applied acoustics
underwater technology

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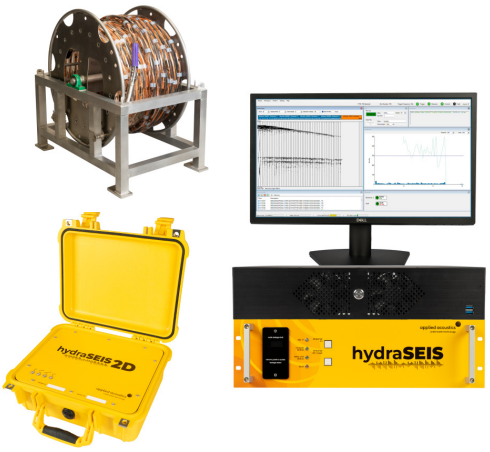
HydraSeis Multi-Channel Seismic Streamer



Key features

- Modular ultra-high resolution streamer
- Wide band 16kHz sampling for UHR data
- 24 channel active sections
- Up to 4 streamer sections (96 channel)
- 2 additional AUX channels
- In water 24 bit ADC
- Continuous sequential recording
- 2D and 3D survey configuration
- Integrated GPS and positioning options
- Light weight, low noise, balanced construction

HydraSeis Overview

The HydraSeis UHR system has been developed to acquire digital multichannel Ultra High Resolution (UHR) seismic data. The design methodology of the HydraSeis system compliments Applied Acoustic's existing range of ultra-high resolution sound sources to provide a step change in performance and data quality. The in water internal 16KHz 24-Bit ADC modules provide digital low noise, wide bandwidth data acquisition. The 100Mbps network data link to the system console provides continuous ultra-high-resolution recording coupled with external navigation integration. The flexible modular system allows for 2D and 3D UHR data acquisition, at fast shot intervals for a wide range of marine geophysical survey applications.

Technical Specification

Physical

Diameter	Ø 45mm (nominal)
Stress Member	Dyneema x4, 750kg MBL (per member)
Jacket Material	Polyurethane
Fill Material	PMX-561

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UKAS MANAGEMENT SYSTEMS
ISO 9001:2015 9940
ISO9001:2015 Certificate No: QEC/12/8208032010

ADC modules

Channels	24 channels per section (2 ADC modules per section, 12 channels per module)
Sample Frequency	16kHz
Sample Interval	0.0625ms
Anti-Aliasing Filter	Set by sample interval
Resolution	24 Bit ADC
ADC amp	36dB, configurable
Module Communication	100Mbps Ethernet

Active configuration

Hydrophones Per Group	2 (other groupings available on request)
Group Length	150mm
Group Interval	1m (other spacings available on request)
Active Length	24m
Bird Coil	1 per section (optional)

Hydrophone

Max Number of channels	96
Channel Sensitivity	-197 dB ref 1v per µPa
Frequency range	up to 10kHz (±3dB)
Depth Limit	Operational depth limited to ≤ 30m. Recoverable ≤30m.

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Electrical

Main Power	115/230VAC (supply to console)
Streamer Power	48VDC (via console)

Tow cable

Stress Member	Aramid fiber braid, 700kg MBL
Jacket	Polyurethane
Conductors	Power, Network, Auxiliary, Spare
Tow Cable Length	50m Standard

Console and software

PC based application running on a dedicated Windows 10, 64 bit machine/network

- SEG-D Recording with navigation data recorded to header
- Logging to internal HD with optional automated external storage back-up
- QC windows for: Live shots, Trace gathers, Navigation, Error reports, Data storage monitoring
- 2 AUX channels for analogue data/Near field hydrophone

Options

HYD-TL50/100	HydraSeis 50/100m Tow Leader Extension Cable
HYD-TLRM	HydraSeis Tow Leader Repeater Module (HYD-TLRM+HYD-TLE50+HYD-TL100= 150m Tow Leader)
HYD-BKM	HydraSeis Break Out Module: MiniPod Interface and Depth sensor
HYD-BKM AHRS	HydraSeis Break Out Module: MiniPod Interface, Depth sensor and AHRS
Head / Tail Buoy	Lightweight Towing Buoys, with Mini Pod and Battery Pack Mounts
HYD-SRCH	HydraSeis 10m Stretch Isolation Section (optional Bird Coil)
HVR-0120	Hand Storage Reel

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