

Super Seaking DST

Dual Frequency Digital CHIRP Sonar



The very latest in composite transducer and Compressed High Intensity Radar Pulse (CHIRP) technology has been used to produce the advanced Super SeaKing DST dual frequency CHIRP sonar. This market leading product delivers the clearest image available, at operating ranges previously unobtainable.

CHIRP technology dramatically improves the range resolution, providing greater definition at long range, compared with conventional sonars. Resolution can be improved by a factor of five times.

The Super SeaKing DST is the standard obstacle avoidance sonar for many global ROV fleets. In addition, a modular transducer design and longer life slip ring assembly have been introduced to minimise potential for operational damage and to further improve upon the SeaKing's excellent reliability.

The product is available in both 4,000m or 6,800m depth ratings with various connector options to suit your operations. It is ideally suited for ROV/AUV avoidance, target recognition and harbour surveillance operations.

Advanced CHIRP signal processing for clear and high resolution imagery

The Super SeaKing DST is a digital CHIRP dual frequency sonar capable of operating at 325kHz or 675kHz. When operating at 325kHz, the sonar has a true operational range of 300m. Switching to 675kHz, the same sensor is capable of providing a high definition image at shorter range.

Benefits

- Reliable, robust, proven design
- Two operating frequencies
- Easy integration
- Tuneable frequency ranges

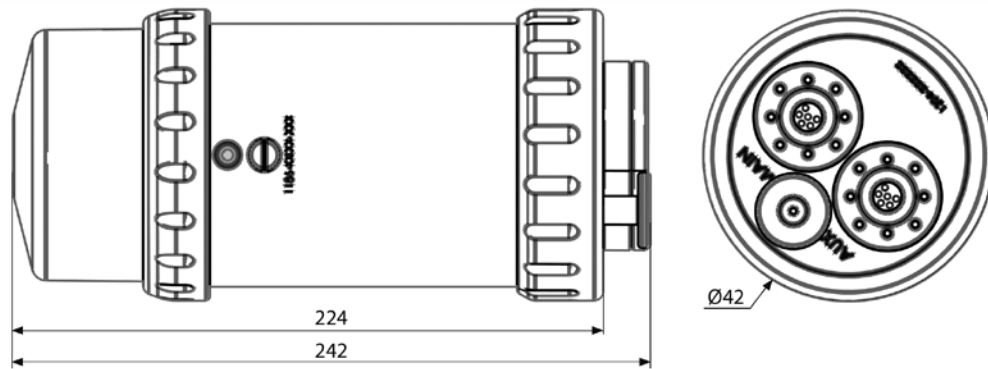
Features

- Digital CHIRP system
- Composite material transducer
- 4000m or 6800m depth rating
- Various connector options
- RS232, RS485 and ARCNET

Applications

- ROV/AUV obstacle avoidance
- Target recognition
- Harbour surveillance
- Port security

Specification



All dimensions are in mm, not to scale

Computer	High frequency	Low frequency
Operating frequency ¹	CHIRP centred on 650kHz	CHIRP centred on 325kHz
Beamwidth	40° vertical, 1.5° horizontal	20° vertical, 3.0° horizontal
Pulse length	200µs	400µs
Maximum range	100m	300m
Minimum range	0.4m	
Range resolution	approximately 15mm (minimum)	
Mechanical resolution	0.45°, 0.9°, 1.8°, 3.6°	
Source level	210dB re 1µPa at 1m	
Scanned sector	Variable up to 360°	
Continuous 360° scan?	Yes	
Sector offset mode?	Yes	

Electrical and communications	
Power requirement	20 to 72V DC at 12W ²
Protocols	ARCNET, RS232, RS485
Rate	ARCNET: 156kbit·s ⁻¹ (maximum) RS232 & RS485: 115.2kBd (maximum)
ARCNET line driver	1500m at 156kbit·s ⁻¹ 2500m at 78kbit·s ⁻¹
Connector options	Tritech 6-pin (standard). Others available on request

Physical specification	
Depth rating	4000m standard 6800m optional (Seacon connector)
Weight in air	3kg (aluminium)
Weight in water	1.4kg (aluminium)
Temperature ratings	Operating: -10 to 35°C Storage: -20 to 50°C
Materials	Anodised aluminium alloy (Titanium alloy 6AL 4V optional)

¹ 6800m sonar centre frequencies are 725kHz and 385kHz

² 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

Marketed by:

Tritech International Limited
Peregrine Road, Westhill Business Park
Westhill, Aberdeenshire AB32 6JL
United Kingdom
email: sales@tritech.co.uk
Tel: +44 (0)1224 744111

