# SeaKing Hammerhead

High Resolution Survey Sonar



The latest addition to the SeaKing family of imaging scanning sonars, the Hammerhead can easily be networked with other SeaKing equipment.

Combining a resolution twice that of other mechanical sonars, and an ultra-narrow horizontal beam angle, the dual frequency

SeaKing Hammerhead is a truly versatile survey sonar. To complete the package a fully integrated attitude sensor and compass are included to enable accurate logging of survey data.

The Hammerhead can also be integrated with Tritech sonars from the SeaKing or SeaPrince range.



Pier structure at The Underwater Centre, Fort William, range 30m

# Versatile and easy to use high performance survey sonar

The SeaKing Hammerhead Survey Sonar utilises a wide transducer aperture, very fine mechanical step size and proven digital sonar technology to create high resolution imagery. Using the 675kHz frequency it is possible to obtain an overview of the site at up to 100m range and the 935kHz frequency allows a very high resolution scan at a range up to 40m.

### **Benefits**

- · Smaller targets easy to identify
- Built in compass for bearing reference
- Attitude sensor for accurate positioning
- Dual seal arrangement for reliability
- Image tiler software for map creation

#### **Features**

- Twice the resolution of other sonars
- Ultra-narrow beam angles
- 675kHz or 935kHz operation
- Up to 100m range
- 700m depth rating
- · Auto-sensing communications

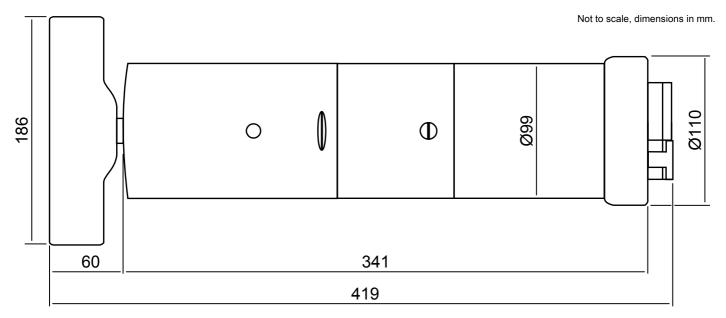
## **Applications**

- · Static seabed surveys
- Object location
- Diver monitoring
- · Law enforcement and recovery
- · Civil engineering inspections
- ROV deployable





# Specification



| Acoustic            | High Frequency                | Low Frequency                 |
|---------------------|-------------------------------|-------------------------------|
| Operating frequency | 935kHz                        | 675kHz                        |
| Beamwidth           | 20° vertical, 0.6° horizontal | 30° vertical, 0.9° horizontal |
| Maximum range       | 40m                           | 100m                          |
| Minimum range       | 0.4m                          |                               |
| Range resolution    | 7.5mm (approximately)         |                               |

| Sonar Display        |  |  |
|----------------------|--|--|
| Range selections     | 2m to 100m                               |  |
| Scan resolutions     | 0.225°, 0.45°, 0.9°, 1.8°                |  |
| Continuous 360°      | Yes                                      |  |
| Offset sector scan   | Yes                                      |  |
| Attitude information | Angle of sonar body to vertical (2 axes) |  |

| Physical             |  |
|----------------------|--|
| Weight in air        | 6.8kg  |
| Weight in water      | 3.8kg  |
| Materials            | Aluminium alloy (hard anodised)                |
| Depth rating options | 700m<br>4000m                                  |
| Temperatures         | Operating: -10 to 35°C<br>Storage: -20 to 50°C |

| Electrical and Communication     |   |  |
|----------------------------------|---|--|
| Operating voltage                | 20 to 72V DC  |  |
| Power requirement                | 38W   |  |
| Communication<br>Protocol & Rate | ARCNET: 156kbit·s <sup>-1</sup> (maximum)<br>RS485: 115.2kBd (maximum)<br>RS232: 115.2kBd (maximum) |  |
| Connector options                | Tritech 6-pin (standard)<br>Others available on request   |  |

Specifications subject to change according to a policy of continual development.

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