

# GS-1 Seismometer

GS-1  
1.0 Hz  
17400 Ω  
Vertical / Horizontal

## Low Frequency Seismometer

### Features

- Low Frequency 1.0 and 2.0 Hz models available
- Excellent for detecting motion for structural analysis, geologic hazards and vibration isolation
- Sensitivities range from 3 to 15 V/in/sec
- Vernier spring adjustment is included

The GS-1 is a high sensitivity, self generating velocity sensor with extremely low natural frequencies. The GS-1 is available in 1.0 or 2.0 Hz natural frequencies vertical and horizontal oriented models. It is optimally suited to detecting seismic activity for structural analysis, geologic (earthquake) and vibration isolation.



GS-1: 1.0 Hz, 17,400 Ω	SPECIFICATIONS @ 25 °C		TOLERANCE %
	VERTICAL	HORIZONTAL	
ORIENTATION	VERTICAL	HORIZONTAL	
OPERATIONAL RANGE	Vertical to 7.5°	Horizontal to 0.5°	
NATURAL FREQUENCY (Fn)			
@ OPTIMUM ORIENTAION	1.0 Hz ± 10%	1.0 Hz ± 10%	
@ OPERATIONAL RANGE	1.0 Hz ± 10%	1.0 Hz ± 10%	
(EXTERNALLY ADJUSTABLE)			
RESISTANCE (DCR)	17400 ohms		5 %
INTRINSIC VOLTAGE SENSITIVITY (G)	19.0 V/in./sec, 7.48 V/cm/sec		10 %
NORMALIZED TRANSDUCTION CONSTANT	.144 $\sqrt{DCR}$ V/in./sec		
OPEN CIRCUIT DAMPING (B <sub>o</sub> )	.54		20 %
DAMPING CONSTANT (B <sub>r</sub> R <sub>i</sub> )	63611		
MOVING MASS (M)	700 g		5 %
COIL EXCURSION P-P	> 0.250 in., > 0.635 cm		
OPERATING & STORAGE TEMPERATURE	- 40 to +100 °C		
DIMENSIONS (BASIC UNIT):			
HEIGHT	6.45 in., 16.4 cm		
DIAMETER	3.0 in., 7.6 cm		
WEIGHT	69.0 oz., 1.96 Kg		
*NOTE: GS-1MODELS INCLUDE	GS-1, 450 ohm, Vertical and Horizontal		
	GS-1, 4550 ohm, Vertical and Horizontal		
	GS-1, 17400 ohm, Vertical and Horizontal		

Note: 1 Year Manufacturers Warranty

Optional available accessories

- Weather resistant cover for outdoor deployment
- Tripod base with leveling legs, vertical and horizontal
- Calibration coil

Typical response curve for 17400 ohm coil sensor

