

Geometrics GeoEel Solid Streamer

The GeoEel Solid Streamer combines superior electronics with a patented solid active section design that delivers higher-quality data than ever before. The GeoEel Solid digital hydrophone streamer is the smallest diameter solid design available.

At only 44.5 mm, the GeoEel Solid is easy to deploy, easy to transport and easily shipped by air. The 100% solid construction, coupled with a proprietary polymer hydrophone design, eliminates bulge waves and other cable-borne noise, yielding very low towing noise at lower frequencies than any liquid streamer.



Active Section

Number of Channels: 8 per section

Group Interval: 6.25m, 12.5m,

Section Length: 50, and 100 m

Hydrophones per Group: 8

Hydrophone Type: Benthos RDA Geopoint or AQ-1

Group Sensitivity: Depends on group interval and hydrophone model;

Jacket Material: Solid Polyethane

Diameter: 44 mm (1.7 inches)

Ballast Fluid: Solid Polyethane

Weight: ~1.42 kg (3 lbs) / m

Strain Member: Solid Polyethane

Break Strength: Over 2,200 Kg (5000 lbs)

Maximum Tow Speed: ~8 knots recording, ~10 knots steaming, (depending on configuration and sea state)

Typical Towing Noise: <4 mbars @ 4.5knots, 8-hz lo cut, Beaufort 4-5 Seas

Minimum Bend Radius: 750 mm (30 inches)

Compass/Bird Coil: I/O Model 587 (one per section)

Depth Transducer: One per section (optional)



Digitiser Modules

Channels per Module: 8 Sample Rates: 1/16 msec,

1/8 msec, 1/4 msec, 1/2 msec, 1 msec, 2 msec, 4 msec

Programmable Gains: 0 dB, 8 dB, 18 dB, 30 dB

Record Length: Up to 16,000 samples/trace

Water-Column Delay: Up to 255 samples

I/O Communications: 100Base TX Fast Ethernet, IEEE 802.3 compliant

Dead Time Between Shots: 100 msec

Anti-alias Filter: -3 dB @ 81% of Nyquist, down 135 dB at stop band

Input Impedance: 126.8 KOhms, paralleled by 2.4 nF

Continuous Recording Mode: Available with GPS synchronization

Test Oscillator: 10 Hz to 2 KHz, 1µV to 100 mV AC rms

QC Tests: Noise, DC offset, total harmonic distortion, gain accuracy, gain similarity, phase similarity

Bandwidth: DC to 8 KHz





Equipment Specifications

For further information: Email: tsoffice@aol.com
www.ttsurveys.com

Resolution: 24 bits including sign

Maximum Input Range: +2.25V

Dynamic Range: 120 dB typical @ 1 msec, 70 dB typical @ 1/16 msec

Common-mode Rejection: 90 dB @ ¼ msec, 190 Hz

Gain Accuracy: +6.25% @ ¼ msec, 30 dB, 100 Hz; +6.0% @ 2 msec, 30 dB, 25 Hz

Gain Similarity: +3% @ ¼ msec, 30 dB, 100 Hz; +3.0% @ 2 msec, 30 dB, 25 Hz

Phase Similarity: +0.1o @ ¼ msec, 30 dB, 100 Hz; +0.1o @ 2 msec, 30 dB, 25 Hz

THD: 0.007% @ ¼ msec, 30 dB, 100 Hz; 0.003% @ 2 msec, 30 dB, 25 Hz

Crosstalk: -105 dB @ 30 dB, ¼ msec, 190 Hz

Noise Floor: 1.4 µV rms @ 30 dB, ¼ ms; 0.2 µV rms @ 30 dB, 2 msec

Power Consumption: Approximately 100 mA at 48VDC (12.5 mA/channel)

Dimensions: 44 mm diameter x 330 mm long (1.75" by 11")

Weight in air: 900 grams (2.0 lbs)

Weight in water: 520 grams (1.1 lbs)

Packaging: Titanium body

Connectors: Waterproof, high-density stainless, 41-pin

Tow Cable

Electrical Conductors: 7 twisted 24GA pairs and 10 16GA conductors

Strain Member: Vectran Break Strength: Over 2,200 Kg (5000 lbs)

Length: Up to 100m

Diameter: 18.6 mm

Weight: ~21 Kg (46 lbs) for 50 meters

Termination: Flex-tow and non, plus double wet Braided Steel Armor: Op

Bend Diameter: 12 inches

