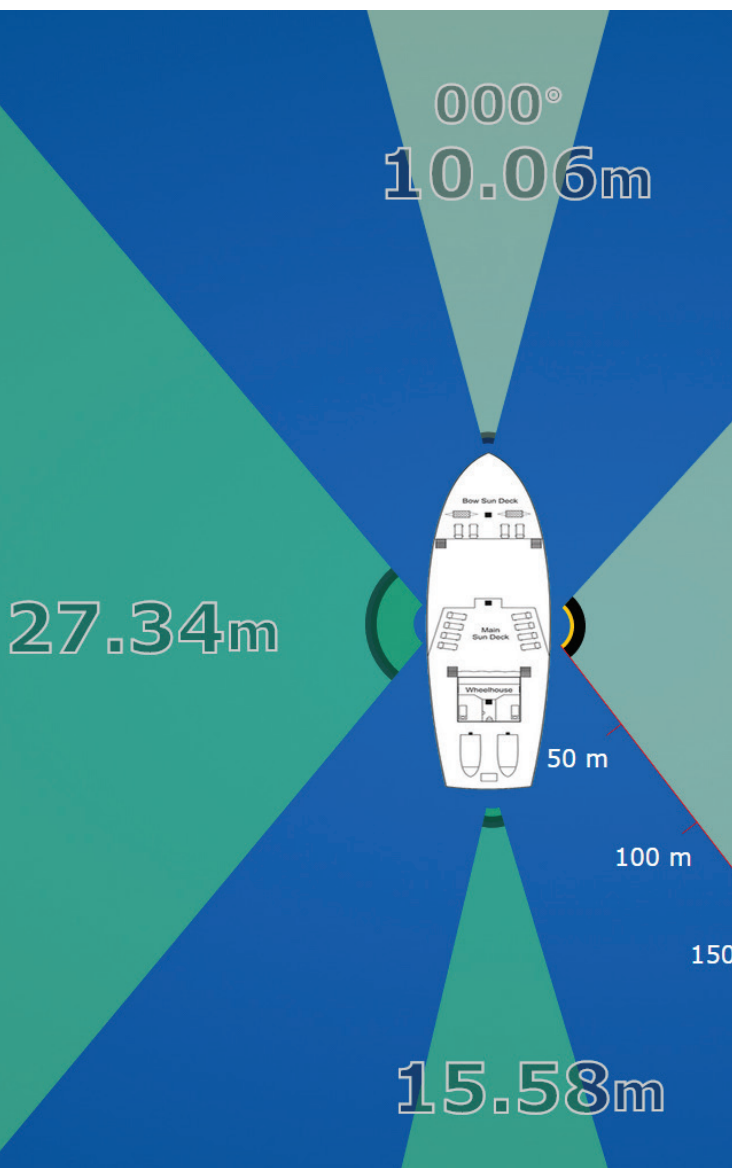


Wärtsilä RangeGuard

Marine Proximity Sensor



The RangeGuard sensor provided by Guidance Marine measures the distance to the nearest object. Based on radar technology, it is a plug and play proximity sensor to detect unseen objects for vessel protection. With the size of today's vessels, more variable crew skills and greater bridge complexity, Hazard Detection is essential for safer operations. The RangeGuard system measures the distance to the nearest object. Based on radar technology, the unit is a plug and play proximity sensor to detect unseen objects for vessel protection.



Benefits

- Detects objects within 300m RangeGuard
- Faster turnaround time (no target handover required)
- Reduce risk of collision
- All weather operation
- Solid state - no moving parts
- Targetless operation
- Spot or flood beam width options

Typical applications

RangeGuard sensor is suitable for applications which use offshore installations such as:

- Platform supply vessels
- Offshore and wind farm support
- Tugboats
- Salvage vessels



Main data

| Sensor Details | |
|-------------------------|---|
| Transceiver Type | Frequency Modulated Continuous Wave (FMCW) |
| Frequency Band | 24.05GHz – 24.25GHz (Licence Exempt Short Range Device) |
| Maximum Power Output | <100mW EIRP |
| Maximum Operating Range | 300m |
| Minimum Operating Range | 1m |
| Range Accuracy | ±2cm + 0.1% of Range |
| Azimuth Beam width | 110° (flood) or 11° (spot) 10dB Width |
| Target Detection | Automatic or by manual selection |
| Vertical Beam Height | +/- 5.5° |

| Vessel Interface | |
|-------------------|---|
| Sensor Power | 85 to 264VAC 50-60Hz 5A, Max 114W |
| Sensor Control | Sensor Control capable of displaying 4 sensors simultaneously |
| Control Interface | Ethernet |

| Environmental | |
|-----------------------------|---|
| Operating Temperature Range | -25°C to +55°C |
| Atmospheric Conditions | Operates in fog, heavy rain, snow and ice conditions |
| Standards Compliance | EN 60945, FCC Approved |
| Ingress Protection Rating | IP67 |
| RF Immunity | Resistant to S and X band Radar when installed as recommended |

| Sensor Weight & Dimensions | |
|----------------------------|---|
| Height | 285mm |
| Width | 170mm |
| Depth | 120mm |
| Weight | 4kg |
| Max Cable run per sensor | Up to 100m (CAT5e SCTP cable, Min AWG 24) |
| Control Unit | 400 x 250 x 10mm |

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[wartsila.com/marine/build/dynamic-positioning/rangeguard](https://www.wartsila.com/marine/build/dynamic-positioning/rangeguard)
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