



HGS (INDIA) LIMITED



HG-6XT 4.5 Hz 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-6XT geophone which is a long coil travel geophone based on the HG-4 design. The long coil travel offers advantages for higher tilt requirements and where large amplitude signals may be encountered. It has a rugged design with rotating coil contacts.

The natural frequency of the HG-6XT geophone is 4.5Hz and it has a tilt angle tolerance of +/- 5 Degrees. This geophone is available both in the vertical and horizontal orientations.

Specifications - HG-6XT 4.5 Hz Geophone Element

B - Coil

Frequency

Value

Natural frequency	4.5 Hz
Tolerance	±0.5Hz
Maximum tilt angle for specified fn	5°
Typical spurious frequency	140 Hz

Distortion

Distortion with 17.78 mm/s p.p. coil-to-case velocity	<0.3%
Distortion measurement frequency	12 Hz
Maximum tilt angle for distortion specification	5°

Damping

Open circuit (typical)	0.56
Shunt for 0.60 damping	32960 Ω
Shunt for 0.70 damping	9090 Ω
Tolerance with calibration shunt	±5%

Resistance

Standard coil resistance	375 Ω
Tolerance	±5%

Sensitivity

Open - circuit Sensitivity	28.8 V/m/s
Tolerance	±5%

$R_t B_c f_n$	6000 ΩHz
Moving mass	11.1 g
Max coil excursion p.p .	4 mm

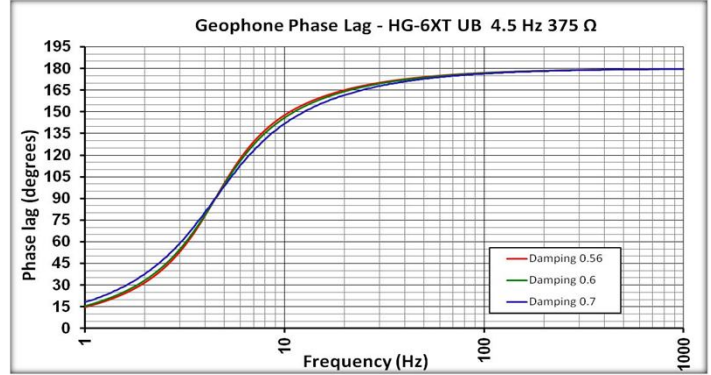
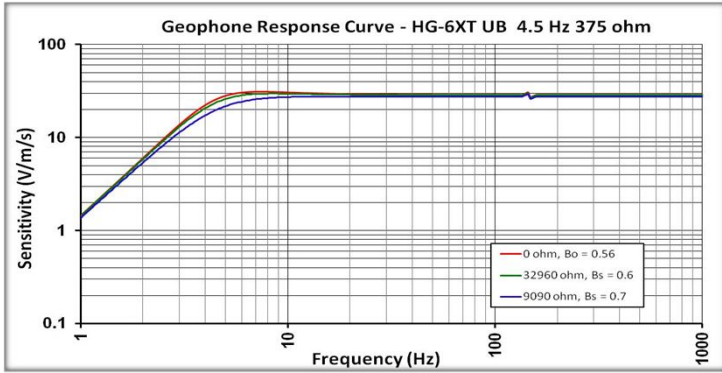
Physical Characteristics

Diameter	25.4 mm
Height	36 mm
Weight	81 g
Operating temperature range	-40°C to 100°C

Warranty Period* 1 year

* 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.

Geophone Response Curve and Phase Lag



Ordering information

Description	Part No.	Direction
HG-6XT		
HG-6XT UB 4.5 Hz 375 Ω	SG000240	Upright
HG-6XT HB 4.5 Hz 375 Ω	SG000429	Horizontal

Version 1.1

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