Minimate Plus™

Advanced Vibration and Overpressure Monitor

Range of Applications:

- Blast-monitoring for compliance
- Near-field blast analysis
- Pile driving
- Construction activity
- Demolition activity
- Train monitoring
- Bridge monitoring
- Structural analysis
- Underwater blast monitoring
- 4 or 8 channel data acquisition
- Remote monitoring - Autocall Home™

When we asked what you wanted in a vibration monitor, you said "Everything." So, we designed the **Mini**mate Plus. Ever since, it has become a favourite of Contractors, Consultants, Engineers and Blasters because it offers unrivalled features and versatility in a rugged and easy-to-use package.

Versatile

When used as a compliance monitor, the **Mini**mate Plus is a perfect fit in any monitoring application. It is available with external ground sensors for maximum flexibility, or with the geophone components housed in the case, for a compact and economical system. You also have the option to add four more channels, so you can have two complete, standard seismographs with a single monitor.

For the most demanding monitoring applications use Instantel's **Blast**ware® Advanced Software to unlock the full capabilities of the **Mini**mate Plus. You can configure the velocity and microphone channels as independent non-sensor specific data acquisition channels for a variety of sensors including hydrophones, accelerometers and even crack monitors.

Intelligent

Instantel's Autocall Home feature allows the monitor to automatically transfer event files from the instrument to the office via Cellular, Satellite, RF, GSM, or standard land line modems. From there, the **Blast**ware Mail feature of **Blast**ware distributes the information to multiple e-mails, internet or any text messaging devices.

Easy to use

Even with all of these features, the **Mini**mate Plus is still easy for anyone to use. A high-contrast LCD, eight-key tactile keypad, coupled with simple menu-driven operations, provides complete control and confidence.

Key Features

- Histogram Combo™ mode allows capture of full waveform records while recording in histogram mode.
- Autocall Home feature automates remote monitoring applications.
- Sample rates from 1024 to 16K samples per second, per channel with up to 65K available on a single channel.
- Available 8-channel option allows for two standard geophones and two microphones to be operated from one **Mini**mate Plus.
- Non-volatile memory with standard 300 event storage capacity (optional 1500 event capacity).
- Records waveform events up to 500 seconds long.
- Zero dead-time between events means you never miss an event.
- Any channel can be matched to a wide variety of sensors - geophones, accelerometers, or hydrophones.

714B0052 Rev 01

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Minimate Plus™

General Specifications	Minimate Plus
Channels	Microphone and Triaxial Geophone or 4 independent user-configurable channels (two Microphones and two Triaxial Geophones or 8 independent channels with optional 8-channel upgrade - one user-configurable channel in Minimate Plus Internal)
Vibration Monitoring (with Standard Triaxial Geophone)	
Range	Up to 254 mm/s (10 in/s)
Resolution	0.127 mm/s (0.005 in/s) or 0.0159 mm/s (0.000625 in/s) with built-in preamp
Accuracy	+/- 3% @ 15Hz
Transducer Density	2.13 g/cc (133 lbs/ft^3)
Frequency Range	2 to 250 Hz
Air Overpressure Monitoring	
Weighting Scales	Linear or A-weight
Linear Range	88 to 148 dB (500 Pa (0.072 PSI) Peak)
Linear Resolution	0.25 Pa (0.0000363 PSI)
Linear Accuracy	0.3 dB at 30 Hz and 127 dB
Linear Frequency Response	2 to 250 Hz
A-weight Range	50 to 110 dBA
A-weight Resolution	0.1 dBA
Waveform Recording	
Record Modes	Manual, Single-shot, Continuous, Programmed start/stop
Seismic Trigger	0.125 mm/s to 254 mm/s (0.005 to 10 in/s)
Acoustic Triggers	
Linear	100 to 148 dB
A-weight	55 to 110 dBA
Sample Rate	1024 Hz to 16 kHz per channel (independent of record time), up to 65 kHz in single-channel mode with advanced software (max 8 kHz per channel for 8 channels)
Record Time	1 to 100 seconds (programmable in one-second steps) or 500 seconds plus 0.25 seconds pre-trigger
AutoRecord Time	1 to 100 seconds (programmable in one-second steps) or 500 seconds plus 0.25 seconds pre-trigger
Cycle Time	Recording uninterrupted by event processing - No dead time
Storage Capacity	
Full Waveform Events	300 one-second events at 1024 Hz sample rate (1500 event capacity with optional memory upgrade)
Event Summaries	1750 (8750 event capacity with optional memory upgrade)
Histogram Recording	
Record Modes	Histogram and Histogram Combo (monitor captures triggered waveforms while recording in Histogram mode)
Recording Interval	2, 5 or 15 seconds; 1, 5 or 15 minutes
Storage Capacity	46,656 intervals - 3 days at 5-second intervals or 102 days at 15-minute intervals (with memory upgrade - 15 days at 5-second intervals or 540 days at 15-minute intervals)
Physical Specifications	
Dimensions	81 x 91 x 160 mm (3.2 x 3.6 x 6.3 in)
Weight	1.4 kg (3 lbs)
Battery	Rechargeable 6V sealed gel cell - capacity for 210 hours of continuous monitoring
User Interface	8-key keypad with domed tactile keys
Display	4-line x 20-character, high contrast, backlit LCD with on-line help
PC Interface	RS-232
Auxillary Inputs and Outputs	External Trigger, Remote Alarm
Environmental	
LCD Operating Temperature	-10 to 50°C (14 to 122°F)
Electronics Operating Temperature	-20 to 60°C (-4 to 140°F)
Remote Communications	Compatible with Telephone, GSM, Cellular, RF, Satellite and Short-haul modems. Automatically transfers events when they occur through Autocall Home feature.

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