

# KONGSBERG

## HUGIN SUPERIOR

- Depth rating 6000 meters
- Diameter 0875 mm,-
- length 6.6 m
- weight 2200 kg
- Vehicle speed
  - Useful speed range: 2-5.2 knots
  - Typical operating speed :3-4 knots
- Energy
  - Pressure tolerant Lithium polymer battery
- Endurance capacity
  - 62.5 kWh energy
  - 72 (52) hours endurance @ 3 (4) knots,
- Charge time: 5-8 hours
- Hot-swappable batteries for fast turn-around Battery blocks UN 38.3 certified for transport by air, sea and land
- Navigation
  - Kongsberg Sunstone INS
  - Navigation grade IMU
  - Doppler Velocity Log (DVL) with bottom and water track
  - SAS micro-navigation (DPCA)
  - Surface GPS with L2 and SBAS options.
  - High accuracy depth sensor
  - 0.04% of distance travelled (CEP50), DVL and DPCA aided INS, straight line
  - USBL positioning and aiding using Kongsberg HiPAP systems
  - Single-transponder positioning
  - Terrain-referenced navigation
  - Forward Looking Sonar (FLS) with advanced terrain following, collision avoidance and under-ice functionality

## HUGIN

- Length: 5.2-6.4 m
- Outer diameter: 0.75 m
- Weight: 1000-1550 kg
- Weight in water: Neutrally buoyant
- IP code: IP9064/5920
- DEPTH RATINGS 3000m- 4500 m
- VEHICLE SPEED • 2-6 knots
- ENERGY
  - Pressure tolerant lithium polymer battery
  - 1 or 2 exchangeable 24 kWh power packs
  - Charge time 5-8 hours
  - Battery transportable by air, sea or land
- ENDURANCE
  - 24-74 hours with all sensors operating
- NAVIGATION
  - Kongsberg NavP aided Inertial Navigation System (AINS) with Honeywell HG9900 Inertial Measurement Unit (IMU)
- IHO compliant
- Acoustic positioning using NODE and HiPAP (option)
- Novatel GPS
- Forward Looking Sonar with advanced terrain following and collision avoidance
- Broadband 300 kHz Doppler velocity log
- Paroscientific DigiQuartz depth
- Terrain referenced navigation
- Underwater transponder positioning
- CNODE acoustic command and data link • Wi-Fi
- Iridium
- UHF radio link
- AVAILABLE PAYLOAD SENSORS
  - HISAS interferometric synthetic aperture sonar
  - EM 2040® multibeam echo sounder, 200-400 kHz, 0.7° x 0.7° beam width, swath coverage sector up to 140° +/- 70° single
  - RX) 160° (+/- 80° dual RX)
    - EdgeTech dual/triple frequency Sidescan Sonar
    - EdgeTech single/dual frequency Sub-bottom profiler 1-6 kHz, 2-16 kHz or 4-24 kHz
    - SAIV conductivity, temperature, depth (CTD) sensor
    - Still Image Camera
    - Environmental and Geochemical



## HUGIN ENDURANCE

- Length 11 meters
- Diameter 1.2 meters
- Weight 8,000 kg,
- Depth 6,000 meters
- Endurance 2,200 kilometers  
1,200 nautical miles



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## HUGIN EDGE



### TECHNICAL DATA

Endurance : 24 hours @ 4 knots, 85% payload usage

Depth rating : 1000m

Speed range : 2- 5 knots

Dimensions : Length 400cm; height 35cm

Weight : 300kg in air\*

Navigation : Better than 0.04% of DT CEP50\*\*

### CONNECTIVITY

Hi-speed wireless download, Node acoustic link, Iridium, 4/5G, long-range RE

### NAVIGATION SENSOR SUITE

Sunstone INS, Seatex MGC, DVI, CI/P/SVI, multi-axes FLS

### PAYLOADS

Sidescan : Sidescan upgradeable to customizable high coverage high resolution Synthetic Aperture Sonar

MBES : 0.7 = 1.4MHz, 140° of coverage

Magnetometer : High-sensitivity magnetometer

Camera : Low-light colour camera and strobe

SBP : Lightweight wideband SBP

- Real-time adaptive mission replanning
- Terrain navigation
- Pipe and cable detection and tracking
- Target recognition software
- In-mission target reacquisition and classification
- Full post-mission analysis and inertial reprocessing
- Automated charging for uncrewed operations
- Mobile Mission System for low logistics, low infrastructure topside
- Fully encrypted security options

- Fully automated launch and recovery including provision for emergency recovery
- Goal-based mission planning