



# SV 200A

All in One

Noise Monitoring Station

SV 200A noise monitoring station is the top-of-the range station with built-in microphones for noise directivity detection. This revolutionary solution enables identification of dominant noise sources providing information about their location both in vertical and horizontal directions. In practice, the measurement of directionality gives the opportunity to indicate the dominant source of noise in the area of measurement or to exclude unwanted events.





# SV 200A

## Noise Monitoring Station



### All in One

Measure and record noise, spectra, audio, meteo



### Noise Directivity

Built-in microphones for noise directivity detection



### Outdoor Monitoring

Low powering and smart solutions in a waterproof housing

The SV 200A noise monitoring station is an all-in-one instrument which means that the sound level meter has been integrated with a 4G modem and outdoor enclosure. The station has been equipped with a various options for connection including 4G, LAN, Wireless LAN and Bluetooth®. Station can perform a real-time frequency analysis in 1/1 and 1/3 octave bands and save it as time-history data. Additionally it can record the audio signal for noise sources recognition and data recalculation.

Four additional microphones located on sides of the housing use the sound intensity technique to detect the direction of a dominant noise source both in the vertical and horizontal axes. The Leq distribution in angle sectors is saved as the time-history and can be used for data filtering and reporting.

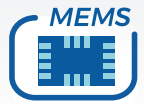
The SV 200A has an internal Li-Ion battery and interface for direct solar panels connection. The weatherproof housing protects the SV200A Noise monitoring station against extreme weather conditions while fulfilling class 1 accuracy. The accurate GPS module, provides information on the localization as well as measurement time synchronization.

## Key Functions



Class 1 accuracy

The weatherproof housing protects the SV 200A noise monitoring station against extreme weather conditions while fulfilling class 1 accuracy.



Additional side directional microphones

Four additional microphones located on sides of the housing use the sound intensity technique to detect the direction of a dominant noise source both in the vertical and horizontal axes. The Leq distribution in angle sectors is saved as the time-history and can be used for data filtering and reporting.



Frequency analysis & audio signal recording

Station can perform a real-time frequency analysis in 1/1 and 1/3 octave bands and save it as time-history data. Additionally it can record the audio signal for noise sources recognition and data recalculation.



Advanced alarms

The advanced alarms function can send e-mail and SMS notifications triggered by threshold level conditions combined with time conditions. Station's status alarms are also available.



Multiple connectivity

The 4G modem, WLAN and LAN provide fast data transfer over the Internet to PC with standard Internet connectivity. 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. The Bluetooth® and Wireless LAN provide access point for an easy configuration with the SvanNET application.



Remote system check

Following ISO 1996-2 requirements, the SV 200A is using the electrostatic actuator to perform the periodic system check. Checking of the complete measurement chain including the microphone is the advantage of using electrostatic actuator method.

## 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  
METEO Station



SB 276  
Solar Panel



SP 200A  
LAN Adapter



SV 36  
Class 1 Sound Calibrator  
94 dB/114 dB



SP 272A  
Alarm Lamp with Buzzer



SA 306  
Pole Mounting Bracket



SVANNET\_1A  
SvanNET Projects Subscription  
1 year - 1 station



SVANNET\_5A  
SvanNET Projects Subscription  
1 year - 5 station

## Technical specification

Standards	Class 1: IEC 61672-1:2013, Class 1: IEC 61260-1:2014	
Weighting Filters	A, B, C, Z	
Time Constants	Slow, Fast, Impulse	
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB	
Microphone	Microtech Gefell MK 255, 50 mV/Pa, prepolarised 1/2" condenser microphone	
Preamplifier	Integrated	
Linear Operating Range	25 dBA RMS ÷ 133 dBA Peak (in accordance to IEC 61672)	
Dynamic Measurement Range	15 dBA RMS ÷ 133 dBA Peak (typical from noise floor to the maximum level)	
Internal Noise Level	Less than 15 dBA RMS	
Frequency Range	3.5 Hz ÷ 20 kHz	
Meter Mode Results	Elapsed time, L <sub>x</sub> (SPL), L <sub>x</sub> eq (LEQ), L <sub>x</sub> peak (PEAK), L <sub>x</sub> ymax (MAX), L <sub>x</sub> ymin (MIN), L <sub>x</sub> ye (SEL), 2 x LR (ROLLING LEQ), 2 x LE (ESTIMATED LEQ), L <sub>n</sub> (LEQ STATISTICS), L <sub>den</sub> , L <sub>EPd</sub> , L <sub>tm3</sub> , L <sub>tm5</sub>	
Measurement Profiles	Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)	
Statistics	L <sub>n</sub> (L <sub>1</sub> -L <sub>99</sub> ), complete histogram in meter mode and 1/1 & 1/3 octave analysis	
Data Logger	Logging of summary results, spectra distribution and its statistics, weather data with logging step down to 1 s and time history of selected parameters with short logging step down to 20 ms	
1/1 Octave Analysis <sup>1</sup>	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 4 Hz to 16 kHz	
1/3 Octave Analysis <sup>1</sup>	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 4 Hz to 20 kHz	
Noise Directivity <sup>1</sup>	Maximum noise energy directivity measurements in both azimuth and altitude directions including noise energy distribution diagram	
Audio Recording <sup>1</sup>	Time domain records to WAV file format on demand with selectable bandwidth and recording period	
Remote System Check	Built-in electrostatic actuator, triggered manually or in automated mode	
GPS	Time synchronization and localization	
Memory	64 GB (non-removable)	
Display and Keyboard	1.1" OLED display and 5 push-buttons keyboard	
Communication Interfaces	USB, RS 232, UART (TTL), LAN, Bluetooth®, 4G modem, WLAN	
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 (10.8 V / 6.7 Ah) Modem off Modem on Solar Panel (not included) AC power supply (included)  External DC source (not included)	up to 7 days up to 4 days <sup>2</sup> MPPT voltage 15.0 V ÷ 20.0 V Input 100 ÷ 240 VAC output +15 VDC 2.67 A, IP 67 housing voltage range 10.5 V ÷ 24 V e.g. 12 V or 24 V accumulator <sup>3</sup>
Environmental Conditions	Temperature Humidity	from -30 °C to 70 °C <sup>4</sup> up to 99 % RH, non-condensed
Dimensions	860 mm length; 70 mm diameter excluding windscreen (windscreen diameter 130 mm)	
Weight	Approx. 3.2 kg	

<sup>1</sup> function operates together with sound level meter mode

<sup>2</sup> meter mode, time history logging step 1 second, GSM modem transmission 10 % of the measurement time

<sup>3</sup> 15 V required for internal battery charging

<sup>4</sup> only with external powering

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.