



Robust Light-Weight Multi-Channel Streamers for Ultra High-Resolution Seismic Surveys.

Description

RELIABLE EQUIPMENT WITH BROAD APPLICATIONS

The Geo-Sense Multi-Channel Streamers are a robust and versatile option for ultra high-res multi-channel seismic operations, from very shallow to oceanic waters.

Its reliability comes from its superior quality components, manufacturing expertise and many years of development after thousands and thousands of kilometers of collected data.

DESIGN

In its standard configuration, the Geo-Sense Multi-Channel Streamers have 24, 48 or 96 channels with 1 or 3 elements/channel. Depending on the application, the number of sections and channel spacing on each section should be chosen with the main objective in hand. In case you have a particular configuration in mind, we also offer custom built units.

STORAGE AND OPERATION

Our multi-channels streamers are stored, shipped and operated through rugged reels and winches (see [Winches, Cable Reels and Deck Leads](#)), which has a manual version that is indicated for small vessel operations with the 24ch streamer, or electronically operated, which is intended to be used with the larger 48 to 96ch streamers.

Operational Features

- Small diameter skin (41 mm), small bending radius (< 40 cm).
- Very rugged harness made of Delrin spacers plus two 5 mm Kevlar ropes with > 3000 kg breaking strength.
- Compact, stainless steel cable reel for easy and safe deployment.
- [Multi-Trace 24](#) A-D module integrated in cable reel, minimizing E-noise.
- Self-configurable LAN connection, no complex and laborious setups.
- No connectors, all in one section.
- Specially designed to capture the HF spectrum from the Geo-Source Sparkers.
- Short 3-element active section of 50 cm minimizes spatial filtering.
- Small group interval (maximum 3,125 m) allows detailed velocity analysis.
- Classic analogue design, repairable in any cable shop.

ULTRA HIGH-RESOLUTION STREAMERS



An at least 4 m long outrigger remains one of the most important requirements to deploy the streamer out of the turbulence of the prop wash (left: small vessel; right: large vessel operations).

multi-trace pelicase stored inside the multi-channel cable reel.

Technical Specifications

STREAMER GEOMETRY (standard for 24 channels)

Group Length:	50 cm
Group Spacing:	1 + 2 or 3.125 m spacing between the groups (Customized spacing available upon request)
Deck Lead:	25 m armoured LAN
Tow lead:	75.0 m
Front-Stretch:	12.5 m
Total Active Length:	75 m
Tail-Stretch:	12.5 m
Total length streamer (c/w tow lead):	75 tow lead + 12.5 + 75 + 12.5 = 175 m

STREAMER STRUCTURE

Jacket size ID & OD:	35 mm & 41,3 mm
Jacket material:	Unreinforced polyurethane, wall thickness 3.14 mm
Connectors:	none, all in one length
Spacing of spacers:	24 cm
Stress members:	2 × 5 mm Kevlar rope, breaking strength >3000 kg
Ballast fluid:	Shell Sol T(standard)
Buoyancy:	Slightly positive, must be zero balanced using lead
Wiring: conductor	32 twisted pair, super flexible, diam 0,38mm
Shielding:	100 % ground shielding all along

HYDROPHONE

Type:	AQ 2000 or Sensor
No of hydrophones per group:	1 (one) or 3 (three)
Frequency response:	1 Hz to 10,000 Hz ± 3.0 dB
Sensitivity:	201 dBV re 1 uPa @ 20 C
Sensitivity Change vs. Frequency:	±0.25 dB from 1 Hz to 1 kHz
Sensitivity Change vs. Frequency:	±2.00 dB 1 kHz to 10 kHz
Sensitivity Change vs. Temperature:	< 0.03 dB per 1°C change
Capacitance hydrophone:	4.5 nF @ 20°C

PRE-AMP

Type:	GEO, High imp, low noise, differential pre-amplifier
Gain:	26 dB
Size:	60 × 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
ESD handling:	as per IEC 61000-4 norm

TOW -CABLE

Length:	Standard 75 m
Diameter:	18 mm
Type:	31 or 62 screened twisted pair extra flex 26 AWG
Insulation:	Polyurethane
Strain member:	Double reverse spiral Kevlar, 25 kg breaking strength
Termination:	62 pin ITT D connector compatible with Multi-Trace 24
Depth Control:	Lead-in depth controller, AIS-GPS option

Operating Winches and Cable Reels

For more information on cable reel and winches, please consult [Winches, Cable Reels and Deck Leads](#)

MANUAL CABLE REEL FOR 24 CH STREAMERS

Manual Cable reel with integrated Multi-Trace.

Footprint 115 × 53 cm, height 121 cm, weight 125 kg (with streamer)
LAN deck lead to acquisition PC.



MANUAL CABLE REEL FOR >48 CH STREAMERS

Manual cable reel with integrated Multi-Trace.

Footprint 115 × 73 cm, height 121 cm, weight 480 kg (with streamer)
LAN deck lead to acquisition PC.



ELECTRIC WINCH FOR >48 CH STREAMERS

Electric 380 VAC cable reel with integrated Multi-Trace.

Footprint 131 × 99 cm, height 139 cm, weight 950 kg (with streamer)
LAN deck lead to acquisition PC.

