The CyScan AS system provided by Guidance Marine is a high performance local position reference sensor specifically engineered for marine Dynamic Positioning (DP) applications. Absolute Signature (AS) resolves long-standing, common industry challenges by providing an improved performance during target identification, acquisition and tracking.

Benefits

- Positively identifies AS targets
- Longest range DP laser sensor on the market today
- Ability to add additional targets to a multi-target session without interrupting tracking
- Field proven false target reflection rejection
- Plug and play legacy and competitor upgrade package available

Typical applications

CyScan AS is suitable for applications which use fixed structures such as:

- Platform, offshore and multipurpose supply vessel operations
- Wind farm service operation vessels
- Jack-up rigs
- Accommodation barge operation
- Crew boats station-keeping
- Heavy lift activities
- Dive and ROV support
- Short range operations

CyScan AS is also suitable for DP applications mobile structures such as:

- Track and ship follow
## Main data

### Sensor Details

<table>
<thead>
<tr>
<th>Sensor Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser Source</td>
<td>Pulsed laser diodes</td>
</tr>
<tr>
<td>Laser Classification</td>
<td>Class 1M</td>
</tr>
<tr>
<td>Operating Range (nominal)</td>
<td>10 - 2500m (dependent on target size and atmospheric conditions)</td>
</tr>
<tr>
<td>Range Resolution</td>
<td>0.01m (DP feed dependent)</td>
</tr>
<tr>
<td>Range Noise</td>
<td>50mm*</td>
</tr>
<tr>
<td>Bearing Noise</td>
<td>0.2 mrad</td>
</tr>
<tr>
<td>Beam Shape</td>
<td>12° vertical</td>
</tr>
<tr>
<td>Total Vertical Coverage</td>
<td>52°</td>
</tr>
<tr>
<td>Wave Motion Compensation</td>
<td>Single axis gimbel</td>
</tr>
<tr>
<td>Maximum Detectable Targets</td>
<td>30</td>
</tr>
<tr>
<td>Maximum Trackable Targets</td>
<td>9</td>
</tr>
</tbody>
</table>

### Target Details

- Typical Range: 1.9m cylindrical 10m to 400m
- Prism 10m to 2500m (target type / absolute signature technology dependent)

### Vessel Interface

- Sensor Power: 85-264VAC | max 100W
- Sensor Control Electrical Interface: Ethernet 100Base-T or Serial RS422
- Sensor Control Software: Up to 10 simultaneous consoles (Ethernet) | Single control console serial connected sensors
- Sensor DP Feed: 2 x RS422 (Ethernet controlled sensors) or 1 x RS422 (serial connected sensor)
- Supported DP Telegram Formats: NMEA0183R | NMEA0183P | ASCII17 | MDL standard
- Custom DP Telegrams: BCD | Artemis | Marine Technologies | Rolls Royce

### Levelling Optics

- Active Axis: Single axis with automatic dynamic stepper control
- Tilt Compensation: -20° to +20° roll and pitch (combined)
- Sensors: 3 axis solid state gyro and accelerometers
- Total Vertical Angular Coverage (typical): 52° (mechanical + optical)
- Wave Motion Compensation: ±5° for 5 second wave period

### Environmental

- Operating Temperature Range: Min: -25°C | Max: 55°C
- Ingress Protection Rating: IP66 rated
- Standards Compliance: EN60945 | IEC60825
- Ingress Protection Rating: IP66

### Sensor Weight & Dimensions

- Width: 405mm
- Depth: 407mm
- Height: 565mm
- Weight: 28kg

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