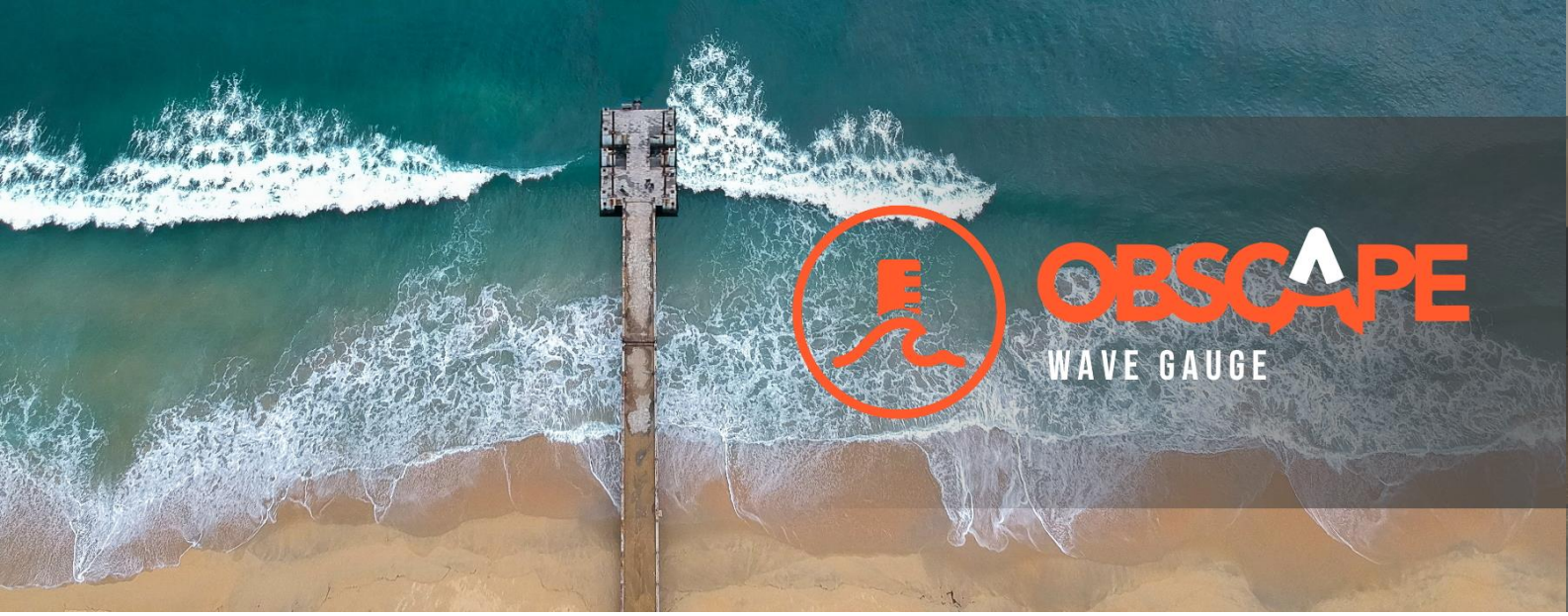


A SWELL WAY TO MEASURE WAVES

Pressure sensors are a popular instrument for nearshore wave measurements. Obscape's pressure-based Wave Gauge adds real-time data transfer and solar power into the mix, providing a very complete and convenient package for wave observations.

With the pressure sensor mounted below the water surface and the data logger above, real-time wave observations in a harbour basin, at an offshore platform or at a shore-based pier or jetty become very convenient. Whether you are interested in improving navigational safety or wish to investigate the impact of waves on coastal morphology, Obscape's pressure-based Wave Gauge suits your needs.

KEY FEATURES

- Accurate wave data
- Industry-grade pressure sensor
- Maximum depth 5 m
- Real-time data
- Solar-powered
- Real-time data: 4G & 2G (upgradable to Satellite)
- Multiple mounting options
- Versatile data portal included

CONVENIENT WAVE MONITORING

Wave monitoring plays an important role in various fields of science and industry. The Wave Gauge is suitable for application whenever a fixed structure is available to mount the device to. This can either be a platform, pier, jetty, pole, bridge deck, etc. The instrument measures the wave-induced water pressure using an industry-grade pressure sensor. Internal processing algorithms based on linear wave theory will convert the pressure timeseries into non-directional wave spectra and bulk wave parameters, which are then sent across to the Obscape Data Portal and saved to the on-board SD card.

