

# CB-75-SVS WAVE BUOY

## QUICK START GUIDE



**Figure 1:** NexSens CB-75-SVS Data Buoy

### Overview

The CB-75-SVS wave buoy is constructed of an inner core of cross-linked polyethylene foam with a polyurea coating that provides 75 lb. buoyancy. Stainless steel plates on the top and bottom of the buoy provide topside lifting handles and subsurface mooring eyes for drifting, tethering, or mooring applications. The center hole accommodates the X3-SUB Submersible Data Logger, which includes an internal battery that is recharged by (3) 4-watt solar panels mounted on the top plate.

The buoy accurately measures wave height, period, direction and more using SeaView Systems SVS-603HRi wave sensor.

### What's Included?

- (1) Buoy hull, 75 lb. buoyancy
- (1) Integrated SVS-603HRi Wave Sensor
- (1) Buoy tower
- (3) 4-W solar panels
- (3) 1.5" pass-through sensor pipes
- (3) Top-side lifting handles
- (3) Bottom-side mooring eyes
- (1) CB-CCA Anti-rotation collar
- (1) Instrument cage

### Important Specifications

- Buoyancy: 75 lbs. (34.00 kg)
- Weight: 40 lbs. (18.20 kg)
- Center Hole Dimensions: 5.5" (13.97 cm) inside diameter; 13" (33.02 cm) tall

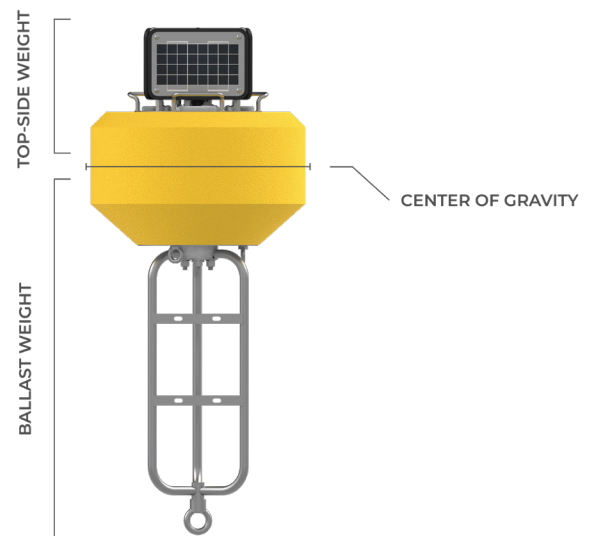
### Ballast Weight & Stability

The NexSens instrument cage (~15lbs.) provides adequate ballast for a stand-alone system. **No mooring apparatus should be connected to the bottom of the cage.** The outside eye nuts should be utilized for tethering to another flotation device.

- a. For more information regarding top-side and ballast weight, follow the link provided:

[nexsens.com/dbbwstab](https://nexsens.com/dbbwstab)

*The buoy data well is not rated for submersion, so proper ballast weight is critical to ensure that the buoy does not overturn, including when the buoy is subjected to additional loading (e.g. high wind/waves, periodic snow/ice loads, etc.).*



**Figure 2:** CB-75-SVS buoyancy diagram.

### Mooring Configurations

To develop an effective mooring strategy, a variety of application-specific criteria (water level fluctuations, currents and wave action, debris loads, etc.) must be thoroughly reviewed prior to deployment. NexSens does not endorse any particular mooring strategy for any specific application.

- a. For more information on mooring configurations, follow the link provided:

[nexsens.com/mooringdb](https://nexsens.com/mooringdb)

## **Safe Deployment**

*Warning:* Always follow safe marine and boating practices. Heavy anchors, ballast weights, and chain require careful maneuvering. Small boats with limited lifting equipment and boat clutter can be unsafe. Care must be taken during deployment to maintain a clean and safe environment.

- a. For more information regarding safe deployment practices and tips, follow the link provided:

[nexsens.com/deptip](https://nexsens.com/deptip)

## **Saltwater Deployment**

Sacrificial zinc anodes should be used whenever a buoy is deployed in a saltwater environment to prevent corrosion. These zinc anodes must be inspected and replaced as needed.

- a. For more information regarding the use of zinc anodes, follow the link provided:

[nexsens.com/usecb](https://nexsens.com/usecb)

## **System Integration**

Follow the quick start guide or system integration guide included with the order to complete the setup and integration of the overall system.

For additional information, please reference the CB-75-SVS Resource Library on the NexSens Knowledge Base.

[nexsens.com/cb75svs](https://nexsens.com/cb75svs)