

Teledyne RESON

# SeaBat<sup>®</sup> T20-P

## High resolution multibeam echosounder



### Superior acoustic quality engineered for the demanding marine environment

The T20-P is a new addition to the leading SeaBat product range engineered from the ground up to evolve with your business. 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.

### 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.

## PRODUCT BENEFITS

### Product 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

## SEABAT T20-P SYSTEM SPECIFICATIONS

<b>Input voltage</b>	24VDC or 100-230VAC 50/60Hz				
<b>Power (typical / max)</b>	200W / 300W				
<b>Ingress protection</b>	Water resistant (IP54)				
<b>TRANSDUCER CABLE LENGTH</b>	10m (standard), 25m, 50m, 100m (optional)				
<b>Temperature (operational / storage)</b>	Portable Sonar Processor: -5°C to +45°C / -30°C to +70°C Sonar wet-end: -2°C to +35°C / -30°C to +55°C				
	<b>Height [mm]</b>	<b>width [mm]</b>	<b>depth [mm]</b>	<b>weight [kg/air]</b>	<b>weight [kg/water]</b>
<b>T20 Rx (EM7219)</b>	102.0	254.0	123.0	5.0	2.2
<b>T20 Tx (TC2181)</b>	86.6	93.1	280	5.4	3.4
<b>Portable Sonar Processor</b>	131	424	379	14	N/A
<b>T20 Acoustic performance</b>	400kHz (max. frequency)			200kHz(min. frequency)	
<b>Across-track receiver beam width<sup>1</sup></b>	1° (center)			2° (center)	
<b>Along-track beam width<sup>1</sup></b>	1°			2°	
<b>Number of beams</b>	Min 10, Max 512				
<b>Swath coverage (up to)</b>	140° Equi distance 165° Equi Angle (12x water depth with dual head)				
<b>Typical Depth (CW<sup>2</sup>)</b>	0.5-150 meters			0.5-375 meters	
<b>Max Depth (CW<sup>3</sup>)</b>	250 meters			550 meters	
<b>Typical Depth (FM<sup>2</sup>)</b>	0.5-180 meters			0.5-450 meters	
<b>Max Depth (FM<sup>3</sup>)</b>	300 meters			575 meters	
<b>Ping rate (range dependent)</b>	Up to 50 pings/s				
<b>Pulse length (CW)</b>	15 – 300µs				
<b>Pulse length (FM)</b>	300µs – 10ms				
<b>Depth resolution</b>	6mm				
<b>Depth rating (sonar head)</b>	50 meters				

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

1 Nominal values

2 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%.

3 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.

4 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

- 25m, 50m, 100m cable
- Fairing
- Dual head bracket
- Motion and positioning sensors
- RESON Sound Velocity Probes
- RESON Teledyne PDS Survey Package
- RESON Service Level Agreements (SLA)