

# SeaBat® T20-P

## High resolution multibeam echosounder

Combined with the Portable Sonar Processor the T20-P provides uncompromised survey data in a highly portable waterproof package designed for small vessel use.

The solution includes a range of powerful software features at an attractive price, with the option for future feature expansions to grow with your needs.

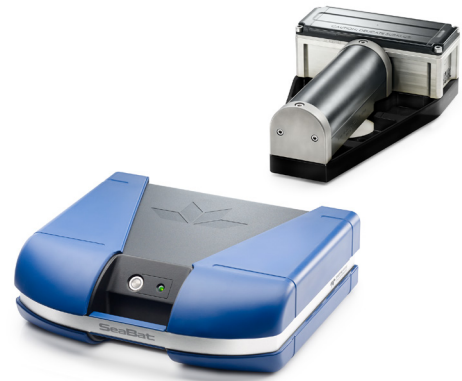
The T20-P can be supplied in ruggedized flight cases with total weight and dimensions suitable for check-in on commercial airlines and can be transported by one person.

### Features

- Sonar User Interface – highly configurable to suit your needs.
- Snippets & sidescan backscatter
- Full water column backscatter
- Tracker – powerful tool for automated control
- Selectable Beam Density – you can define what you need to get the job done

### Optional extra features

- X-Range - improve range and reduce external noise
- Multi-Detect - Multiple detections for enhanced detail over complex features and water column targets
- FlexMode – increase data density where you need it most
- Pipe Detection & Tracking – unique to SeaBat, optimize detection of pipes
- Full Rate Dual Head – simultaneous pinging of both heads to ensure high along track resolution
- Normalized backscatter – designed for accurate, reliable and repeatable seabed classification



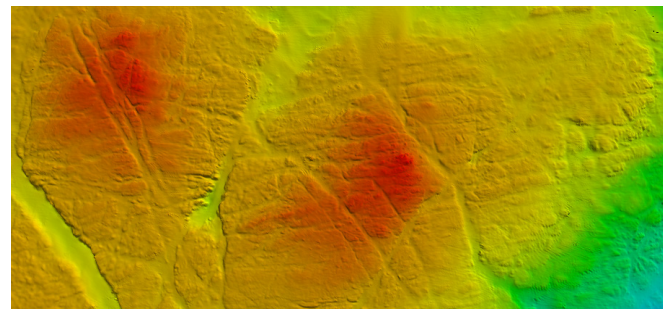
### T20-P Standard configuration

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
- 10m cable to wet-end components

T20 sonar head assembly

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

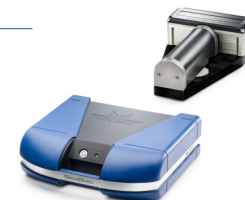


### 3 years warranty

Our hardware is quality-tested to meet the most demanding standards, and backed by the full support of our comprehensive after-sales program, and 3 years of warranty you can be sure that the T20-P won't let you down.



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# SeaBat T20-P High resolution multibeam echosounder

## SEABAT T20-P SYSTEM SPECIFICATIONS

Input voltage:	24VDC or 100-230VAC 50/60Hz
Power (typical / max):	200W / 300W
Ingress protection:	Water resistant (IP54)
Transducer cable length:	10m (standard), 25m, 50m (optional)
Temperature (operational / storage):	Portable Sonar Processor: -5°C to +45°C / -30°C to +70°C Sonar wet-end: -2°C to +36°C / -30°C to +70°C

	height [mm]	width [mm]	depth [mm]	weight [kg/air]	weight [kg/water]
T20 Rx (EM7219):	102.0	254.0	123.0	5.0	2.2
T20 Tx (TC2181):	86.6	93.1	280	5.4	3.4
Portable sonar processor:	131	424	379	14	N/A

T20 acoustic performance:	400kHz (max. frequency)	200kHz(min. frequency)
Across-track receiver beam width <sup>1</sup> :	1° (center)	2° (center)
Along-track beam width <sup>1</sup> :	1°	2°
Number of beams:	Min 10, Max 1024	
Swath coverage (up to):	140° Equi distance 170° Equi Angle (12x water depth with dual head)	
Typical depth (CW <sup>2</sup> ):	0.5-150 meters	0.5-375 meters
Max depth (CW <sup>3</sup> ):	250 meters	550 meters
Typical depth (FM <sup>2</sup> ):	0.5-180 meters	0.5-450 meters
Max depth (FM <sup>3</sup> ):	300 meters	575 meters
Ping rate (range dependent):	Up to 50 pings/s	
Pulse length (CW):	15 – 300µs	
Pulse length (FM):	300µs – 10ms	
Depth resolution:	6mm	
Depth rating (sonar head):	50 meters	

For relevant tolerances for dimensions above and detailed outlined drawings see Product Description

<sup>1</sup>Nominal values

<sup>2</sup>This is a depth range within which the system is normally operated, from the minimum depth to a depth value corresponding to the max. swath -50%.

<sup>3</sup>This is the single value corresponding to the depth at which the swath is reduced to 10% of its max. value. For actual swath performance refer to Product Description.

<sup>4</sup>An extinction coverage of +/-20° is observed at about 530 meter water.

### T20-P SCOPE OF SUPPLY

- Receiver EM7219
- Projector TC2181
- Portable Sonar Processor
- 10m Receiver cable
- 10m Projector cable
- Waterproof cable set
- Wet-end bracket

### OPTIONAL EXTRAS

- Normalized backscatter
- 25m, 50m cable
- Fairing
- Dual head bracket
- Motion and positioning sensors
- RESON Sound Velocity Probes
- RESON Teledyne PDS Survey Package
- RESON Service Level Agreements (SLA)



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