

## High-Accuracy Self-Contained Tide Monitoring System

The Falmouth Scientific, Inc. Tide Monitoring System is a complete tide monitoring system for moorings and other long-duration fixed-site deployments. The pressure module is a precision strain-gauge pressure sensor for measuring water level; barometric pressure compensation is provided by a sensor mounted in the system's surface enclosure, which also incorporates rechargeable battery and system communications. A 20-meter cable connects the underwater and surface enclosure. Non-corroding materials are used to ensure long sensor life with minimal maintenance. An optional solar charger allows for long-term, unattended operation. Data is recorded in the system's 256MB internal memory and can be output locally in real-time via

RS-232 (optional RS-485) or reported remotely via RF (radio, cell) or satellite telemetry.



FSI Tide Monitoring System

### BENEFITS

High Accuracy tide data - 2.7 cm over the range of -2 to 30C provided by:

- Precision pressure transducer
- Surface barometric pressure transducer
- Correction for local salinity & gravity via user-defined inputs

Pre-configured for NOS Standard deviation (per NOAA CO-OPS standard)

On-board data logging and real-time output provide data where/when you need it

Telemetry options allow for remote reporting of tide data

Low-power operation and rechargeable batteries allow for long-term unattended operation

Surface barometer maintains accuracy with lower maintenance than vented cable systems

PUCK v1.3 protocol-compliant for "plug-and-work" ease of system configuration



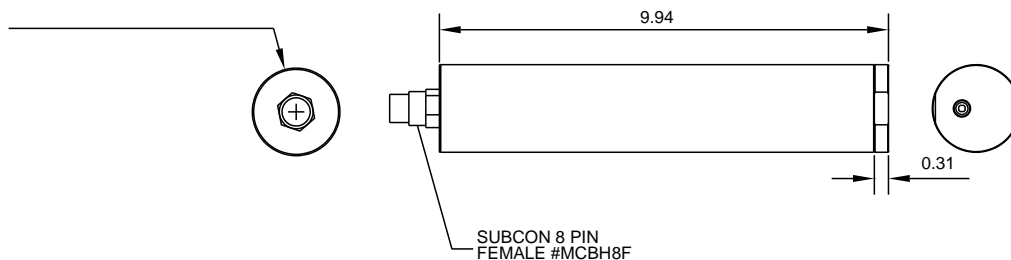
Tide Monitoring System with Optional Solar Charger

# SPECIFICATIONS

Parameter	Range	Accuracy	Calibration	Resolution
Pressure (Water)	0 to 20 m	±0.03% of full scale	3 Point primary with offset adjustment	0.002% of full scale range
Pressure (Air)	600 - 1100 mBar	±1.5 mB @ -20 - +50° C	Mfg. NIST Traceable	0.01 mBar
Tide @ 1 Atmosphere	0 - 20 m	±2.7 cm @ -2 - +30° C	Post corrected using FSI Windows processing software	0.5 cm

<b>Power:</b>	150 mW; 240 mW run; 12 mW sleep
<b>Communication:</b>	Radio/cellular modem; satellite (consult factory)
<b>Telemetry:</b>	RS-232, RS-485 optional
<b>Power Supply:</b>	12 AHr Gel Cell Battery 110 VAC or 220 VAC charger, 50-60 Hz Solar charger optional (consult factory)
<b>Sample Rate:</b>	1-5 Hz
<b>Sampling Modes:</b>	
<b>Real Time (directed out Coms Port):</b>	Continuous 1-5 Hz Polled (On receipt of <CR> returns a record) NOAA CO-OPS
<b>Store to Internal Memory:</b>	Continuous 1-5 Hz Interval Interval with burst Interval with burst and averaging NOAA CO-OPS
<b>Delayed Start:</b>	For all modes
<b>Memory:</b>	256 MB
<b>Weight (Pressure Sensor):</b>	Delrin Underwater unit in air: 0.6 kg (1.26 lbs) In Water: 0.2 kg (0.5 lbs) buoyant
<b>Dimensions of NEMA Box:</b>	28.575 cm h (11.25") x 18.415 cm (7.25") x 14.605 cm d (5.75") NBB-15243

*Specifications Subject to Change without Notice*



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