



## TideMaster



TideMaster has been designed to provide an accurate, versatile and easily deployed tide gauge for use in short or long term survey operations. Optional control/display panel, Bluetooth, SD card memory and optional weather sensor provide unrivalled functionality. Low power consumption and user selectable sampling regime allow for up to a year of autonomous operation, whilst optional telemetry packages extend the capabilities for real time operations. TideMaster is compatible with a wide range of hydrographic software and tools.

### Pressure Transducer

**Type:** Vented strain gauge, with stainless steel mounting bracket.  
**Range:** Standard 10dBar (approx 10m), with 20m cable. Other ranges and lengths available.  
**Accuracy:**  $\pm 0.1\%$  Full Scale.  
**Calibration:** Held within logging unit.  
**Dimensions:** 18mm diameter x 80mm.

### Weather Sensor

**Type:** Ultrasonic - Wind Speed and Direction  
**Range:** 0-60m/s 0-359°  
**Accuracy:**  $\pm 2\%$ @12m/s  
 $\pm 3^\circ$ @12m/s  
**Calibration:** Held within Sensor.  
**Dimensions:** 142mm x 160mm.

### Logging Unit

**Housing:** Injection moulded housing rated to IP67, with injection moulded mounting bracket.  
**Display:** Optional control/display (128x64 OLED) panel for system configuration and data display.  
**Power:** 4 "C" cells within separate sealed compartment. Tool-less battery change. Alkaline cells provide power for up to a year of autonomous sampling  
**Memory:** 512 MB SD card memory allowing for effectively unlimited data storage.  
**Sampling:** Raw data sampled at 8Hz, mean and standard deviation of burst samples is logged. 5 pre-programmed burst modes + custom sampling mode. Continuous Sampling Mode (1Hz)  
**Switching:** Power switch on unit.  
**Resolution:** Data logged to 1mm resolution.  
**Comms:** Integral Bluetooth for short range wireless communication  
 RS232/RS485 for cabled communication  
**Dimensions:** Housing 52 mm x 144.5 mm x 197 mm.  
 Bracket 35 mm x 210 mm x 159 mm.  
 Mounted 61.5mm x 210 mm x 197 mm  
**Weight:** 1.1 kg (approx) including batteries.

### Radio Telemetry

**Frequency:** Selectable frequency UHF synthesised radio transceiver, operating in UK licence exempt band (458.5 - 458.9 MHz).  
**Power output:** Supplied as nominal 100mW peak output.  
**RS232 output:** 4800 baud, 8,1,N.

#### Aerials

**Transmitter:**  $\frac{1}{4}$  wave 'rubber duck' (standard, ~2km). 3dB omni-directional (option, ~10km)  
**Receiver:** 3dB omni-directional.

#### Power input

**Transmitter:** External 12vDC supply.  
**Current:** 0.04mA sleep, 120mA receive, 410mA transmit.  
**Receiver:** External 12vDC input  
**Current:** 120mA receive, 410mA transmit.

#### Transmitter Physical

**Materials:** IP67 Black anodised aluminium box.  
**Size:** 200mm x 200mm x 70mm.  
**Connectors:** To antenna, TideMaster & external power supply.

#### Receiver Physical

**Materials:** Desktop style anodised aluminium box.  
**Size:** 200mm x 180mm x 70mm.  
**Connectors:** To antenna, 12vDC input & RS232 output.

### GSM/GPRS/Bluetooth Telemetry

Please contact Valeport to discuss GSM/GPRS/Bluetooth telemetry requirements

### Ordering

- 0741001 TideMaster Portable water level recorder set c/w 1 Bar Titanium vented transducer, wall mounting bracket and 20m cable, electronics/logger (**with display**) in rugged injection moulded housing with batteries. Supplied with Windows based TideMaster Express software and operating/instruction manual.
- 0741002 TideMaster Portable water level recorder set c/w 1 Bar Titanium vented transducer, wall mounting bracket and 20m cable, electronics/logger (**without display**) in rugged injection moulded housing with batteries. Supplied with Windows based TideMaster Express software and operating/instruction manual.

As part of our policy of continuing development, we reserve the right to alter at any time, without notice, all specifications, designs, prices and conditions of supply of all equipment.

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