

FEATURES

- Vertical or horizontal operation
- Excellent stability
- Proven performance with over 4500 units installed

The Geotech Model S-13 is a high resolution, premium seismometer capable of meeting the noise and stability requirements of the most exacting studies. It features adjustable period from 0.75 to 1.1 Hz and sensitivity of 629 V-sec/m, with the standard 3600 ohm coil.

The S-13 external mass lock, spring tension and operational adjustments are all fitted with seals that enable the instrument to be submerged to 100 feet without leakage.

A major attribute of the S-13 is a mechanical design that lends itself to field repairs by unskilled persons using minimal spares. This quality plus 30 years of outstanding performance in the field, qualify the S-13 to be the short-period seismometer standard by which others are compared.

Model GS-13 has a stronger magnet resulting in about 10 dB lower self noise, meeting CTBT specifications.

SHORT-PERIOD SEISMOMETER

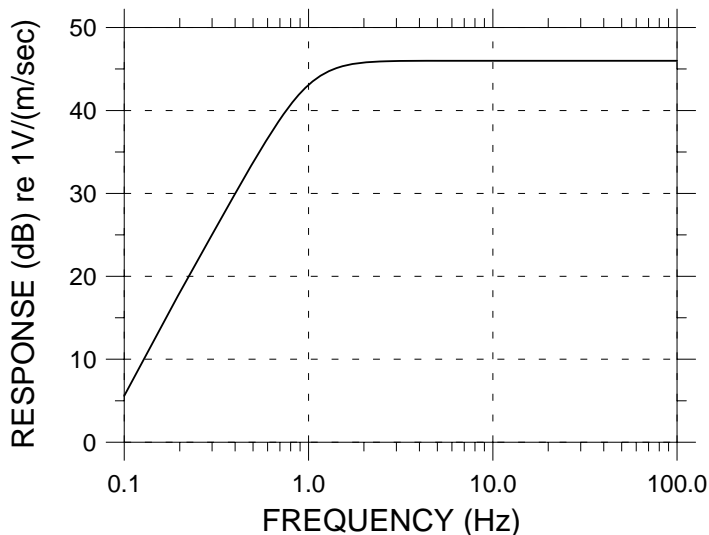
MODEL S-13 and GS-13



SHORT-PERIOD SEISMOMETER MODEL S-13 and GS-13 SPECIFICATIONS

OPERATING CHARACTERISTICS

| | |
|----------------------------|--|
| Mode of Operation | Convertible - vertical and horizontal |
| Natural Frequency | Adjustable 0.75 to 1.1 Hz |
| Tilt | Operates within 4° of vertical at 0.8 Hz natural frequency |
| Inertial Mass | 5 kg (11.0 lbs.) nominal |
| Temperature Range | -51° to +60°C (-60° to +140°F) |
| Dynamic Range | 164.4 dB / 178.4 dB |
| Transducer | |
| Type | Moving coil (velocity) |
| Damping | Electromagnetic |
| Generator Constant | 629 V/(m/sec) / 2180 V/(m/sec) |
| Coil Resistance* | 3600 ohms ±10% @ 25°C / 9100 ohms ± 700 ohms @ 25°C |
| Maximum Mass Travel | 6.00 mm (0.24 in.) peak-to-peak |
| Calibration Coil | |
| Motor Constant | 0.1975 ±0.002N/A / 4.5 ±0.29N/A |
| Resistance | 23 ohms ± 3 ohms @ 25°C (77°F) CDR is 6300 ohms @ 1Hz / 29 ohms ± 2 ohms @ 25°C (77°F) 83 kohms ± 39 kohms @ 1 Hz |
| Allowable Current | |
| Peak Instantaneous | 100 mA |
| Sustained | 10 mA |



PHYSICAL CHARACTERISTICS

Dimensions (nominal)

Basic Dimensions

| | |
|----------|---------------------|
| Height | 38.1 cm (15 in.) |
| Diameter | 16.8 cm (6.625 in.) |

Net Weight 10.4 kg (23 lbs.)

Shipping Data

| | |
|--------|---|
| Weight | 13.6 kg (30 lbs.) |
| Volume | 0.036 m ³ (1.3 ft ³) |

Seismometer Bulk Specific gravity 1.6 - 1.8

Connectors

| | |
|-------------|----------------|
| Receptacle | MS3102C-14S-6P |
| Mating Plug | MS3108B-14S-6S |

*Alternate transducer coils for S-13 are available on special order. Please consult factory for details.

