



MBB-1

Triaxial Portable Mini-BroadBand Seismometer

FEATURES

The Mini BroadBand Seismometer (MBB-1) is the latest sensor offering from Metrozet for the vault or posthole installation. The MBB-1 offers high performance features in a smaller, rugged, low power and low cost system that is easy to install and deploy. Built with ease of installation in mind, the MBB-1 does not require mass lock, mass centering, and has a large operational tilt range which combines to reduce installation training, time, and cost.

The MBB-1 was engineered from the ground up to deliver best-in-class performance. Thermal compensation and a sensor design with a truly linear motion combine to deliver the best high-fidelity data from a sensor in this class.

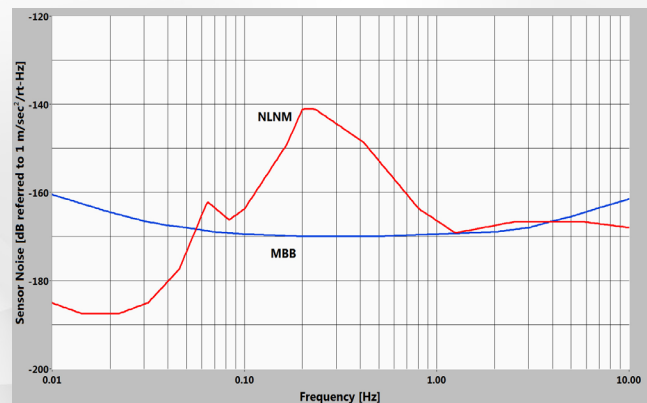
- No mass lock required
- No mass centering required
- Smaller, lighter than broadband sensors
- Designed with low thermal sensitivity
- Large operational tilt range
- Mil-Spec rugged, stainless steel design package
- Noise that is below the NLNM from 17sec to 5Hz

SPECIFICATIONS

Sensor Technology	Triaxial orthogonal, XYZ oriented feedback sensor elements with capacitive displacement transducer
Mass Centering	Not required
Sensitivity	750 V*sec/m nominal, trimmed to $\pm 0.5\%$ precision
Bandwidth	-3dB points at 40sec and 100Hz
Operable Tilt Range	± 2.5 Degrees
Self-Noise	Below the NLNM from 17sec to 5Hz
Velocity Output	Industry standard 40V peak-to-peak differential output
Mass Position Output	Independent mass position output for each of the XYZ axes
Calibration	Calibration input for XYZ; Single digital control line to activate calibration on all three axes
Short Period Mode	2sec mode used for quick deployment; Digital control line enables short period mode on all 3 axes
Voltage Input	9-36 V DC input (internally isolated)
Electrical Protection	Over-voltage, reverse-voltage, and current overload protection
Operational Temp.	-40 to +60 °C
Power Draw	325mW
Posthole Orientation	Yoke adapter and orientation poles required

Physical Dimensions

Height: 4.5 inches (no connector)
 Diameter: 3.875 inches
 Weight: 4.5 pounds



Self-noise of the MBB-1 seismometer (vertical component)
 New Low Noise Model (NLNM) Courtesy of USGS

Specifications subject to change without notice