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 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. instrument family is known worldwide as the standard for low noise studies of long period earth motion.

KS-54000 operates boreholes uр to 300 meters deep with 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.



VERY BROADBAND SEISMOMETER

MODEL KS-54000 MODEL KS-1



10755 SANDEN DRIVE, DALLAS, TEXAS 75238-1336 Phone: 214-221-0000 Fax: 214-343-4400 email: info@geoinstr.com Web: www.geoinstr.com

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

OPERATING CHARACTERISTICS

Configuration Three-component

Outputs, Seismic Data

Number and

Three, differential

Type

Sensitivity 15,000 V-sec²/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 see figure below

Level 40 V_{p-p}, maximum

Output, Mass Monitor

Number and

Three, single-ended

Type

Sensitivity 510 V-sec²/m, nominal

Response Flat to acceleration, dc to

4.2 Hz

Level 20 V_{p-p}, maximum

Calibration Input

acceleration

Capacitive

Equivalent to flat earth velocity

Mode

Type Voltage - sine wave, pulse, etc.

Level 20 V_{p-p}, maximum

Power Requirements

Operating 24 Vdc, 100 mA, nominal

Installation 24 Vdc, 450 mA, typical

ENVIRONMENTAL CHARACTERISTICS

Operating -25° to $+60^{\circ}$ C, no convections

Temperature

Storage -55° to $+85^{\circ}$ C

Temperature

Borehole Tilt Less than 10 degrees

Borehole Casing API 7 in., 6 in. (15 cm),

minimum I.D.

Hydrostatic

Non-submersible

Pressure

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 m³, 51 ft³

