



HGS (INDIA) LIMITED



HG-5VHS 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-5VHS (Very High Sensitivity) geophone with low natural frequency compared to conventional geophone. The HG-5VHS geophone offers the best in class frequency bandwidth up to 160 Hz at a distortion $\leq 0.15\%$. Ideal as a low frequency single point receiver.

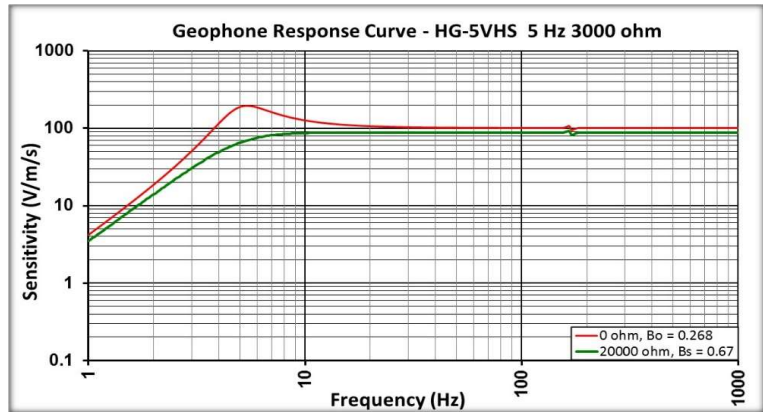
Applications: 2D and 3D seismic exploration with bandwidth from 5 Hz to 160 Hz.

Features:

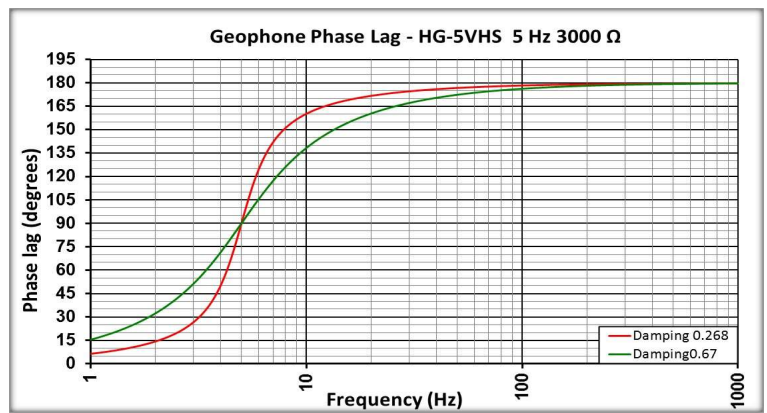
- Low distortion geophone with sensitivity typically 100.4 V/m/s
- High Sensitivity geophone used in earthquake monitoring systems and land nodal systems
- Rugged design with rotating-coil contacts

Specifications - HG-5VHS

Frequency	Value
Natural frequency	5 Hz
Tolerance	± 0.5Hz
Maximum tilt angle for specified Fn	Vertical 10° Horizontal 0°
Spurious frequency	>160Hz Typical
Distortion	
Distortion with 17.78 mm/s p.p. coil-to-case velocity	≤0.15%
Distortion measurement frequency	12 Hz
Maximum tilt angle for distortion specification	Vertical 10° Horizontal 0°



Damping	
Open circuit (typical)	0.268
Tolerance	± 5%
Sensitivity	
Sensitivity (open Circuit)	100.4 V/m/s
Tolerance	± 5%
Moving mass	17.4 g
Maximum coil excursion p.p.	3 mm
Coil Resistance	
Standard	3000 Ω
Tolerance	± 5%



Physical Characteristics	
Diameter	26.7 mm
Height	39.3 mm
Weight	106 g
Operating temperature range	-40°C to 100°C

Warranty Period* 2 Years

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

All parameters are specified at +20°C.

Ordering information

Description	Part No.	Work direction
HG-5VHS U 5 Hz 3000 Ohm	SG000496	Upright
HG-5VHS U 5 Hz 3000 Ohm	SG000497	Horizontal
HG-5VHS S 5 Hz 3000 Ohm	SG000602	Vertical (pins down)

Version 1.1

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