

# GS-32CT Geophone



## Close Tolerance High Spurious Geophone

### Features

- Enhanced spurious response >250 Hz for extended clean band width
- Simultaneous control of damping and sensitivity for unequaled channel-to-channel uniformity
- Externally damped for reduced damping change when exposed to temperature variations, again enhancing channel-to-channel uniformity
- Typical string distortion <.03% (12 series, damped 70%)
- Compatible with GS-20DX and GS-30CT geophones
- Optional coil resistance of 635 ohms provides greater sensitivity (.640 V/i/s @ 68.3% damping)

The latest 24-bit Data Acquisition Systems have the capability for recording the full dynamic range of geophones without the distortion caused by floating point amplifiers. This challenge to the historic efficacy and superior performance of geophones gave reason for Geospace to develop geophone performance to an even higher level... a level which maintains the geophone as the strongest link in the data acquisition technology chain.

The GS-32CT is the newest addition to Geospace's family of close tolerance geophones. It features a spurious response in excess of 250 Hz for extended clean band width.

The GS-32CT is fully compatible with its predecessors, the GS-20DX and the GS-30CT. It offers unsurpassed geophone-to-geophone uniformity along with the long-term, field proven reliability that only Geospace can provide.



# GS-32CT Geophone

## Specifications

### Physical Specifications

Moving Mass (M)	.395 oz. (11.2 g) + 2.5%
Case to Coil Motion p-p	.06 in (.152 cm)
Operating and Storage Temperature:	-45° tp 100° C
Dimensions (less terminals*)	
Weight	3.03 oz, 86 g
Diameter	1.00 in, 2.54 cm
Height	1.30 in, 3.30 cm

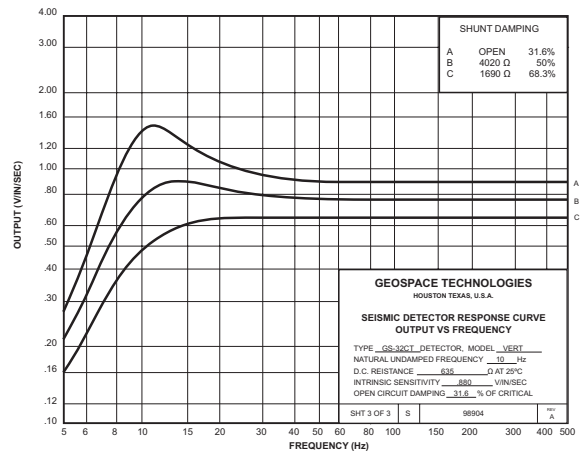
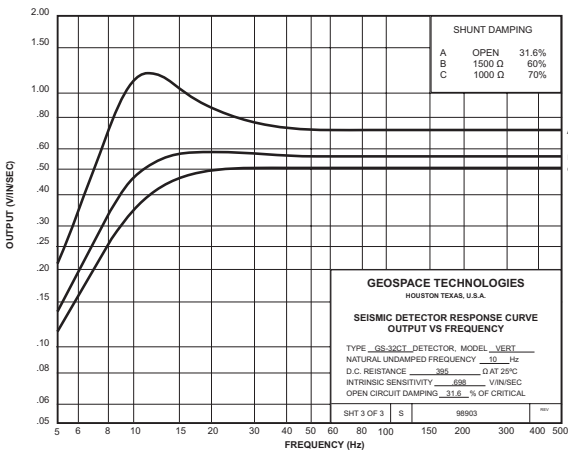
\*Terminal height is .16 in (.41 cm)

### Cases Available

- PC-801-LP Land Case
- PC-801-LPC Land Case
- PC-901-LP Marsh Case
- GS-3C Land Case

Frequency	395 Ω	635 Ω
Natural Frequency (Fn):	10 Hz ± 2.5%	10 Hz ± 2.5%
Typical spurious Frequency:	>250 Hz	>250 Hz
<b>Resistance</b>		
DC Resistance (DCR)	395 Ω ± 2.5%	635 Ω ± 2.5%
<b>Distortion</b>		
Harmonic Distortion with coil to case velocity of 0.7 in/sec (1.8 cm/sec) p-p @ 12 Hz	<0.10%	<0.10%
String, 12 series, damped 70%	<0.03% (Typical)	<0.03% (Typical)
String, 12 series, damped 68.3%		
With coil to case displacement of 0.0093 in (0.0236 cm) p-p @ 10 Hz	<0.20%	<0.20%
<b>Sensitivity</b>		
Intrinsic Voltage Sensitivity (G)	.698 V/in/s, (.275 V/cm/s)	.880 V/in/s, (.346 V/cm/s)
Sensitivity @ 70% Damping	.500 V/in/s, (.197 V/cm/s ± 2.5%)	
Sensitivity @ 68.3% Damping		.640 V/in/s, (.252 V/cm/s ± 2.5%)
Normalized Transduction Constant	.0351 √DCR V/in/s	.0349 √DCR V/in/s
	(.0138 √DCR V/cm/s)	(.0137 √DCR V/cm/s)
<b>Damping</b>		
Open Circuit Damping (Bo)	31.6%	31.6%
Shunt Resistance for Damping		
Calibration	1000 Ω	1690 Ω
Damping Constant	536.0	852.8

## Frequency Response Curves\*



Specifications are subject to change without notice



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