

SV279 PRIME

Noise Monitoring Station





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SV 279 PRIME is a portable monitoring station housed in a waterproof case dedicated for periodic **OUTDOOR** measurements. The system is based on the **SVAN 979** which can be easily removed from the case and used as a hand-held sound level meter.

SVAN 979 is a Class 1 **TYPE APPROVED** sound level meter in accordance with IEC 61672-1 standard.

Station can perform a realtime frequency analysis in **1/3 OCTAVE** bands and save it as time-history data.

The **AUDIO RECORDING** works during measurement and is logged as a WAV file in parallel to the time-history, so it can be played back in the PC software. Settings such as triggers or the recording time are adjustable.

The **TIME-HISTORY** of results such as Leq, Max, Min and Peak with two simultaneous logging steps is saved on 16 GB microSD card (upgradeable to 128 GB).

The **LARGE WINDSCREEN** is highly efficient in the reduction of a wind noise effects even at high wind speeds.

The accurate **GPS** module provides an information on the localization as well as measurement **TIME SYNCHRONIZATION**.

Station supports an optional **METEO** module for assessment of weather conditions such as wind speed and direction, temperature, humidity, ambient pressure or rainfall.

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

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



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**.

About SV 279 PRIME

SV 279 PRIME is an outdoor monitoring system based on the SVAN 979 Class 1, type approved 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 solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers and 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 outdoor microphone 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 SV 279 PRIME is equipped with a LAN, Wireless LAN 3G modems and GPS module.

SvanNET is a connectivity service that supports the connection between PC and station. It allows the usage of the system with all types of SIM cards, regardless if they have public or private IP. Additionally, it gives an access to a status of monitoring stations over a mobile phone or tablet.



What's inside the SV 279 PRIME?

The SV 279 PRIME kit consists of two carrying cases. The main unit is a waterproof carrying case with internal 17 Ah battery and a charging unit supporting powering from an external DC or solar panel. The monitoring case is equipped with GPS module and modems for 3G, LAN and Wireless LAN communication. The SVAN 979, Class 1 sound level meter with options for frequency analysis and audio recording is installed inside the main unit.

The outdoor power supply and outdoor protection kit for microphone are packed inside the second transportation case. The kit includes license for SvanPC++ software and SvanNET connectivity service. Each kit has its factory calibration certificate and 36 months warranty card.

SvanNET



SvanNET is an advanced server solution supporting remote connection with SV 279 PRIME. The SvanNET allows usage of all types of SIM cards with the SV 279 PRIME 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, 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 creation, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to spread sheet or text editor applications.

Additionally, SvanPC++ includes a module for an advanced analysis of WAV files from SV 279 PRIME. The WAV analyser can be used for variety of calculations, such as 1/3 octave, FFT or tonality analysis.

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.



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.

Optional accessories to SV 279 PRIME



SA 206 Mast for Microphone Protection Kit



SB 271 Solar Panel to Monitoring Station



SB 272 External 33Ah Battery to Monitoring Station



SP 272 Alarm Lamp to Monitoring Station



SP 275 Weather Station based on VAISALA module



SV 279 PRIME Technical Specifications

Standards Class 1: IEC 61672-1:2013; Class 1: IEC 61260-1:2014

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)

Analyser¹ 1/1 or 1/3 octave real-time analysis

Pure tone detection meeting ISO 1996-2 (Tonality option)
User programmable second order band pass filters (option)

Audio Recording¹ Time domain signal recording to WAV signal, continuous or triggered

Sampling rate: 12/24/48 kHz with 24-bit resolution

Weighting Filters $\,$ A, C, Z, B, G

RMS Detector Digital true RMS detector with peak detection, resolution 0.1 dB

Detector Time Constants Slow, Fast, Impulse

Microphone Protection Kit SA 279 outdoor protection kit (IP 65) with an SC 279 extension cable Microphone GRAS 40AE, 50 mV/Pa, prepolarised 1/2" condenser microphone

Preamplifier SV 17 Voltage type (supports 200 V polarisation)

Linear Operating Range 22 dBA RMS ÷ 140 dBA Peak (in accordance to IEC 61672)

Dynamic Measurement Range 12 dBA RMS \div 140 dBA Peak (typical from noise floor to the maximum level)

Internal Noise Level Less than 12 dBA RMS

Frequency Range $3.15 \text{ Hz} \div 20 \text{ kHz}$, with GRAS 40AE microphone

Data Logger Time-history logging with two adjustable logging steps down to 2 milliseconds

Memory MicroSD 16 GB (removable and upgradeable to 128 GB)

Communication 3G modem, LAN, Wireless LAN

GPS Used for time synchronization and localization

Power Supply Waterproof DC power supply 15 V , 60 W (acceptable voltage range 11 V \div 30 V)

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 3G modem transmission²

8 days with modems switched off²

Test conditions: meter mode, display dimmed, 2 ms time-history logger, continuous event recording

Environmental Conditions Temperature -10 °C \div +50 °C

 $\begin{array}{ll} \mbox{Dimensions} & 305 \times 270 \times 194 \mbox{ mm (without cables)} \\ \mbox{Weight} & \mbox{Approximately 9 kg including battery} \end{array}$

¹function parallel to the meter mode

²depending on configuration and environmental conditions

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