

# HYDRINS

**YOUR DEDICATED HYDROGRAPHIC SOLUTION  
"GET REAL-TIME AND SAVE SURVEY TIME"**

HYDRINS navigation system has been designed by iXSea to meet the needs of Hydrographic surveys especially multibeam. HYDRINS provides high accuracy data (position, heading, attitude and motion) in real-time to meet IHO requirements.



## THE SOLUTION FOR ACCURATE, COMPLETE NAVIGATION

Based on iXSea's unique expertise in the field of inertial products (more than 750 inertial units delivered to date), and particularly based on listening to feedback from our OCTANS and PHINS users, HYDRINS has been developed as a dedicated solution for hydrographers.

### → SAVE SURVEY TIME

Thanks to HYDRINS high-class inertial heart, there is no need for post-processing anymore.

### → QUALITY DATA, REAL-TIME

HYDRINS gives continuous and smooth positioning with full and accurate data, which drastically reduces post-processing of data, saving overall survey time.

### → GPS DROP-OUT / MULTIPATH REAL-TIME MANAGEMENT

Less than 1 meter drift in 1 minute

### → GPS HEIGHT REAL-TIME MANAGEMENT

Prevents height artefacts

### → UNBEATABLE ACCURACY FOR H/R/P (0.02°/0.01°/0.01°)

Improves total error budget of measurements to meet IHO requirements

### → HEAVE REAL-TIME MANAGEMENT

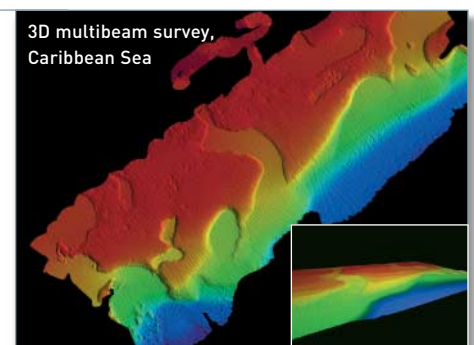
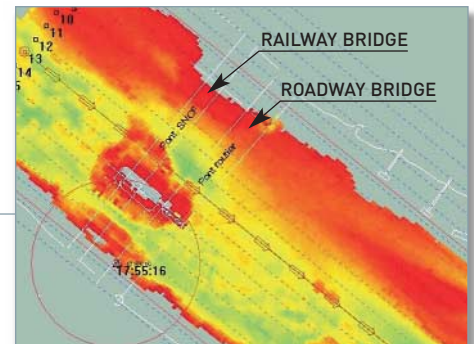
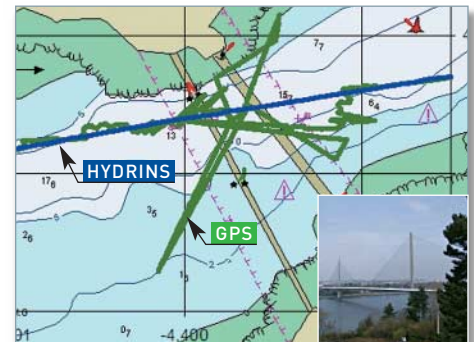
SAFE HEAVE included self-adaptive heave filter

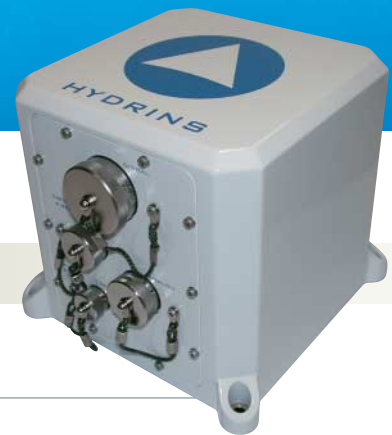
### → ALL-IN-ONE SOLUTION

HYDRINS is a complete system which integrates sensors, electronics and kalman filter in the same housing.

### → VERSATILE

- compatible with ALL leading multibeam manufacturers
- compatible with ALL leading GPS manufacturers
- can be supplied as part of a complete survey package





## TECHNICAL SPECIFICATIONS

### PERFORMANCE

Heading accuracy <sup>(1)</sup>	0.02° secant latitude <sup>(2)</sup> (1s)
Roll/Pitch accuracy <sup>(1)</sup>	0.01° (1s)
Heave accuracy SAFE HEAVE	5 cm or 5% self-adaptive filter
Position accuracy (RTK)	2-5 cm
Position accuracy (DGPS)	0.5-3 m
Position accuracy (natural)	5-15 m
Position accuracy degradation	less than 1 meter in 1 minute (free inertial mode)

### INTERFACES

Input formats	Based on industry standards (NMEA0183, Binary) Including all leading GPS manufacturers
Data output rate	100 Hz
RS232/RS422	3 outputs (Ethernet in option)
Output formats	Based on industry standards (NMEA0183, Binary) Including all leading multibeam manufacturers
Power supply	24 V nominal

### PHYSICAL CHARACTERISTICS

Waterproof	IP66
Weight	4.5 kg // 9 lb
Volume	≤ 6 dm <sup>3</sup>
Calibration interval	none required
MTBF	30,000 hours

### OPERATING RANGES

Temperature operating/storage	-10 to 50 °C / -40 to 80 °C // 15 to 120 °F / -40 to 175 °F
No latitude limitation	
No attitude limitation	
Multiple lever arms (sub-bottom profiler, singlebeam, ADCP compensation)	

(1) Heading, Roll, Pitch figures are RMS values

(2) Secant latitude = 1 / cosine latitude

*Specifications subject to change without notice*

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