



## WaveGuide 5 Onboard 2

Our newest release of the motion compensated wave radar!  
Designed for 'on board' use. It accurately measures wave height, wave period and draught. No water contact, no maintenance and no (re-) calibration. So no hassle.

This accurate wave monitoring system is an easy to use, reliable and robust device to measure vessel draft level, wave height and wave period. The sensor

is capable of maintaining a high level of precision and accuracy in harsh environmental conditions and is particularly suited to maritime use.

### New features

- Improved heave compensation
- Increased accuracy at high pitching and rolling

### Key features

- Highly accurate
- Maintenance free
- Plug and play
- Measuring at 10 Hz
- 0 - 60 m wave height
- Network connected
- Up to 10 years of internal data storage



The Onboard wave radar, mostly installed at the helideck, bow or bridge of the ship, measures the distance to the water surface. The distances measured are compensated for the heaving, pitching and rolling motion of the radar. Thanks to a highly sensitive motion sensor is incorporated into the radar unit. The WaveGuide Onboard measures the waves the ship actually has to endure.

The radar measures the distance to the water surface 10 times per second. The radar itself facilitates data acquisition, data processing, data presentation and remote service. Data will be internally stored on the device and distributed over the network. Any device connected to the (private) network can access the web-based user interface.

**We are Radac**  
Technology leader in measuring waves by radar



Since 1996, our Dutch company develops unique sensors to monitor the ocean surface. Without water contact, moving parts or need for calibration, the wave radar is a maintenance free device. This makes us, truly an Opex free, high value

system provider. We are proud that our professional systems are trusted across the industry. Our main clients include oil companies, offshore wind farm operators, port operators and shipping companies.

# WaveGuide 5 Onboard 2

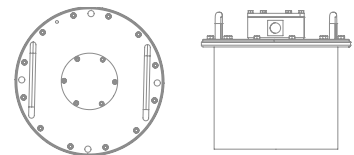
## WG5 series

### SPECIFICATIONS

<b>Heave</b>	Range: 2 - 75 m to surface Accuracy: $\pm 1$ cm <sup>1)</sup> Frequency: 10 Hz
<b>Vessel draft level</b>	Accuracy: $\pm 1$ cm <sup>2)3)</sup> Processing: 10 min average (optional 1 min and 5 min) Interval: 1 min
<b>Wave height</b>	Range: 0 - 60 m Accuracy: $\pm 3$ cm <sup>3)</sup> Processing: SWAP <sup>4)</sup> (per 20 min data block) Interval: 1 min
<b>Wave period</b> <sup>5)</sup>	Range: 1 - 25 s Accuracy: $\pm 50$ ms <sup>3)</sup> Processing: SWAP <sup>4)</sup> (per 20 min data block) Interval: 1 min
<b>Limitations</b>	Max. roll: 15 degrees Max. pitch: 15 degrees

### COMPACT VERSION: WG5-OB2-CP (includes 3 radars + 1 processing unit)

<b>Mechanical</b>	Dimensions: $\varnothing$ 265 x 245 mm Weight: 12.5 kg Material: Stainless steel, AISI 316L
<b>Electrical</b>	Power: 24 - 65 VDC, 65 - 240 Vac, 12 W (14W peak) Frequency: 10 GHz (X-band) Modulation: Triangular FMCW Emission: 0.1 mW max. (Far below acceptable limits for exposure to the human body)
<b>Environmental</b>	Temperature: -40 °C to 45 °C Humidity: 0 - 100 % Ingress Protection: IP67
<b>Motion sensor</b>	Range: $\pm 4$ g Roll & Pitch: 0,02 degrees
<b>Communication</b>	Network: 1x Ethernet Data storage: SD 32 Gb Optional: External converter to RS232 or RS422 or RS485



1) Valid for a still water surface.

2) For a water surface with waves.

3) The accuracy of the wave parameters is not limited by the radar sensor, yet it is defined by the stochastic nature of sea-surface measurements.

4) SWAP is the Standard Wave Analysis Program, in accordance with the applied standards of the Dutch Ministry of Infrastructure and Environment and of the International Association of Oil and Gas producers.

5) The wave period is not compensated for the horizontal motion. Hence, for a moving vessel, the sensor measures the wave period as encountered by the vessel.

**We represent this supplier.  
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oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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