



SOLE SOURCE JUSTIFICATION

DB600 BUOY

SYSTEM OVERVIEW

The DB600 buoy is a compact, robust monitoring system designed for reliable performance in the toughest conditions. The DB600 is the perfect buoy for inland waters, estuary, and near coastal applications. The marine grade materials utilized in the DB600 provide years of operational integrity. The DB600 weights a total of 21Kgs (46lbs) and is made of high quality components. The sensor deployment tube is manufactured from 316 stainless steel and has machined flow holes allowing proper water flow across the faces of most water quality sensors. The deployment tube is also lockable to secure your valuable water quality sensors. The electronics canister (Ai1), which houses the datalogger, telemetry, and solar power, is located at the top of the buoy and can mount an optional navigation beacon. The DB600's compact design doesn't mean it's limited on power, with (3) 9 watt solar panels and a 12v, 7ah Lithium power system, it has enough for long term monitoring in even the most remote locations. The compact size of the DB600 allows the system to be easily deployable from a smaller vessel with a handle built into each side of the float section.

FEATURES AND SPECIFICATIONS

1. The instrument electronics shall be a complete all in one (Ai1) solution that includes a board level Campbell Datalogger, cellular modem, and custom interface board for efficient power control.
2. The electronics section shall be able to take in the YSIP data format directly from any of the YSI EXO sondes without the need of a signal output adapter.
3. The instrument shall come standard with a program capable of running any of the YSI EXO sondes and Aanderaa DCS with data output to Hydrosphere.
4. The instrument shall be equipped with a Stainless Steel, lockable, integral deployment tube for use with water quality sensors.
5. The instrument shall come standard with three 9 Watt solar panels integrated in a tight package on the Ai1 electronics.
6. The instrument shall come standard with 12 VDC, 7 amp hour lithium battery system.
7. The polyurethane electronics enclosure shall be capable of mounting data loggers and telemetry.
8. The electronics enclosure shall be hinged for easy access to the water quality sensors, cables, and connectors.
9. Integral underwater cable assembly shall be included for any YSI EXO sonde.
10. The instrument shall be capable of having two point or single point mooring options.
11. The instrument shall be capable of operating in depths as shallow as 1.3 meters.
12. The instrument shall have the option of adding an Aanderaa DCS for single point current measurements.
13. The instrument can be serviced without the need for divers.
14. The instrument shall be yellow in color to signify an environmental monitoring system.
15. The instrument shall come standard with marine-grade underwater connectors.
16. The instrument shall be equipped with a self-contained beacon.
17. The instrument shall be capable to be deployed from a small boat by two people.
18. The instrument shall be lightweight, not to exceed 21 kg (46 lb) in the air.

