Industrial Seismology, Inc.

Mini-Seis III Specifications

General

Channels	Four, three seismic channels and one acoustic channel standard. Support for other sensor types is available.
Seismic	
Range	Standard 260 mm/s (10.24 in/s). Other ranges may be customized at the factory.
Resolution	0.008 mm/s (0.0003 in/s) depending on the range.
Frequency Range (ISEE)	2 to 250 Hz at 1024 sample rate as per ISEE Seismograph Performance Specifications for Blasting Seismographs 2017 Edition. The upper frequency limit is 1/4 the sample rate.
Frequency Range (DIN)	From 1 to 315 Hz.
Accuracy (ISEE)	Conforms with ISEE Performance Specifications for Blasting Seismographs 2017 Edition.
Accuracy (DIN)	DIN 45669-1 Standard.
Transducer Density	Approximately 2.01 g/cc (125 lb/ft^3)
Accelerometers	Optional accelerometers allow the transducer to be oriented in any direction without leveling.
Acoustic	
Weighting	Linear overpressure or Type 2 A weighting if appropriate hardware is present.
Linear Range	512 Pa or 5.12 Mb.
Linear Resolution	0.0156 Pa (0.000156 Mb) depending on range.
Linear Frequency Range	2 to 250 Hz at 1024 sample rate as per ISEE Seismograph Performance Specifications for Blasting Seismographs 2017 Edition. The upper frequency limit is 1/4 the sample rate.
Linear Accuracy	Conforms with ISEE Performance Specifications for Blasting Seismographs 2017 Edition.
A Weighting Range	50 to 120 dBA.
A Weighting Resolution	0.1 dBA.
Timer	Allows an instrument to be active only during selected times on a daily basis.
Communication	USB or serial. Serial baud rates from 1200 to 230400.
Internal Data Storage	Over 500 MB memory.
Storage Capacity	Up to 2048 waveform and histogram records of any duration.
External Data Storage	Write to USB thumb drive.
System Log	The system log tracks on/off times, changes to setup parameters and internal system operation.
Operating Modes	Waveform, histogram, histogram/waveform and manual.
Data Reporting	The seismograph can automatically report both waveform and histogram events without needing to deactivate the current operating mode.
Data Retrieval	Data can be downloaded without requiring deactivation of the current operating mode.

Waveform Modes

Waveform	Standard mode used for blast monitoring and discrete transient event monitoring.
Manual	Trigger from the keypad or an external switch.
Simultaneous Triggering	Using a combination of manual and triggered modes, multiple units can be connected in serial for simultaneous triggering.
Sample Rate	1024, 2048, 4096 or 16384 samples per second per channel (requires latest firmware).
Duration	1 to 120 seconds at 1024, 2048 or 4096. 1 to 7 seconds at 16384 (requires latest firmware).
Pre-Trigger	1 second at 1024 sample rate. The pre-trigger decreases proportional to the sample rate.
Minimum Trigger Level	
Seismic	0.127 mm/s (0.005 in/s) depending on range.
Linear Acoustic	88 dBL depending on range.
Downtime Between Events	None for sample rates less than 16384.
Dynamic Sensor Test	A dynamic sensor test is performed at the end of every event in waveform mode. This

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	test will appear in the pre-trigger of continuous events.
Histogram Modes	
Histogram	Standard mode for recording discrete measurements from continuous and semi-continuous sources.
Histogram/Waveform	A waveform is recorded while the histogram is running when one of the trigger thresholds is met or exceeded.
Sample Period	1, 10, 20, 30, 40, 50 or 60 seconds.
Data Stored	Channel peaks, their frequencies and the vector sum.
Histogram Interval	The histogram interval determines how long a histogram will run before deactivating and starting a new histogram. From 1 to 12 hours or 0 which starts a new histogram at midnight.
Histogram Storage	The internal memory is sufficient to store over a year of histogram data using a 60 second period.
Reporting	
General	Reporting requires an approved remote access device capable of port forwarding serial data by TCP. The reporting can be provided by the White Reporting Service™ or handled by the user with the White AutoReceive™ software.
Waveform Mode	With reporting activated, after a recording, the seismograph will output a string of characters consisting of the unit serial number and other information.
Histogram Mode	With reporting activated, after a histogram is made inactive, the seismograph will output a string of characters consisting of the unit serial number and other information.
Physical	
Size	Approximately 107 mm (W) x 76mm (H) x 147mm (L) (4.2 in. x 3 in. x 5.8 in.).
Weight	Approximately 1.6 Kg. (3.5 lbs.) without accessories.
Battery	Internal 6.0 volt rechargeable.
Display	The high contrast graphics display facilitates the instrument's setup. It also allows the operator to view operating parameters and summary data.
Keypad	The alphanumeric keypad can be used to supply comments and setup data.
Clock	A 24 hour clock maintains the date and time to the second, even if the primary power fails.
Operating Time	With a fully charged battery the unit will operate from 7 to 10 days at 1024 samples per second. Longer times may be obtained using the timer mode or external power from a solar panel or deep cycle battery.
Charging	An internal charging circuit allows charging with the supplied plug-in wall mount charger or available 10 to 15 volt DC supply. Power supplies for international use are available.
Operating Temperature	0 to 130 degrees F (-18 to 54 degrees C).

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(Specifications Subject to Change)