The DB600 is a completely integrated all-in-one IoT system for remote monitoring, supporting a range of sensor configurations.

The all-in-one system includes everything required to transmit sensor data direct to your fingertips, with industrial reliability suitable for critical applications. Fully programmable, high efficiency solar power system, online communications, and industry leading web interface, providing power and flexibility.

**Package Includes:**
- DB600 buoy (single person deployable)
- Lockable sonde tube
- Completely sealed All-in-one (Ai1) logging and communication system
- Fully integrated marine solar power and lithium battery
- 2nm solar powered LED light

**Compatible With:**
- Water quality sonde (eg. YSI EXO)
- Single point current sensor (eg. Aanderaa DCS)
- *Other third party sensors
DB600 Specifications

- Diameter: 600mm
- Material: Polyethylene float. SS Sonde Tube
- Weight: 21kg (including sonde tube)
- Freeboard: 200mm at maximum weight

Beaufort Scale

- Operational Sea State: 4
- Survivability Sea State: 8
- Min Operational Depth: 2m
- Max Operational Depth: 25m

Suited for low energy environments, protected bays, estuaries, lakes, and ponds

Ai1 Standard Config Specifications

- Connection: Plug’n play
- Inputs: Analog and digital
- Communications: 3G/4G
- Power: 18W solar, 7Ah battery (supports a range of sensor configurations)
- Waterproof: IP67

Ai1 Detailed Specifications

Inputs & Outputs

- 6 inputs, 24-bit resolution, -100 to +2500mV range, ±0.04% accuracy (0 to 40°C)
- 7 configurable digital and pulse counting ports (high/low, pulse width modulation, switch closure, interrupts)
- Integrated USB port, 9-pin RS232 serial, Dual 5V RS232 ports as 2 x Tx, 2 x Rx or Tx/Rx pair. Supports SDI12 v1.4, NMEA, Modbus RTU, Modbus ASCII, DNP3 and custom serial protocols. Specify top or bottom USB port at time of order

Communications

- Select from cellular, wifi or radio primary communications option all with integrated internal 2dB antenna or optional external high gain antenna. Cellular: Global 3G with 2G fallback, or region specific 4G models. Wi-Fi: Client or access point operation.
- Optional Iridium 9602 satellite modem to backup primary communications method
- Management of communications connection through datalogger program for power optimization
- Cellular and Wi-Fi models support Eagle.io connection. Eagle.io subscription included for global SIM option. Eagle.io provides alarms & notifications, public & private dashboards, historic charts/tables/data export, processing and logic and on-demand direct connection to the remote field site for program changes, firmware update and diagnostics
- PPP, RNDIS, ICMP/Ping, Auto-IP, IPv4, IPv6, UDP, TCP, TLS, DNS, DHCP, SLAAC, NT, Telnet, HTTP(S), FTP(S), SMTP/TLS, POP3/TLS (depending on communications)

Power Options

- External power supply (10 to 18V, or 16 to 32V inputs), no internal battery or solar panels, switched power output
- 2x9W solar panels (18W total / east-west exposure), 7Ah lithium polymer battery, adjustable 5-20V switched sensor output
- Panel mounted fuse (factory fitted with 1A fuse) for protection and on/off control

General

- Inbuilt status LED indicators, externally visible. Blue LED available for program control
- IP67 (NEMA 4X) before being modified for sensor mounting or cable entry
- Battery backed internal clock ±1min/month. Execution rate from 0.1s to once/day.
- -5°C to +50°C operating range (lithium charging)
- Warranty: 1 year, return to base, parts and labour

Ordering Options

DB600 (standard configuration with light and Ai1 logging and communication system)

- Suits native SDI-12 input (best suited to EXO3)
- 18W Power (2 x 9W Panels), 7Ah Battery
- Logger & 3G/4G Communications

+ Add options below for additional functionality

SOA Serial to SDI-12

- Accepts non-native SDI-12 (ie. for EXO1 and EXO2)

IRID Communications Options

- Replace 3G/4G with Iridium Satellite

GPS Tracking

- Includes GPS for tracking

DCS Mounting

- Includes bracket for DCS mounting

+ Subscription Packages

EAGLE 12 month subscription to eagle.io

HYDRO 12 month subscription to HydroSphere™

GSIM Annual subscription to Global SIM with 5MB/month allowance

ISAT Iridium Satellite annual line rental fee

ISATP Iridium Satellite packet fee (1,000 packets @ 50 Bytes ea)

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