

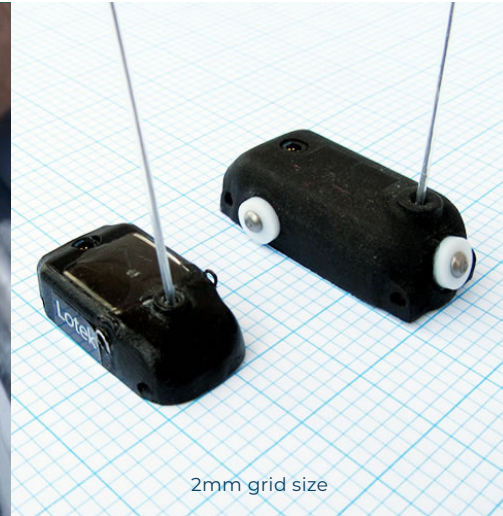


KiwiSat® K4 Series for Small Sea Turtles

Technology: Satellite

Product: Tag

Juvenile loggerhead sea turtle (*Caretta caretta*) © Upwell and Nuno Vasco Rodrigues 2023



2mm grid size

Introducing the smallest Argos transmitters for sea turtles in the world: <3g K4H 130B

Lotek KiwiSat® K4 series offers a range of extremely light weight, field proven marine Argos transmitters for 100-450g sea turtles. Each model is carefully designed with a compact shape and minimal frontal area. Models are available weighing from as little as 2.9g and they are rigorously tested to depths as deep as 500m. The tag maximizes the benefits offered by the Argos-3 network meaning that transmit power can be halved for the same amount of data throughput and error rates thereby minimizing the transmitter size.

Options

- Rechargeable via a connection cable for non-solar model.
- Wet/dry sensor, wet-start, flexible scheduling.
- DIVE data includes:
 - period data: max. depth, % time wet and depth histogram, and
 - individual dive data: max. depth, duration and TAD (Time At Depth) index
- Anti-biofouling coating.

Product Applications

Ideal for small turtles, ranging in size between 100-3000g. Tested on green, Kemp's ridley, leatherback and loggerhead sea turtles.

Features:



Temperature



Depth



Wet/dry sensor



Duty cycling

Rugged Reliability:

Designed for depths to 500m.

Small size:

Models as small as 2.9g in air.

Low power:

Utilizes the Argos-3 network.

Data Management:

Argos data automatically stored in a secure cloud database and accessed via a secure web service.



Model	K4H 130B Sensor	K4H 132A	K4G 132A Sensor
Weight in air ^[1] (g)	2.9 ^[2]	5.7	13.2
Weight in saltwater (g)	0	0.7	-1.8
Size (LxWxH) (mm)	26 x 14.7 x 7.7	34.2 x 15.5 x 11	47.7 x 30 x 21.9
Max Depth (m)	200	200	500
Estimated Life ^[3] (days)			
Standard	Indefinite ^[4]	40	Indefinite ^[4]
DIVE	Indefinite ^[4]	n/a	Indefinite ^[4]
Recharge	via solar panel	via charging cable	via solar panel
Ideal turtle weight range (g)	100-350 ^[5]	150-450 ^[5]	450-3000 ^[5]

1. Weight includes the application of anti-fouling coatings.
2. The DIVE option model is 0.2g heavier.
3. Estimated life using 200 transmissions per day.
4. Life indefinite due to solar charging capacity – results will vary based upon the weather conditions and diving behaviour of the animal.
5. Minimum limit based upon the combined weight of the tag plus attachment <5% of body weight; maximum limit is only an estimate as performance will vary based on the behaviours of the sub-population of animals.

Features and specifications subject to change without notice.



K4H 130B Sensor



K4H 132A



K4G 132A Sensor

Technical Specifications:

Argos transmit power: <200mW
 Operating temperature range: - 10 °C to 50 °C
 Standard Sensors: Wet/dry sensor
 Temperature sensor range: -50 °C to 75 °C
 Temperature sensor accuracy: +/- 0.5 °C
 Temperature sensor resolution: 0.25 °C

DIVE Sensors:

Calibrated sensor range: 0 °C to 40 °C
 Depth sensor range: 200m (K4H), 300m (K4G)
 Depth sensor accuracy: ±1% of Full Scale
 Depth sensor resolution: ~0.1% of Full Scale

Warranty

KiwiSat® Harness tags are warrantied to be free of defects in materials and workmanship under Normal Use for a duration of 80% of Estimated Life to a Maximum of 12 months. The warranty life of the K4H 130B and the K4G 132A Sensor is 1 month. For Warranty terms and conditions, please review our [Warranty Statement](#).

