HYDRINS

INERTIAL NAVIGATION SYSTEM FOR HYDROGRAPHIC & MULTIBEAM SURVEYS

HYDRINS is a high-performance Inertial Navigation System optimized for hydrographic survey using multibeam echo-sounders. **HYDRINS** comprises a single compact unit and delivers highly accurate real-time position, heading, attitude and speed data. In addition to the real-time options, **HYDRINS** raw data can be post-processed using DELPH INS.

FEATURES

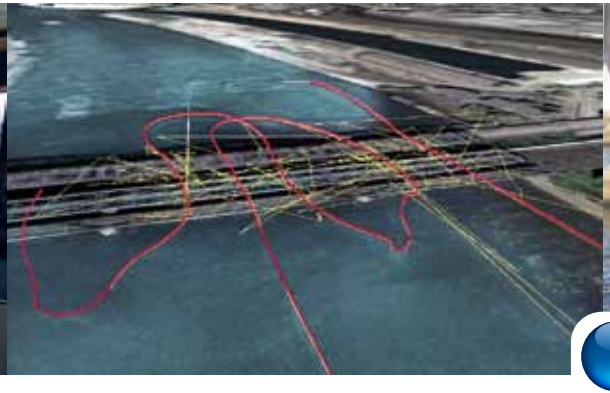
- Proven high-performance iXBlue INS technology inside
- Compact, uses any kind of GPS (only one GPS required)
- DELPH INS (windows based) post-processing package included
- GPS drop-out / multipath management
- Smart Heave™
- Ethernet, Web-based Man-Machine Interface (MMI)
- Option : GPS RTK

BENEFITS

- Reliable and accurate motion, speed, position and heave data
- Fast and reliable installation on all vessels
- A complete solution packed with easy-to-use yet powerful post-processing tools
- Motion and heading not affected by GPS outages, position remains valid for minutes
- Network ready, intuitive user interface

APPLICATIONS

• Multibeam survey • Hydrographic survey • Harbours and inland waterways



iXBLUE
DEEP INSIGHT. SHARPER SENSES.

HYDRINS

TECHNICAL SPECIFICATIONS

Ethernet

IMO Certified
N° 19111/A1 EC
N° 19184/A1 EC

PERFORMANCE

Position accuracy Real Time [1]	
With GPS	3 times better than GPS
No aiding for 1 min / 2 min	0.8 m / 3.2 m
Position accuracy post-processed [1]	
With GPS	4 times better than GPS
No aiding for 1 min / 2 min	0.2 m / 1m
Heading accuracy [2] [3]	0.01 deg secant latitude
Roll and Pitch dynamic accuracy [2]	0.01 deg
Heave accuracy (Smart Heave) [4]	2.5 cm or 2.5%

OPERATING RANGE / ENVIRONMENT

Operating / Storage Temperature	-20 to 55 °C / -40 to 80 °C
Rotation rate dynamic range	Up to 750 deg/s
Acceleration dynamic range	± 15 g
Heading / Roll / Pitch	0 to +360 deg / ±180 deg / ±90 deg
MTBF (computed/observed)	40,000/80,000 hours
No warm-up effects	
Shock and Vibration proof	

PHYSICAL CHARACTERISTICS

Dimensions (L x W x H)	180 x 180 x 162 mm
Waterproof	IP66
Weight	4.5 kg
Material	Aluminium

INTERFACES

Serial RS232 or RS422	5 inputs / 5 outputs / 1 configuration port
Ethernet Port [5]	UDP / TCP Client / TCP server
Pulse port [6]	4 inputs and 2 outputs
Sensors supported	GPS
Input / Output formats	Industry standards: NMEA0183, ASCII, BINARY
Baud rates	600 bauds to 115.2 kbaud
Data output rate	0.1 Hz to 200 Hz
Power supply	24 VDC
Power consumption	< 20 W

(1) CEP: 50 % circular Error Probability
(2) Heading, Roll, Pitch figures are RMS values
(3) Secant latitude = 1 / cosine latitude
(4) Whichever is greater for periods up to 30 seconds. Smart Heave is delayed by 100 s fixed value.
Real time heave accuracy is 5 cm or 5% whichever is greater
(5) All input /output serial ports are available and can be duplicated on Ethernet ports
(6) Use GPS PPS pulse for accurate time synchronization of HYDRINS
Specifications subject to change without notice

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