

GS-30CT

&GS-32CT



GS-30CT

Close Tolerance Geophone

- » The GS-30CT represents the ultimate refinement in geophone design to date. This new geophone is offering heretofore unattainable geophone-to-geophone uniformity, distortion reduced by a factor of 2.5 and tighter tolerance on geophone parameters:

New standard $\pm 2\%$

- » Channel-to-channel uniformity and elimination of self-generated noise and distortion is the essence of seismic data. Towards this end, the performance of the GS-30CT is clearly unsurpassed. It is a field-proven match for the most advanced 24-bit Data Acquisition Systems.
- » 3 Year Warranty

GS-30CT Specifications

Specifications calculated at 25°C. Orientation is Vertical to 20°. Maintains all specifications at Vertical to 20° tilt. Exception: Harmonic Distortion at 12 Hz (Vertical only).

Frequency

Natural Frequency (Fn):	10 Hz $\pm 2\%$
Typical Spurious Frequency:	> 160 Hz

Resistance

Standard Coil Resistance:	395 ohms $\pm 2\%$
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Distortion

Harmonic distortion with coil to case velocity of 0.7 in/sec (1.8 cm/sec) @ 12 Hz and coil to case displacement of 0.0093 in (0.0236 cm) P-P @ 12 Hz	<0.08%
With coil to case displacement of 0.0093 in (0.0236 cm) P-P @ 12 Hz	<0.12%

Sensitivity

Intrinsic Voltage Sensitivity (G):	.698 V/in/s, .275 V/cm/s
Sensitivity @ 70% Damping	.500 V/in/sec) (.197 V/cm/sec) $\pm 2\%$
Normalized Transduction Constant:	.0351 sq.root of DCR; V/in/s .0138; sq.root of DCR; V/cm/s

Damping

Open Circuit Damping (Bo)	.316
Shunt Resistance for Damping Calibration for 395 ohm coil:	60% damping $\pm 2\%$: 1500 ohms 70% damping $\pm 2\%$: 1000 ohms
Damping Constant (BcRt)	536

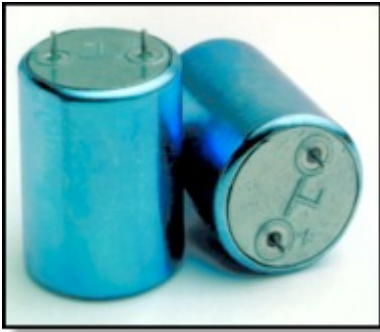
Physical Specifications

Moving Mass (M)	.395 oz., 11.2 g ± 2%
Case to Coil Motion P-P:	.060 in (.152 cm)
Operating and Storage Temperature:	-45°C to +100°C
Dimensions (less terminals*)	
Height	1.30 in (3.30 cm)
Diameter	1.00 in (2.54 cm)
Weight	3.03 oz (86 g)
* terminal height is .16 in (.41 cm)	

Cases Available:

- PC-801-LP Land Case
- PC-801-LPC Land Case
- PC-901-LP Marsh Case

Specifications are subject to change without notice.



GS-32CT Geophone

Close Tolerance

High Spurious Geophone

- » Spurious response greater than 250 Hz for extended clean band width
- » Full compatibility with GS-20DX and GS-30CT geophones
- » Typical string distortion less than .03% (12 series, damped .70)
- » High sensitivity option available
- » 3-Year Warranty

GS-32CT Specifications

Maintains all specifications at vertical to 20° tilt with the following exception: Harmonic distortion at 12 Hz (vertical to 10° tilt).

Description

Natural Frequency (Fn):

Specification @ 25° C
10 Hz

TOL ±
2.5%

Coil Excursion P-P

> .040 in, > .102 cm MIN
> .060 in, > .152 cm MAX

Clean Band Pass (Spurious Response)

> 250 Hz (Typical)

DC Resistance (DCR)

395 ohms

2.5%

Intrinsic Voltage Sensitivity (G)

.698 V/i/s, .275 V/cm/s

Open Circuit Damping (Bo)

.316

Damping w/1000 ohm Shunt

.70

2.5%

Sensitivity @ 70% Damping

.500 V/in.s, .197 V/cm/s

2.5%

Moving Mass (M)

