



# HGS (INDIA) LIMITED



## HG-5VHS Geophone Element



Based on the technology transfer for manufacturing the SM<sup>®</sup> range of geophones from Sensor<sup>®</sup> 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

<b>Frequency</b>	Value
Natural frequency	5 Hz
Tolerance	± 0.5Hz
Maximum tilt angle for specified Fn	Vertical 10° Horizontal 0°
Spurious frequency	>160Hz Typical

<b>Distortion</b>	
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°

<b>Damping</b>	
Open circuit	0.268
Tolerance	± 5%
Damping with 20 kΩ input impedance	0.67 (Typical)

<b>Sensitivity</b>	
Sensitivity (open Circuit)	100.4 V/m/s
Tolerance	± 5%
Sensitivity with 20 kΩ input impedance	87.3 V/m/s (Typical)
Moving mass	17.4 g
Maximum coil excursion p.p.	3 mm

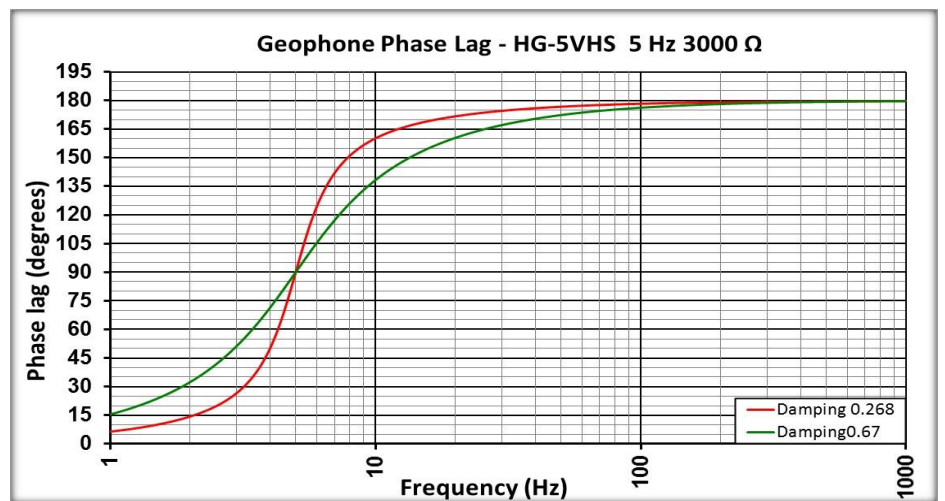
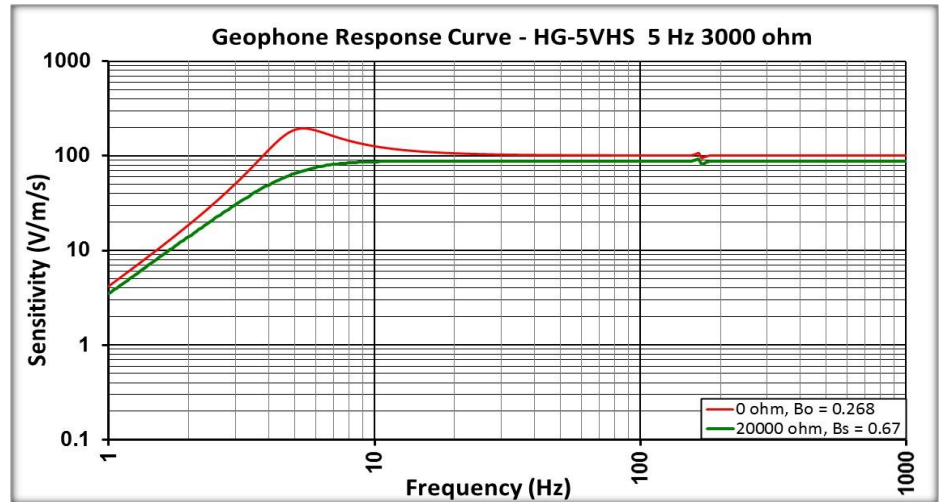
<b>Coil Resistance</b>	
Standard	3000 Ω
Tolerance	± 5%

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

<b>Warranty Period*</b>	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 working position unless stated otherwise.



### Ordering information

Description	Part No.	Working position
HG-5VHS U 5 Hz 3000 Ohm	SG000496	Upright
HG-5VHS H 5 Hz 3000 Ohm	SG000497	Horizontal

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