

SeaBat® 7101

Multibeam Echosounder



Since its release in 1996 the SeaBat 8101 has gained a formidable reputation for performance, reliability and robustness. The new SeaBat 7101 multibeam echosounder brings to the forefront the advanced technology utilised across the range of SeaBat 7000 series multibeam systems. This combination of the well-proven 8101 sonar head and new 7000 series signal processing and data handling provides the ultimate in performance through an easy upgrade path.

A bathymetric sonar operating at 240kHz fitted with either a stick (St) or Extended Range (ER) projector, the 7101 measures up to 511 discrete soundings equally spaced across the wide 150° swath. This sounding density

combined with realtime roll stabilisation, high accuracy and robust bottom detect provides maximum performance and efficiency in all acoustic environments. Optional, unique 210° coverage option for extremely shallow water or vertical structure surveys.

The SeaBat 7101 transducer is depth rated to 100m and is suitable for installation on ROVs and surface vessels where the high ping rate provides very high efficiency by meeting international survey standards even at high vessel speeds.

The SeaBat 7101 is available as a Composite variant which includes all sensors and software required to conduct a full hydrographic survey, or as a 7101-Flow variant with an incorporated sensor. Both variants are available with a standard or extended range projector in titanium.

FEATURES

SWATH

150° swath coverage providing up to 7.5 x water depth swath coverage. Optional 210° swath

FREQUENCY

240kHz operating frequency provides seamless coverage from 0.5m to 500m max depth (Using ER)

HIGH SPEED

High ping rate allows high speed operations without comprising data density

IHO

Compliant with IHO SP44 Ed 5 over entire depth range

DATA

Bathymetry, sidescan, snippets & water column data available over gigabit ethernet

ROLL STABILISATION

Realtime roll stabilisation maximizes usable swath width

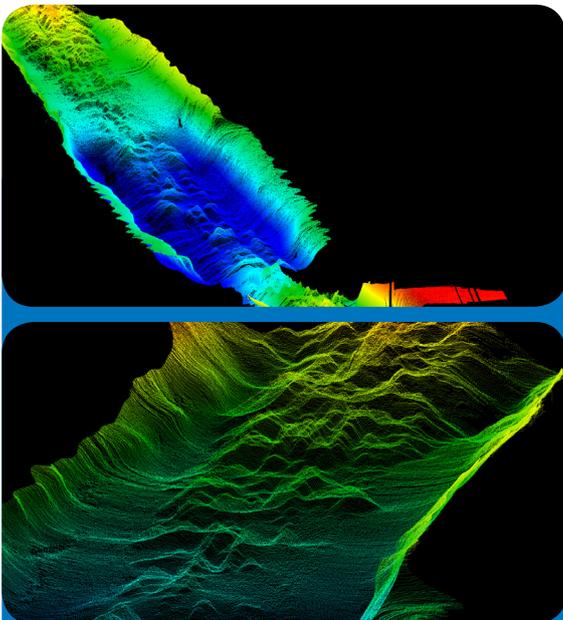
WATER COLUMN

Up to 511 beams in selectable modes optimises operations for any survey type

Teledyne RESON SeaBat® 7101

SEABAT 7101 SYSTEM SPECIFICATIONS

| | |
|--------------------------------|--|
| Frequency | 240 kHz |
| Along-track transmit beamwidth | 1.5° |
| Across-track receive beamwidth | 1.8° |
| Max ping rate | 40Hz |
| Pulse length | 21µsec to 225 µsec |
| Number of beams | Up to 511 beams in selectable mode |
| Max swath angle | 150° (210° optional) |
| Typical depth | 0.5m to 300m (St), 0.5m to 475m (ER) |
| Max depth | 350m (St), 500m (ER) |
| Depth resolution | 12,5 mm |
| Data interface | Bathmetry, sidescan & snippets. 7K data format. Gigabit Ethernet |
| Power requirement | 110/220 VAC, 50/60 Hz, 500W max |
| Head to processor cable length | 25m |
| Depth rating | 100m |
| Seabat 7101 composite | 7101-Composite is a full hydrographic survey system based on the 7101 and the Applanix Wavemaster. All required sensors including sound velocity and software is provided. |
| Seabat 7101 flow | 7101-Flow is a specialised version of the 7101 specifically for surveys in sheltered areas such as dams, rivers, lakes, harbours where the effects of motion are limited. The systems consists of a standard 7101 with a motion sensor incorporated inside the sonar head enclosure. The 7101-Flow is available with integrated PDS2000 software, sound velocity and position/heading sensors. |



WHY CHOOSE A SEABAT 7101?

- Ideal for underwater vehicles or rapid deployment onto survey craft
- Flexible upgrade options for increased efficiency
- Wide swath coverage of 150° to a maximum range of 500m to reduce survey time
- Easy upgrade from SeaBat 8101
- Optional 210° swath
- Water column data

For more details visit www.teledyne-reson.com or contact your local Teledyne RESON Office. Teledyne RESON reserves the right to change specifications without notice. 2014©Teledyne RESON

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