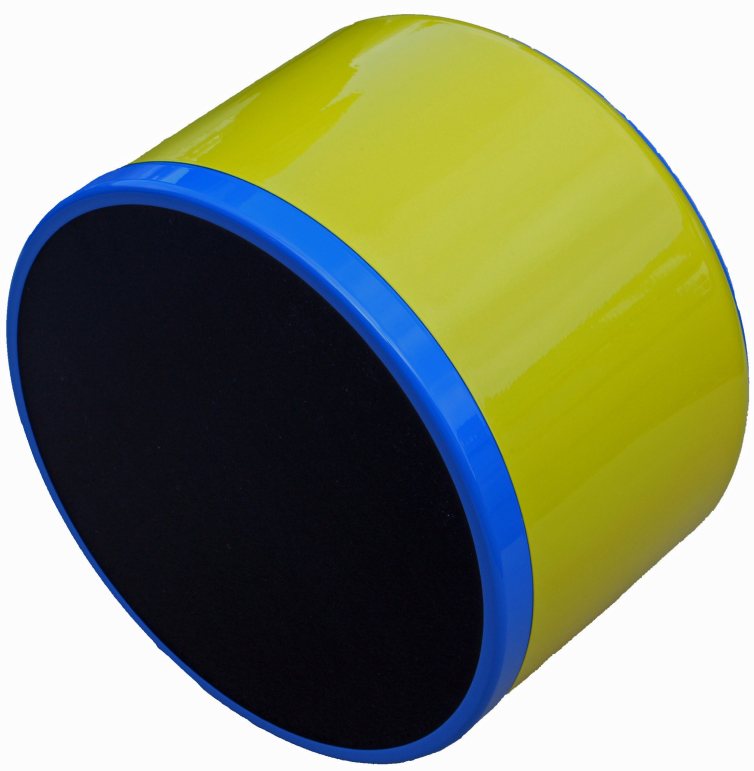
MODEL 3248

3D OBSTACLE AVOIDANCE SONAR



Underwater Sonar Unit

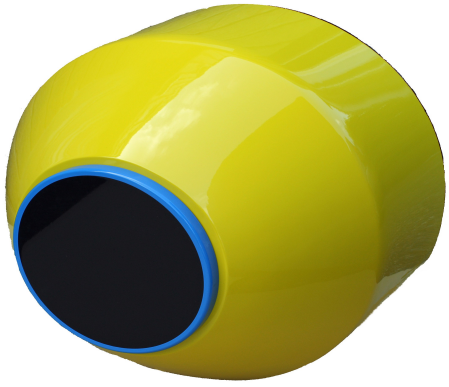
FEATURES INCLUDE

- **Forward looking, Real-Time, 3D scanning**
- **250m range**
- **Determine target depth in the water column.**
- **Wide-Band operating frequency**
- **Dynamically Steered Transmit Beams**
- **ROV /AUV or Overside Mount**
- **"Windows" based 3D display software**
- **Outputs processed target data**
- **Optional MRU for data stability**

The Model 3248 3D Obstacle Avoidance Sonar is a forward looking active underwater acoustic device that provides a 3D real-time display of the area ahead of a vessel. The OAS is designed to aid in the pilotage of ROV's / AUV's and avoidance and detection of submerged objects such as divers and unmanned vehicles. The OAS scans both horizontally and vertically to produce a three dimensional representation of the area in front of the sonar up to a maximum range of 250m. The transducer array can be either ROV / AUV or vessel mounted and connects by cable to the Power Supply Unit, which is normally mounted inside the vessel. The sonar is controlled from an external computer via an Ethernet connection and may be operated in either a real-time 3D imaging mode or in obstacle avoidance mode.

The sonar scans a horizontal sector of 90° and a vertical sector of 20° simultaneously for every “ping” of the transmitter. The transmit beams can be steered and linked to the pitch value of an MRU to stabilise the beams within the water column. The receive beams are dynamically focused for each range cell.

The system software can operate the sonar in a 2D mode for a faster update rate and then switch to 3D mode for a more detailed representation of the area scanned. A motion reference unit can be integrated into the system to stabilise data from the sonar in response to pitch / roll movement. Optional GPS input and chart overlays can be added for harbour surveillance.



