

Lotek Archival Tag Series

Light-based geolocating archival tags with extended memory



LAT 2310



LAT 2800

Gain valuable insights into the life cycle of your species.

Lotek Archival Tags are compact, reliable instruments for the collection and storage of precision-time-stamped **depth, temperature and light-based geolocation data.**

Key Features

- 128 Mbytes of memory allows for an unprecedented amount of data to be collected.
- Communications with the tags are highly reliable and fast (< 2 sec to connect) - now made through physical contacts.
- Enhanced biocompatibility from an inert coating.
- Sea water switch feature - can identify when the tag is immersed in water.
- Tag design and components selection to ensure a minimum one year life.
- Data ranges are configured by specifying the min. and max. limits for each sensor. Data resolution is determined by the number of bits (up to 12) for each sensor.
This optimizes the memory usage per sensor; selecting a lower resolution and/or narrow data range will increase the number of samples collected.
- Three memory management (log type) options:
 1. Day Log: summarizes on board geolocation and other processes, allowing one to collect data for every day at liberty; a number of "loggables" are available to be recorded in the Day Log, e.g., daily: sea surface temperature, min. and max. pressures, min. and max. temperatures, times of sunrise and sunset, etc.;
 2. Conditional Log: samples recorded (or not) based upon the condition of one or two sampled "loggables";
 3. Basic Log: straight sampling.

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- Receivers
- Dataloggers
- Radio transmitters

- Acoustic transmitters
- Archival tags
- GPS systems

- Hydrophones
- Wireless hydrophones
- Physiological transmitters

- Depth transmitters
- Accessories
- Consulting

Lotek Archival Tags: Geolocation

Specifications

	LAT 2800S	LAT 2800L	LAT 2810S	LAT 2810L	LAT 2310
	Tubular form factor:				
Dimensions	11mm X 38mm	13mm x 44mm	11mm X 38mm	13mm x 44mm	16mm x 76mm
Weight in air	6.3g	11g	6g	13g	45g
Weight in Fresh Water	TBD		TBD		30g
	Flatpack form factor:				
Dimensions	36mm x 11mm x 7.2mm	36mm x 13mm x 10mm	N/A	N/A	16mm x 76mm
Weight in air	4.8g	9g	N/A	N/A	45g
Weight in Fresh Water	TBD		N/A		30g
Memory	128 Mbytes		128 Mbytes		128 Mbytes
Memory Management	Custom Programming		Custom Programming		Custom Programming
Survival Depth	2000 meters		2000 meters		2000 meters
Max. Operation Temperature	35° C		35° C		35° C
Min. Operation Temperature	- 5° C		- 5° C		- 5° C
Number of samples	Variable based upon data storage options selected		Variable based upon data storage options selected		Variable based upon data storage options selected
Sample rate setting	≥1s in 1 sec. increments		≥1s in 1 sec. increments		≥1s in 1 sec. increments
Data Download	Gold electrical contacts, 57.6 kbauds		Gold electrical contacts, 57.6 kbauds		Gold electrical contacts, 57.6 kbauds
Sea water switch	Yes		Yes		Yes
Standard Depth Range	30m, 50m, 200m, 500m, 1000m, 2000m		30m, 50m, 200m, 500m, 1000m, 2000m		30m, 50m, 200m, 500m, 1000m, 2000m
Data Resolution	Up to 12 bits maximum		Up to 12 bits maximum		Up to 12 bits maximum
Processing scale and offset	Yes		Yes		Yes
Sensors	Internal Temperature, Pressure, Light		Internal & External Temperature, Pressure, Light		Internal & External Temperature, Pressure, Light
Light sensor stalk	No		Yes		Yes
Pressure Accuracy	+/-1%		+/-1%		+/-1%
Pressure Resolution	0.05%		0.05%		0.05%
Temperature Measurement	-5° to 35° C		-5° to 35° C		-5° to 35° C
Temperature Accuracy	Better than 0.2° C		Better than 0.2° C		Better than 0.2° C
Temperature Resolution	0.05° C or better		0.05° C or better		0.05° C or better
User Setup	Miscellaneous ways to log data (see Key Features)		Miscellaneous ways to log data (see Key Features)		Miscellaneous ways to log data (see Key Features)
Number of log structures allowed	4		4		4
Minimum Life	1 year*	2 years**	1 year*	2 years**	36 months
Expected Life	To be determined		To be determined		To be determined
Data Analysis Software	Yes		Yes		Yes

NOTE: These specifications are subject to change.

* at the sampling interval of every 10 seconds

** at the sampling interval of every 5 seconds

For minimum life expectancy associated with sampling intervals less than these, please contact the appropriate Lotek account manager.

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Tel: 905-836-6680
Fax: 905-836-6455

Web: www.lotek.com
Email: biotelemetry@lotek.com