



Patented system check

Dual and remote
measurement validation

The patented system check uses MEMS microphones located very close to each other. In case the levels measured by the reference microphone and the measurement microphones differ by more than a particular threshold, the SV307A system check triggers an alarm. Additionally, an inbuilt sound source producing level of approx. 100 dBA at 1 kHz can be used for manual or automated system check.



Noise, meteo, dust

Smart monitoring and
advanced triggering

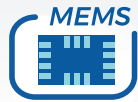
The instrument is designed to monitor noise levels and their spectra, record and audio signal and GPS localization. All meteorological values such as wind speed, wind direction, rain, humidity etc. or dust particles PM2.5 or PM10 can be stored together with the noise data when external sensors are connected.

Key Functions



Class 1 accuracy and precision

The SV 307A is a new class 1 noise monitoring station designed for permanent noise monitoring. With the improved housing, the SV 307A has the superior acoustics characteristics.



Life-time warranty on microphone

The SV 307A is equipped with a state-of-the-art MEMS microphone with a life-time warranty.



Real-time frequency analysis

The 1/3 octave function allows the determination of the influence of high or low frequencies on overall values. Functions can be activated at any time by ordering the activation code.



Triggered audio recording

Audio recording is synchronized with a noise time-history and it can be opened and played back in PC software enabling noise source recognition. Audio recording can be triggered on threshold or time. It can be activated at any time by ordering the activation code.



Audio streaming live listening

The SV 307A is capable of streaming the live audio to the SvanNET. The function works independently of the wav audio recording and can be activated as the SvanNET license.



GPS localisation and synchronization

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



Low power consumption

Low power consumption is the key functionality when it comes to permanent noise monitoring. It means lower cost of running the system as well as longer time of battery operation - up to 5 days with modem transmission.

PC software



SvanNET enables a plug & play connection to the 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.



SvanPC++ is a PC software supporting functions such as measurement data downloading from instruments to PC, measurement setups creation, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to a spread sheet or text editor applications.

Optional accessories



SP 276
Weather Station



SB 371
Solar Panel



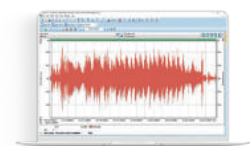
SB 275
External 33 Ah Battery



SV 36
Class 1 Sound Calibrator
94 dB/114 dB



SF 307_3
License of 1/1 & 1/3 octave



SF 307_15
License of audio recording



SVANNET_1A
SvanNET Projects
subscription - 1 year



SVANNET_LISTENING_A
On-line audio listening
subscription - 1 year

Technical Specifications

| | | |
|------------------------------|--|------------------------------|
| Standards | Class 1: IEC 61672-1:2013, Class 1: IEC 61260-1:2014 | |
| Weighting Filters | A, B, C, Z, LF | |
| Time Constants | Slow, Fast, Impulse | |
| RMS Detector | Digital True RMS detector with Peak detection, resolution 0.1 dB | |
| Microphone | Patented MEMS based 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 | |
| Dynamic Range | >100 dB | |
| 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 | |
| Measurement Profiles | Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y) | |
| Statistics | Ln (L1-L99), complete histogram in meter mode | |
| Data Logger | Logging of summary results (SR) and spectra data with interval step down to 1 s and time history (TH) of selected parameters with shorter interval step down to 100 ms | |
| 1/1 Octave Analysis (option) | Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 31.5 Hz to 16 kHz | |
| 1/3 Octave Analysis (option) | Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 20 Hz to 20 kHz | |
| Audio Recording (option) | Time domain records to wav file format on demand with selectable bandwidth and recording period | |
| Remote System Check | Real-time system check and Built-in sound source producing level of approx. 100 dB at 1 kHz | |
| GPS | Time synchronization and localization | |
| Memory | MicroSD card 32 GB (removable & upgradeable up to 128 GB) | |
| Display and Keyboard | OLED colour display 128 x 160 px and 10 push-button keyboard | |
| Communication Interfaces | USB 2.0 4G modem RS 232 for meteo module or dust monitor | |
| Ingress Protection Rating | IP 54 (significant protection from dust, protection from rain, spraying and splashing) | |
| 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 (depends on modem usage) 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 voltage range 10.5 V ÷ 24 V e.g. 12 V or 24 V accumulator External DC source (not included) | |
| Environmental Conditions | Temperature | from -20 °C to 60 °C |
| | Humidity | up to 99 % RH, non-condensed |
| Dimensions | 680 mm length; 80 mm diameter excluding windscreen (windscreen diameter 130 mm) | |
| Weight | Approx. 2.2 kg | |

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.