



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 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

Frequency	B - Coil	Value
Natural frequency		4.5 Hz
Tolerance		±0.5Hz
Maximum tilt angle for specified f_n		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 Ω Hz
Moving mass		11.1 g
Maximum coil excursion p.p .		4 mm

Physical Characteristics

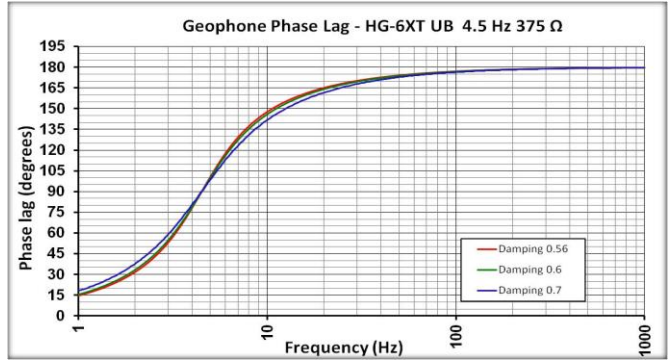
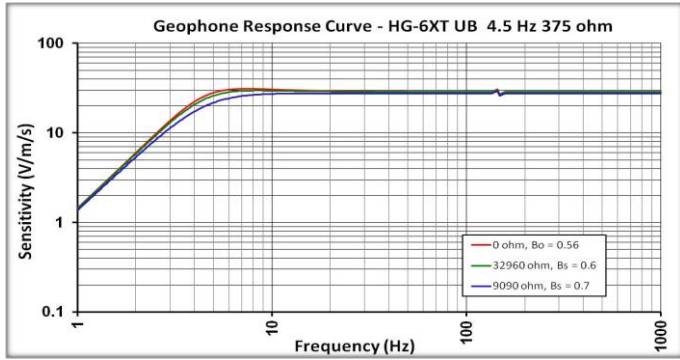
Diameter		25.4 mm
Height		36 mm
Weight		81 g
Operating temperature range		-40°C to 100°C

Warranty Period*		1 year
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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 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

Version 1.2

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