



Geo-Sense Mini-Streamers

Single Channel Arrays of 8 to 24+ Elements



Applications

Specially designed for use with our high frequency Sources:

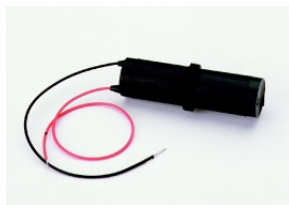
Sparkers, Boomers or Pingers.

But can also be used to capture the signal of low frequency sources like:

Air guns and Water guns

AQ-2000 Hydrophone

Geo-Sense streamers are equipped with the AQ-2000 hydrophones - the latest innovative acoustic sensor technology for both shallow and deep water exploration.

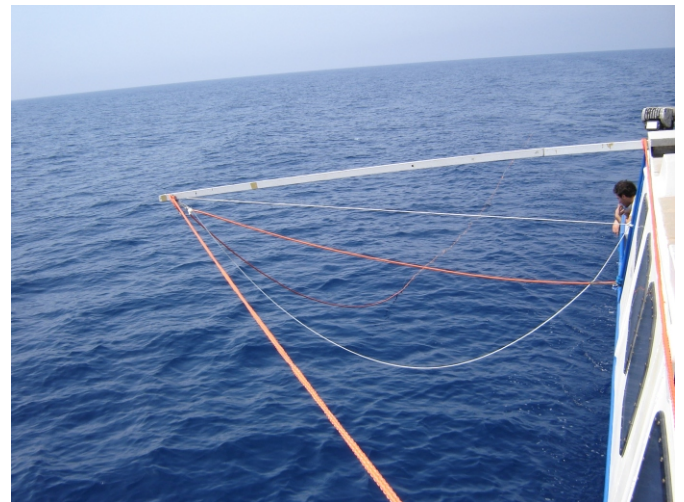


The AQ-2000 is well suited for applications that require stable performance over a wide range of water depths. It has excellent acceleration-cancelling qualities and an exceptionally wide frequency bandwidth (see rear side) The AQ-2000 can be installed into standard array configurations or integrated into custom-moulded packages.

Every hydrophone is tested for sensitivity, capacitance and insulation to ensure the highest quality product for all very high resolution seismic operations.

Operational Features

- Specifically designed to capture the high frequency spectrum emitted by our VHR sources (sparkers, boomers, pingers)
- The short 8-element array has even been successful in 4500 m water depths
- The active length and number of elements can be configured to your requirements
- Can be used with any Third Party recording system (in combination with the Geo-Sense Filter/Gain Interface)



Tow Cable

Length:	Standard 50 m to 100 m
Diameter:	11 mm
Type:	3 x 2 x 24 AWG screened twisted pair
Insulation:	Polyurethane
Strain member:	Double reverse spiral Kevlar

Active Section & Jacket

Number of elements:	8, 16, 24 up to 48
Spacing of elements:	0.4 m standard
Length of active section:	2.8 m / 9.2 m (for 8 / 24 elements)
Length of jacket:	4.8 m / 11.2 m (approx.)
Jacket size ID & OD:	20.5 mm & 26.5 mm
Jacket material:	Unreinforced polyurethane
Buoyancy:	Slightly negative
Array fluid:	Silicone fluid or Parafin oil

Power to Pre-amplifier

For streamers other than Geo-Sense, a standard battery box of 12 V DC from 8 penlight batteries can be used.

AQ-2000 Hydrophone

Electrical Specifications

Leads: Two 28 AWG stranded conductors (red and black), Hytrel® insulation, 12.7 cm length each

Connector: None

Polarity: A positive increase in acoustic pressure generates a positive voltage on the red conductor

Capacitance: 4.5 nF +/- 25% at 20°C and 1 kHz

Resistance: 500 MΩ minimum across leads or to sea water at 20°C and 100% relative humidity, 50 V DC

Dissipation: 0.02 typical

Physical Specifications

Materials: Fluoroelastomer, high strength epoxy, Hytrel® insulated leads

Weight in air: 14 grams

Size: 4.56 cm long x 1.32 cm diameter

Displacement: 6.24 cc

Temperature: Operating: -10°C to 50°C
Storage: -40°C to 60°C

Performance

Sensitivity @ 100 Hz

Free-field voltage:
-201 dB re 1 V/μPa +/- 1.5 dB

Sensitivity Change

Versus frequency: +/- 0.25 dB from 1 Hz to 1 kHz (+/-2.0 dB from 1 kHz to 10 kHz)

Versus depth : < 0.5 dB to 1000 m

Versus temperature: < 0.03 dB per 1°C change

Acceleration Sensitivity

Output is < 1.5 mV/g due to acceleration in any of the three major axes at 20 Hz

Mechanical

Resonance typically 20 kHz in water

Maximum operating depth of 2000 m

Destruction depth of more than 7000 m

Pre-Amplifier

Size: 60 x 16 mm

Gain: 26 dB

Ground reference: Single-ended



Power: 9-12 V DC (polarity protected)

High-pass: -3 dB: 3 Hz

Low-pass: -3 dB: 13 kHz

Output impedance: 60 Ω

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