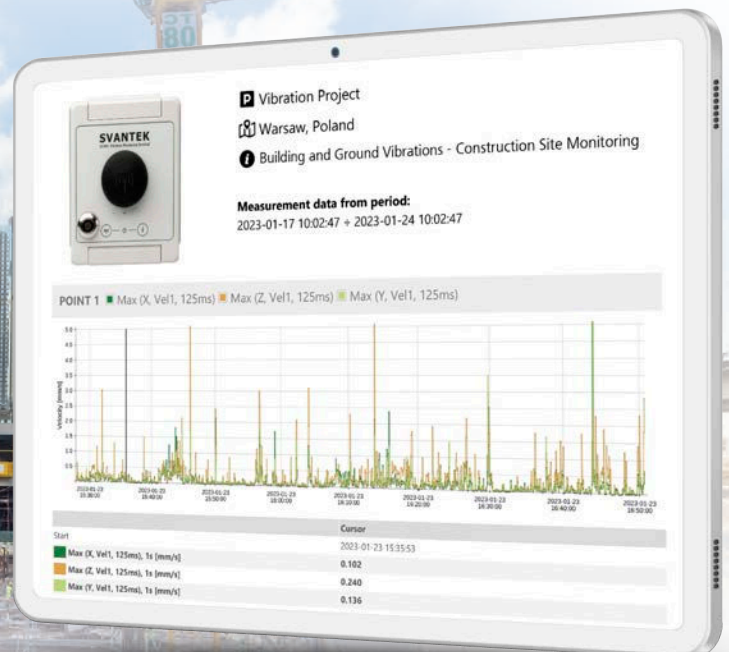# SV 803
Wireless Vibration Monitor

The SV 803 is designed for both short- and long-term monitoring applications. It measures velocity in three directions and calculates both Peak Particle Velocity and Dominant Frequency values simultaneously. In addition to logging overall values and frequency spectra, the SV 803 also stores the time domain signal for post-processing purposes.

The device uses FFT for determining the dominant frequency according to BS and DIN standards. It also has the option to use RMS or PEAK velocity spectrum in 1/3 octave bands for comparison with user-defined curves.

With a battery life of up to 180 days and the ability to sustain ongoing operation when connected to a solar panel, the SV 803 is a reliable choice for vibration monitoring.

SV 803
Vibration Monitoring Station

Building Vibration
Compliant with DIN 4150-3 and BS 7385-2

The choice of Building Vibration Standard and the type of building (curve) enables the vibration velocity measurements according with commonly used standards such as DIN 4150-3 or BS 7385-2 that use Peak Particle Velocity and Dominant Frequency method.

Dust & Meteo
Integrate a Weather Station and Dust Meter

Integrate the SP 276 weather station or the SP 280 dust monitor using the optional SD 310 monitoring system controller. The vibration monitoring data as well as meteo and dust will be integrated within SvanNET Projects accessible on-line.

Mobile Application
Access the SV 803 on iPhone, Android or PC

Bluetooth connection gives full control of the system using any web browsing device like a mobile phone, tablet. The mobile application allows you to control the measurement (start / stop), configure measurement parameters, and view the measurement results.

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Key Features

Triaxial Vibration Monitoring

SV 803 is a portable monitoring system secured in a waterproof housing, dedicated for periodic and long-term outdoor measurements. The system uses three geophones that can be easily taken out for a calibration.

PPV Vector

Peak Particle Velocity (PPV) and PPV Vector Sum are measured simultaneously in THREE AXES and logged in the time history.

KB and VDV

Station is fully configurable to measurement of human vibration in buildings in accordance DIN 4150-2 and BS 6472-1.

Long Battery Life and Solar Panel Powering

One of the biggest advantages of using the SV 803 is its power efficiency. It can run up to 6 months on batteries. Station can be powered from internal battery or outdoor DC power supply and is ready for direct connection of solar panel.

Events and Alarms

The 4G GSM modem provides fast data transfer over the Internet to PC with standard Internet connectivity. SMS and E-MAIL alarms can be configured based on vibration levels.

User Curves in FFT and 1/3 Octaves

If you can't find the vibration standard on the list of implemented ones, you can always input customized values to create a criterion curve based on FFT or 1/3 octave spectrum (RMS, PEAK or MAX).

Wave Recording

With WAV analysis software you can search for peaks and calculate FFT or 1/3 octave spectrum on selected time periods and calculate various other parameters using the raw WAV signal.

Optional software

SvanNET Projects
On-line data access

SvanNET Projects is a payable extension offering fully automated management of multi-point noise and vibration monitoring task. Tools such as Automatic Files Download, Data Storage, Advanced Alarms, Data Sharing and Reporting enable unattended monitoring. The functionality of SvanNET Projects allows to group monitoring stations.

SvanPC++
Data post-processing

SvanPC++ Building Vibration Module is designed for post-processing of data recorded by the monitoring station. The module offers a powerful calculator and an automated event finder in accordance with main building vibration statndards. It also enables WAV analysis. The post-processing software comes with the system at no additional cost.

Assistant PRO
Mobile Application

Assistant Pro App works both on Android and iOS and is an intuitive and easy way of fully controlling your measurement. The user interface allows the preview of results in the form of time-history plots, spectrum graphs and numerical values. The interface enables the configuration of the instrument, its cloud connection and calibration.

Related Products

SvanNET
Automatic Monitoring Services

SB 871
Solar Panel

SP 276
Weather Station

SP 280
Dust Monitor

SVANTEK

Technical Specifications

Standards	DIN 45669-1:2020-06; ISO 4866:2010, Class 1; IEC 61260:2014, Class 1
Meter Mode	PPV, DF, RMS, RRMS, VDV, MAX, Peak, Peak-Peak, PPV Vector, aw, awv, OVL
Analyser	1/3 octave real-time analysis or FFT analysis, Time domain signal recording to WAV format
Filters	DIN 80, DIN 315, VEL1, KB, HP
RMS Detector	Digital true RMS with Peak detection, resolution 0.01 dB
Detector Time Constants	Fast 125 ms in accordance to DIN 4150-2
Vibration Sensor	Tri-axial geophone
Dynamic Range	1 um/s RMS ÷ 141 mm/s Peak
Measurement Range	3 um/s RMS ÷ 100 mm/s RMS (141 mm/s Peak)
Frequency Range	0,8 Hz ÷ 500 Hz (-3 dB)
Remote Communication	4G modem, Bluetooth, GPS
Power Supply	Internal battery / SB 803 Li-Ion battery pack - 7.2 V, 30.15 Ah, 217 Wh (removable) DC power supply / SB 274 charger (waterproof) External battery pack: Li-Ion (optional) Solar panel (optional)
Operating Time on Battery	up to 30 days with a continuous modem transmission up to 180 days in power saving mode *UNLIMITED with SB 803 and solar panel in power saving mode
Environmental Conditions	Temperature -20 °C ÷ +50 °C
Dimensions	163 x 128 x 115 mm (without accessories)
Weight	Approximately 3,0 kg (including battery) Approximately 3,5 kg (including battery and mounting platform)

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.

SOUND AND VIBRATION MEASUREMENT SOLUTIONS