

# Wärtsilä RadaScan

Premium long range, high precision radar sensor



RadaScan provided by Guidance Marine is an advanced premium position reference sensor for long range use in marine Dynamic Positioning (DP) applications.

RadaScan accurately measures the range and bearing of one or more intelligent microwave targets called responders, allowing for the calculation of vessel position and heading.



## Benefits

- Operating range up to 1000m
- All weather operation
- Auto target detection
- Full 360° scanning
- High precision capability
- 500m+ DP capability
- Extreme low temperature -40°C variant

## Typical applications

RadaScan is suitable for all traditional offshore applications which use fixed and mobile structures along with niche vessels such as:

- Coast guard support
- Polar research supply
- Semi-submersibles
- Well intervention vessels
- Ultra deep water anchor handling
- Shuttle tankers



# Main data

Sensor Details	
Transceiver Type	Frequency Modulated Continuous Wave (FMCW)
Frequency Band	9.2 to 9.3 GHz
Maximum Power Output	3W
Maximum Operating Range*	1000m
Range Accuracy**	0.25m (1 $\sigma$ ) up to 600m 0.5m (1 $\sigma$ ) up to 1000m
Angular Accuracy**	0.15° (1 $\sigma$ ) up to 600m 0.2° (1 $\sigma$ ) up to 1000m
Operating Field of View	360°
Target Detection	Automatic
Vertical Beam Width	+/- 12°, +35° at close range
Multiple Target Capability	Up to 4 (With version 3.0 sensor software installed)

Vessel Interface	
Sensor Power	90 to 264v AC 45-65 Hz. 80W operation, 120W at power-up
Sensor Control	1 x Ethernet 100Base-T
Sensor DP Feed	1 x RS422
Supported DP Systems	Includes Beier Radio, GE Energy (Converteam), Kongsberg, L-3, Marine Technologies, Navis, Rolls Royce,
Sensor Control	Up to 10 control consoles (Master & Slaves)
Sensor Control Protocol	Ethernet TCP/IP
Supported DP Telegram Formats	Includes standard formats (including MDL single/multi-target and NMEA0138) and customer formats

Environmental	
Operating Temperature Range	-25°C to +55°C (-50°C option available)
Atmospheric Conditions	Operates in fog, heavy rain, snow and ice conditions
Water and Dust Protection	IP66 certified
Standards Compliance	EN 60945 & EN301 843-1 (EMC), EN 62388:2002, Annex B, ITU-R Recommendation RM. 1177 European Directive, 2004/108/EC EMC: CE Certified, FCC Approved
RF Immunity	Resistant to S and X band Radar when installed as recommended

Sensor Weight & Dimensions	
Diameter	1.2m
Height	0.9m
Weight	115kg

Flight Case Weight & Dimensions	
System Dimensions	1330 x 1330 x 1100mm
System Weight	212kg (with typical accessories such as computer, monitor, keyboard and mouse)

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[wartsila.com/marine/build/dynamic-positioning/radascan](https://www.wartsila.com/marine/build/dynamic-positioning/radascan)  
[sales.wgm@wartsila.com](mailto:sales.wgm@wartsila.com)

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