



SeaBat 9001

Multibeam Echosounder



SeaBat 9001

- Complies to IHO accuracy
- 60 soundings in a swath
- Up to 15 swaths per second
- Lightweight and portable
- Sidescan upgradeable
- Real-time quality control
- Circular array, all beams $1.5^\circ \times 1.5^\circ$

The SeaBat 9001 Multibeam Echosounder measures 60 soundings in a single swath from a lightweight and portable transducer head. Sixty sonar beams within each swath (combined to form a 90° wide by 1.5° long geometrically correct cross-section) provide simultaneous sonar coverage. While traveling at speeds of over 10 knots, the SeaBat is able to output up to 15 complete profiles per second while maintaining 100% coverage of the seafloor.

Due to its small size, the SeaBat 9001 can be installed and operated from an ROV, a small survey launch, or a towed underwater platform. With the ability to change the transducer orientation, 100% coverage of the seafloor can be achieved from two to four times the measured water depth. Not only is the SeaBat currently utilized for general hydrographic applications, but the system can also be used for surveying pipeline routes, breakwaters, harbor facilities, and dredging operations.

Optional upgrades to the SeaBat 9001 include simultaneous output of sidescan imagery, dual transducer heads for wider coverage and forward-looking imaging capability.





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SYSTEM PERFORMANCE

Operating Frequency:	455kHz	
Range Settings:	2.5, 5, 10, 25, 50, 100, and 200m	
Range Resolution:	5cm	
Range Accuracy:	IHO Compliant (4-9cm)	
Number of Beams:	60	
Across track Beamwidth:	Receive:	1.5° (each beam)
	Transmit:	100°
Along track Beamwidth:	Receive:	15°
	Transmit:	1.5°
Source Level:	210dB re 1µPa @ 1m (nominal)	
Sample Rate:	14.2kHz	
Pulse Width:	70 µsec	
Ping Rate:	2.5, 5, 10m range, 15 times/sec.	25m range, 13.5 times/sec.
(Full 90° sector):	15m range, 7 times/sec.	100m range, 3.5 times/sec.
	200m range, 1.7 times/sec.	

PROCESSOR SPECIFICATIONS

Power Required:	115/230VAC, 50/60Hz, 200W max	
Data Input (Uplink):	Pseudo-video, 1.5MHz black and white video channel	
Data Output (Downlink):	RS-232, 300 baud	
Data Input (Annotation and Control):	RS-232, 1200 baud	
Data Output (Depth and Intensity):	RS-232, 300 to 38400 baud	
Display Video Output:	Analog RGB, composite and S-VHS (S-Video); PAL or NTSC format	
Graphics Colors:	256 colors (8-bit)	
Display Mode:	Sector format	
Display Arc:	90°	
Input Device:	Trackball, mouse	
Dimensions (HWD):	178 x 483 x 406mm	
Mounting:	19in. rack mountable	
Temperature:	Operating:	0° to +40°C
	Storage:	-30° to +55°C

DISPLAY SPECIFICATIONS

Screen Size:	350mm (14in.)
Input:	Analog RGB, S-Video or composite
Display:	High-resolution color monitor
Power Consumption:	62 W

DISPLAY SPECIFICATIONS

Power Requirements:	24VDC, 2 amps max. (Power available from Processor.)	
Power Consumption:	20W	
Uplink Data:	Pseudo-video (requires a 1.5MHz black and white video channel)	
Downlink Control:	RS-232 or RS-422, 300 baud	
Operating Depth:	350 meters (600 meters available)	
Dimensions (HWD):	350m:	265 x 190 x 473mm
	600m:	315 x 190 x 473mm
Temperature:	Operating: -5° to +30°C	Storage: -30° to +55°C
Weight (350 m):	Dry: 18.5kg (41lbs.)	Wet: 6kg (13lbs.)
Weight (600 m):	Dry: 27kg (60lbs.)	Wet: 9.5kg (19lbs.)

RELATED PRODUCTS

Upgrade to 9001S
Analog sidescan imagery

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