



Super SeaKing DFP Dual Frequency Profiling Sonar

Features

- 0.6MHz profiler for use in water containing suspended particles or where longer ranges are required
- 1.1MHz profiler for higher accuracy work at short ranges in clearer water
- Hard Boot protection
- Increased scan rate

Applications

- Pipeline and trench cross sectional profiling
- Precision positioning of mattresses and rock dumping.
- Storage tank survey
- Underwater surveying of road and rail bridge foundations



The Tritech SeaKing suite of sensors comprises of an everincreasing range of products that are continually being revised.

The Super SeaKing Dual Frequency Profiling Sonar Head uses the latest technological advances available in transducer design. Using composite transducer technology this sonar offers substantially increased ranges and image resolution.

Utilising side lobe suppression techniques, improved S/N ratios and a reduced beam width the Super SeaKing DFP provides high quality profile data never before available from a mechanical scanning profiler.

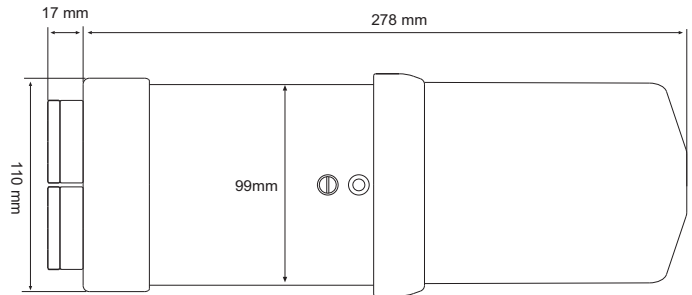
Operating at 0.6MHz and 1.1MHz this new profiler has been designed with a hard boot, which offers increased protection over conventional mechanical scanning profilers.

As part of the SeaKing suite of survey sensors the Super SeaKing DFP can be run simultaneously with a number of SeaKing sensors all communicating over one communication link. This offers the obvious financial benefit where only one processor is required to run a number of sensors as well as the simplified logistics of running a suite of sensors over one communication link and operated by one control unit.



Specifications

Operating frequency	600 kHz & 1.1 MHz
Beamwidth	2° Conical [600 kHz]
Beamwidth	1° Conical [1.1 MHz]
Maximum range	80 m [600 kHz]
Maximum range	40 m [1.1 MHz]
Minimum range	0.3 m
Timing resolution	1 mm
Source level	210 dB re 1uPA @ 1 m
Pulse length	20 - 200 microsec
System bandwidth	30 kHz
Scan modes	Combinations of speed and resolution available
Mechanical step sizes	0.45°, 0.9°, 1.35° & 1.8°
Mechanical resolution	0.45°
Scanned sector	Variable to 360°
Continuous 360° mode available	Yes
Sector offset mode available	Yes
Mechanical	
Overall maximum diameter	110 mm
Maximum length	287 mm
Weight in air	3.5 kg
Weight in water	1.7 kg
Maximum operational depth	4,000 m
Materials	Aluminium alloy-HE30, RPU
Finish	Hard anodised black
Standard connector	Tritech 6 pin with water-block
Connector options	Various upon request
Operating temperature	-10°C to +35°C
Storage temperature	-20°C to +50°C
Electrical	
Power requirements	18 to 36 VDC @ 10VA
Optional power supplies	9 to 18 VDC and 36 to 72 VDC @ 10VA
Data communication rate	156 kBits/sec
Option	78 kBits/sec
Communication requirements	Twisted pair, modem or coax



Surface Controls and Displays (SeaKing SCU or PC kit)

Display SVGA up to 1280 x 1024 x 256

Software Features

Range Selection	1 to 80 m
Gain	Full manual and auto controls
Scanned Sector	Fully variable in direction and width to 360°
Resolution Selection	0.45° to 1.8° steps
Head Position and Rotation Offsets	To 1 mm / 0.09° resolution
Lockout Control	
Frequency Switch	
Trigger Mode	Continuous or Man
Cursor	x-y measurement

- Support for single, dual and quadruple head operations
- Support for all other Tritech sensors - sonar, bathymetric, sidescan and roll sensor
- Time stamped data logging and replay to hard disk
- Interface to Tritech, TSS and Innovatum Pipe and Cable Trackers
- Support for up to three remote RS232 channels for survey data
- Full remote control and data logging via SK-V4 protocol

All specifications are subject to change in line with Tritech's policy of continual product development.

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Tritech International Limited

Peregine Road, Westhill Business Park, Aberdeen,
AB32 6JL, United Kingdom

Marketed by:

T: +44 (0)1224 744111
F: +44 (0)1224 741771
Email: sales@tritech.co.uk