

## RGI-HP20DX (8Hz-40Hz)

RGI-HP20DX Geophone Element

Seeking Perfection Manufacturing Excellence



### Features

- Enhanced spurious response for full bandwidth at 2-ms sampling
- Availability of horizontal & vertical element for S-wave and 3-C data acquisition
- Applicable for 2D & 3D seismic exploration
- More reliable and better-performing internal structure
- Applicable for multiple use purposes
- Multiple natural frequency options from 8Hz to 40Hz
- 3-year non pro-rated warranty
- Lowest maintenance expenditure in the industry
- Total sale over 30 million elements world-wide (est.)

The RGI-HP20DX geophone is a well-established product line manufactured under strict quality control processes and specially designed for extensive field applications. RGI-HP20DX is considered to be one of the most reliable geophones in the geophysical industry for its flawless scientific structure, ultimate reliability in performance in the roughest environment and extended operation life.

With multiple natural frequency options 8Hz, 10Hz, 14Hz, 28Hz, 35Hz and 40Hz, RGI-HP20DX series is perfectly suitable for a variety of applications such as geophysical and geological exploration, engineering, coal mine industry, national defense, security monitoring and scientific research etc.

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

**RACOTECH**  
GEOPHYSICAL INSTRUMENTS

Corporate Headquarters  
111 Hengsheng Rd., Baoding Industrial Zone, Hebei 071000, China  
Phone: +86 312 5092 058 / Fax: +86 312 5098 577 / Email: [info@racotech.biz](mailto:info@racotech.biz) / [www.racotech.biz](http://www.racotech.biz)

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Specifications (all parameters are specified at +22°C)

P/N	20DX-8Hz	20DX-10Hz	20DX-14Hz	20DX-28Hz	20DX-40Hz	20DX-60Hz
Natural frequency (Hz)	8 ± 5%	10 ± 5%	14 ± 5%	28 ± 5%	40 ± 5%	60 ± 5%
Open circuit damping	0.38	0.30	0.22	0.27	0.37	0.52
Damping with calibration shunt	0.71 ± 5%	0.70 ± 5%	0.51 ± 5%	0.552 ± 5%	0.576 ± 5%	0.60 ± 5%
Calibration shunt resistance (ohm)	1800	1000	1000	1000	1500	1500
Open circuit sensitivity (V/m/s)	28	28	28	39	42	39
Sensitivity with calibration shunt (V/m/s)	23 ± 5%	20 ± 5%	20 ± 5%	28 ± 5%	30.4 ± 5%	27.0 ± 5%
Coil resistance (ohm)	395 ± 5%	395 ± 5%	395 ± 5%	395 ± 5%	575 ± 5%	668 ± 5%
Harmonic distortion (%)	≤ 0.20	≤ 0.20	≤ 0.20	≤ 0.20	≤ 0.20	≤ 0.20
Typical spurious frequency (Hz)	≥ 180	≥ 200	≥ 250	≥ 350	≥ 380	≥ 400
Moving mass (g)	11				8.2	6.5
Max. coil excursion p-p (mm)	1.5 (p-p)					
Max. tilt angle	20°					
Diameter (mm)	25.4			27.0		
Height (mm)	33					
Weight (g)	87			100	95	93
Operating temperature range	-40°C to +80°C					

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

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