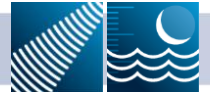




## miniTIDE Water Level Recorder



The miniTIDE is a high accuracy, low cost water level recorder, designed to operate throughout a minimum of one lunar cycle.

Combining the 0.01% pressure measurement technology utilised on Valeport's larger instruments with novel low power, high volume data logging, the miniTIDE provides a cost-effective, reliable solution that will appeal to both coastal surveyors and academia alike.

### Sensors

The miniTIDE is fitted with a novel temperature compensated piezo-resistive pressure transducer that offers levels of performance previously only available from costly resonant quartz transducers.

#### Pressure

*Range:* 10, 30, 50, 100, 300 or 600 Bar  
*Resolution:* 0.001% range  
*Accuracy:*  $\pm 0.01\%$  range

### Data Acquisition

The miniTIDE features a selection of pre-programmed sampling patterns, allowing the device to monitor (and average) pressure readings for a number of seconds at regular time intervals, e.g. 40 seconds sampling every 10 minutes. Alternatively, the instrument may be set to output data at a fixed sample rate of 1 or 2 Hz, for continuous monitoring applications.

### Communications

The instrument will operate autonomously, with setup and data extraction performed by direct communications with PC before and after deployment. It also operates in real time, with a choice of communication protocols fitted as standard and selected by pin choice on the output connector:

*RS232* Up to 200m cable, direct to serial port  
*RS485* Up to 1000m cable  
*Baud Rate:* 4800 - 460800  
*Protocol:* 8 data, 1 stop, No parity, No flow control

### Memory

The miniTIDE is fitted with a solid state non-volatile Flash memory, capable of storing over 30 million lines of data.

### Electrical

*Internal:* 1 x C cell, 1.5v alkaline or 3.6v lithium  
*External:* 9 - 28vDC  
*Power:* <200mW  
*Battery Life:* 30 days (alkaline) @ 40 secs / 10 mins  
 80 days (lithium) @ 40 secs / 10 mins  
*Connector:* Subconn MCBH10F



### Physical

*Materials:* Acetal or titanium housing (as ordered), acetal lock ring and transducer cap

*Depth Rating:* 500m (acetal)  
 6000m (titanium)  
 NB: Maximum deployment depth may be limited by transducer range

*Instrument Size:* 48mm $\varnothing$ , 270mm long (including connector)

*Deployment cage:* 110mm $\varnothing$  x 450mm long

*Weight:* 0.7kg (acetal)  
 1.4kg (titanium)

*Shipping:* 51 x 42 x 27cm, 10kg

### Software

System is supplied with DataLog Express Windows based PC software, for instrument setup, data extraction and display. DataLog Express is license free.

### Ordering

0660007-XX miniTIDE Water Level Recorder in acetal housing, supplied with switch plug, deployment frame, 3m communications lead, DataLog Express software, manual and transit case.

Note: XX denotes pressure transducer range. Select from 10, 30 or 50bar

0660008-XX miniTIDE Water Level Recorder in titanium housing, supplied with switch plug, deployment frame, 3m communications lead, DataLog Express software, manual and transit case.

Note: XX denotes pressure transducer range. Select from 10, 30, 50, 100, 300 or 600bar

Datasheet Reference: miniTIDE version 2c, June 2013