



HGS (INDIA) LIMITED



HG-24LD 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-24LD geophone, a superior performance geophone as opposed to the world renowned HG-24 geophone. The HG-24LD offers broad bandwidth, extended tilt up to 15%, very low distortion with a unique spring design and an extended frequency response in excess of 240 Hz. It also offers all the advantages of very low distortion and tight specifications. A typical 12 geophone string distortion is below 0.03% in the seismic band of interest.

Applications: 2D and 3D seismic exploration with bandwidth from 10 Hz to 240 Hz. It can be installed in a variety of geophone cases.

Features:

- Very low distortion geophone
- Extended spurious frequency over 240 Hz, allowing full bandwidth at 2 ms sampling
- Horizontal version available
- Rugged design with rotating-coil contacts

Specifications - HG-24LD

Frequency	Value
Natural frequency	10 Hz
Tolerance	±2.5%
Maximum tilt angle for specified Fn	15°
Typical spurious frequency	>240Hz

Distortion	
Distortion with 17.78 mm/s p.p. coil-to-case velocity	≤0.075%
Distortion measurement frequency	12 Hz
Maximum tilt angle for distortion specification	15°
Typical distortion (string of 12 in series, measured at 12 Hz)	≤0.03%

Damping	
Open circuit (typical)	0.25
Damping calibration-shunt resistance	1339 Ω
Damping with calibration shunt	0.6
Shunt for 0.69 damping	1000 Ω
Tolerance with calibration shunt	+5%,-0%

Sensitivity	
Sensitivity	28.8 V/m/s
Tolerance	± 2.5%
$R_t B_c f_n$	6,000 Ω Hz
Moving mass	11 g
Max coil excursion p.p .	2 mm

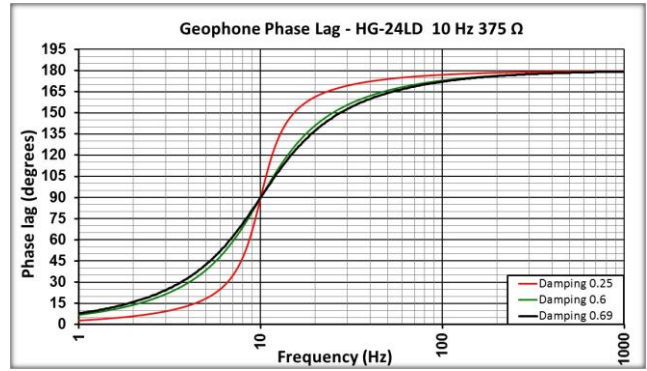
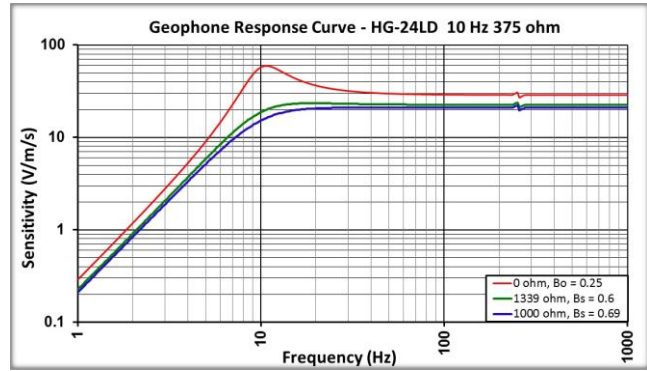
Coil Resistance	
Standard	375 Ω
Tolerance	± 2.5%

Physical Characteristics	
Diameter	25.4 mm
Height	32 mm
Weight	74 g
Operating temperature range	-40°C to 100°C

Warranty Period* 3 Years

*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-24LD U 10 Hz 375 Ohm	SG000478	Upright
HG-24LD H 10 Hz 375 Ohm	SG000479	Horizontal

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