

equipOcean

Survey equipment rental



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Acoustic doppler profilers & velocimeters – Nortek



- Signature 55/75 kHz, 3 beams, 1 Hz ping rate, AHRS**
- 5.0 m/s beam range, 128 GB memory, 5 to 20 m bins
 - 55/75 kHz: 1000/600 m range, 1200 m bottom track range



- Signature 100 kHz, 5 beams, 3 Hz ping rate, AHRS**
- 5.0 m/s beam range, 128 GB memory, 3 to 16 m bins
 - 470 m profile range, 560 m bottom track range
 - Scientific echo sounder with central beam 70 - 120 kHz



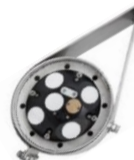
- Signature 250 kHz, 5 beams, 3 Hz ping rate, AHRS**
- 5.0 m/s beam range, 128 GB memory, 1 to 8 m bins
 - 211 m profile range, 205 m bottom track range, 300 m rated
 - Wave height and direction, Ice thickness, ice tracking



- Signature 500 kHz, 5 beams, 8 Hz ping rate, AHRS**
- 5.0 m/s beam range, 128 GB memory, 0.5 to 4 m bins
 - 77 m profile range, 70 m bottom track range
 - Wave height and direction, Ice thickness, ice tracking



- Signature 1000 kHz, 5 beams, 16 Hz ping rate, AHRS**
- 5.0 m/s beam range, 128 GB memory, 0.2 to 2 m bins
 - 32 m profile range, 30 m bottom track range, 300 m rated
 - Wave height and direction, Ice thickness, ice tracking



- Signature VM Coastal 250, 500 and 1000 kHz, 5 beams, AHRS**
- Vessel Mounted measurements
 - 5th echosounder beam for sediment measurements
 - Simultaneous current and depth information
 - Outstanding bottom-track performance



- Aquadopp Profiler 1 MHz Sidelooking, 3 beams, 1Hz ping rate**
- 10 m/s range, 16 GB memory, 0.3 to 4.0 m bins
 - 25 m profile range, 300 m rated
 - PUV wave measurements



- VECTOR velocimeter, 3 beams, 64 Hz ping rate, IMU**
- 7 m/s, 4 GB memory, 2 cm single bin
 - 15 cm range, 300 m rated housing
 - 10, 20, 30, 50, 100 or 200m pressure sensor



- Software : Ocean Contour**
- For currents and waves

Acoustic doppler profilers & velocimeters – Teledyne RDI



- Sentinel V100 (300 kHz) - 5 beams - 25° slant**
- 5 m/s, 2 Hz ping rate, 16 GB memory, 0.5 to 6 m bins
 - Ranges: 151 m profile, 240 m bottom track, 200 m housing
 - Accuracy 0.5 % of measured value +/-0.5 cm/s
 - Bottom track and waves features



- Sentinel V50 (500 kHz) - 5 beams - 25° slant**
- 5 m/s, 4 Hz ping rate, 16 GB memory, 0.5 to 6 m bins
 - Ranges: 82 m profile, 125 m bottom track, 200 m housing
 - Accuracy 0.3 % of measured value +/-0.3 cm/s
 - Bottom track and waves features



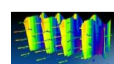
- Sentinel V20 (1000 kHz) - 5 beams - 25° slant**
- 5 m/s, 4 Hz ping rate, 16 GB memory, 0.25 to 4 m bins
 - Ranges : 32 m profile, 45 m bottom track, 200 m housing
 - Accuracy 0.3 % of measured value +/-0.3 cm/s
 - Bottom track and waves features



- RiverPro (1200kHz) - 5 beams - 20° slant**
- 5 to 20 m/s, 2 Hz ping rate, 16 MB memory, 0.02 to 5 m bins
 - Ranges: 25m profile, 35 m bottom track, 120 m bottom detection
 - The 5th beam collects true vertical velocity and range to bottom
 - Fully integrated GPS, Auto-adaptive sampling
 - Communications: RS232, Bluetooth, radio modem (option)



- RiverRay (600kHz) - Phased Array 30°**
- 9.5 m/s, 2 Hz ping rate, accuracy 0.25% +/- 0.2 cm/s
 - Ranges: 60m profile, 100m bottom track, 120m bottom detection
 - Fully integrated GPS
 - Communications: RS232, Bluetooth, radio modem (option)



