

GEOSWATH PLUS COMPACT



KONGSBERG



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PORTABLE WIDE SWATH BATHYMETRY AND SIDE SCAN SYSTEM

GeoSwath Plus compact offers very efficient simultaneous swath bathymetry and side scan seabed mapping with accuracies that have been shown to exceed the IHO standards for hydrographic surveys. The applied phase measuring bathymetric sonar technology provides data coverage of up to 12 times the water depth, giving unsurpassed survey efficiency in shallow water environments. Its splash protected deck unit was designed to be deployed on small vessels like dinghies and jet skis equipped with a 24 V power supply.

System Components

The GeoSwath Plus compact turn-key solution comprises a dual transducer head and a splash protected deck unit containing the complete sonar electronics, which can be interfaced via an Ethernet connection to the control laptop PC running the GeoSwath Plus survey software suite.

Dual Transducer wet end

The compact dual transducer sonar head assemblies are available in three frequency versions, 125, 250 and 500 kHz.

Deck Unit

The compact splash protected housing contains the complete system electronics. All peripheral sensors (position, motion, heading, transducer face sound velocity, sound velocity profiler and tide) are interfaced directly via IP54 rated connections.

Software

Operating on Windows the GS+ software package provides a complete project based solution, including control, acquisition, storing and editing of sonar and ancillary data, grid-based patch test calibration, data processing with audit trail, advanced bathymetry data gridding and side scan mosaicing, data visualisation including 3D fly-through capability. Depending on the survey situation full online data processing can be performed or the operation can be limited to basic acquisition start and stop commands.

FEATURES

OPTIONS

- Ultra high resolution swath bathymetry
- IHO SP-44, special order
- Co-registered geo-referenced side scan
- Frequency versions: 125, 250, 500 kHz
- Up to 12 times water depth coverage
- 240° view angle
- Compact protected proof deck unit
- 24 V power supply, 40 W
- Operation from laptop PC
- Dual transducer wet end
- Full software solution included: data acquisition, processing, presentation
- Interfaces to all customary peripheral sensors

- Touch screen control
- Range of transducer mounts, including underwater housing for peripheral sensors
- Cost effective frequency upgrades
- Range of cable options
- GeoTexture Side Scan Sediment Classification software
- Special rates on third party software



TECHNICAL SPECIFICATIONS

GeoSwath Plus Compact	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 depths		
Depth Resolution	6 mm	3 mm	1.5 mm
Two Way Beam Width (Horizontal)	0.85°	0.75°	0.5°
Transmit Pulse Length	128 µs to 896 µs	64 µs to 448 µs	32 µs to 224 µs
max Swath Update Rate	30 per second (range dependant)		
Transducer Head Dimensions	390 x 520 x 220 mm	360 x 352 x 150 mm	330 x 109 x 75 mm
Transducer Head Weight, appr. incl. peripherals	24 kg	20 kg	16.8 kg
Deck Unit Dimensions xWxD	135 x 400 x 342 mm		
Power Requirements	24 VDC, 55W peak		
Deck Unit IP Rating	IP66 - water tight		
Control Interface	Laptop via Ethernet or Touch Screen Control (optional)		

Specifications subject to change without any further notice.