

OBSCAPE
PRESSURE LEVEL GAUGE

TIME AND TIDE

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

With the pressure sensor mounted below the water surface and the data logger above, real-time water level observations in natural as well as man-made water systems are collected with minimum effort!



KEY FEATURES

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

RADAR-BASED ALTERNATIVE

Did you know that Obscape also offers a radar-based Level Gauge? Compared to the Pressure Level Gauge, the radar-based version offers more convenient installation without any submerged parts, and lower maintenance due to the absence of biofouling building up on the sensor. In case your application allows for using the radar-based Level Gauge, it is generally advisable to opt for that alternative.

CONVENIENT WATER LEVEL MONITORING

Water level monitoring plays an important role in various fields of science and industry. The Pressure Level 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 water pressure using an industry-grade pressure sensor. Pressure data are converted to referenced water levels based on user-defined water density and sensor reference level, which are then sent across to the Obscape Data Portal and saved to the on-board SD card.

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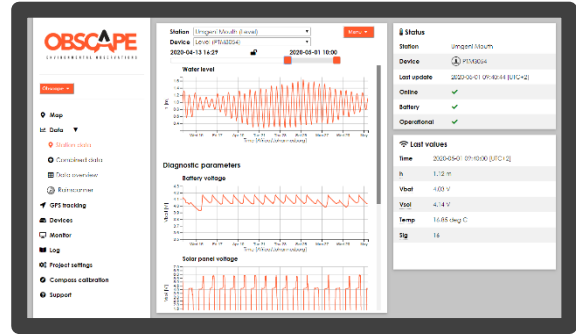
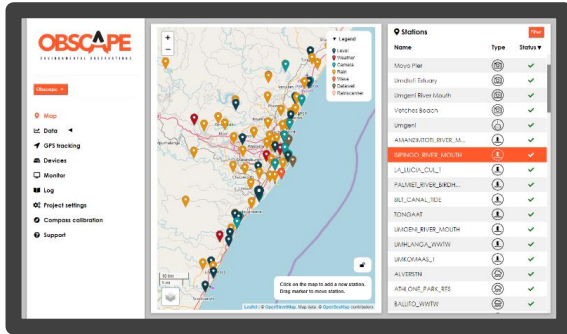
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SOLAR POWER, WIRELESS TELEMETRY

The Obscape Pressure Level Gauge is completely wireless because of the built-in 4G cellular modem. Therefore, the instrument is easy to install at any desired location within cellular coverage.

VERSATILE DATA PORTAL

The value of real-time observations strongly depends on the ability to view and analyse them in real-time. Therefore, the Pressure Level Gauge comes with a license for the Obscape Data Portal. The data collected by your Level 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	Water level, water depth, 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	5 – 60 minutes (user selectable)
AVERAGING	2 – 40 seconds (user selectable)
STORAGE	On-board micro SD card

WEB-PORTAL SPECIFICATIONS	
REAL-TIME GRAPHS	Water level, water depth, 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	5 minutes – 24 hours (user selectable)
REAL-TIME DATA	Water level, water depth, battery voltage, GSM signal strength, internal temperature, internal humidity, sensor inclination
GSM DATA LOAD	Approx. 8 kB per message

PURCHASE SPECIFICATIONS	
PRESSURE LEVEL GAUGE	Purchase includes free web-portal license for the lifetime of the device, 2 x Std. PTM mounting brackets and 1 x SD card.
GSM COMMUNICATION	Optional GSM Global SIM card with 100 EUR of data credit available for purchase. Alternatively Micro SIM card and sufficient data credit to be arranged by user. Pressure Level Gauge can also be run in offline mode (data saved to SD card).

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