

CONSTRUCTION SOLUTIONS

Seismograph Sales Options

VanguardNewYork.com

Providing Seismograph Sales & Monitoring Services to the Construction Industry.





Vanguard Construction Solutions provides construction monitoring services in the Northeastern US to ensure your construction projects comply with local, city and state regulations while minimizing costs.

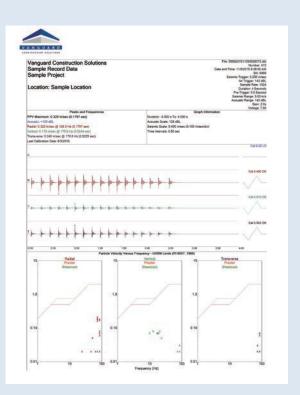
We are a leading provider of seismographs for purchase specifically for construction vibration monitoring. As an authorized distributor of White Industrial Seismology products, we provide the support services needed to have confidence in your seismograph purchase. As an added bonus, data downloading and vibration analysis software is provided at no extra cost when you purchase a seismograph from us.

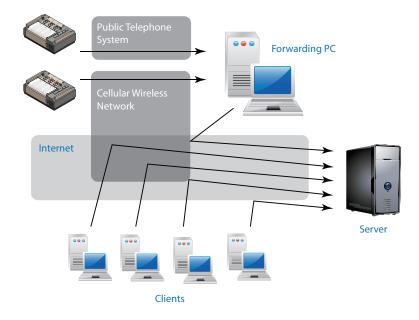
Data & Reporting

We understand that being able to quickly turnaround well organized, detailed reports is a must in the construction industry. Accurately document your project, meet deadlines, and stay organized. You'll be able to print, download, view and send customizable reports that look professional and meet any required compliance standards.

Features

- Easy to read data format
- Customizable report content
- Sort & filter events
- Alter graph scaling
- Separate Particle Velocity vs. Frequency Charts
- Color coded data
- Seismograph equipment settings





Web Based Vibration Monitoring

Our seismograph equipment can be left unattended for web based vibration monitoring via internet connection. You'll be able to receive and monitor vibration data as well as transfer it to a password-protected web site for others to view. This service is ideal for timesensitive projects or large projects that utilize several seismographs at once where reporting requirements are very strict.

Key Benefits

- Safe, secure & reliable data.
- Save both time & money.
- 24/7 access to data.
- Collect, store & distribute data conveniently.

For more information about buying seismograph equipment visit www.VanguardNewYork.com or call 845-803-0295

Mini-Seis IIITM - The Next Generation



The Mini-Seis III™ is our next generation seismograph. It supports USB for data transfer to a computer and thumb drive. It has over 500 MB of memory and can store over 1000 waveform records. It has an easy-to-read display and is designed for low power. Operating modes include Waveform, Histogram, Histogram/Waveform & Manual Trigger. A system log tracks when the instrument is turned on and off, changes are made to the operational setup, and whether or not any triggers occurred during a waveform operation. Options include A-weighting and special ranges.

This package is available at a very affordable price.

Mini-Seis III™ Quick Features

- Sampling rates from 1024 to 4096 over 4 channels. Rates of 8192, 16384 & 65536 are in development.
- Waveform duration from 1 to 120 seconds over all sample rates.
- Selectable 16 or 12 bit resolution when retrieving data.
- Memory storage for over one thousand waveform & histogram records.
- Direct data retrieval via USB and/or USB thumb drive.
- Serial baud rates up to 230400.
- External printing option.
- Remote access with approved cellular modem.
- Waveform, Histogram, Histogram/Waveform and Manual Trigger modes.
- Special sensitivity options.

Mini-Seis III™ Technical Specifications - More specifications at VanguardNewYork.com

Channels 3 seismic & 1 acoustic channels standard optional 8 channel upgrade available.

Seismic (tri-axial geophone package)

Range Standard 254 mm/s (10 in/s) .
Resolution 0.008 mm/s (0.0003 in/s).

