



HGS (INDIA) LIMITED



HG-11 Geophone Element



Based on the technology transfer for manufacturing the SM[®] range of geophones from Sensor[®] Nederland BV, HGS (India) Limited (erstwhile Geosource India Limited) offers the HG-11 geophone which is a high output geophone with a natural frequency of 30 Hz. The element provides a clean response to over 500 Hz and can be used in any orientation (vertical, horizontal or inverted) providing flexibility in such applications as 3 component borehole tools. Typically, it is used in high resolution seismograph reflection studies.

Features:

- 30 Hz geophone with high spurious over 500 Hz
- Provides wide bandwidth data suitable for up to 1 ms data sampling
- Can be operated in any orientation
- Provides high output by using special magnet and case
- Rugged design with rotating-coil contacts suitable to withstand shocks

Specifications - HG-11

Frequency	Value
Natural frequency	30 Hz
Tolerance	±5%
Maximum tilt angle for specified fn	180°
Typical spurious frequency	>500 Hz

Distortion	
Distortion with 0.7 in/s p.p. coil-to-case velocity	<0.2%
Distortion measurement frequency	30 Hz
Maximum till angle for distortion specification	180°

Damping	
Open circuit (typical)	0.55
Shunt for 0.60 damping	4700 Ω
Shunt for 0.71 damping	1300 Ω
Tolerance with shunt	±5%

Resistance	
Standard coil resistance	360 Ω
Tolerance	±5%

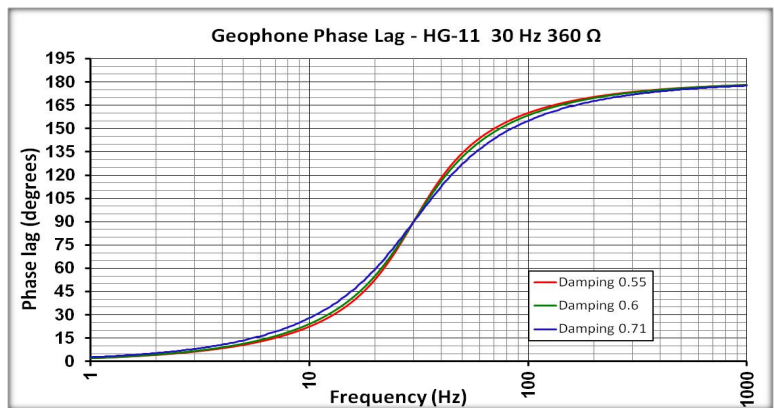
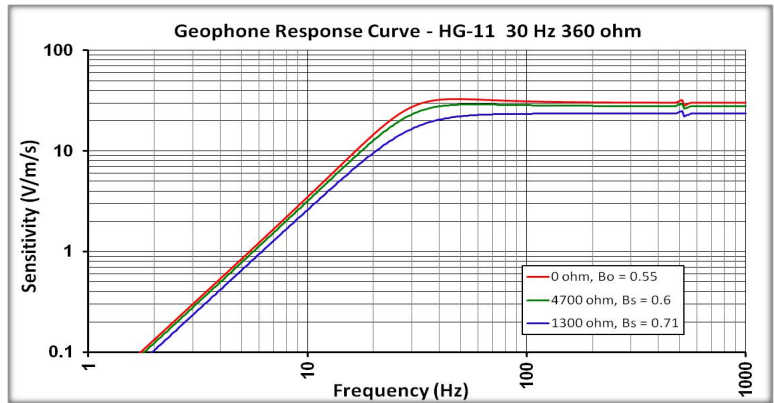
Sensitivity	
Open - circuit Sensitivity	30 V/m/s
Tolerance	±5%
$R_t B_c f_n$	7785 ΩHz
Moving mass	9.2 g
Max coil excursion p.p.	1 mm

Physical Characteristics	
Diameter	26.6 mm
Height	32 mm
Weight	83 g
Operating temperature range	-40°C to 100°C

Warranty Period*	2 years
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*Warranty excludes damage caused by high voltage and physical damage to the element case.

All parameters are specified at +20°C in the vertical position unless stated otherwise.



Ordering information

Description	Part No.	Direction
HG-11 U 30 Hz 360 Ω	SG000103	Upright
HG-11 H 30 Hz 360 Ω	SG000096	Horizontal

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