

## FEATURES

- Ultra low noise
- Three component
- 0.003 to 5 Hz  
(optional to 16 Hz)

The Model **KS-1** is very broadband, observatory grade, Seismometer System. It is a direct off-spring of the well-known, time proven, Model **KS-54000** borehole seismometer used by AFTAC in their detection arrays and by IRIS in their global network. It has a response flat to velocity from about 0.003 to 5 Hz (an optional version with acceleration output goes up to 16Hz). This instrument family is known worldwide as the standard for low noise studies of very long period earth motion.

**KS-1** uses the same electronics as **KS-54000** and was re-packaged for surface installations; it requires only about 2.4W at 24 Vdc.

**KS-1** comes in two separate modules, one contains the three orthogonally mounted sensors, the other the electronics. Leveling is done manually by adjusting the feet; an air bubble indicator is provided.

## VERY BROADBAND SEISMOMETER

### MODEL KS-1



Sensor package



Electronics package

# VERY BROADBAND SEISMOMETER MODEL KS-1 SPECIFICATIONS

## OPERATING CHARACTERISTICS

<b>Configuration</b>	Three-component
<b>Outputs, Seismic Data</b>	
Number and Type	Three, differential
Sensitivity	Standard 2,400 V-sec/m (other values possible)
Response	Flat to velocity from 0.003 to 5 Hz (optional to 16 Hz)
Distortion	Less than 100 ppm to ½ full scale
Noise Level	see figure below for KS-54000 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
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## ENVIRONMENTAL CHARACTERISTICS

<b>Operating Temperature</b>	-25° to +60°C, no convections
<b>Storage Temperature</b>	-55° to +85°C

## PHYSICAL CHARACTERISTICS

### Dimensions of Sensor Package

Height	13.5 in (34 cm)
Diameter	10.75 in (27 cm)
Net Weight	95 lbs (43 kg)

### Dimensions of Electronics Package

Length	26 in (66 cm)
Diameter	5.125 in (13 cm)
Net Weight	10 lbs (4.5 kg)

