



HGS (INDIA) LIMITED



HG-5HSr 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-5HSr (High Sensitivity) geophone with low natural frequency compared to conventional geophones. The HG-5HSr geophone offers the best in class frequency bandwidth up to 150 Hz at a distortion of $\leq 0.1\%$. Ideal as a low frequency single point receiver. HG-5HSr can be supplied for both vertical and horizontal orientation.

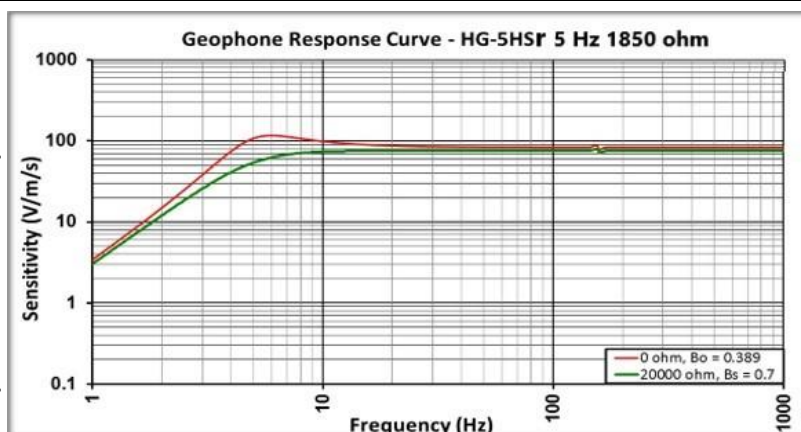
Applications: 2D and 3D seismic exploration with bandwidth from 5 Hz to 150 Hz.

Features:

- Low distortion geophone with sensitivity greater than 80 V/m/s
- High sensitivity geophone used in earthquake monitoring systems and land nodal systems
- Rugged design with rotating-coil contacts

Specifications - HG-5HSr

Frequency	Value
Natural frequency	5 Hz
Tolerance	± 7.5%
Maximum tilt angle for specified Fn	Vertical 10° Horizontal 0°
Spurious frequency	≥150Hz
Distortion	
Distortion with 17.78 mm/s p.p. coil-to-case velocity	≤0.1%
Distortion measurement frequency	12 Hz
Maximum tilt angle for distortion specification	Vertical 10° Horizontal 0°



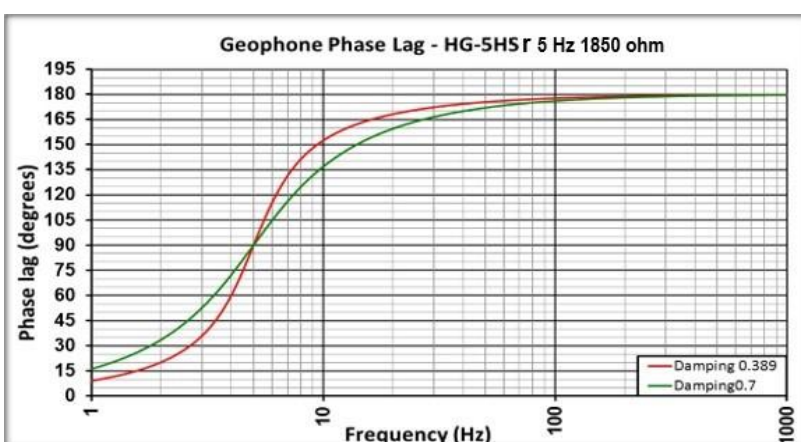
Damping	
Open circuit (typical)	0.389
Tolerance	± 5%

Sensitivity	
Sensitivity (open Circuit)	83 V/m/s
Tolerance	± 5%
Moving mass	16 g
Maximum coil excursion p.p .	3 mm

Coil Resistance	
Standard	1850 Ω
Tolerance	± 5%

Physical Characteristics	
Diameter	26.7 mm
Height	39.3 mm
Weight	105 g
Operating temperature range	-10°C to 65°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 working position unless stated otherwise.

Ordering information

Description	Part No.	Working position
HG-5HSr U 5 Hz 1850 Ohm	SG000510	Upright
HG-5HSr H 5 Hz 1850 Ohm	SG000511	Horizontal

Version 1.1

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