SWALE OCEANOGRAPHIC

Enduro-APT Recorder & Inductive Modem*

For Acceleration, Pressure and Temperature measurement

The **Enduro APT** is a small lightweight instrument for moored applications. It measures Acceleration, Pressure and Temperature. Enduro logs internally and transmits measurements to the surface in real time with a Sea-Bird compatible inductive modem, communicating over plastic-jacketed wire rope.

Enduro APT offers a new standard of performance, ease of use and low cost. The plastic housing has two halves. One contains the electronics, and the other forms a clamp, sized at the time of order to match the jacket diameter of the wire rope. The sensor mounts concentrically on the cable and is clamped in place when the halves are joined with four captive screws. The sensor shape reduces drag and fends off fishing lines or debris that might otherwise snag the instrument.

Sensors can be installed quickly and easily by one person with a small cordless driver. The Enduro APT can be used on cables with jacket diameters ranging from 4 mm to 16 mm. It can be re-configured for use on different cable diameters by simply changing the clamping half to the appropriate size. Additional clamping halves are sold separately.

Enduro stores data on both an 8MB internal flash memory and a removable micro SDHC memory card (4GB minimum). Data capacity is limited only by battery endurance. Enduro is capable of sampling acceleration, temperature and pressure every 3 minutes for three years in a typical inductive mooring or every 90 seconds for three years if the inductive modem is not active.

Inductive Modem Compatibility

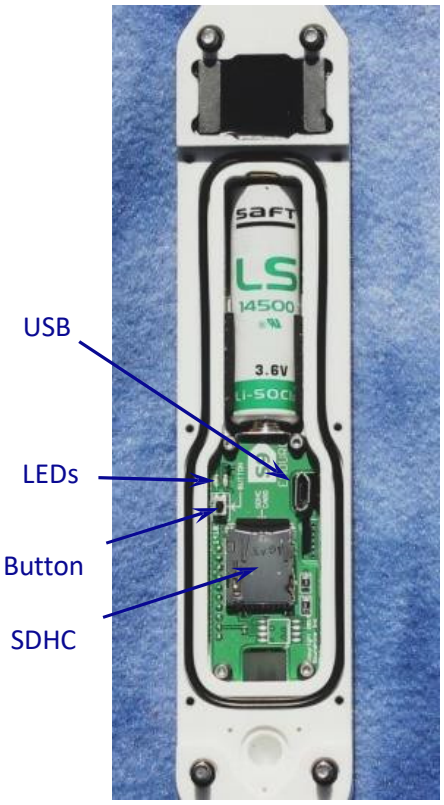
The Enduro ATP can receive and transmit at 1200 baud and can be controlled by a Sea-Bird inductive modem (SIM or IMM). It can also transmit data at higher speeds (up to 19200 baud) to the S9 Ulti- modem. This allows the Enduro to operate both in sensor strings controlled by a Sea-Bird inductive modem, and on higher speed moorings controlled by the S9 Ulti-modem. In high-speed communication mode, the Ulti-Modem can send one command causing all the Enduro sensors to sample simultaneously, and a second command to retrieve data from all the sensors in their assigned order without polling them individually. This greatly simplifies programming. The faster IM communication reduces system on-time, saving power for longer deployments.

** compatible with Seabird Electronics IM*

Removable SDHC Memory Card

The removable memory card offers unprecedented convenience for managing deployments of large numbers of sensors. Memory cards may be prepared in advance with a setup file. To prepare for deployment, just install the card then press the button next to the card socket. When configuration is read and validated a small green light flashes and the sensor is ready to go. If there is any problem a yellow light flashes

The removable memory card also simplifies data retrieval. Just open the housing, press the button and remove the memory card when the green light flashes. Sensor serial number, calibration data, start time and card removal time are automatically saved with the measurement data on the memory card.



Specifications

Temperature

Range:	-5 to +45°C
Initial Accuracy:	±0.005°C (-5 to +35°C)
Stability:	0.00025°C/month
Resolution:	0.0001°C
Time constant:	800 milliseconds (still water)

Pressure (optional)

Range:	20,100 or 250 dbar
Accuracy (absolute)	± 0.4% (0 to 35°C)
Resolution:	0.02%

Tilt

Range:	0 to 180° (± 2g acceleration)
Accuracy:	± 2° (+/- 25 mg)
Resolution:	0.1° (0.1mg / 0.15mg/rtHz)

Battery:	one cell, 3.6V AA Lithium; Saft LS- 14500
Housing:	PET,
Depth rating	600 metres
Dimensions:	200 mm (L) x 35 mm x 40 mm
Weight:	308 grams (in air) / 87 grams (in seawater)

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