

XB-200 Data Buoy

A data buoy system shall be provided to monitor the water quality in (Specify Location).

The buoy flotation shall be constructed of UV stabilized, linear low-density polyethylene (LLDPE) filled with closed-cell polyurethane foam and providing 200 lbs of buoyancy.

The flotation shall be yellow in color in accordance with international data buoy standards.

The buoy structure shall consist of an internal type 316 stainless steel frame, (2) topside lifting eyes and subsurface mooring eyes for both single-point and two-point moorings.

The buoy shall be fitted with an integral battery well providing adequate space for batteries and instrumentation. Watertight power connectors shall be available on a sealed lid.

The buoy shall allow adequate topside space to accommodate various data loggers with integrated telemetry modules including Wi-Fi, 4G LTE cellular, and Iridium satellite.

The buoy shall be fitted with (3) 15-watt solar panels with a waterproof termination for charging up to (2) 28 A-Hr batteries.

The buoy shall support mounting of both topside and subsurface sensors. A top plate shall be pre-drilled for mounting a 1-3 nautical mile range LED beacon, weather station mast and other sensor supports. The plate shall accommodate passage of multiple sensor cables and connectors.

The buoy shall include a bottom stainless steel instrument cage with mooring eye for securing instrument clamps to accommodate water quality sondes and other subsurface sensors. The cage shall be removable for ease of maintenance and storage when not deployed.

(3) 4-inch pass-through holes shall allow sensor/cable pass-through and accommodate deployment pipes below the buoy. Hatches shall cover the passages and conceal cables.

The complete data buoy system shall be Series XB-200 as manufactured by NexSens Technology, Inc. or approved equal.