Minimate Plus™

Advanced Vibration and Overpressure Monitor

Range of Applications:

- Blast-monitoring for compliance
- Near-field blast analysis
- Pile driving
- Construction activity
- Demolition activity
- Heavy Transportation
- monitoring
 Structural

Bridge

- analysisUnderwaterblast monitoring
- 4 or 8 channel data acquisition
- Remote monitoring -Auto Call Home™
- Structural monitoring -Flex™

When we asked what you wanted in a vibration monitor, you said "Everything." So, we designed the **Instantel® Minimate PlusTM** vibration and overpressure monitor. 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

Use the **Minimate Plus** monitor with an **Instantel Standard Triaxial Geophone** (ISEE or DIN version) and an overpressure microphone (Linear or A Weight) to provide a rugged, reliable compliance monitoring system. Add the **Instantel 8-Channel** option and a single monitor may be used with two triaxial geophones and two microphones.

For more demanding monitoring applications, the Instantel Blastware®
Advanced Module software provides the capability to monitor a broad selection of vibration and overpressure sensors, as well as sensors for structural and environmental measurements. Monitor vibration, ambient environmental conditions, and the movement of structural cracks, all at the same time, all using the same Minimate Plus monitor.

Intelligent

For remote installations, the **Instantel Auto Call Home**TM feature will automatically transfer event files from field to office as they are recorded using a variety of wired or wireless modems. From there, the **Blastware Mail** feature of the **Blastware** software automatically distributes files or summary information to multiple e-mail or text messaging addresses.

Easy to use

Even with all of these features, the **Minimate Plus** system 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.

Minimate Plus - everything you need and more



Key Features

- Instantel Histogram Combo[™] mode allows capture of full waveform records while recording in histogram mode.
- Auto Call Home feature automates remote monitoring applications.
- Sample rates from 1,024 to 4,096 S/s, per channel with up to 65,000 S/s available on a single channel.
- Available Instantel 8-channel option allows for two standard geophones and two microphones to be operated from one Minimate Plus monitor.
- Non-volatile memory with standard 300-event storage capacity (optional 1,500-event capacity).
- Records waveform events up to 100 seconds long with standard setup, or up to 500 seconds with advanced setup.
- Continuous monitoring means zero dead time, even while the unit is processing.
- Any channel can be matched to a wide variety of sensors
 geophones, accelerometers, or hydrophones.



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

+/- 5% or 0.5 mm/s (0.02 in/s), whichever is larger, between 4 and 125 Hz / DIN 45669-1 standard

upgrade)

Vibration Monitoring (with Standard

Triaxial Geophone)

Range

Resolution

Accuracy (ISEE / DIN)

Transducer Density

Frequency Range (ISEE / DIN) Maximum Cable Length (ISEE / DIN)

Air Overpressure Monitoring

Weighting Scales

Linear Range Linear Resolution

Linear Accuracy

Linear Frequency Response

A-Weight

A-weight Range A-weight Resolution A-Weight Frequency Response Linear or A-weight

88 to 148 dB (500 Pa (0.072 PSI) Peak)

75 m (250 ft) / 1,000 m (3,280 ft)

0.25 Pa (0.0000363 PSI)

Up to 254 mm/s (10 in/s)

2.13 g/cc (133 lbs/ft³)

+/- 10% or +/- 1 dB, whichever is larger, between 4 and 125 Hz

0.127 mm/s (0.005 in/s) or 0.0159 mm/s (0.000625 in/s) with built-in preamp

2 to 250 Hz, within zero to -3 dB of an ideal flat response / 1 to 315 Hz

2 to 250 Hz between -3 dB roll off points

0.1 dBA 15 to 8,000 Hz

Record Modes Seismic Trigger Acoustic Triggers

Linear A-weight

Sample Rate

Record Stop Mode Record Time AutoRecord Time

Cycle Time Storage Capacity

Full Waveform Events

Event Summaries

Manual, Single-shot, Continuous 0.127 to 254 mm/s (0.005 to 10 in/s)

100 to 148 dB

50 to 110 dBA

55 to 110 dBA

1,024 to 4,096 S/s per channel (independent of record time), up to 65,536 S/s in single-channel

mode with advanced software (max 8,192 S/s per channel for 8 channels)

Fixed record time, Instantel® AutoRecordTM record stop mode 1 to 100 seconds (programmable in one-second steps), or advanced mode, 500 seconds plus 0.25 seconds pre-trigger Auto window programmable from 1 to 9 seconds, plus a 0.25 second pre-trigger. Event is recorded until activity remains below trigger level for duration of auto window, or until available memory is filled.

Recording uninterrupted by event processing - no dead time

300 one-second events at 1,024 S/s sample rate (1,500 event capacity with optional memory upgrade)

1,750 (8,750 event capacity with optional memory upgrade)

Record Modes

Histogram and Instantel Histogram Combo™ (monitor captures triggered waveforms while recording in Histogram mode) 2, 5 or 15 seconds; 1, 5 or 15 minutes

Recording Interval Storage Capacity

46,656 intervals - 3 days at 5-second intervals or 486 days at 15-minute intervals (with memory upgrade - 15 days at 5-second intervals or 540 days at 15-minute intervals)

Dimensions

Weight Battery

User Interface Display PC Interface

Auxillary Inputs and Outputs Environmental

LCD Operating Temperature Electronics Operating Temperature Remote Communications

Additional Features Electrical Standards 81 x 91 x 160 mm (3.2 x 3.6 x 6.3 in)

1.4 kg (3 lbs)

Rechargeable 6 V sealed gel cell - capacity for 210 hours of continuous monitoring

8-key keypad with domed tactile keys

4-line x 20-character, high-contrast, backlit LCD

External Trigger, Remote Alarm, coordinate download from GPS

-10 to 50°C (14 to 122°F) -20 to 55°C (-4 to 131°F)

Compatible with Telephone, GSM, Cellular, RF, Satellite, Short-haul modems and Ethernet® device servers. Automatically transfers events when they occur through the Instantel Auto Call Home™ feature.

Monitor start/stop timer

CE Class A

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