

RGI-HP103 Geophone

RGI-HP-103 Geophone Element (full compatibility with SM-24)
Seeking Perfection Manufacturing Excellence

Features

- Close tolerance, low-distortion geophone
- Advanced conventional pig tail element structure
- Enhanced spurious response over 250Hz for full bandwidth at 2-ms sampling
- Availability of horizontal element for S-wave and 3-C data acquisition
- Typical string distortion below 0.03% (12 series, damped 70%)
- 3-year non pro-rated warranty
- Lowest maintenance expenditure in the industry
- More reliable and better-performing internal structure
- Total sale over 1.5 million elements world-wide (est.)



The Advent of The RGI-HP-103 geophone powered by state-of-the-art field-proven RACOTECH sensor technology is to offer the highest performance in seismic exploration and leading specifications that don't vary with environment and time.

Low distortion along with excellent specifications provide high-fidelity data in 2-D and 3-D surveys. The extended bandwidth makes the full potential of 2-ms/24-bit recording systems possible. The tight specifications, unique element design, and superior quality of the RGI-HP-103 guarantee the lowest maintenance cost ever in the industry.

The launch of RGI-HP103 quenches the desire for reliability of large 3D crews. Since the appearance of RGI-HP103, RACOTECH has presented one of the most reliable geophones in the industry meeting the most stringent seismic requirements and parameters with a high level of reliability which will absolutely help increase the productivity and efficiency of your seismic crews.

Implementation: Suitable for land and TZ with multiple RACOTECH geophone cases

RACOTECH
GEOPHYSICAL INSTRUMENTS

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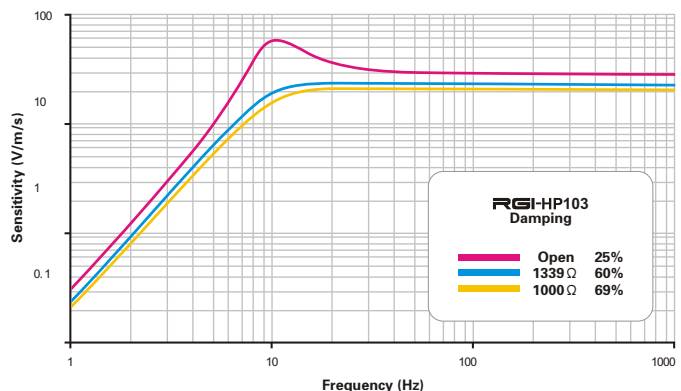
RGI™

Specifications (all parameters are specified at +20°C)

Frequency	
Natural frequency	10Hz ± 2.5%
Max. tilt angle for specified fn	20°
Typical spurious frequency	>240Hz
Distortion	
Distortion with 0.7 in/s p-p coil to case velocity	<0.10%
Distortion measurement frequency	12Hz
Max. tilt angle for distortion specification	10°
Typical distortion (string of 12 geophones in series, measured at 12Hz)	≤0.03%
Damping	
Typical open circuit damping	0.25
Damping with calibration shunt 1,339 ohm	0.60
Damping with calibration shunt 1,000 ohm	0.69
Tolerance with calibration shunt	0-5%
Coil Resistance	
Standard	375 ohm ± 2.5%
Sensitivity	
Sensitivity without shunt resistor	28.8V/m/s
Sensitivity with shunt resistor 1,339 ohm	22.5V/m/s ± 2.5%
Sensitivity with shunt resistor 1,000 ohm	20.95V/m/s ± 2.5%
Physical Characteristics	
Moving mass	11g (0.38 oz)
Maximum coil excursion p-p	2 mm (0.080 in)
Diameter	25.4 mm (1 in)
Height	32.0 mm (1.30 in)
Weight	85g (3.0 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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