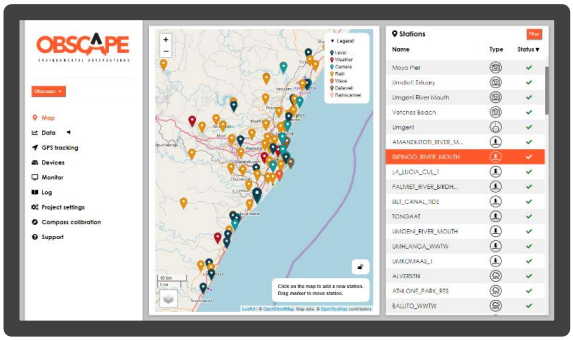
SOLAR POWER, WIRELESS TELEMETRY

The pressure-based Wave Gauge is powered by built-in solar panels, while data transmission to the Obscape Data Portal is completely wireless because of the built-in 4G cellular modem. Therefore, the Wave Gauge is easy to install at any desired location within cellular coverage. It is advised to increase the device's solar capacity by pairing it with Obscape's 9W external solar panel, which plugs straight into the data logger.

Obscape B.V. | Reg.: 74971409 | VAT: NL860092550B01
Kluyverweg 1, 2629HS Delft, The Netherlands | info@obscape.com

VERSATILE DATA PORTAL

The value of real-time observations strongly depends on the ability to view and analyse them in real-time. Therefore, the Wave Gauge comes with a license for the Obscape Data Portal. The data collected by your Wave Gauge, as well as the data from any other Obscape device you own, are collected into the Data Portal. The Data Portal offers various options for viewing, managing and downloading your water level data, including the generation of PDF reports. It is your ultimate tool to unify the office and the field.



TECHNICAL SPECIFICATIONS

DATA SPECIFICATIONS	
PARAMETERS	Hm0, Hmax, Tp, Tm01, Tm02, Tm-10, Tavg, Tmax, water level, battery voltage, GSM signal strength, internal temperature, internal humidity, sensor inclination
VERTICAL REFERENCE	Specified by the user in the Data Portal
MAXIMUM DEPTH	5 m
SENSOR ACCURACY	1 mm
SAMPLING INTERVAL	30 minutes
BURST LENGTH	24 minutes (7168 samples at 5 Hz)
STORAGE	On-board micro SD card

WEB-PORTAL SPECIFICATIONS	
REAL-TIME GRAPHS	Hm0, Hmax, Tp, Tm01, Tm02, Tm-10, Tavg, Tmax, water level, battery voltage, GSM signal strength, internal temperature, internal humidity, sensor inclination
DOWNLOADS	Raw data (CSV format), Graphs (PNG), Reports (PDF)
FORWARDERS	JSON API or HTTP post
STATUS NOTIFICATION EMAILS	Online/offline, battery level, parameter threshold exceedance

PHYSICAL CHARACTERISTICS	
HOUSING WIDTH	87 mm
HOUSING DEPTH	87 mm
HOUSING HEIGHT	280 mm
HOUSING WEIGHT	2 kg
PRESSURE SENSOR	Seeed Technology S-YW-01B

ELECTRICAL CHARACTERISTICS	
SOLAR CAPACITY	3W
INTERNAL BATTERY	1 single 18650 lithium battery
NOMINAL VOLTAGE	3.7 V

TELEMETRY SPECIFICATIONS	
COMMUNICATION MODE	GSM (4G with 2G fallback- region determine prior to order), upgradable Satellite (Iridium).
REAL-TIME DATA INTERVAL	30 minutes – 24 hours (user selectable)
REAL-TIME DATA	Hm0, Hmax, Tp, Tm01, Tm02, Tm-10, Tavg, Tmax, water level, battery voltage, GSM signal strength, internal temperature, internal humidity, sensor inclination
GSM DATA LOAD	Approx. 8 kB per message

PRICING	
WAVE GAUGE	€2,500 including web-portal license and back-side mounting bracket
CELLULAR COMMUNICATION	Micro SIM card and sufficient data credit to be arranged by user, or Global SIM card to be purchased through Obscape. Wave Gauge can also be run in offline mode (data saved to SD card).

Version: January 2023

Obscape B.V. | Reg.: 74971409 | VAT: NL860092550B01
Kluyverweg 1, 2629HS Delft, The Netherlands | info@obscape.com