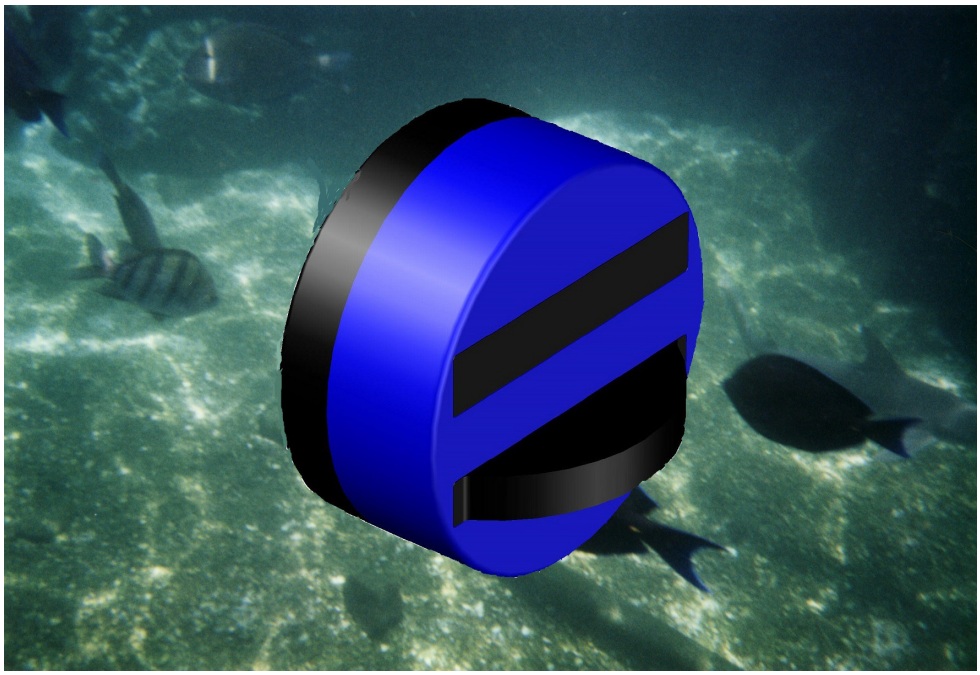
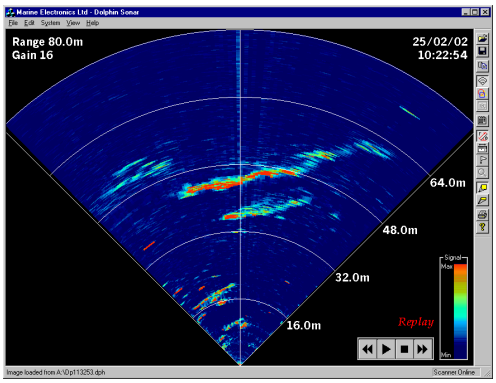
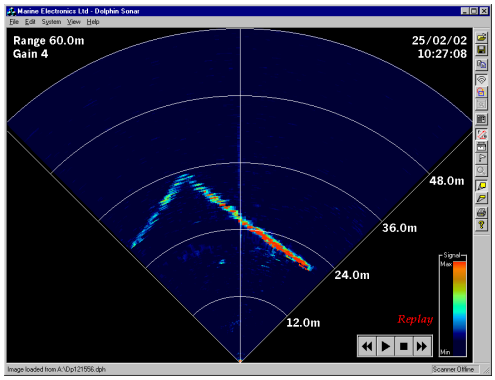
Obstacle Avoidance Sonar

