

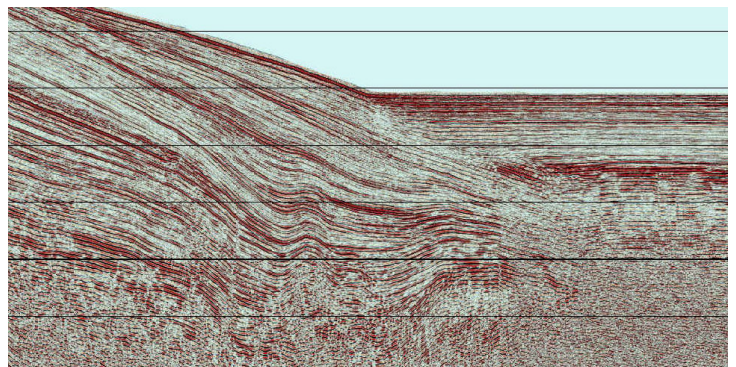
GeoEel Solid™ Digital Marine Streamer



- **Light and easy to handle:** 44.5 mm diameter, up to 240 channels in 8 channel sections
- **Environmentally friendly and non-flammable:** Solid polyurethane, ships by air
- **Wide bandwidth means more applications:** samples at 1/16 to 2 ms for petroleum, engineering or sub-bottom profiling
- **Digital sections means better quality data, less time deploying and troubleshooting**
- **No costly controller required:** uses any PC and standard Ethernet
- **Whisper quiet:** solid design yields under 3 microbars towing noise at normal towing speeds
- **Complete built-in testing of streamer and internal electronics**

Introducing the ultimate in marine seismic fidelity: the **GeoEel Solid™** from Geometrics! Built on our experience and success with the popular GeoEel™ digital streamer, the GeoEel Solid combines superior electronics with a patented solid active section design that delivers higher-quality data than ever before.

The GeoEel Solid digital towed hydrophone streamer is the smallest-diameter solid design available. With a diameter of only 44.5 mm, the GeoEel Solid is easy to deploy, easy to transport and can be shipped by air. Separate 8-channel modules coupled with a unique slim active section design yield ultra-low towing noise levels and are largely immune to electronic interference, leakage and ground loops that plague analog streamers.



The GeoEel Solid communicates via 100 mbs Ethernet to the Geometrics CNT-2 controller, running field-proven software that is used on over 70 installations worldwide. And the GeoEel Solid is designed by Geometrics, known for over 40 years as an industry leader in rugged, reliable and well-supported instrumentation.

Specifications

GeoEel Solid™ Digital Marine Streamer

A/D Converter Canisters

Channels Per A/D Canister:	8
Sample Rates:	1/16m 1/8, 1/4, 1/2, 1, 2 ms
Bandwidth:	5 Hz to 6 kHz
Programmable Gain:	0 dB, 8 dB, 18 dB, 30 dB, 42 dB
Anti-Alias Filter:	set by sample interval, down 135 dB at stop band
Maximum Input Range:	±2.25V
Resolution:	24 bits including sign
Input Impedance:	126.8K Ohms, paralleled by 2.4 nF
Dynamic Range:	120dB Typical @ 1ms
Common Mode Rejection:	>110 dB
Record Length:	Up to 16,000 samples
Dead Time:	Up to 256 samples
Continuous Recording Mode:	Enabled with GPS synchronization
Noise Floor:	0.3 µV at 2 ms
QC Tests:	Leakage and capacitance of hydrophone elements, noise, offset, harmonic distortion and gain similarity
Power Consumption:	Approximately 12.5 mA/channel at 48 VDC (600 W/channel)
Calibration Oscillator:	100 Hz, 0.3 µV to 600 mV RMS
Dimensions:	44 mm diameter x 330 mm long
Weight:	900 grams
Packaging Material:	Titanium body
Connectors:	41-pin custom Glenaire

Hydrophone Sections

Number of Channels:	8 per section
Hydrophones per group:	12
Hydrophone Type:	Proprietary PVDF
Diameter:	44.5 mm
Weight:	~156 kg / 100m
Strain member:	Zylon
Break Strength:	2260 Kg
Maximum Tow Speed:	~8 knots recording, ~10 knots steaming, depending on configuration and sea state
Minimum Bend Radius:	75 cm
Compass/Bird Coil:	Geometrics manufacture

Stretch and Vibration Isolation Sections

Length:	10, 25 or 50 meters standard
Construction:	Polyurethane jacket
Diameter:	41 mm (stretch) or 44.5 mm (isolation)
Ballast fluid:	Silicone oil
Stretch Ratio:	Approximately 15% for stretch section
Compass/Bird Coil:	Geometrics manufacture
Break Strength:	2260 Kg, Vectran strain members
Depth Transducer:	Available on isolation section

Tow Cable

Electrical conductors:	10 twisted pair shielded
Weight:	~ 25 kg for 50 meters
Strain member:	Zylon
Break strength :	2260 Kg
Diameter:	18.5 mm

Controller

PC-based running Geometrics CNT-2 software. Multiple shot and gather windows, bar graph noise displays, windows for shot timing, gun energy, brute stack, tape status, spectral analysis. Sure-save algorithm protects against data loss even with total storage device failure. Files automatically kept in sequential order. Auto-switching between storage devices, dual tape writing. Supports multiple printers. Full log kept of all parameter changes. Integrates navigation, gun, bird parameters into SEG-D or SEG-Y header.



Streamer Power Supply Unit

Power Requirements:	115/230 VAC, 3/1.5 Amp max, 50/60 Hz
Voltage to Streamer:	36- 72 VDC
I/O Communications:	I/O Communications: 100Base TX Fast Ethernet, IEEE 802.3 compliant
Trigger Requirements:	isolated input, positive or negative TTL, software-selectable
Testing:	Cable leakage and resistance Ethernet for faults and collisions
Optional Auxiliary Inputs:	8 analog channels with 24-bit resolution
Ethernet Connection:	RJ-45
Trigger Connection:	BNC

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