

Wärtsilä SceneScan

The first targetless laser reference sensor



The SceneScan sensor provided by Guidance Marine 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

- Additional independent DP reference sensor
- No targets required
- Designed for close proximity
- 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 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

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