SV277 *pro*

Noise Monitoring Station

SVANTEK

INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

SV277 *pro* Noise Monitoring Station

Features

SV 277 PRO is a portable monitoring system housed in a waterproof case dedicated for periodic **OUTDOOR** measurements.

The station is based on **SVAN 977** which can be easily removed from the case and used as a hand-held sound level meter.

CLASS 1 noise measurements are performed over a very wide dynamic range - over 110 dB from 10 Hz up to 20 kHz.

The **TIME-HISTORY** of results such as Leq, Max, Min and Peak with two simultaneous logging steps is saved on 8 GB microSD card (upgradeable up to 128 GB).

The station can perform real-time frequency analysis in **1/1 OCTAVE** bands and save it as time-history data.

The **3G MODEM** provides fast data transfer over the Internet to PC with standard Internet connectivity.

Once you insert SIM card the remote communication settings are automatically adjusted to connect to **SvanNET**.

Station can be powered from an internal battery or external DC power supply and is ready for direct connection of a **SOLAR PANEL.** The powering is managed by the intelligent charging unit.

Station uses waterproof **CHARGER** that is designed for outdoor use.

Military standard **CONNECTORS** provide reliable, robust and waterproof cable connections.

About

SV277 PRO is an outdoor monitoring system based on SVAN 977 Class 1 sound level meter. The IP 65-rated case contains a lead-acid battery which operating time can be easily extended by connecting an external battery or a solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers or heavy batteries.
The case is fitted with very robust, waterproof connectors (military standard) and is supplied with an IP 65 external power supply. The light-weight microphone protection kit can be easily installed on a mast with standard mounting threads. All accessories fit conveniently into a second carrying case.
The system provides broad-band results such as Leq, Max, Min and Peak with all standard weighting filters together with an incredible time-history logging feature with two adjustable logging steps. The broad-band results can be recorded in three acoustic profiles which enable measurements to be taken with 3 different filters (e.g. A, C, Z) as well as 3 different detector time constants (e.g. Fast, Slow, Impulse). The SVAN 977 can be easily removed from the case and used as a hand-held sound level meter.
The monitoring station uses a 3G modem for the remote communication with Internet. SvanNET, a relay server, supports the connection between PC and station. The SvanNET allows the usage of all types of SIM cards with the system, regardless if they have public or private IP. The connection over the SvanNET allows users to use a mobile phone or tablet to check the status of the noise monitoring station.

What's inside?

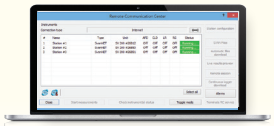
The SV277 PRO kit consists of two carrying cases. The main unit is a waterproof carrying case with internal 17 Ah battery and internal charging unit supporting powering from external DC or solar panel. The SVAN 977 Class 1 sound level meter is installed inside.
The outdoor charger and outdoor microphone kit are packed inside the second transportation case. The kit includes license for SvanPC++ software and SvanNET base account. Each kit has its factory calibration certificate and **36 MONTHS WARRANTY CARD.**

Software

SvanNET is a relay server supporting connection between PC and SV 277 PRO and allows usage of all types of SIM cards with the SV 277 modem, regardless if they have public or private IP. The SvanNET provides a web interface that allows to watch real-time measurement results on a PC or mobile device, manually download files and reconfigure the station.

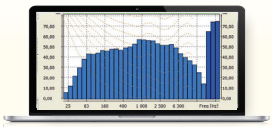
SvanPC++ is a PC software providing functions such as measurement data downloading from instruments to PC, measurement setups creating, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to spread sheet or text editor applications.

Optional functions

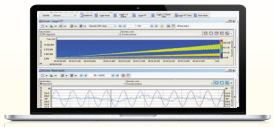


SvanPC++ Remote Communication *software package offers advanced features such as automatic data download, CSV and HTML data publishing as well as FTP upload.*
The SvanPC++_RC module supports configuration of the monitoring station as well as configuration ***of advanced alarms*** *that combine triggers based on time with noise thresholds. It can be activated at any time by entering the activation code.*

SvanPC++ Environmental Monitoring *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 entering the activation code.*



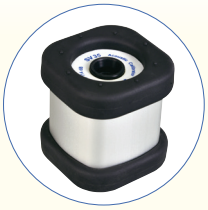
The option for ***1/3 OCTAVE REAL-TIME ANALYSIS*** *allows the analysis of the noise frequency contents. The statistical analysis in 1/3 octave band is used for verification of noise sources in the environment. It can be activated at any time by entering the activation code.*



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 entering the activation code.*

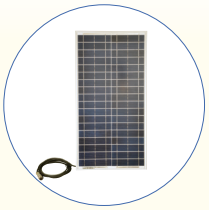
Optional Accessories

SA 206
Mast to
Microphone
Protection Kit



SV 35A Class 1
Acoustic Calibrator
94 dB / 114 dB
at 1 kHz

SB 270_EB
External Battery 33 Ah
to Monitoring Station



SB 270_SP
Solar Panel to
Monitoring Station

Technical Specifications

SVAN 977 Sound Level Meter & Analyser

Standards	Class 1: IEC 61672-1:2013
Meter Mode	Elapsed time, Lxy (SPL), Lxeq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymin (MIN), Ovl (OVERLOAD %), Lxye (SEL), LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5 Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)
Analyser	1/1 or 1/3 octave real-time analysis (option)
Audio Recording	Time domain signal recording to WAV signal, continuous or triggered (option) Sampling rate: 12/24/48 kHz with 24-bit resolution
Weighting Filters	A, C, Z, B
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Detector Time Constants	Slow, Fast, Impulse
Microphone	ACO 7052E, 35 mV/Pa, prepolarised 1/2" condenser microphone
Preamplifier	SV 12L IEPE preamplifier
Linear Operating Range	25 dBA RMS ÷ 140 dBA Peak (in accordance to IEC 61672)
Dynamic Measurement Range	15 dBA RMS ÷ 140 dBA Peak (typical from noise floor to the maximum level)
Internal Noise Level	less than 15 dBA RMS
Frequency Range	10 Hz ÷ 20 kHz
Data Logger	Time-history logging with two adjustable logging steps down to 2 milliseconds
Memory	microSD card 8 GB (upgradeable to 128 GB)

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Remote Communication	3G modem
Power Supply	DC power supply / charger 11 V ÷ 30 V (waterproof) Internal battery 17 Ah / 12 V Secondary external battery 33 Ah / 12 V (optional) Solar panel (optional)
Operating time on battery	4 days with continuous modem transmission 8 days with modem switched off Test Conditions: meter mode, display dimmed, 2 ms time-history logger, continuous event recording
Microphone protection kit	SA 277 outdoor protection kit (IP 65)
Environmental Conditions	Temperature -10 °C ÷ +50 °C
Dimensions	300 x 260 x 190 mm (without antenna and cables)
Weight	Approximately 9 kg including battery

Our Company's policy is based upon continuous product development and innovation.
Therefore, we reserve the right to change the specifications without any prior notice whatsoever.

Main Applications

Traffic Noise Monitoring

Noise Emission Monitoring

Community Noise Monitoring

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