- Software : Velocity**
- For currents and waves

Acoustic recorders – Abyssens



- ABYSSENS DORI Acoustic recorder**
- 110 dB dynamic range, 2 Hz to 250 kHz, up to 16 TB
 - Sampling rates: 31.25 to 400 kSps
 - Self-contained or real-time
 - Alkaline D cells

Tide & wave gauges - Multiparameter probes



- NKE WiMo and WiMo Plus**
- Very good accuracy and autonomy
 - Temperature and pressure on the main housing
 - WiMo: 4 smart ports. WiMo Plus: 7 smart ports
 - Plug-in smart sensors : Wiper, Conductivity, Turbidity, Oxygen concentration, Oxygen saturation, pH, Fluorescence Chlorophyll A, Fluorescence Phycocyanin, Fluorescence Phycoerythrin, CDOM fDOM, Redox/ORP
 - Calculated parameters : Chloride, Depth, Salinity, Sound velocity, Specific conductivity, Total dissolved solids
 - Options: Plug-in GSM modem, Cloud, Buoy



- YSI EXO2 – 7 sensor ports**
- 250m depth + 7 sensor ports (including a central wiper port)
 - Sensors available: Conductivity, Temperature, Dissolved Oxygen, fDOM, ISEs, NitraLED, pH, Rhodamine, Total Algae, Turbidity

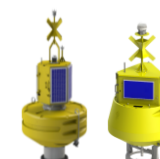


- RBR Compact and Standard loggers**
- Very good accuracy and autonomy
 - From 1 to 10 sensors: Solo, Duet, Virtuoso, Duo, Concerto, Maestro
 - Sensors available: Conductivity, Temperature, Pressure, CO2 Dissolved Oxygen, Fluorescence, ORP, PAR, pH, Turbidity, Transmittance, and Voltage
 - Pressure sensor capable of tide and low and high frequency wave measurements



- SEQUOIA LASER GRANULOMETER LISST-100X**
- Particle size range : 1.25 to 500 microns in 32 size ranges
 - Optical path : 50 mm
 - Depth rating : 300 m

MetOcean buoys



- MOBILIS Data buoys 500 or 2000 litres**
- Directional wave spectrum and parameters (MOTUS or SVS603)
 - Payloads: ADCP, multi-parameter probes, acoustic recorders, weather stations
 - Communication: UHF, GSM or Iridium



- Datawell Directional Waverider MK3 – 90 cm - 240 kg**
- Directional wave spectrum and parameters
 - Communication: UHF, GSM or Iridium



- Sofar Ocean Spotter with SST - 42 cm - 5.4 kg**
- Directional wave spectrum and parameters
 - Communication: GSM or Iridium
 - Wind speed and direction estimation with spectrum tail

Seabed platforms and moorings



DynamOcean Seabed Frame BRENNIG

- ADCP on a weighted gimbal
- Two pop-up buoys (360mm diameter, 20kg buoyancy)
- Options: lead weights, extension legs and instrument pole



DeepWater Buoyancy Seabed Frame BTM-AL50

- ADCP on a weighted gimbal
- Room for two POP-UP buoys and two battery containers
- Options: lead weights, extension legs and instrument pole



DeepWater Buoyancy Small seabed frame compatible with:

- Nortek side-looking Aquadopp profiler
- Multiparameter probes



DeepWater Buoyancy POP-UP Buoy to fit on Seabed platforms

- Bracket for acoustic release Sonardyne RT6-1000
- Rope canister



Sonardyne POP-UP Buoy for inline moorings:

- Bracket for acoustic release Sonardyne RT6-1000
- Rope canister 50cm long and 12cm diameter



DeepWater Buoyancy Inline ADCP frames

- Single or double ADCP



DeepWater Buoyancy Elliptical ADCP buoys

- Single or double ADCP



Nortek Buoy for Signature 250 or 500 - Ø 480 mm - length 1150 mm

- Maintain a vertical orientation even when exposed to strong currents and wave action.



Del Mar Oceanographic Wirewalker

- Wave-powered
- Vertical profiling with various instruments
- Up to 1000 m depth range

Pingers with tilt monitor Iridium beacons



Sonotronics Tilt angle monitoring transmitter EMT-AR-3

- User replaceable AA lithium batteries (2)
- Accuracy : ± 2.5° for angle between 15° and 90°
- Range : 4km, Depth rating : 1km, Duration: 6 months



Sonotronics Deck Box USR-08

- Frequency range : 30 to 90 kHz (500Hz steps)
- Sensitivity : 1.0 microvolt for 40 dB
- Omni-directional hydrophone
- Directional hydrophone



metOcean iBCN Iridium Beacon

- Rated depth : 7500m
- Length 390mm, diameters 28.7 and 58.9, weight in water 0.5kg

