



# miniTIDE

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.

## DATA SHEET

### Product Details



TIDE GAUGES



DATALOG  
X2 SOFTWARE

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## 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

<b>Type</b>	Temperature compensated piezo-resistive
<b>Range</b>	10, 20, 30, 50, 100, 200, 300, 400 or 600 Bar
<b>Resolution</b>	0.001% range
<b>Accuracy</b>	±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 2Hz, 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:

<b>RS232</b>	Up to 200m cable, direct to serial port
<b>RS485</b>	Up to 1000m cable
<b>Baud Rate</b>	4800 - 460800
<b>Protocol</b>	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

<b>Internal</b>	1 x C cell, 1.5V alkaline or 3.6V lithium
<b>External</b>	9 – 28V DC
<b>Power</b>	<200mW
<b>Battery Life</b>	30 days (alkaline) @ 40 secs / 10 mins 80 days (lithium) @ 40 secs / 10 mins
<b>Connector</b>	SubConn MCBH10F

## Physical

<b>Materials</b>	Acetal or Titanium housing (as ordered) Acetal lock ring and transducer cap
<b>Depth Rating</b>	500m (Acetal) 6000m (Titanium)  Note: Maximum deployment depth may be limited by transducer depth range
<b>Instrument Size</b>	48mmØ, 270mm long (including connector)
<b>Deployment cage</b>	110mmØ x 450mm long
<b>Weight</b>	0.7kg (acetal)
<b>Shipping</b>	51 x 42 x 27cm, 10kg

## Software

System is supplied with DataLog X2 Windows based PC software, for instrument setup, data extraction and display. DataLog X2 is licence free.

## Ordering

<b>0660007-XX</b>	miniTIDE Water Level Recorder in Acetal Supplied with: <ul style="list-style-type: none"><li>• Switch plug</li><li>• Deployment frame</li><li>• 3m communications lead</li><li>• DataLog x2 software</li><li>• Manual and transit case</li></ul>
<b>Note</b>	XX denotes pressure transducer range. Select from 10, 20, 30 or 50bar
<b>0660008-XX</b>	miniTIDE Water Level Recorder in Titanium Supplied with: <ul style="list-style-type: none"><li>• Switch plug</li><li>• Deployment frame</li><li>• 3m communications lead</li><li>• DataLog x2 software</li><li>• Manual and transit case</li></ul>
<b>Note</b>	XX denotes pressure transducer range. Select from 10, 20, 30, 50, 100, 200, 300, 400 or 600 Bar

## Datasheet Reference: miniTIDE | April 2020

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