



## VERY BROADBAND SEISMOMETER

### FEATURES

- Ultra low noise
- Three component
- 0.003 to 5 Hz  
(optional 16 Hz)
- Surface version  
KS-1

The Model **KS-54000** Seismometer System has several versions: the original AFTAC version responds flat to acceleration up to 5 Hz; the IRIS version responds flat to velocity up to 5 Hz; an optional version can go up to 16 Hz. This instrument family is known worldwide as the standard for low noise studies of long period earth motion.

**KS-54000** operates in boreholes up to 300 meters deep with a minimum I. D. of 15 cm (6 inches) and tilted as much as 10 degrees off vertical. The individual modules have remote mass centering and leveling.

Model **KS-1** is the surface version. It has two cases, one for the sensors, the other for the electronics. Both Models require only about 2.4 W at 24 Vdc.

A complete line of ancillary equipment is available for cased boreholes of various sizes.

### MODEL KS-54000 MODEL KS-1



# BROADBAND BOREHOLE SEISMOMETER SYSTEM MODEL KS-54000 AND MODEL KS-1 SPECIFICATIONS

## OPERATING CHARACTERISTICS

<b>Configuration</b>	Three-component
<b>Outputs, Seismic Data</b>	
Number and Type	Three, differential
Sensitivity	15,000 V-sec <sup>2</sup> /m or 20,000 V/(m/sec)
Response	Flat from 0.003 to 5 Hz (optionally 16 Hz)
Distortion	Less than 100 ppm to ½ full scale
Noise Level	see figure below 40 V <sub>p-p</sub> , maximum

## Output, Mass Monitor

Number and Type	Three, single-ended
Sensitivity	510 V-sec <sup>2</sup> /m, nominal
Response	Flat to acceleration, dc to 4.2 Hz
Level	20 V <sub>p-p</sub> , maximum

## Calibration Input

Resistive Mode	Equivalent to flat earth acceleration
Capacitive Mode	Equivalent to flat earth velocity
Type	Voltage - sine wave, pulse, etc.
Level	20 V <sub>p-p</sub> , maximum

## Power Requirements

Operating	24 Vdc, 100 mA, nominal
Installation	24 Vdc, 450 mA, typical

## ENVIRONMENTAL CHARACTERISTICS

<b>Operating Temperature</b>	-25° to +60°C, no convections
<b>Storage Temperature</b>	-55° to +85°C
<b>Borehole Tilt</b>	Less than 10 degrees
<b>Borehole Casing</b>	API 7 in., 6 in. (15 cm), minimum I.D.
<b>Hydrostatic Pressure</b>	Non-submersible

## PHYSICAL CHARACTERISTICS

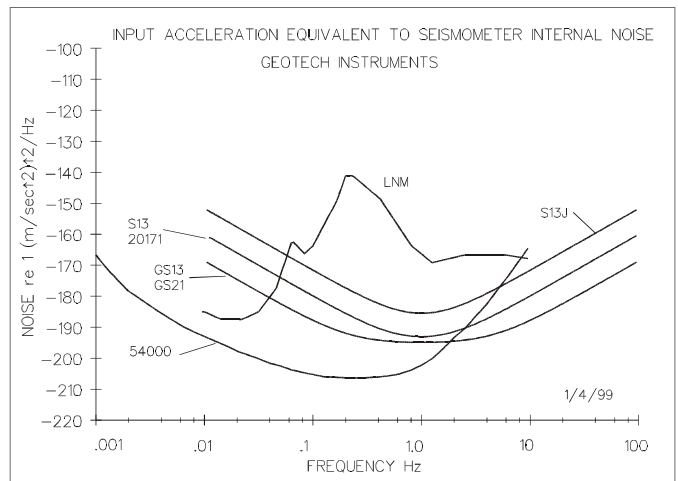
### Dimensions (nominal)

Height	249 cm (98 in.), with pilot
Diameter	13.7 cm (5.38 in.), nominal 14.9 cm (5.88 in.), maximum with key

**Net Weight** 66 kg (145 lbs.)

### Shipping Data

Weight	227 kg (500 lbs.)
Volume	1.45 m <sup>3</sup> , 51 ft <sup>3</sup>



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE