

1D Wave and Tide

High-Speed, High-Resolution Wave Spectrum and Tide Measurement

The FSI 1D Wave and Tide is an economical wave and tide monitor, combining a highly stable pressure sensor and state-of-the-art electronics to achieve unprecedented levels of accuracy and stability. Sampling rate is selectable (1 to 5 Hz), which enables 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. A built-in address protocol allows for multiple sensors on a single line, and with up to 64 MB data memory, the 1D Wave can retain the large amounts of data required for highly detailed wave characterization. The 1D Wave can also be instrumented with FSI's signature inductive conductivity sensor to provide a complete monitoring package for near-shore applications.

The optional 1D Wave and Tide Barometric Sensor 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. Options include a solar panel charger and radio data telemetry.



FEATURES

- **Programmable Sampling Frequency, 1-5 Hz**
- **High Accuracy, +/- 3mm**
- **Quality Components**
 - **Micro-Machined Silicon Pressure Sensor 0 to 50 psia (or optional range)**
 - **± 100 ppm/year Pressure Stability**
- **Optional Barometric Pressure Sensor**
- **32 MB Internal Flash Memory**
- **Simultaneous Data Logging and Serial Output via RS-232 or RS-485**
- **Windows-based Micro Tide Software for Configuration and Data Acquisition**
- **Compatible with Major Application Software, such as Hydropro and Hypak**
- **Optional Conductivity/Temperature Sensors**



Falmouth Scientific, Inc.

Excellence In Instrumentation

1D-WAVE & TIDE Specifications

SENSORS:

Parameter	Type	Range	Accuracy	Resolution
Pressure	Resonant Silicon Micro-Machined	0 to 50 psia (others available)	±0.01% FS	0.145 10 ⁻³ **
Temperature	Platinum RTD	-2 - 35°C	±0.5°C ±0.05°C optional	0.01° C 0.005° C optional
Conductivity*	FSI Inductive	0-7.0 S/m	±0.001 S/m	0.0001 S/m

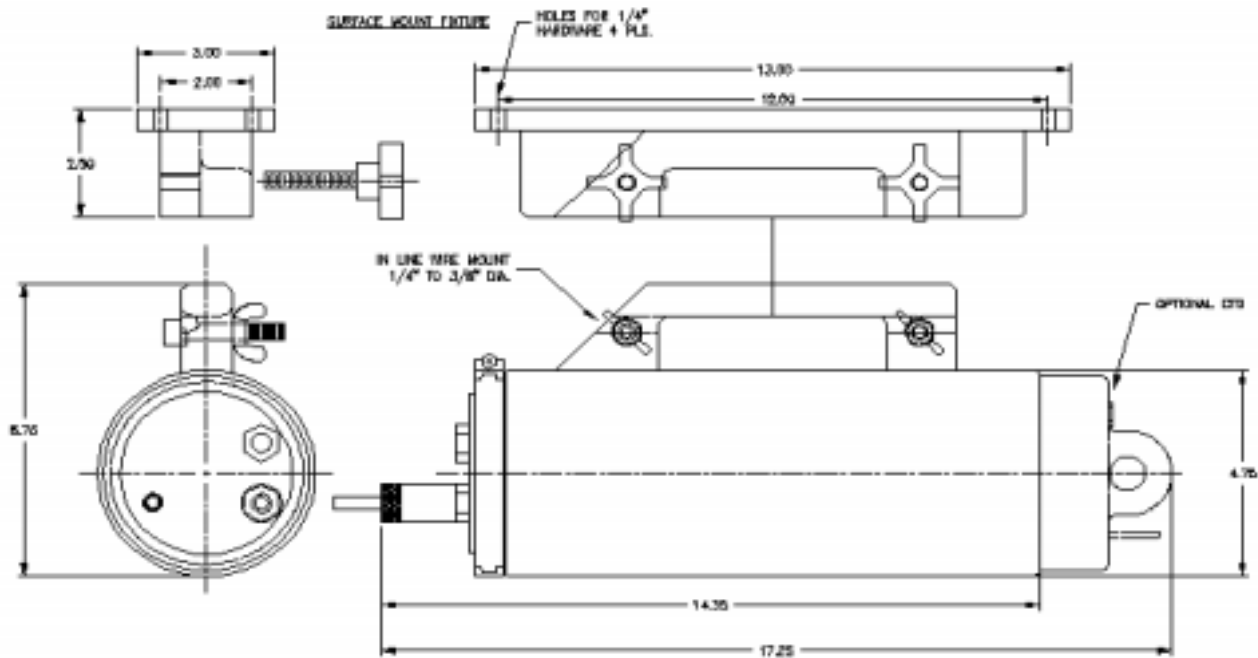
*Conductivity Optional

**Dependent upon integration time

SYSTEM:

Weight	Air 10 lbs (4.5 kg) Water 3 lbs (1.4 kg)
Power	+7 - 35 VDC @ 35 mA
Sample Rate	1, 2, 3, 4, or 5 Hz
Vector Avg.	15 seconds to 1 hour
Burst Sampling	15 seconds to 1 hour
Physical Material	PVC housing and endcap
Real-Time Clock	32.768 kHz ±12 ppm per year Programmable alarm/sleep function External switch instrument wake up

Specifications Subject to Change.



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