



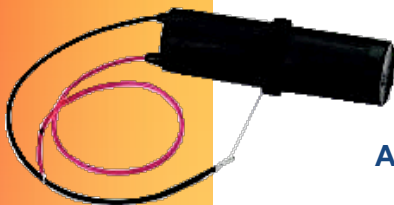
Geo-Sense Mini-Streamers

Single Channel Arrays of 8 to 24+ Elements



Applications

- Specially designed for use with HF acoustic sources: Sparkers, Boomers or Pingers.
- Can also be used to capture the signal of LF sources: Air guns and Water guns



AQ-2000 Hydrophone



The streamer outrigger

A 6 m long outrigger remains one of the most important requirements to deploy the streamer out of the turbulence of the prop wash.

Operational Features

- Specifically designed to capture the high frequency spectrum emitted by our VHR sources (sparkers, boomers, pingers)
- The short 8-element array was used successfully 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)

AQ-2000 Hydrophone

The AQ-2000 allows a 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.

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:	0.3 m standard
Length of active section:	2.4 m / 7.2 m (for 8 / 24 elements)
Length of jacket:	5.4 m / 11.2 m (approx.)
Jacket size ID & OD:	20.5 mm & 26.5 mm
Jacket material:	Unreinforced polyurethane
Buoyancy:	Slightly positive
Array fluid:	Shell Sol T 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

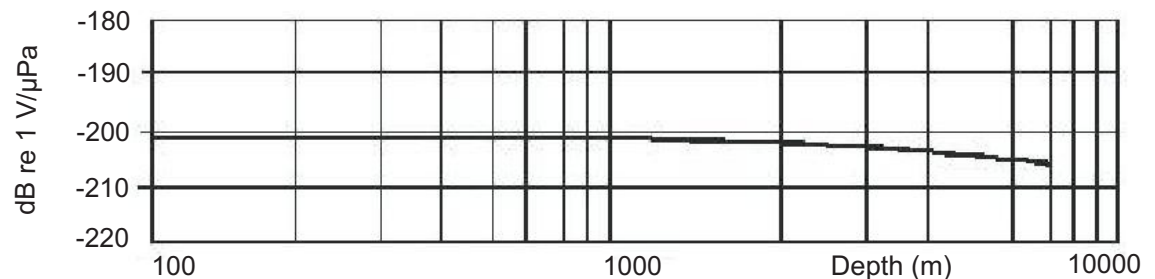
Pre-Amplifier

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

AQ-2000 Sensitivity vs Depth



AQ-2000 Sensitivity Response

