

# SeaKing Split-Head SBP

Custom Parametric Sub Bottom Profiler (SBP)



## Low Power Sub-Bottom Profiling

The Split Head Parametric Sub-Bottom Profiler is an example of how Tritech can customise a standard product to meet a specific customer requirement.

The profiler provides the same functionality, capabilities and performance as the standard field-proven Tritech SeaKing Sub-Bottom Profiling Sonar (SBP), but with the added flexibility of being able to mount the transducer and electronics housing separately, per the needs of a specific underwater vehicle configuration.

## Encompassing Proven Technology

The profiler is part of the Tritech SeaKing range of sensors and is ROV/ AUV mountable. The sonar is capable of penetrating the seabed and highlighting structural differences that are hidden from view to conventional echosounders.

This is especially relevant when conducting site or route surveys to highlight buried objects such as pipelines, cables, wrecks, ordnance, rocks or to understand the make-up of the sub-bottom layers.

## How it Works

The SBP is essentially a 200 kHz echosounder which uses a complex transmit pulse pattern to generate a secondary, low-frequency signal (around 20 kHz), whilst essentially retaining the 4-degree beam width of the high-frequency signal.

The effectiveness and penetration depth of the low-frequency is dependent on the seabed type, but the SBP will potentially penetrate the seabed up to 10m and is effective at altitudes of 1m to 30m from the seabed, with optimum performance and resolution at around 5m.

The sonar's operation is via the standard Tritech Seanet Pro user software where a rolling display records the high and low-frequency signals, it can also be fully integrated into the user's own software.

### Benefits

- ROV/ AUV mountable
- Robust, proven, reliable design
- Easy integration with SeaKing Sensors

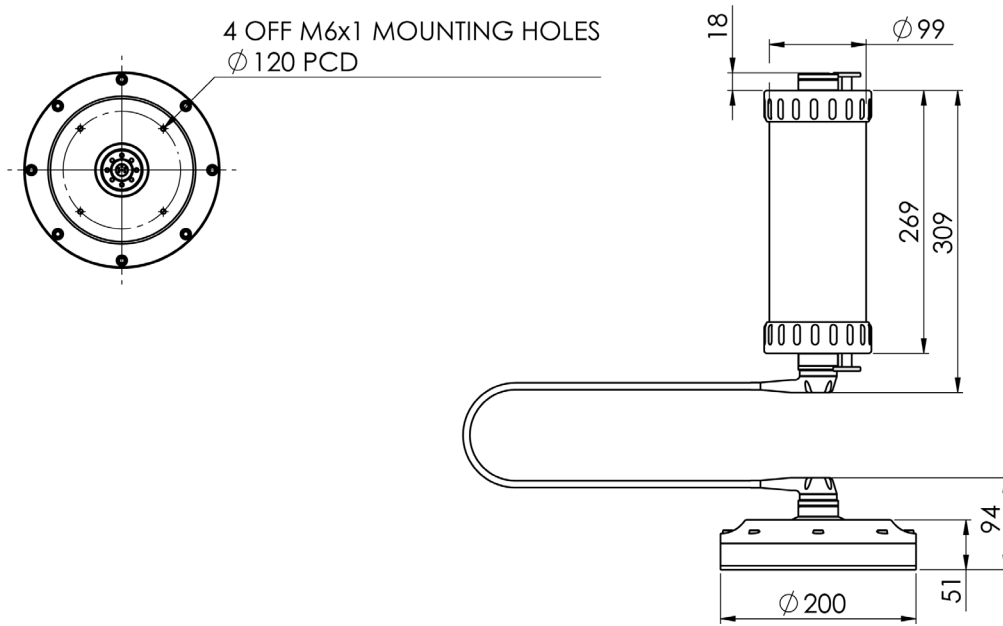
### Features

- Separate transducer and electronics
- 200 kHz echosounder
- Operatable via Tritech's Seanet Pro software

### Applications

- Site or route surveys
- Pipeline/ cable surveys
- Pipeline crossing
- Wreck search Vessel
- Object detection

# Specification



All dimensions are in mm, not to scale

Acoustic Specifications	Low Frequency	High Frequency
Operating frequency	20kHz	200kHz
Beamwidth	4.5°	4°
Pulse length	100µs	

Electrical and Communications	
Power requirement	20 to 72V DC at 8W*
Protocols	ARCNET, RS232, RS485
Rate	ARCNET: 156kbit·s <sup>-1</sup> (maximum) RS232 & RS485: 115.2kBd (maximum)
ARCNET line driver	1500m at 156kbit·s <sup>-1</sup> 2500m at 78kbit·s <sup>-1</sup>
Connector type	Tritech 6-pin (standard)

Physical specification	
Depth rating	4000m
Weight in air	6.4kg
Weight in water	2.7kg
Temperature rating	-10 to 35°C (operating), -20 to 50°C (storage)

\*The power consumption range quoted is accurate for a standalone unit and ignores cable losses.

Specification subject to change in line with Tritech's policy of continual product development

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