

## FEATURES

- Vertical or horizontal operation
- Excellent stability
- Proven performance with over 4000 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

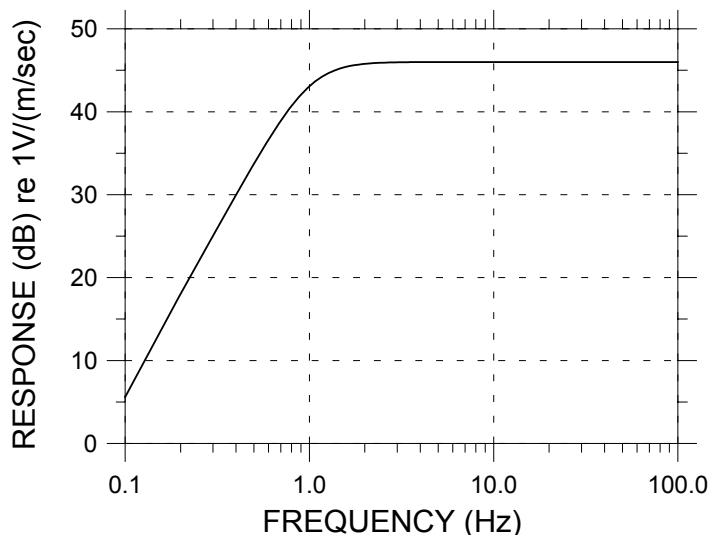
### MODEL S-13 and GS-13



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

## OPERATING CHARACTERISTICS

<b>Mode of Operation</b>	Convertible - vertical and horizontal
<b>Natural Frequency</b>	Adjustable 0.75 to 1.1 Hz
<b>Tilt</b>	Operates within 4° of vertical at 0.8 Hz natural frequency
<b>Inertial Mass</b>	5 kg (11.0 lbs.) nominal
<b>Temperature Range</b>	-51° to +60°C (-60° to +140°F)
<b>Transducer</b>	
Type	Moving coil (velocity)
Damping	Electromagnetic
Generator Constant	629 V/(m/sec) / 2180 V/(m/sec)
Coil Resistance*	3600 ohms $\pm$ 10% @ 25°C / 9100 ohms $\pm$ 700 ohms @ 25°C
<b>Maximum Mass Travel</b>	6.00 mm (0.24 in.) peak-to-peak
<b>Calibration Coil</b>	
Motor Constant	0.1975 $\pm$ 0.002N/A / 4.5 $\pm$ 0.29N/A
Resistance	23 ohms $\pm$ 3 ohms @ 25°C (77°F) CDR is 6300 ohms @ 1Hz / 29 ohms $\pm$ 2 ohms @ 25°C (77°F) 83 kohms $\pm$ 39 kohms @ 1 Hz
<b>Allowable Current</b>	
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 <sup>3</sup> (1.3 ft <sup>3</sup> )

**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.