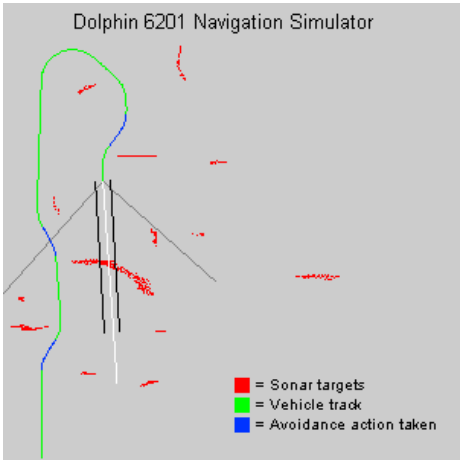
Dolphin Model 6201

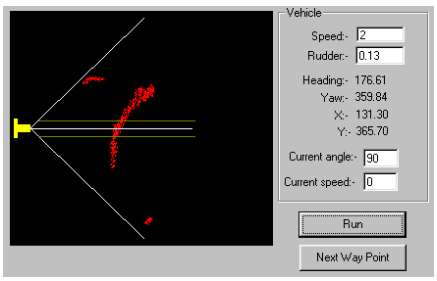






The Dolphin Model 6201 Obstacle Avoidance Sonar has been specifically engineered for both AUV and ROV navigational applications. When fitted to an AUV the control of the 6201 sonar is via Ethernet passed directly to the host computer. For ROV applications the use of either Ethernet or VDSL is available and the imaging software runing under “Windows” produces images as shown on the right. In AUV applications the tracking software provides navigational messages to avoid targets that are detected within the configurable avoidance corridor.





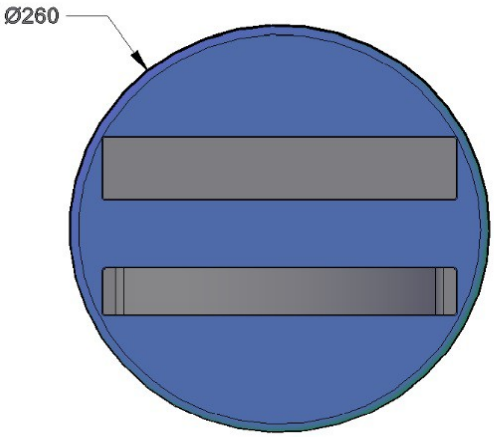
- **Real Time continuous scanning over 120° sector, or selectable 90° / 60°**
- **200m acoustic range**
- **Track up to 250 targets**
- **Ethernet or VDSL as standard**
- **Optional 4000m or 6000m depth rating**
- **Configurable Avoidance Corridor to suit AUV requirement**

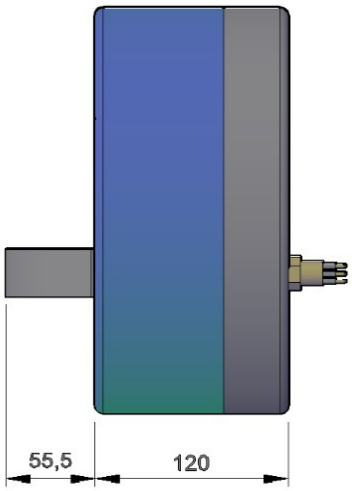
Marine Electronics Ltd.,
Unit 10,
Barras Lane Industrial Estate,
Vale, Guernsey, C.I.
GY6 8EQ
Tel: +44 (0)1481 253181
Fax: +44 (0)1481 253182
Email: sales@marine-electronics.co.uk
Web: www.marine-electronics.co.uk

Obstacle Avoidance Sonar

Dolphin Model 6201

The resolution and update speed of the Dolphin Obstacle Avoidance Sonar sets a new performance benchmark for Autonomous Vehicle Navigation. The rugged compact underwater unit can be easily integrated into the nose-cone of the A.U.V. and can be rated up to 4000m or 6000m operational depth. The system software is able to track up to a maximum of 250 discrete acoustic targets. Each target is assigned an I.D. number and then monitored for range and bearing for each data frame until it disappears from view. Targets that appear along the avoidance corridor in front of the vehicle are analysed for a potential collision hazard and appropriate avoidance messages are then output. By connecting a P.C. on the surface to the Ethernet output, the raw image data from each frame may be viewed using a Windows program.





Specification

Acoustic

Operating Frequency:	*250kHz*
Angular Resolution:	*0.8°*
Sector Scanned:	*120°*
Number of Beams	*128*
Vertical Beamwidth	*20°*
Range Settings:	*1m to 200m*
Scan Rate	*1 – 30Hz*
Range Resolution:	*15mm*

Interface

Power Consumption	*15W Maximum*
Supply Voltage	*20 to 36V DC*
Communications	*Ethernet or VDSL*
Connector	*8 Way Micro Subconn*

Physical

Size	*260mm dia. x 120mm*
Material	*Aluminium Alloy or Stainless Steel 316*
Depth Rating	*500m standard or 4000m and 6000m optional*
Weight in Air	*AL 12kg, S/S 35kg*
Weight in Water	*AL 7.5kg, S/S 30kg*
Temperature Range	*-10 to +35° (operating) -20 to +50° (storage)*