Data telemetry



Satel Radio Telemetry : Radio Transceivers 2ASxE

- Connection range of 4 to 40 kilometres



Sonardyne Underwater Acoustic Modem 6 (Sub-Mini)

- Transfer rates up to 9,000 bps
- Depth rating: 1000m
- Sonardyne Wideband® telemetry



Hydromea Optical Model LUMA X-UV

- Transfer rates up to 10 Mbps
- Range 30 m
- Depth rating 6000 m

Weather stations



Vaisala Weather Station : Model WXT520

- Wind velocity magnitude and direction, Barometric Pressure
- Air Temperature, Relative Humidity and Precipitation



Vaisala Wind Sensor : Model WS425 (similar to WMT700)

- Wind velocity magnitude and direction, Barometric Pressure
- Air Temperature, Relative Humidity and Precipitation

USBL, transponders, releases, modems – Sonardyne



USBL : Mini-Ranger 2

- Tracks 10 underwater targets simultaneously to 4000 m range
- Accuracy of 0.2% x slant range. 3 Hz position update rate
- 310 x Ø234 mm. 20 kg in air.



USBL : Micro-Ranger 2

- Tracks 10 underwater targets sequentially to 995 m range
- Accuracy of 5% x slant range. 3 Hz position update rate
- 177 x Ø106 mm. 2 kg in air. Deck box with rechargeable battery.



Nano Transponder

- With pressure sensor
- Depth rated to 1000 m



Acoustic Release and Transponder : RT6-1000

- With inclinometer
- Depth rated to 1,000 m
- Working Load Limit (WLL) : 150 kg up to 300 kg with tandem kit



Acoustic Release and Transponder RT6-3000

- With inclinometer
- Depth rated to 3,000 m
- WLL : 1,275 kg up to 25 tonnes with heavy duty release frame

Dual antenna GNSS (GPS)



Hemisphere GNSS Compass : VECTOR V102

- 0.5 m SBAS, 0.75° heading, 1.5° roll & pitch, 30 cm heave
- Accurate heading during GNSS outages of up to 3 minutes



Advanced Navigation GNSS Compass

- 0.01 m RTK, 0.2° heading, 0.4° roll & pitch, 200 Hz update rate
- Accurate heading during GNSS outages of up to 20 minutes

Hydrography



Unabara VZ Axis-2F – Single Beam Echo Sounder

- Dual frequency (F1: 200 kHz plus F2: 10 to 30kHz)
- Survey depth: 0.24 to 100 meters
- Ping rate: 5, 10 or 20 Hz.



Pico-Tech PicoMB-130 Multi Beam Echo Sounder

- Frequency 300-400 kHz, 256 beams
- Across and Along track beam width: 1.4° and 1.4°
- Survey depth: 0.6 to 170 meters
- Ping rate: up to 25 Hz

Vehicles



Teledyne RDI tethered float for RiverPro and RiverRay

- Folding Trimaran; Polyethylene
- 120x80x20 cm
- 10 kg bare; 17 kg with instrument and battery



Blue Robotics USV BlueBoat

- Max speed 3 m/s, max autonomy 18 hours
- 120x91x38 cm, 17 kg
- Payload (13kg) : ADCP, SBES, MBES, SSS



BathyDrone USV/ASV VASCO

- Max speed 3 m/s, max autonomy 8 hours
- 150x60x30 cm, 35 kg
- Payload (10kg) : ADCP, SBES, MBES, SSS, Winch



Blue Robotics ROV BlueROV2

- 100 m rated, 200 m tether length, 4 lights, max autonomy 4 hours
- Echo sounder, rotating sonar, optical modem, laser scaler
- Gripper, recovery hook, rear-camera



Deep Trekker ROV Pivot Nav

- 300 m rated, 300 m tether length
- Multibeam sonar, USBL, DVL
- Grabber, recovery hook



SEABER AUV - YUCO

- 300 m depth rated, 2.5 to 6 knots max, 6 to 10 hours endurance
- Weight 8 kg, Length 100 cm, Diameter 12 cm
- Payload : Side scan, CTD, multiparameter probe

Energy



Nortek Battery canisters w/cable to instrument

- Aluminium, 500m rated, Alkaline (1080 Wh) or Lithium (3600 Wh)
- Plastic, 300m rated, Alkaline (200 Wh) or Lithium (660 Wh)
- Compatible with Nortek, Teledyne RDI, etc.