**Minimate Pro 6™**

**Advanced Vibration, Air Overpressure and Sound Monitoring Using 6 Channels**

With over 38 years of expertise, Instantel has set the industry standard with our vibration, air-overpressure and sound monitoring units. Our monitoring units are used worldwide enforcing our reputation as a global leader of tough, rugged and reliable products.

**Key Features**
- 7,100+ events storage capacity. (28,000 with extended memory)
- Uninterrupted monitoring with zero dead-time between events.
- Records full waveform events up to 2.5 hours long. (triggered, 6-channel @1024 SPS)
- Records full waveform events up to 19 hours long. (manual, 6-channel @1024 SPS with extended memory)
- Histogram-Combo mode captures full-waveform events in parallel to Histogram recording.
- Synchronize event data to within 100 microseconds. (optional GPS required)
- EMI Shielding, Ethernet Connection and Waterproof rating of IP67.
- Internal battery lasting up to 10 days.

**Range of Applications**
- Construction Activity
- Underwater Monitoring
- Demolitions
- High-Frequency Geophones and Boreholes (30 - 1,000 Hz)
- Heavy Transportation
- Pile Driving
- Vibration Dose Value (VDV)
- Research/Education
- Sound Monitoring

**Monitor Remote Locations**
- Integrates seamlessly into Instantel's THOR/Vision Event Management Software
- Auto Call Home relays data straight to you or automatically posts the data to Vision

**Sensor Options (Compliance)**
- ISEE Triaxial Geophone
- Triaxial Borehole Geophone
- ISEE Linear Microphone
- DIN Triaxial Geophone (1-80 Hz or 1-315 Hz)
- Sound Level Microphone

**Sensor Options (Requires THOR Advanced Licence)**
- High-Frequency Geophones and Boreholes (30 - 1,000 Hz)
- High-Pressure Microphone (up to 10 psi)
- Hydrophone (8 - 500 Hz)
- Accelerometers (1 - 3,000 Hz for 0.5 g and 50 g, 0.5 - 500 Hz for 500 g)

**Enhance Your Data Analysis Using Instantel's THOR Advanced Software**
- Reduce vibrations efficiently using the Signature Hole Analysis feature.
- Calculate the structural response based on a comparison of two waveforms recorded inside and simultaneously outside a structure.
- Calculate the effects of vibrations (Vibration Dose Value, VDV) with our Human Exposure Reports feature.

**THOR Includes the Following Compliance Standards and Graphs**
- Australia 2187.2-1993
- Brazilian Standard NBR 9653/2005
- British Standard 7385
- BS 6472:1992 (Curves 8,16,20,32,60,90,128)
- Criterio Prevencion (Une 22.381)
- Czech and Slovak Standard
- DIN 4150
- DIN 45669-1 (2010)
- Function de Ponderation
- GFEE + Ministère Environnement
- Harmoniska Svangningar
- Indian CMRI, DGMS India (A) & (B)
- Indonesian SNI 7571:2010
- ISEE Seismograph Specification -2017
- New Zealand 4403:1976
- NOM-026-SESH-2007
- NZS/ISO 2631-2:1989 Combined curves
- QLD APP Standard
- Recommendation GFEE/GFEE*
- Swiss SN 640 312a (Mining/Pile Driving/Traffic)
- Toronto 514-2008
- Turkey Mining & Quarry
- USBM RI8507 And OSMRE
### General Specifications

**Minimate Pro Channels**
Channels 1–3, ISEE or DIN Triaxial Geophone or various configurations of advanced sensors. Channels 4–6, a 2nd ISEE / DIN Triaxial Geophone, or an ISEE Linear Microphone or Sound Level Microphone, or various configurations of advanced sensors.

**Geophone**
- **Range**: Up to 254 mm/s (10 in/s)
- **Resolution**: 0.00788 mm/s (0.00031 in/s)
- **Frequency Range**: 2 to 250 Hz
- **Accuracy**: ±5% to -3 dB of an ideal flat response, from 2 to 125 Hz; ±5% or ±0.5 mm/s (0.02 in/s) whichever is larger. Phase shift from 2.5 to 250 Hz <10% of maximum absolute value of 2 superimposed harmonic vibrations.
- **Maximum Cable Length**: 75 m (250 ft)

**Microphones**
- **Transducer Density**: 2.2 g/cc (137 lbs/ft³)
- **Maximum Cable Length**: 75 m (250 ft)

**Optional Advanced Sensors**
- **High Pressure Microphone**, **High Frequency Geophone**, **High Frequency Borehole Geophone**, or various configurations of advanced sensors.

**Waveform Recording**
- **Record Modes**: Waveform, Waveform Manual
- **Linear Acoustic Trigger**: 0.13 to 254 mm/s (0.005 to 10 in/s)
- **Sound Level Microphone**: 2.0 to 500 Pa (0.00029 to 0.0725 psi)
- **Record Stop Mode**: 33 to 140 dB (A or C)
- **Record Time**: 2.0 to 500 Pa (0.00029 to 0.0725 psi)
- **Fixed record time, AutoRecord™ (see Auto Record Time below)**
- **Auto Record Time**: 1-9,000 seconds (1-30 seconds, then 30-second increments up to 9,000 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 full. Recording uninterrupted by event processing, monitoring, or communication - no dead time below 65 KHz.
- **Histogram Recording**: 30 days of Histogram recording at 1-minute intervals, and over 6,500 1-second waveform events at 1,024 S/s
- **Histogram Combo Storage Capacity**: 512,000 intervals (Examples: ~12 days at 2-second intervals, ~1 year at 1-minute intervals with two geophones)
- **Physical Specifications**: 7,100+ 1-second events at 1,024 S/s sample rate with two geophones (28,000 with extended memory)

**Histogram Combo Storage Capacity**
- **Physical Specifications**: 7,100+ 1-second events at 1,024 S/s sample rate with two geophones (28,000 with extended memory)

**Dimensions**
- 25.4(l) x 11.75(w) x 10.80(h) cm (10.00 x 4.63 x 4.25 in); length dimension includes connectors and dust caps
- **Unit Weight**: 2.27 kg (5 lbs)
- **Battery**: 10 Days
- **User Interface**: 10 domed tactile with separate keys for common functions
- **Display**: 7-line x 32-character, high-contrast, backlit LCD
- **PC Interface**: Ethernet® cable, supplied, for PC to unit connection or RS-232 with an optional USB adapter
- **Auxiliary Inputs and Outputs**: External Trigger and Remote Alarm
- **Environmental**
  - **LCD Operating Temperature**: -20 to 45 °C (-4 to 113 °F)
  - **Electronics Operating Temperature**: -40 to 50 °C (-40 to 113 °F)
  - **Water Resistance**: IP67 – submerse to 30 cm (1 ft) for 24 hours
- **Remote Communications**: Supported modems: Sierra Wireless™ Airlink® RV-50, GX-400, LS-300. Automatically transfers events when they occur through the Auto Call Home feature, monitor start/stop timer.
- **Optional Features**
  - **GPS**: Provides stakeholders with secure, encrypted, access to event data, and allows instant sharing for time-sensitive projects.
  - **Vision (Cloud-based software)**: Factory installed, for time synchronizing event data.

**Electrical Standards**
- **CE Class B.** The Minimate Pro has been tested and passed IEC 61010-1 (2nd ed. 2001) (CB scheme test report available).

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**Vision (Cloud-based software)**
Provides stakeholders with secure, encrypted, access to event data, and allows instant sharing for time-sensitive projects.

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