

# Specification Sheet

## Micromate Plus™ Triaxial Geophone

The Triaxial Geophone used with the Micromate Plus monitoring unit is factory-calibrated in accordance with the ISEE-2022 and DIN 45669-1 standards. The sensor operates independently of any specific Micromate Plus unit, allowing full interchangeability between devices. Compliance standards are software-selectable within the Vision II platform, enabling users to switch standards without requiring a dedicated sensor. The geophone's mechanical design supports mounting on both vertical and horizontal surfaces, and cable extensions are supported for total lengths of up to 1000 m (3280.8 ft).

### Range of Applications

- Construction
- Dynamic Compaction
- Remote Access
- Blasting
- Civil Projects
- Environmental
- Demolitions
- Underground Mines
- Heavy Transportation
- Pile Driving
- Oil & Gas
- Quarries
- Tunnels & Subways



### Product Information

Dimensions	105 x 74 x 55 mm (4.1 x 2.9 x 2.2 in)
Weight	973 g (2.1 lb)
Sensor Density	2.3 g/cc, (144 lb/ft <sup>3</sup> )
Cable Length	2 m (6.6 ft)
Maximum Cable Length	1000 m (3280.8 ft)
Extension Cable Lengths	10 m (32.8 ft), 30 m (98.4 ft), 75 m (246.1 ft)
Type	Indoor/Outdoor
Connector Pins	14
Connector End	Blue
Calibration	Annual

### Specifications

#### ISEE Mode

#### DIN Mode

Specifications	ISEE Mode	DIN Mode
Channels	3 channels: T, V, L	3 channels: T, V, L
Range	Up to 254 mm/s (10 in/s)	Up to 254 mm/s (10 in/s)
Response Standard	ISEE Seismograph Specification (2022)	DIN 45669-1
Resolution	0.00775 mm/s (0.000305 in/s)	0.00775 mm/s (0.000305 in/s)
Frequency Range	2 to 250 Hz	1 to 80 Hz, 1 to 315 Hz
Accuracy	From 2 to 4 Hz and 125 to 250 Hz: +5% to - 3 dB of an ideal flat response, from 4 to 125 Hz: ±5% or ±0.5 mm/s (0.02 in/s) whichever is larger	DIN45669-1 Standard
Phase Response	Phase shift from 2.5 to 250 Hz < 10% of maximum absolute value of 2 superimposed harmonic vibrations.	

## Warranty

InstanTel products come with a limited one-year warranty against defects in materials or workmanship unless otherwise stated. The warranty begins on the date of shipment from the InstanTel factory to the customer and is subject to certain exclusions and conditions as stated below. Monitoring units and sensors will have the warranty extended for a second year if they are returned to the InstanTel factory for service and calibration within 30 days of the 'Next Calibration' date printed on the calibration label located on the product.

If, within a period of one year from the date of shipment to a customer, the instrument fails to perform in accordance with InstanTel's published specifications under normal use and operating conditions, it will be repaired or replaced at the sole discretion of InstanTel free of charge. Components subject to fair wear and tear in regular use, as solely determined by InstanTel, are excluded from this coverage. This warranty will not apply if the damage or malfunction occurs due to (i) adjustments, additions, alternations, abuse, misuse or tampering of the instrument; (ii) instrument operation or use contrary to the operating instructions; (iii) power fluctuations; or (iv) any other cause not within the cause or control of InstanTel. If inspection by InstanTel fails to disclose any defect covered by this limited equipment warranty, the instrument will be repaired or replaced at customer's expense and InstanTel's regular service charges will apply. This warranty is non-transferable.

Any shipments returned directly to InstanTel must have prior approval, and all packages must display the Return of Material Authorization (RMA) number issued by InstanTel. Shipping charges to InstanTel's factory will be paid by the customer and return shipment to the customer will be paid by InstanTel.

To protect your warranty, you must complete and return a Warranty Registration Certificate, or complete the online Warranty Registration Form, within ten days of purchase. Products will be assumed out of warranty if no warranty card is on file at InstanTel. Retain this warranty statement and the proof of purchase for your records.

Except for the foregoing limited equipment warranty, InstanTel makes no other warranties and hereby disclaims and excludes all other warranties, whether statutory, express or implied, whether arising under law or equity or custom or usage, including any implied warranty of merchantability, fitness for a particular purpose, non-infringement, satisfactory quality, or quiet enjoyment, and any warranty that the product supplied may not be compromised, or that the product will in all cases provide the function for which it is intended.

## EC Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.