SVANTEK
monitoring systems

SV 804

Wireless Triaxial Vibration Monitor

The SV 804 is a **Class 1** monitoring station designed for structural vibration measurements in buildings and engineering structures. Its compact design allows for fast, single-screw installation on any surface. The device delivers fully automated remote monitoring, sending real-time alerts based on **PPV and dominant frequency**. It features **4G, LAN, and Bluetooth® connectivity**, along with versatile power options including **PoE and solar support**. The system measures triaxial vibration and allows for an additional **fourth channel for noise monitoring**. All data, including diagnostic **WAV files**, securely synchronizes with the SvanNET cloud platform.

LEARN MORE!

SV 804

Wireless Triaxial Vibration Monitor

60 days

Flexible Power for Continuous Monitoring

Battery Swap, PoE, and Solar Ready

The SV 804 supports up to 60 days of autonomous operation using internal, field-swappable batteries. For extended or continuous use, the system offers maximum flexibility with support for external DC power, solar panels*, and Power over Ethernet (PoE*), enabling fully autonomous deployment in any environment.

GSM

Always Connected: 4G, LAN & Cloud

Smart Alerts and Remote Access Anywhere

A built-in 4G modem ensures real-time data transfer and remote access via any web browser. For challenging environments like tunnels or underground locations, the device also supports wired LAN* and Bluetooth®, guaranteeing full control even without a mobile signal. Receive instant SMS and email alerts for all vibration events.

Rapid, Direct-Mount Design

One-Handed, Single-Screw Installation

Weighing just 1.7 kg (3.75 lb), the SV 804 is purpose-built for structural monitoring, allowing direct installation on walls or beams without repositioning geophones. Its rugged, compact housing enables a one-handed setup using a single screw, making it ideal for fast, repeatable deployment in both vertical and horizontal orientations.

Features

Class 1 Vibration Monitoring

Engineered to meet DIN 45669-1 Class 1 standards, the SV 804 delivers certified, high-precision performance. It provides fully automated results for both mobile and permanent structural monitoring installations.

VC and User Curves

Precisely evaluate vibration environments using standard 1/3 Octave VC-curves (IEST) or custom, user-defined curves. Users can also define FFT-based curves for pre-warning thresholds, enabling tailored strategies for sensitive installations.

Wave Recording for Diagnostics

Store raw WAV data for advanced post-processing and detailed, retrospective event validation. This allows for in-depth analysis of PPV, dominant frequency, and signal envelope, or the calculation of FFT and 1/3 octave spectra.

Automated Events and Alarms

The integrated 4G modem provides instant remote response and full online access. Configure real-time alarms based on PPV, dominant frequency, or custom curves, with automatic notifications sent via email and SMS through SvanNET.

4-Channel Noise & Vibration Integration

Expand the system by connecting an SV 303 Class 1 noise monitor to create a comprehensive 4-channel device. This enables the synchronized, real-time acquisition of both triaxial vibration and sound data, all managed through a single SvanNET interface.

Key Applications

Construction & Infrastructure:

Monitoring vibration impact on buildings, roads, bridges, and active construction sites.

Buildings & Human Comfort:

Assessing vibrations within residential and commercial buildings to ensure human health and comfort.

Industry & Mining:

Measuring the effects of heavy machinery, blasting operations, and industrial equipment.

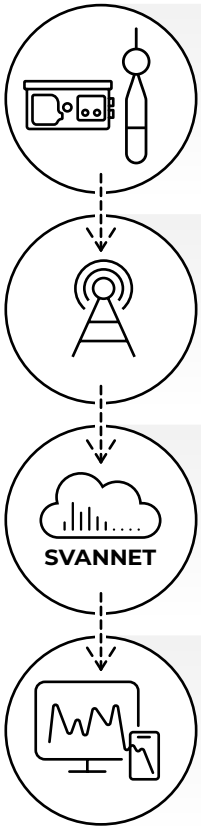
Environmental Protection:

Assessing groundborne vibrations in protected areas, natural reserves, and other sensitive zones.

Heritage & Historical Sites:

Protecting sensitive, structurally significant buildings from excessive vibration exposure.

System Workflow



1. On-Device Analysis & Calculation

The SV 804 device captures data and calculates all results (like PPV and DF) in real-time.

2. Instant Alerts & Data Transfer

The station automatically sends SMS/email alerts for events and transfers measurement data to the SvanNET platform via the 4G modem.

3. SvanNET Management & Distribution

The SvanNET platform organizes, visualizes, and reports on data. It also manages further distribution, including additional email alerts or automatic FTP file transfers.

4. Advanced Post-Processing

Data from SvanNET (including WAV files) can be downloaded to the SvanPC++ software for detailed event analysis and diagnostics.

Software

SvanNET Projects
Advanced On-line Data Access

SvanNET Projects is a payable extension for advanced, multi-point project management and automatizations. It enhances the standard free SvanNET platform with tools like automatic data storage, advanced alarms, and reporting, ideal for managing large groups of monitoring stations.

SvanPC++
Data Post-Processing

SvanPC++ is included with the system at no additional cost. Its powerful Building Vibration panel is designed for advanced post-processing, offering an automated event finder and WAV analysis in accordance with key building vibration standards.

Assistant PRO
Mobile Application

The Assistant PRO app, available for free on Android and iOS, provides full control of your instrument. Its intuitive interface allows you to preview results, configure the device, manage its cloud connection, and even perform calibration directly from your phone.

Technical Specifications

Standards	DIN 45669-1:2020-06; DIN 4150-3:2016-12; BS 7385-2:1993; ISO 4866:2010, Class 1; IEC 61260:2014, Class 1
Meter Mode	PPV (Vmax), DF, RMS, RRMS, KBf, KBfmax, 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 µm/s ÷ 100 mm/s RMS (141 mm/s Peak) 4 µm/s ÷ 400 mm/s RMS (565 mm/s Peak)
Measurement Range	3 µm/s ÷ 100 mm/s RMS (141 mm/s Peak) 12 µm/s ÷ 400 mm/s RMS (565 mm/s Peak)
Frequency Range	0,8 Hz ÷ 500 Hz (-3 dB)
Remote Communication	Cellular modem, Bluetooth®, GPS
Memory	32 GB
Ingress Protection Rating	IP67
Power Supply	Internal battery / SB 804 Li-Ion battery pack - 7.2 V, 10.2 Ah, 73,4 Wh (easy-removable) USB interface / SC 816 cable and SB 83 charger DC power supply / SB 274L waterproof charger (optional) External battery pack / Li-Ion (optional) Solar panel (optional)
Operating Time on Battery	up to 10 days with a continuous modem transmission up to 60 days in power saving mode *UNLIMITED with SB 804 and solar panel in power saving mode
Environmental Conditions	Temperature -20 °C ÷ +50 °C (–4 °F ÷ +122 °F) Humidity 0 - 100 % RH
Dimensions	171 x 85 x 83 mm (without accessories) 6.73 × 3.35 × 3.27 in (without accessories)
Weight	1,7 kg (3.75 lb) including battery

*Optional accessory

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.