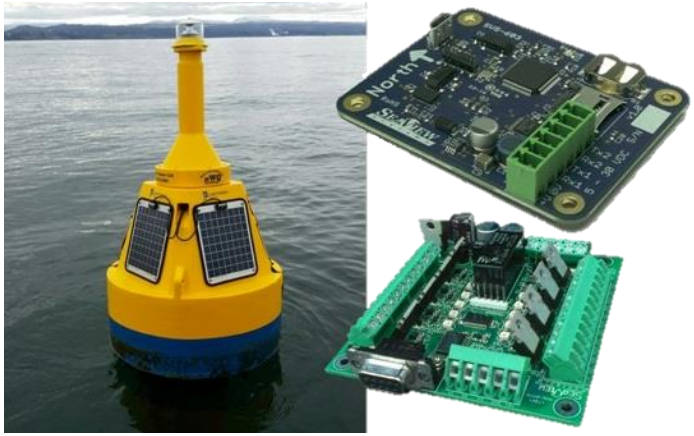
SVS-603HR Wave Sensor

The SVS-603HR Wave Height Sensor is an augmented version of the highly accurate SVS-603 wave sensor that reports heading, wave height, wave period and wave direction via RS-232 or logs to its on-board data logger. The SVS-603HR represents a new generation in accuracy and completeness for wave sensing electronics whose features include:

- Very low power consumption; fits the smallest power budget
- Very small footprint; sold packaged or as bare PCB
- Sensors account for 3-D motion, rotation and compass heading in all dimensions to cover nine degrees of freedom
- Sophisticated onboard electronics provide near-real-time wave statistics
- Variable sample set size (256, 512, 1024, 2048 or 4096)
- On-board temperature compensation
- On-board data logger capable of logging as much as twenty years of wave data, depending on desired outputs.
- Easy configuration to match your exact sensing rate and output requirements
- Readily interfaced with transmitter using NMEA or other configurable data output
- Sampling rates from 1 to 8Hz (user configurable)



The SVS-603HR can be used to replace existing sensors, to upgrade existing buoys, or to add wave sensing capabilities to even the most compact buoys. Among the wave data that are available as outputs from the sensor are:

- Significant wave height in meters (H_s)
- Wave period in seconds
- Wave direction in degrees from north
- North, east and up displacement time series
- First-5 Fourier wave coefficients
- Maximum wave height (H_{max})
- Wave period at H_{max}
- Wave energy
- Spectrum (raw or processed)
- Heading in degrees
- Custom outputs as required

Other outputs or data manipulations can be incorporated via firmware updates or through calculations on the available data stream. The SVS-601 Power Controller (shown above) is also available

Output Formats:	Hex code defined output parameters
	NMEA
	First-5 Fourier coefficients
	Wave energy spectrum
Accuracy Metrics:	
Hs <1%	No upper limit on Hs (-25 to +25 m) Resolution 0.001 m
Period <1%	1.5 – 30 sec, Resolution 0.001 sec
Wave Direction ±2º *	Range 0-360º; Resolution 0.001º
Heave <1%	Range ±25m, Resolution 0.01m
Available Ports and Slots:	RS232 Adjustable baud rate (2.4-115.2 kbps)
	USB Micro-B
	Micro-SD
Dimensions:	53.5mm length
	68mm width
	23mm height (w/connector)
Weight:	Bare board: 1.4oz/40g
	In enclosure: 15oz/425g
Power Requirements:	151mW@12V
	138mW@5V
	5-30VDC
Temperature:	Operating: -40C to 85C ** Storage: -40C to 85C

* Dependent on orbital buoy motion ** Industrial SD card required