

GeoSwath 4R

Wide Swath Bathymetry and Side Scan System



GeoAcoustics



Overview

GeoSwath 4R offers industry-leading simultaneous swath bathymetry and side scan sonar mapping for shallow waters. The system is comprised of a compact, splash-protected deck unit and ruggedised laptop, making it the ideal solution for surveying in challenging conditions on small vessels of opportunity.

The GeoSwath 4 dual transducer head delivers data accuracies that exceed IHO hydrographic survey standards with a 240° field of view from port to starboard waterline, enabling bottom coverage of up to twelve times the water depth. The transducers have a versatile range of mounting options and are available in frequencies of 125, 250 or 500 kHz, each varying in depth and data resolution to optimise performance for the individual survey task.

The latest GS4 software comes included and has been exclusively developed for the GeoSwath 4. The GS4 software which provides the complete project-based solution, and includes acquisition, storing and editing of sonar and ancillary data, data processing and advanced data gridding capabilities, side scan mosaicing and 3D data visualisation. The GeoSwath 4R can also be interfaced to third-party software for acquisition and processing.

Key Features

- Ultra-high resolution wide swath bathymetry
- 240° field of view up to the water line
- Bottom coverage up to 12 x water depth
- Fully featured GS4 software included
- Available in 125, 250 and 500 kHz
- Splash-proof deck unit (IP66-rated)
- Ruggedised laptop

Applications

- Hydrographic Surveys
- Dredging surveys
- Environmental surveys
- Rapid environmental assessment
- Inland waterway and seabed mapping
- Infrastructure inspection



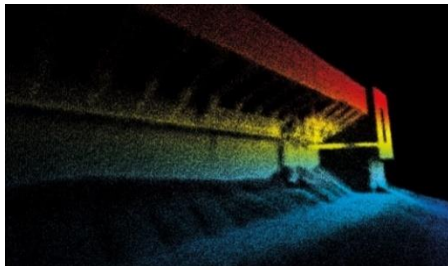
Technical Specifications

Transducer	125 kHz	250 kHz	500 kHz
Max Water Depth Below Transducers	200 m	100 m	50 m
Max Swath Width	780 m	390 m	190 m
Max Coverage	Up to 12 x depth		
Range Resolution	6 mm	3 mm	1.5 mm
Angular Resolution	0.04° (all frequencies)		
Two-Way Beam Width (Horizontal)	0.85°	0.75°	0.5°
Max Swath Update Rate	30 per second (simultaneous port and starboard)		
Transducer Head Dimensions	550 mm (L) x 250 mm (W) x 476 mm (H)	468 mm (L) x 165 mm (W) x 411 mm (H)	362 mm (L) x 150 mm (W) x 361 mm (H)
Transducer Head Weight, including peripherals, approx	35 kg	20 kg	14 kg

GeoSwath 4R Deck Unit

Dimensions	440 mm (D) (with connectors) x 342 mm (W) x 136 mm (H)
Weight	12.5 kg
Power	18-26 V _{DC} , 60 W peak power
Environment	0 °C to 40 °C, -20 °C to 70 °C (storage) < 95 % RH non-condensing (operation), < 55 % RH non-condensing (storage) IP66 rated ingress protection
Control Interface	Laptop via Ethernet
Laptop	Minimum Spec: Panasonic Toughbook 55, 14" 8th gen. Intel Cor i5 8 GB DDR4-SDRAM 1 TB SSD Windows 10 Pro

Specifications subject to change without notice. E&OE



Dry Dock Wall, Setubal, Portugal



125 kHz, 250 kHz and 500 kHz transducers