Frequency Range (ISEE) Varies with sample rate, from 2 to 250 Hz at 1024 samples/s. Varies with sample rate, from 2 to 250 Hz at 1024 samples/s.

Accuracy (ISEE) 1 to 315 Hz (minimum 2048 sample rate needed).

Conforms with the ISEE Performance Specifications for Blasting Seismographs.

Accuracy (DIN) DIN 45669-1 Standard.

Transducer Density Approximately 2.01 g/cc (125 lb./ft3).

Acoustic

Weighting Linear Weighting or A Weighting.

Linear Range 58 to 148 dBL (512 Pa, 5.12 Mb, 0.074 PSI). Linear Resolution 0.0156 Pa (0.000156 Mb, 0.00000023 PSI).

Linear Frequency Response Varies with sample rate, from 2 to 250 Hz at 1024 samples/s.

Linear Accuracy Conforms with ISEE Performance Specifications for Blasting Seismographs.

A-Weighting Range 66 to 134 dBA. A-Weighting Resolution 0.02 dBA.

Timer Allows an instrument to be active only during selected times on a daily basis.

Communication USB Serial – baud rates from 1200 to 230400.

External Data Storage Write to USB drive.

System Log A log is kept in memory to track the active monitoring periods and whenever

important setup changes are made.

Waveform

Modes Waveform, Manual, Auto, Snapshot, Waveform/Histogram.

Sample Rate 1024, 2048 and 4096 [rates of 8192, 16384 and 65536 (for single channel are

under development.}

Duration 1 to 60 seconds at 1024, 2048 or 4096 sample rate.

Pre-Trigger 1 second at 1024 sample rate. The pre-trigger time decreases proportional to

the sample rate.

Minimum Trigger Levels Seismic - 0.127 mm/sec (0.005 in/s). Acoustic - 88 dBL, 68 dBA.

Records Stored Varies depending on the sample rate and duration. The unit can store well

over 1000 records at a 1024 sample rate and 5 second duration.

Downtime Between Events There is no downtime or data loss between events.

Dynamic Sensor Test A dynamic sensor test is performed at the end of every event. This test will

appear in the pre-trigger of continuous events.

Histogram

Modes Histogram and Histogram/Waveform. Sample Interval 1, 10, 20, 30, 40, 50 or 60 seconds.

Data Stored Channel peaks and their frequencies, also the vector sum.

Records Stored Histogram data will vary depending on the sample interval. The unit can store

approximately 100 eight hour days at a 10 second interval.

Dynamic Sensor Test A dynamic sensor test is performed at the beginning & end of every histogram.

Mini-Seis™ - The Best Value



The Mini-Seis[™] is the very definition of a great blast monitoring seismograph at an affordable price. It is ideal for all kinds of blast vibration monitoring and for most continuous vibration monitoring in bar graph mode. Rugged, reliable and very easy to use, the Mini-Seis[™] sets the standard for value in a seismograph.

If you need a low-cost seismograph that is accurate, rugged and reliable, the Mini-Seis™ is the perfect choice.



Mini-Seis™ Quick Features & Options

Key Features

- Lower maintenance & calibration costs.
- Rugged construction & shielded against RF interference.
- Keypad & display for easy field setup & data review.
- External seismic package & microphone interchangeable between units of like sensitivity.
- Selectable seismic & acoustic recording range & trigger level, sample rate & record duration.
- Rechargeable internal battery.
- Ability to use AC or DC power for long term monitoring.
- Wave form (self-trigger & manual-trigger) & continuous bar graph (histogram) modes.
- Sophisticated, non-loss data compression results in small record sizes & fast data transfer.

Available Options

- **Transducer Sensitivity** The standard transducer sensitivity is termed a 2G. Recording levels can range from 0.005 ips (0.127 mmps) to 10.24 ips (260 mmps). We also offer X1, X4 and X8 geophone gains, which modify the standard X2 gain proportionally. These are standard options but we can also do custom gains based on specific needs.
- **Microphone Sensitivity** The standard microphone is limited to 148 dB. We also offer a standard option 160 dB microphone. If necessary, we can supply microphones capable of recording up to 5 or even 10 psi (185 to 190 dB).

