CB-75-SVS

WAVE BUOY

- Integrated SVS-603HR wave sensor
- 4G LTE or Iridium satellite telemetry options
- Supports a variety of environmental sensors
- Autonomous battery & solar power
- Rugged polymer-coated foam hull

The **CB-75-SVS** Wave Buoy offers the latest in real-time wave observations in a compact, affordable, and easy to deploy platform. At 21" (53.34cm) hull diameter and 40 lb. (18.14kg) weight, it's ideally suited for tethered moorings. The buoy accurately measures wave height, period, direction, and more using SeaView Systems' industry-leading **SVS-603HR** sensor, relied upon in buoy networks by NOAA and many others throughout the world. External sensor ports with wet-mate connectors support GPS, meteorological, and water quality sensors for maximum flexibility.

The buoy is constructed of an inner core of cross-linked polyethylene foam with a tough polyurea skin. A rechargeable battery with integrated solar panels powers the wave buoy continuously, and all electronics are housed in a quick-removable waterproof package with wet-mate connectors. A removeable instrument cage serves as counter-ballast and supports instrument mounting, while three 1.5" (3.81cm) pass-through holes facilitate cable routing of underwater sensors.

Available with integrated 4G LTE or Iridium satellite communications, the **CB-75-SVS** Wave Buoy sends data in real-time to the cloud-based **WQData LIVE** datacenter. In the Basic tier, this free service allows users to securely access and analyze data, as well as share data through an auto-report. Subscription-based tiers of **WQData LIVE** are also available for generating custom alarms, exporting data through an API or custom NDBC/GLOS formats, and providing a publicly-accessible version of the project website.

NEXSENS technology

Powered by SeaView Systems SVS-603HR

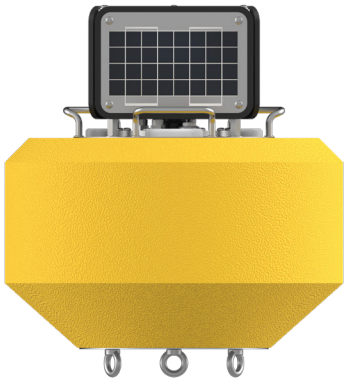
CB-75-SVS

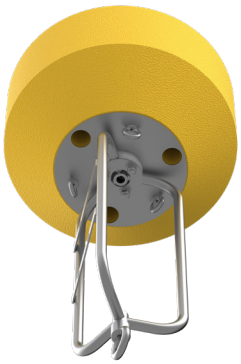
WAVE BUOY

specifications

Wave Sensor	**SeaView Systems SVS-603HRi**
Parameters	Hs Wave Height (Significant Wave Height), TP (DPD) Wave Period, Dominant Wave Direction, Mean Wave Direction (MWD), Te Energy Period, RMS Tilt Angle, Max Tilt Angle
Range	Wave Height: 0.2-20m; Wave Period: 1.5-20 seconds; Wave Direction: 0-360°
Resolution	Wave Height: 0.001m; Wave Period: 0.001 seconds; Wave Direction: 0.001°
Accuracy	Wave Height: +/- 0.5cm; Wave Period: <1%; Wave Direction: +/-2°
Buoy	**NexSens CB-75**
Hull Outer Diameter	21" (53.34cm)
Hull Height	13" (33.02cm)
Tower Height	8.2" (20.83cm)
Solar Panels	3x 4-watts
Weight	40 lb. (18.20kg)
Net Buoyancy	75 lb. (34.00kg)
Tethering Attachments	3x 3/8" eye nuts
Data Logger	**NexSens X3-SVS**
Operating Temperature	-40°C to 70°C
Rating	IP68
User Interface	Wireless Bluetooth or wired RS-485 to CONNECT Software via USB adapter; WQData LIVE Web Datacenter with optional wireless telemetry; Status beeps
Real Time Clock (RTC)	<30sec/month drift[1]; Auto-sync weekly[2]; Internal backup battery
Data Logging	8 MB non-volatile flash memory; >1 year storage with 20 parameters at 15-minute interval; Max 200 parameters per log interval
Log Interval	User configurable from 5-minute (20-minute default)[3]; Unique interval per sensor
Transmit Interval	User configurable from 5-minute (10-minute default)
Transmission Trigger	Time-based; Selective parameter upload option
Sensor Interfaces	RS-232 (2 Channels), SDI-12, RS-485, Pulse Count
Built-in Sensors	Temperature (-40° to 100°C, 0.016°C resolution, ±0.3°C accuracy); Humidity (0% to 100%, 0.03% resolution, ±4% accuracy from 5 to 95% RH; System voltage; System current; System power; Real-time clock (RTC) battery voltage
Sensor Ports	(2) MCBH-8-MP for sensor interface (RS-232, RS-485, SDI-12, Power, GND)
Power Port	(1) MCBH-6-FS for power and communication (12V Solar In, Power Switch, RS-485 Host, GND)
Telemetry Options	4G LTE global cellular; Iridium satellite
Antenna Port	Type N female

[1]Assumes 25°C operating temperature; [2]Requires the X3-SVS to be connected to the internet; [3]Minimum log interval dependent on sensor limitations and processing





parts list

Part #	Description
CB-75-SVS	CB-75-SVS wave buoy
CB-75-SVS-4G	CB-75-SVS wave buoy with global 4G LTE cellular telemetry
CB-75-SVS-IR	CB-75-SVS wave buoy with Iridium satellite telemetry
MCIL6MP-USB-DC	Male 6-pin USB PC cable with external 12VDC power adapter
M550-F-Y	Solar marine light with flange mount & 1-3 nautical mile range, 15 flashes per minute, yellow
CB-ZA	Sacrificial zinc anode for CB-Series data buoys

NEXSENS technology

tel: **937.426.2703**
8am to 5pm EST, Monday-Friday

fax: **937.426.1125**

NexSens Technology, Inc.
2091 Exchange Court
Fairborn, OH 45324
info@nexsens.com

nexsens.com