Sonar Mounted In AUV Nose

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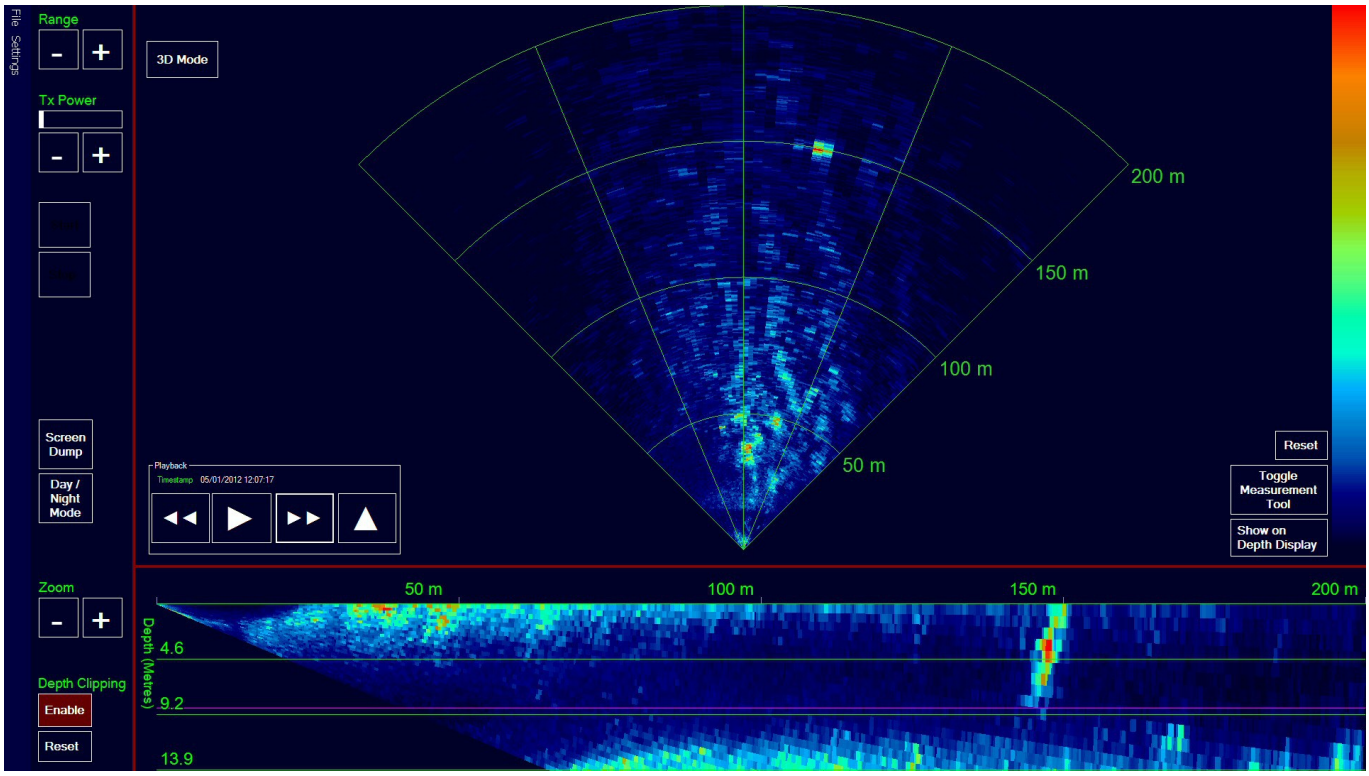

With 3D technology the sonar can discriminate targets anywhere in the water column between the surface and the seabed

Sonar Underwater Unit

Operating Frequency:	140kHz to 180kHz Wide-Band
Dimensions:	320mm Dia x 180mm
Weight In Air:	16.5Kg
Weight In Water:	2Kg
Material:	Hard Anodised Aluminium & Polyurethane
Number of Beams:	
Transmitter	32
Receiver	48
Transmitter Beamwidth:	Vertical: 2.1º Horizontal: 90º
Receiver Beamwidth:	Vertical: 20º Horizontal: 2.1º
Operating Range:	Min 20m Max: 250m
Maximum Depth:	500m

Power Supply Unit

Dimensions:	374mm x 155mm x 150mm
Weight:	13Kg
Temperature	
Storage	-20 to +60 degrees C
Operating	-10 to +50 degrees C
Connections	DC Voltage RJ45/MT-RJ Ethernet RS232
Power Supply:	48V DC at 2.5A

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