

Seabat® T50-P



Unprecedented clean and ultra high data quality for faster operational surveys and reduced processing time

The SeaBat T50-P is the new addition to the leading SeaBat T-series product range, engineered from the ground up to evolve with your business. Combined with the Portable Sonar Processor, the SeaBat T50-P provides unprecedented survey data, providing faster operational surveys and reduced processing time.

The SeaBat T50-P is fully frequency agile from 190 to 420 kHz, allowing for improved swath performance and reduced survey time under difficult conditions.

The SeaBat T50-P is designed for fast mobilization on smaller vessels. The Portable Sonar Processor and sonar head form a compact system, securing minimal interfacing and low space requirements.

Specifications

Product	Seabat® T50-P
Country of origin	USA
Manufacturer	Teledyne Marine

This enables unparalleled precision and accuracy of position estimation by removing many of the sources of error associated with all USBLs such as lever arm offsets, pole bending, and ship flexing.

In addition, because many of the system parameters are now fixed, no USBL calibration is required during installation so the system is easier to install and set-up.

Precision of better than 0.3% of slant range is achievable out of the box, or a oneoff calibration can push this figure to less than 0.1% of slant range, depending on array type. Manufactured in Aluminium-Bronze the Lodestar GyroUSBL is ideally suited for short term temporary installations on vessels of opportunity using through-hull or over-the-side poles. It is also ideal for permanent installation on flexible stem tubes.

In case of operational damage to the USBL transducer array, all electronics are robustly protected behind a double-sealed, pressure-resistant bulkhead. This ensures that if the transducer face is breached, the Lodestar and

Portable Sonar Processor

- Reduced cable connections – fast mobilization
- Single-point, accurate, sensor time-tagging
- Water-resistant IP54 rated
- 24VDC and 100-230VAC for maximum flexibility
- 25m cable to wet-end components

T50 sonar head assembly

- 190 – 420kHz wide-band
- Robust titanium housing
- Less than 8kg in water

SEABAT T50-P System specifications

Input voltage	24VDC or 100-230VAC 50/60Hz
Power (typical / max)	150W / 300W
Ingress protection	Water resistant (IP54)
Transducer cable length	25m (standard) Optional: 10m, 50m or 100m
Temperature (operational / storage)	Portable Sonar Processor: -5°C to +40°C / -30°C to +70°C

	Height [mm]	Width [mm]	Depth [mm]	Weight [kg/air]	Weight [kg/water]
T50 Rx (EM7218)	102.0	460.0	90.7	8.2	3.9
T50 Tx (TC2181)	86.6	93.1	280	5.4	3.4
Portable Sonar Processor	131	424	379	14	N/A

Specifications Common to all Variants

T50 Acoustic performance	400kHz (max. frequency)	200kHz (min. frequency)
Across-track receiver beam width¹	0.5°	1°
Along-track beam width¹	1°	2°
Number of beams	Min 10,Max 512	
Swath coverage (up to)	150° Equi Distant, 165° Equi Angle	
Typical Depth (CW²)	0.5-200 meters	0.5-400 meters
Max Depth (CW³)	250 meters	475 meters
Typical Depth (FM²)	0.5-225 meters	0.5-550 meters
Max Depth (FM³)	300 meters	300 meters
Ping rate (range dependent)	Up to 50 pings/s	
Sample rate	34 kHz or 66 kHz	
Pulse length (CW)	15 – 300µs	
Pulse length (FM)	300µs – 10ms	
Depth resolution	6 millimeters	
Depth rating (sonar head)	50 meters	

Optional extra features

- 10m, 50m or 100m cable
- Hydro dynamic fairing
- Dual head bracket
- Motion and positioning sensors
- RESON Sound Velocity Probes
- Teledyne PDS Survey Package
- RESON Service Level Agreements
- X-Range - improve range and reduce external noise
- Normalized backscatter
- FlexMode increase data density where you need it most
- Pipe Detection & Tracking – optimize detection of pipes
- Full rate dual head across the entire frequency range
- Multi-Detect - multiple detections for enhanced detail over complex features and water column targets

T50-P Scope of supply

- Receiver EM7218n
- Projector TC2181
- Portable Sonar Processor
- 25m Receiver cable
- 25m Projector cable
- Waterproof cable set
- Wet-end bracket
- 3-year warranty