

RGI-HP101

RGI-HP101 Geophone Element (full compatibility with 30CT)
Seeking Perfection Manufacturing Excellence

Features

- High precision, low distortion, close tolerance geophone
- Enhanced spurious response over 250Hz for full bandwidth at 2-ms sampling
- Typical string distortion below 0.03% (12 series, damping 70%)
- Availability of horizontal element for S-wave and 3-C data acquisition
- Applicable for 2D & 3D seismic exploration
- More reliable and better-performing internal structure
- 3-year non pro-rated warranty
- Lowest maintenance expenditure in the industry
- Total sale over 1 million elements world-wide (est.)



Compatible with 30CT, the RGI-HP101 geophone element features the ultimate refinement in geophone design to date. The refined design not only offers excellent geophone-to-geophone uniformity, but reduces distortion by a factor of 2.5 while setting a tighter tolerance at the standard of $\pm 2\%$.

In seismic data acquisition there are 3 most crucial factors, channel-to-channel uniformity, reduction of self-generated noise and distortion, in terms of which, the RGI-HP101 is second to none in performance. It's a field-proven perfect match for the most advanced 24-bit data acquisition systems.

Implementation: suitable for land and TZ with multiple RACOTECH geophone cases.

RACOTECH
GEOPHYSICAL INSTRUMENTS

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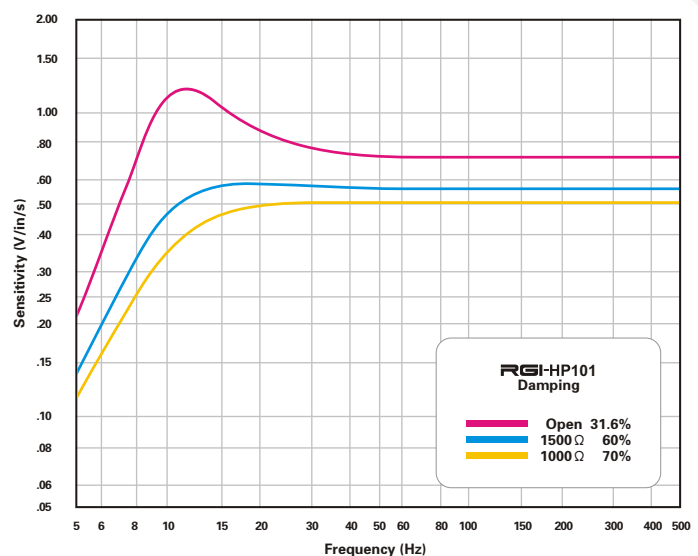
RGI™

Specifications (all parameters are specified at +25°C)

Frequency	
Natural frequency	10Hz ± 2%
Max. tilt angle for specified fn	200
Typical spurious frequency	>240 Hz
Distortion	
Distortion with 0.7 in/s p-p coil to case velocity	<0.08%
Distortion measurement frequency	12Hz
Tilt angle for distortion specification	Vertical
Typical distortion (string of 12 geophones in series, measured at 12Hz)	≤0.03%
Damping	
Typical open circuit damping	0.316
Damping calibration shunt resistance	1,000 ohm
Damping with calibration shunt	0.7 ± 2%
Coil Resistance	
Standard	395 ohm ± 2%
Sensitivity	
Sensitivity without shunt resistor	27.5 V/m/s (0.698 V/in/s)
Sensitivity with shunt resistor 1,000 ohm	19.7 V/m/s (0.500 V/in/s) ± 2%
Physical Characteristics	
Moving mass	11.2g (0.395 oz)
Maximum coil excursion p-p	1.52 mm (0.060 in)
Diameter	25.4 mm (1 in)
Height	33.0 mm (1.30 in)
Weight	87g (3.07 oz)
Operating temperature range	-40°C to +80°C

* Warranty excludes damage caused by high voltage and physical damage to the element case.

Frequency Response Curve



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