

# 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

- 200 – 400kHz wide-band
- Robust titanium housing
- Less than 8kg in water

## FEATURES

### Product features

- Snippets & sidescan backscatter
- Full water column backscatter
- Tracker – powerful tool for automated control
- SeaBat User Interface. Runs on separate laptop or PC (not included)
- 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
- Max 512 Beams

## 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, 100m (optional)
Temperature (operational / storage)	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

	Height [mm]	width [mm]	depth [mm]	weight [kg/air]	weight [kg/water]
T20 Rx (EM7219)	102.0	254.0	123.0	5.0	4.2
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 (nominal values <sup>1</sup> )	1° (center)	2° (center)
Along-track beam width (nominal values <sup>1</sup> )	1°	2°
Number of beams	Min 10, Max 256 (Optional 512)	
Swath coverage (up to)	140° Equi distance 165° Equi Angle	
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)	30 – 300µs	
Pulse length (FM)	300µs – 10ms	
Depth resolution	6mm	
Depth rating (sonar head)	50meters	

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

1 All beam widths measured at -3dB, unsteered with a sound velocity of 1480m/s.

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.

## 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 PDS2000 Survey Package
- RESON Service Level Agreements (SLA)

Teledyne RESON A/S

Denmark

Tel: +45 4738 0022

info@teledyne-reson.com

Teledyne RESON Inc.

U.S.A.

Tel: +1 805 964-6260

sales@teledyne-reson.com

Teledyne RESON Ltd.

Scotland U.K.

Tel: +44 1224 709 900

sales@reson.co.uk

Teledyne RESON B.V.

The Netherlands

Tel: +31 (0) 10 245 1500

info@reson.nl

Teledyne RESON Singapore Office

Singapore

Tel: +65 6725 9851

singapore@teledyne-reson.com

Teledyne RESON Shanghai Office

Shanghai

Tel: +86 21 64186205

shanghai@teledyne-reson.com

Teledyne RESON GmbH

Germany

Tel: +45 4738 0022

info@teledyne-reson.com