Mini-Seis[™] Technical Specifications - More specifications at VanguardNewYork.com

| Mini-Seis " lechnical Specifications - More specifications at VanguaraNewYork.com | | |
|---|---|---|
| Data Recorded | One (1) acoustic and three (3) seismic channels. | |
| Frequency Response | Mini-Seis: 2 to 500 Hz. (-3 dB. points) at 2048 samples per second. | |
| Seismic Sensors | Three component mounted velocity geophones or accelerometers, depending on the ordered recording ranges. | |
| Waveform | The full waveform signature is stored in solid state memory for up to 340 events. | |
| Summary Data | Summarized data include the event time, date, battery voltage, peak measurements, unit serial number and frequencies. The summarized data are stored in solid state memory for the last 341 events. | |
| Sample Rate | From 2048 samples per sec. per channel down to 32 samples per sec. per channel. | |
| Seismic Recording Ranges | Standard (x2) | 0.005 IPS to 2.5 IPS (0.125 to 64 MMPS) 1.1 IPS to 5.0 IPS (0.25 to 127 MMPS) 1.2 IPS to 10.0 IPS (0.50 to 254 MMPS) |
| | Optional (x1 - accel.) | 1.1 IPS to 5.0 IPS (0.25 to 127 MMPS) 1.2 IPS to 10.0 IPS (0.50 to 254 MMPS) 1.4 IPS to 20.0 IPS (1.00 to 508 MMPS) |
| | Optional (x4) | 0.0025 IPS to 1.2 IPS (0.063 to 30.5 MMPS) 1.5 IPS to 2.5 IPS (0.125 to 64 MMPS) 0.01 IPS to 5.0 IPS (0.25 to 127 MMPS) |
| | Optional (x8) | 0.0013 IPS to 0.6 IPS (0.033 to 15.2 MMPS) 0.0025 IPS to 1.2 IPS (0.063 to 30.5 MMPS) 0.005 IPS to 2.5 IPS (0.125 to 64 MMPS) |
| Acoustic Ranges | 0.02 to 2.56 millibars (100 to 142 dB) 0.04 to 5.12 millibars (106 to 148 dB). | |
| Trigger Levels | Seismic | 2.5 IPS Range - 0.01 to 0.57 IPS (0.25 to 14.5 MMPS). 5.0 IPS Range - 0.02 to 1.14 IPS (0.5 to 29 MMPS). 10.0 IPS Range - 0.04 to 2.28 IPS (1.0 to 58 MMPS). Seismic trigger sensitivities are proportionally modified by optional gains. |
| | Acoustic | 106 to 142 dB or 112 to 148 dB. |
| Manual Trigger | Allows triggering from the keyboard or by an external input. One unit may be used to trigger additional instruments. | |
| Record Duration | From 1 to 6 seconds at a sample rate of 2048 samples per second. At lower sample rates, the duration is automatically increased proportional to the amount of decrease in the sample rate. | |
| Cycle Time | At 1024 samples per second, up to 12 seconds of data can be taken with only 50 milliseconds between events. After 12 seconds of data are stored, another event cannot be taken until the previous data have been processed. Processing requires about 3 seconds per second of recording time. | |
| Records Stored | Up to 341 typical coal mine or quarry blast events. | |
| RS232 Serial Port | Data can be downloaded and setup commands can be uploaded directly by computer or remotely by modem. | |
| Baud Rate | From 1200 to 38.4K. | |
| | | |

Product Pricing

Sales Pricing



Mini-Seis III™ The Next Generation

\$5,275.00



Mini-Seis™ The Best Value

\$3,975.00



Because of our unique business structure, no project is too large or too small for Vanguard. Ingenuity and an eye for recognizing potential issues before they arise make Vanguard the obvious choice for your project.

1A Winston Way New Milford, CT 06776

P: 845-803-0295

VanguardNewYork.com