

COST-EFFECTIVE, SMALL, DIRECTIONAL WAVE BUOY WITH REMOTE COMMUNICATION AND OPTIONAL SENSORS

- * Long term and short term wave sampling and surveillance
- * For wave power companies, universities, authorities, etc.
- * Optional sensors like ADCP, CTD, etc.
- * Small size - easy to transport, store, & handle. Fits in a regular station car ...
- * ... yet big enough for moored operation
- * Affordable



- * Rugged, reliable, unsinkable
- * All data stored on internal memory card for back-up
- * Typically 18 months operation on standard alkaline batteries
- * 'All' wave parameters incl. wave direction, 'First 5' and spectrum
- * Remote communication and buoy light included in basic scoop.
- * Customer selects remote communication technique: LTE/4G, Satellite, LoRa or ZigBee radio.

WaveWatcher from Ocean Origo is a small, rugged and accurate wave buoy with wireless communication capacity. It measures 'all' wave parameters 'on-board' including wave direction and wave spectrum using MEMS technology. WaveWatcher may be equipped with optional sensors like acoustic current meter, CTD, etc. Its tight, compact design and stainless steel/polymer materials makes it robust and corrosion resistant. WaveWatcher has enough battery capacity for approx. 18 months operation (depending on configuration) on a standard alkaline battery pack. Sensor data is transmitted via satellite, cellular net, ZigBee or LoRa radio (customer's choice). Data may optionally be presented on WWW in real-time. Remote re-configuration is also possible. WaveWatcher offers great flexibility and can easily be adapted to customer's application and needs regarding communication technique, sampling rate, optional sensors, etc. Comes in two versions: 0.65 m diameter 'WaveWatcher' and 1 m diameter 'WaveWatcher+'. Both versions are big enough for moored operation and may carry optional sensors.

Wave parameters & other parameters	Significant wave height (H_s), Maximum wave height (H_{max}), Dominant wave period (DPD), Dominant wave direction (Dir), Full wave spectrum, "First-5" wave coefficients. GNSS buoy position.
Range & Accuracy (typical values)	Wave height: Range: 0-40 m. Resolution: 1 mm. Accuracy: +/- 5 mm Wave period: Range: 0.8–20 s. Resolution: 0.1 s. Accuracy: 1 % Wave direction: Range: 0-360 deg. Resolution: 0.1 deg. Accuracy: +/-4 deg Buoy position: Horizontal accuracy - typical 2 m @ open sky condition.
Dimensions	"WaveWatcher+": Dia=100 cm. Height=145cm excl. antenna. M=85 kg incl. standard batteries. "WaveWatcher": Dia=65 cm. H=145 cm excl. antenna. M=70 kg incl. standard batteries With X-large Battery pack: Add 38 cm & 25 kg.
Scope of delivery	WaveWatcher incl. standard alkaline battery unit, remote communication according to customer's choice (LTE/4G, Iridium, ZigBee or LoRa), 16 GB memory card, LED light, manual and PC communication cable.
Options	<ul style="list-style-type: none"> • 400 m depth electronic unit casing instead of IP 67/68 casing • Optional sensors like Nortek current profiler, SeaBird 37 CTD, water temperature, etc. • Larger micro-SD data memory card, up to 1 TB. • Ocean Origo's www-based graphic interface. View real-time data on www-site. • Data presentation on ViVa, an internet service operated by the Swedish authority 'Sjöfartsverket'. • X-large battery pack • Mooring design and equipment incl. elastic element required for wave measurements. • Installation on site. Regular service and maintenance. • Ocean Origo Data delivery service.