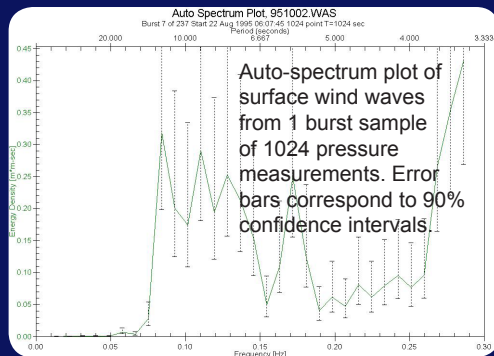


SBE 26plus Seagauge Wave & Tide Recorder

The SBE 26plus combines a stable time base, precision thermometer, and pressure sensor (Quartz or strain-gauge) to provide wave and tide recording of unprecedented resolution and accuracy, along with high-quality temperature information. The 26plus stores data in memory, and also outputs real-time tide data, wave data, and wave statistics. The large memory and low power requirements permit frequent water level recording and highly detailed wave characterization.

The 26plus integrates pressure samples to obtain water level measurements unaffected by wave action, and also independently burst-samples pressure at up to 4 Hz for wave amplitude calculation. The tide interval is programmable (1 minute to 12 hours). A 26plus with Quartz pressure can continuously measure pressure, or can conserve battery power by removing power from the pressure sensor between tide measurements (programmable integration from 10 sec to the entire tide interval). Temperature data is recorded with each tide. Waves are characterized by burst sampling, with programmable burst interval, number of samples/burst, and integration time. Logging start and stop times are programmable, allowing lab setup before deployment. An input connector for an optional SBE 4M conductivity sensor is standard.

26plus being secured in accessory mounting fixture. After installation at mooring, fixture allows removal & precise repositioning by diver. No tools required; no loose parts to misplace.



Features

- Wave and Tide, Temperature, and optional Conductivity, at user-programmable tide intervals and wave burst intervals.
- RS-232 or RS-485 interface, internal memory, and internal alkaline batteries (can be powered externally).
- Real-time tide data, wave data, and/or wave statistics, and fast binary upload of data from memory.
- Large memory and low power requirements: 1.8-year deployment with optional conductivity for 11-minute tide measurements every 30 minutes and 8.5-minute, 4 Hz wave-burst samples every 3 hours.
- Depths to 600 m.
- Seasoft® for Waves Windows software package (deployment planning, setup, data upload, plotting, auto-spectrum and time series analysis, and statistics reporting).
- Five-year limited warranty.

Components

- Pressure sensor with temperature compensation in four strain-gauge ranges (20 to 600 m) and nine Digiquartz® ranges (0.2 to 680 m).
- Aged and pressure-protected thermistor with a long history of exceptional accuracy and stability.
- Frequency-input channel and bulkhead connector for optional SBE 4M conductivity sensor.

Options

- Digiquartz® or lower-priced strain-gauge pressure sensor (for wave sampling applications; will not provide highest quality tide data).
- Accurate temperature sensor (aged thermistor embedded in end cap) or high-accuracy external temperature sensor.
- RS-232 interface or RS-485 full duplex interface.
- XSG/AG or wet-pluggable MCBH connectors.
- SBE 4M Conductivity sensor, interfaced via bulkhead connector and clamped to housing.
- Mounting fixture.
- Lithium batteries (not supplied by Sea-Bird).

Measurement Range

Quartz Pressure	9 ranges, from 0.2 m (15 psia) to 680 m (1000 psia)
Strain-Gauge Pressure	4 ranges, from 20 m (45 psia) to 600 m (880 psia)
Temperature	-5 to +35 °C (embedded or high-accuracy external)
Conductivity (optional)	0 to 7 S/m

Initial Accuracy

*Stated values in mm for 45 psia pressure sensor.
Scale for other ranges, multiplying by (sensor psia/45 psia).

