

## 1D Wave and Tide Meter Data Sheet

A simple easy to use system with selectable sample rate (1 to 5 Hz), the user to acquire accurate point-spectra of waves. Pressure sensor output can also be integrated to obtain water level measurements unaffected by wave action. With 2 GB of on board flash data memory, the WAVETIDE-PLUS can retain the large amounts of data required for highly detailed wave characterisation.



*1D Wave and Tide meter with riser clamp assay. Image courtesy of Falmouth Scientific Inc.*

The WAVE-TIDE-PLUS is available with an optional Barometric Sensor. This option comes complete with surface housing, reinforced 30 meter cable (or user-specified length) and NEMA weather-proof enclosure with standard marine-grade connectors. The NEMA enclosure houses the barometric sensor with space for two 6V lantern or 7.5 AHr gel cell batteries. Other options include a solar panel charger and radio data telemetry sub-systems.

## Features

- High-accuracy wave data provided by fast sampling and a precise pressure sensor.
- Fast Data Sampling up to 5 Hz; Fast Data Download.
- Long-term data logging to 2 GigaByte internal flash SD memory.
- Simultaneous Data Logging and Serial Output via RS-232 (RS-485 optional).
- ?Water Temperature measurement.
- Micro-Machined Silicon Pressure Sensor 0 to 50 PSIA (or optional range).
- Optional Barometric Pressure Sensor.
- Optional conductivity, temperature, pressure sensor package (CTD) may be added.
- Windows-based Micro Tide Software for Configuration and Data Acquisition.

## Sensors

Parameter	Type	Range	Accuracy	Resolution
Pressure (Optional):	Resonant Silicon Micro-Machined	0 to 50 psia (23m max depth)	±0.01% FS	0.145 x10-3 (Dependent upon integration time)
Temperature:	Semiconductor	-2 to 35°C	0.5°C	0.01°C

## Optional CTD

Parameter	Range	Accuracy	Resolution	Stability
Conductivity (mS/cm):	0 to 70	±0.01	.001	±0.0005 per month
Temperature (Celsius):	-5 to 32° ITS-90	±0.01°	.001°	±0.0005° per month
Pressure (dBar):	0 to 200 dBar	±0.1% full scale	0.01% full scale	±0.01% per month

Specification subject to change without notice.

## Product Dimensions

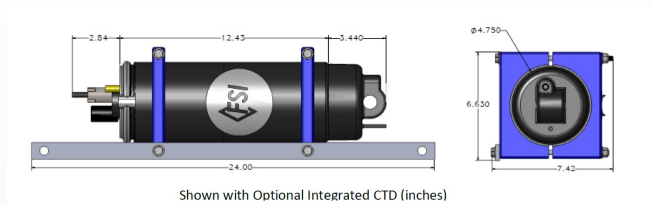
Physical	Dimensions (L x W x H)	Weight
(instrument only)	60cm x 17cm x 19cm	8kg

## Technical Specifications

<b>External Power:</b>	8 to 32 VDC
<b>Current Draw:</b>	Typical 60 mA at 1 Hz sample rate; Sleep 1.0 mA battery, 3.5 mA external power.

<b>Battery Power:</b>	Alkaline 5 D Cell Welded Pack, 10 AHR.
<b>Internal Memory:</b>	2.0GB Standard.
<b>Sample Rate:</b>	5 Hz Maximum.
<b>Sampling Modes:</b>	Continuous, Interval, and Delayed Start (continuous or interval).
<b>Vector Averaging Period:</b>	User Selectable up to 59 Min:59 Sec.
<b>Real Time Clock:</b>	Programmable High Accuracy Sampling/Low-power Mode.
<b>Clock Stability:</b>	+/- 2ppm (0-40 degrees C); +/-4ppm (-40 degrees C to +85 degrees C).
<b>Input Channels:</b>	Two (2) 0-5V DC Input Channels with 12 bit A/D resolution available for external sensor input, such as Transmissometer, DO, OBS (Regulated 12 VDC 1.5W provided to power external sensors).
<b>Depth Rating/Physical Material:</b>	200 Meter Epoxy Housing Standard, P/N: WAVE-TIDE-PLUS

## Gallery



*1D Wave and Tide Meter Schematic drawing. Image courtesy of Falmouth Scientific Inc.*