

*"some lead, others follow" !*

# TIDALITE

## Portable Tide Gauge system

**T**idaLite is a low cost portable tide gauge with a specification for use by surveyors engaged in river, lake and inshore hydrographic surveying. The device can be used as a conventional tide gauge with digital depth data output on an in-built serial data port using true RS232 levels or the instrument can store all data internally with accurate time tags for post-processing. The LCD displays a continually updating view of the current depth together with instrument information and measured statistics such as Significant Wave Height and Full Wave frequency. The data view can be scrolled using the front panel rubber buttons. In data logging mode the user defines the sleep and work duty cycle of the instrument.



*Complete System in a Case*



*Temporary Installation*

### LOW POWER DESIGN

The TidaLite system uses very low power pressure transducer designs which allow long term deployment from the internal battery power supply. The transducer is supplied complete with a hermetically sealed cable and enclosure which reduce the risk of damage to the enclosed stainless steel transducer element. The temperature compensation and amplifier electronics are mounted within the transducer immediately behind the pressure diaphragm giving a stable low-noise output signal.

TidaLite includes a barometer so the standard unvented transducer can be corrected for atmospheric pressure variations. The vented transducer variant is connected to atmospheric pressure by way of a 2mm tube running through the centre of the instrument cable. Connecting the transducer will automatically start the TidaLite system using its previously saved settings. The transducer will easily fit inside a 50mm tube for safe deployment alongside active moorings

### SIGNIFICANT WAVE HEIGHT

In addition to saving data internally the TidaLite will calculate and save the Significant Wave Height (as defined by Draper/Tucker analysis) together with the measured Full Wave frequency. This information is becoming increasingly important in the definition of inclement weather periods during dredging, coastal engineering and ferry operation. Calculated statistics are also output on the serial port for 'live' situations.



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[www.tidegauge.com](http://www.tidegauge.com)

[www.echo-sounder.com](http://www.echo-sounder.com)



## SPECIFICATION

- TRANSDUCER RANGE - 1.2 Bar (2 Bar option)
- DEPTH RANGE - 0.00m to 10.00m (20.0m option)
- ACCURACY - +/-0.01m (RMS)
- MEASUREMENT FREQUENCY - 5 to 30 Hz
- LCD - 2 lines x 16 Characters reflective grey
- WAVE HEIGHT - Average 1/3 highest waves
- WAVE FREQUENCY - +ve mean crossing detection
- POWER - 12v x 4.2Ahr sealed lead/acid cells
- POWER CONSUMPTION - 15ma (0.1ma sleeping)
- BATTERY LIFE - 10 Days between charging
- STANDARD MEMORY - 512Kb CMOS(40000 values)
- STANDBY BATTERY LIFE - 5000Hrs
- TEMPERATURE RANGE - 0 to 45 deg Centigrade
- OVERALL DIMENSIONS(mm) 140h x 260w x 100d
- SYSTEM BOX WEIGHT - 2.5Kg

## EMC COMPLIANCE

In line with EEC criteria the design is a low noise low power device with the following design features ...

- Immunity from Environmentally induced signal drift
- Low EMC emissions as cables carry only low voltage
- Screened design using metal enclosures



*Offshore Installation - Nab Tower*

## WATERPROOF DESIGN

The instrument is housed in an IP65 standard aluminium box with rubber keyboard and waterproof connectors to provide protection from inclement weather conditions. Power is provided by internal rechargeable lead/acid batteries. The device is switched on by connecting a lead or transducer to either of the external connectors..

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