Quartz Pressure *	± 0.01% of full scale (3 mm for 45 psia)
Strain-Gauge Pressure *	± 0.1% of full scale (30 mm for 45 psia)
Temperature	± 0.01 °C (embedded); ± 0.002 °C (high-accuracy external)
Conductivity (optional)	± 0.001 S/m

Typical Stability

Quartz Pressure *	0.02% of full scale/year (6 mm for 45 psia)
Strain-Gauge Pressure *	0.1% of full scale/year (30 mm for 45 psia)

Resolution

Quartz Pressure *	Tide 0.2 mm (1-min integration); 0.01 mm (15-min integration). Wave 0.4 mm (0.25-sec integration); 0.1 mm (1-sec integration).
Strain-Gauge Pressure *	Tide 0.2 mm (1-min integration); 0.01 mm (15-min integration). Wave 0.4 mm (0.25-sec integration); 0.1 mm (1-sec integration).
Temperature	0.001 °C (embedded); 0.0001 °C (high-accuracy external)
Conductivity (optional)	0.00002 S/m

Hysteresis

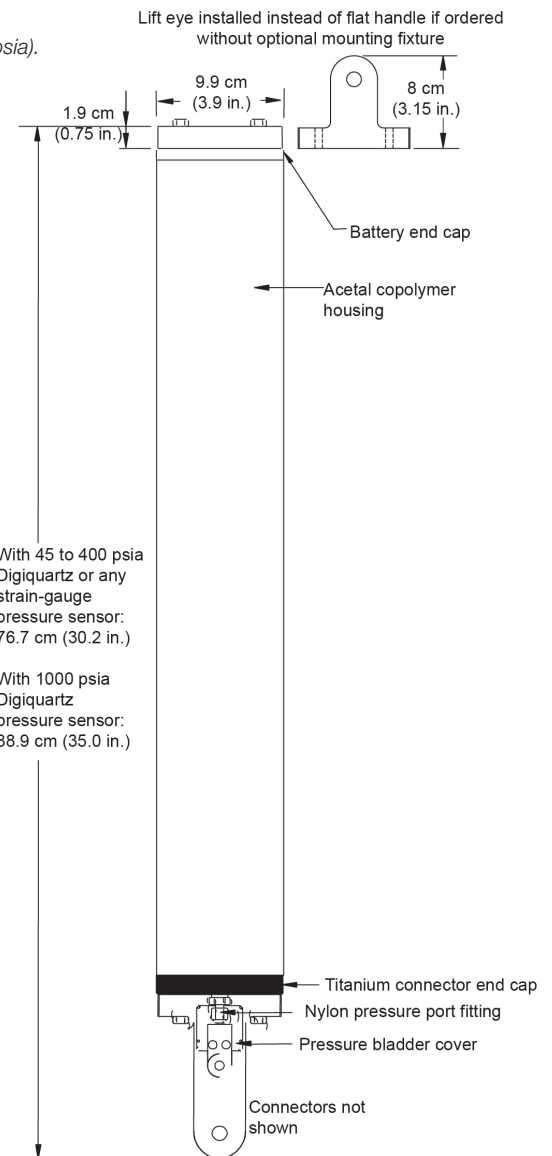
Quartz Pressure *	0.005% of full scale (1.5 mm for 45 psia)
Strain-Gauge Pressure *	0.03% of full scale (9 mm for 45 psia)

Memory & Data Storage	32 Mbyte non-volatile FLASH
	Tide with temperature, time: 9 bytes/sample
	Tide with temperature, conductivity, time: 12 bytes/sample Wave burst: 3 bytes/sample

Power Supply	12 alkaline D-cells or 6 lithium DD cells (see manual for battery specifications and endurance)
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Optional External Power	12-20 VDC
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Housing, Depth, Weight	Acetal Copolymer Plastic, 600 m, in air 6.8 kg, in water 2.3 kg. Mounting fixture weight in air 3.6 kg, in water 1.4 kg.
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