Dimension® is a revolutionary new sonar for ROV and AUV operations. Based on patented Echoscope® Technology and world-leading software, Dimension provides unparalleled visualisation for subsea vehicle applications. Designed for a wide range of ROVs and AUVs, Dimension is a unique, true, real-time 3D sonar that will transform underwater operations.

Available as a range of Dimension hardware with a choice of Vantage™ top-end software editions, Dimension will enhance the subsea work scene for faster, more accurate and safer ROV operations. With the combination of real-time 2D plan and 2D profile views, ROV pilots can immediately adapt to Dimension, whilst the addition of the unique interactive 3D view provides the perfect transition between sonar and camera.

Benefits
- Full real-time 3D
- 2D plan, 2D profile and 3D available from one single sensor
- Simple vehicle integration
- Affordable
- Expert 24x7 Technical Support

Applications
- Vehicle navigation and obstacle avoidance
- Inspection, repair and maintenance (IRM)
- Relative positioning applications e.g. touchdown monitoring, trenching, J-Tube cable installations
- Diver monitoring
- Vehicle based subsea construction monitoring, decommissioning and salvage operations

Features
- Dimension Sonar
  - Instantaneous high definition real-time 3D sonar
  - 3D scene completely updated at 12Hz
  - Long range, wide field of view, up to 90° by 40°
  - Single or dual frequency sonar
  - Integrated Heading, Pitch and Roll sensor
  - Rugged Titanium sonar housing up to 3,000m depth rating
- VIM
  - VIM (Vehicle Integration Module) bottle for simple deployment
  - Single 10Mb Ethernet surface interface
- Vantage™ Software
  - Vantage™ Software for control, acquisition and easy to interpret imagery
  - Real-time independent views (Interactive 3D, 2D Plan and 2D Profile)
  - Live broadcast to multiple end users
  - Accurate 3D measurements on all data, including 2D plan view
Dimension Technical Specifications

<table>
<thead>
<tr>
<th>Performance (by Model)</th>
<th>Dimension-70</th>
<th>Dimension-90</th>
<th>Dimension-90+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>300kHz</td>
<td>240kHz</td>
<td>240-325kHz</td>
</tr>
<tr>
<td>Angular coverage</td>
<td>70° x 24'</td>
<td>90° x 40'</td>
<td>software selectable</td>
</tr>
<tr>
<td>Beam spacing</td>
<td>0.54° x 0.37&quot;</td>
<td>0.70° x 0.62&quot;</td>
<td>software selectable</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance (all Models)</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Number of beams</td>
<td>8,192 (128 x 64)</td>
<td></td>
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<tr>
<td>Maximum range*</td>
<td>&gt;120m (394ft)</td>
<td></td>
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</tr>
<tr>
<td>Minimum range</td>
<td>1m (3ft)</td>
<td></td>
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<tr>
<td>Range resolution</td>
<td>3cm (1.2&quot;)</td>
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<tr>
<td>Update rate (ping rate)</td>
<td>Up to 12Hz</td>
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</tbody>
</table>

*Actual range is dependent on pulse length, target size and target strength.

Integrated Heading, Pitch & Roll Sensor

Pitch / Roll (Static accuracy) < 0.5°

Heading (Static accuracy) < 1°

Physical

Dimensions (h x w x d)* 365mm x 285mm x 160mm
*Excluding connectors (14.3" x 11.2" x 6.3")

Weight in air 20 kg (44 lb)

Weight in water 10 kg (22 lb)

Power consumption 50-60W (24Vdc)

Depth rating 600m (1,968ft) standard

3,000m (9,842ft) available to order

Vehicle Interface Module (VIM)

Dimension sonar connection Single connector for power, data and control

Power input 24 – 30Vdc

AC power option 110Vac to 27 Vdc (additional bottle 7.9" x 12")

VIM Dimensions (diam x length)* 200mm x 203mm
*Excluding connectors (7.9" x 8")

VIM to ROV umbilical Ethernet (10/100) (Standard)

VDSL over COAX, VDSL over TP, Fibre (SMF or MMF) optional

Software Editions

Vantage™ Standard Acquisition, control and recording; Replay; Interactive 3D View, 2D plan view, 2D Front elevation, 2D Profile view; Measuring; Target marking; Image export; Live broadcast to multiple users

Vantage™ PRO As Standard with addition of: User-configurable navigation/attitude input; Coordinate reference systems; Configuration Profiles; 3D Mosaicing capability; Data Export

Dimension® (Reg. US. Pat & TM Off), Echoscope® (Reg. US. Pat & TM Off), Vantage™ are trademarks of CodaOctopus.

Due to continuous product development, we reserve the right to alter the specification without notice. Issue 1 (03.12).

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