.395 oz., 11.2 g

2.5%

Harmonic Distortion

With coil to case velocity of 0.7 in/sec (1.8 cm/sec) P-P @ 12 Hz
String, 12 series, damped 0.70

<0.10%
<0.03% (Typical)

With coil to case displacement of 0.0093 in (0.0236 cm) P-P @ 10 Hz

<0.20%

Dimensions

Weight

3.03 oz., 86 g

Diameter

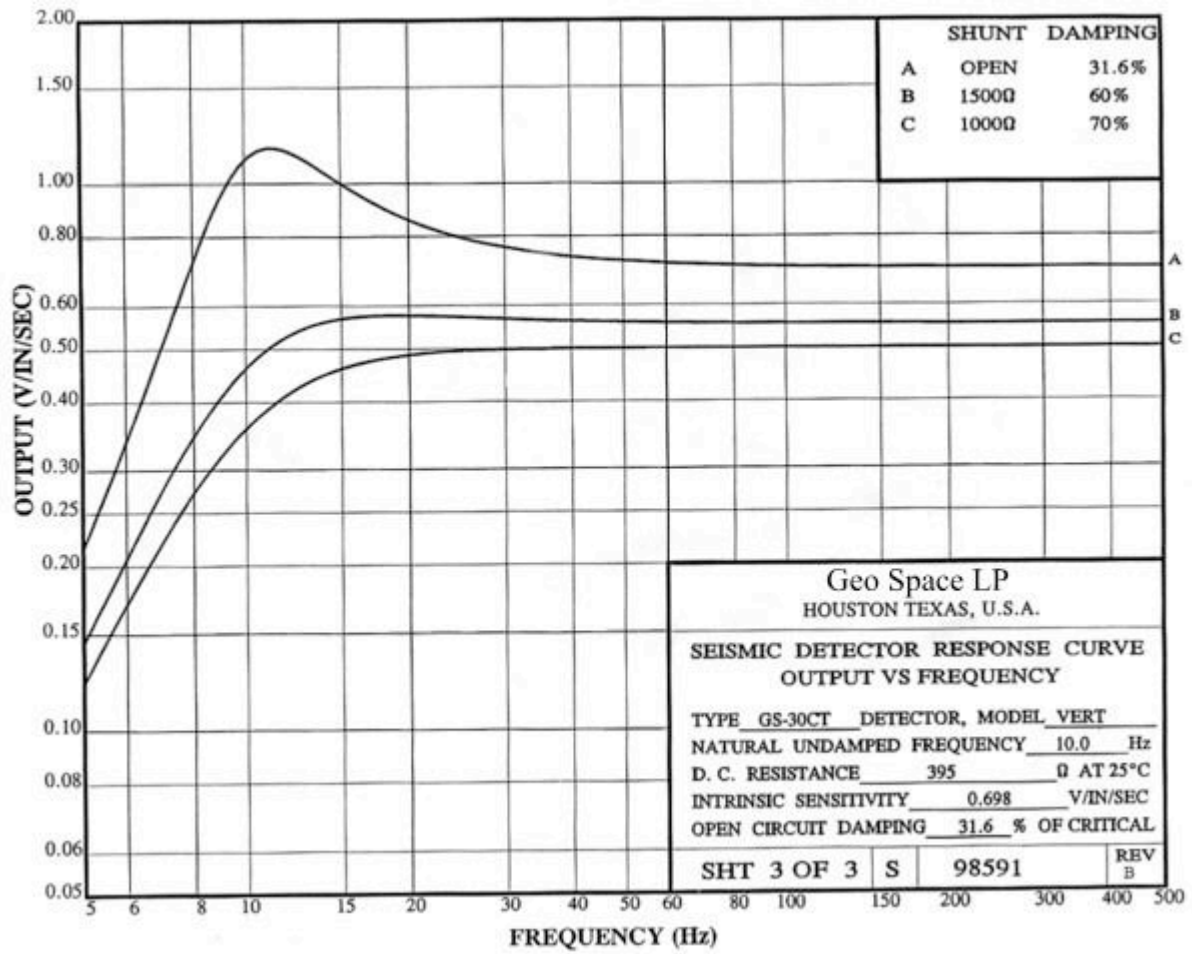
1.00 in., 2.54 cm

Height (less stud & terminals)

1.30 in., 3.30 cm

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