



WAVEGUIDE HEIGHT & TIDE WG5 SERIES

Remote monitoring of wave height, wave period and tide



The new WaveGuide is the latest and most technically advanced radar from Radac. This accurate wave monitoring system is an easy to use, reliable and robust device to measure tide, wave height and wave period. The new radar is capable of maintaining a high level of precision and accuracy in harsh environmental conditions and is particularly suited to marine and offshore installations.

KEY FEATURES

- 0 - 60 m wave height
- 1 - 100 s range wave period
- Highly accurate
- Maintenance free
- Low power
- Optional ATEX / IECEx

NEW FEATURES

- Measuring at 10 Hz
- Single unit system
- Network connected
- Up to 5 years of internal data storage

Mounted high above the water and without any moving parts there is no need for preventive maintenance or cleaning. (Re-) calibration is never required due to long term stable zero reference and constant sensitivity.

The wave radar measures the distance to the water surface 10 times per second. In all wind and wave conditions the accuracy for water level is proven to be below 1 cm. 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.



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We are a Dutch company, based in Delft. Since 1996, we develop, manufacture and market the WaveGuide. 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.

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WG5 SERIES

SPECIFICATIONS

Heave	Range: 2 - 75 m to surface Accuracy: ± 3 mm ¹⁾ Frequency: 10 Hz
Water level	Accuracy: ± 1 cm ^{2) 3)} Processing: 10 sec, 1 min, 5 min or 10 min Interval: 1 min
Wave height	Range: 0 - 60 m Accuracy: ± 1 cm ³⁾ Processing: SWAP ⁴⁾ (per 20 min data block) Interval: 1 min
Wave period	Range: 1 - 100 s Accuracy: ± 50 ms ³⁾ Processing: SWAP ⁴⁾ (per 20 min data block) Interval: 1 min

COMPACT VERSION: WG5-HT-CP

Mechanical	Dimensions: \varnothing 265 x 245 mm Weight: 12.5 kg Material: Stainless steel, AISI 316L
Electrical	Power: 24 - 65 VDC, 65 - 240 Vac, 8 W Frequency: 10 GHz (X-band) Modulation: Triangular FMCW Emission: 0.1 mW max. (Far below acceptable limits for exposure to the human body)
Environmental	Temperature: -40 °C to 65 °C Humidity: 0 - 100 % Ingress Protection: IP67
Communication	Network: 1x Ethernet Data storage: SD 32 Gb Optional: External converter to RS232 or RS422 or RS485



EXPLOSION PROOF VERSION: WG5-HT-EX

Mechanical	Dimensions: 217 x 319 x 379 mm (d x w x h) Weight: 14.4 kg (excl. antenna 2.8 kg) Material: Chromatized aluminum
Electrical	Power: 24 - 65 VDC, 65 - 240 Vac, 8 W Frequency: 10 GHz (X-band) Modulation: Triangular FMCW Emission: 0.1 mWatt max. (Far below acceptable limits for exposure of the human body)
Environmental	Temperature: -40 °C to 65 °C Humidity: 0 - 100 % Ingress Protection: IP67 Safety: ATEX, II 1/2 G Ex d [ia Ga] IIB T6 Ga/Gb
Communication	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.

