



# SCENESCAN

## The first targetless laser position reference sensor

SceneScan is a sensor that doesn't use reflector targets. When approaching a scene, it scans the environment and tracks. SceneScan provides tracking information relative to natural or man-made structures within the sensor field of view. It tracks by matching its current observation of the scene against a map generated from previous observations of the scene.

### Benefits

- No targets required
- Designed for close proximity (10m - 200m)
- Additional independent DP reference sensor
- Automatic reference point selection
- Maximum uptime from rotor design
- Modular sensor design aids in-vessel servicing
- No prisms, no maintenance
- Robust construction - high performance in all weather conditions and sea states

### Typical Applications

SceneScan is suitable for applications which use fixed structures such as:

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

SceneScan is also suitable for DP applications with mobile structures such as:

- Track and ship follow



# Main data

Sensor Details		Tacking Details	
Laser Source	Pulsed laser diode, 905nm	Typical range to track a TLP	200m
Laser Pulsing Frequency	7.5kHz	Typical position noise when station keeping at a TLP	<100mm
Laser Classification	Class 1M*	Typical range to track a Jack-up	100m
Typical max range to dark target	200m	Typical position noise when station keeping at a Jack-up	<100mm
Range Resolution	8.5mm	Typical range to track a Drillship	Station Keeping Only
Range Noise	30mm	Typical position noise when station keeping at a Drillship	<100mm
Beam Shape	25mm beam diameter	Typical range to track monopole	200m
Wave Motion Compensation	Single axis gimbal, -20°, +15° absolute range	Typical position noise when station keeping at monopole	200mm

Levelling Optics	
Active Axis	Single vertical axis with stepper control
Sensors	3 axis solid state gyro 3 axis solid state accelerometer

Vessel Interface	
Sensor Power	85 - 264 VAC, max 130W
Sensor Control Electrical Interface	Ethernet 100Base-T
Sensor Control Software	Up to 10 simultaneously connected consoles
Sensor DP Feed	2 X RS422
Supported DP Telegram Formats	NMEA0183R NMEA0183P, ASCII17, MDL Standard, MDL Single Target, MDL Multi-Target, Artemis Mk4, Nautronix
Custom DP Telegrams	BCD, Artemis, Marine Technologies, Rolls-Royce, Kongsberg

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

Sensor Weight & Dimensions		Flight Case Weight & Dimensions	
Width	405mm	System Dimensions	680 x 570 x 780mm
Depth	407mm	System Weight	61kg (with typical accessories such as computer, monitor and mouse)
Height	456mm		
Weight	25kg		

\*Incapable of causing injury during normal operation unless collecting optics are used

"SceneScan" is a registered trademark of Wartsila Guidance Marine Ltd. All other brand or product names are trademarks or registered trademarks of their respective companies or organisations.

Guidance Marine empowers vessels with advanced sensor technology, delivering unmatched precision, safety, and control, even in the most challenging marine environments.



© 2025 Guidance Marine – All rights reserved.  
No part of this publication may be reproduced or copied in any form or by any means (electronic, mechanical, graphic, photocopying, recording, taping or other information retrieval systems) without the prior written permission of the copyright holder.