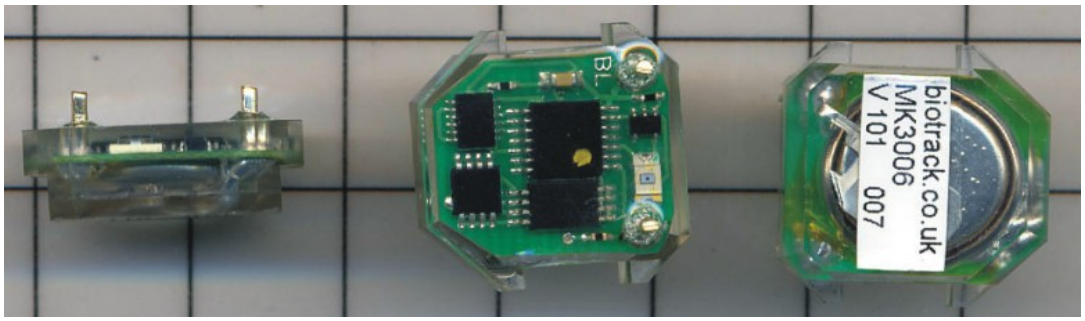
Biotrack Geolocator Datasheet

Model No.: MK3005



Specification	Value	Units	Explanation of specification
Device name:	MK3005		*Naming system to reduce ambiguity about device*
Former BAS name:	Mk19		*The BAS model on which the device is based (if any). See Note 1.*
Packaging	Large resin mould		*Packaging influences how robust, depth resistant and heavy the tag is. It also relates to how the tag is attached to the bird.*
Depth rating	500	*m*	*Depth to which tag can be used (e.g. for diving seabirds)*
Low temp. rating	-15	*degrees C*	*Temperature at which battery is still able to operate (the circuit itself works to a lower temperature). Smaller batteries and different battery chemistries have different temperature ratings.*
Battery life	5	*years*	*Tag life is sometimes determined by memory capacity. See note 2.*
Warranty Life	2	*years*	*If the tag does not last as long as this, we will replace it under warranty.*
Weight	2.51	*g*	*Including battery, packaging and tubes. but excluding harness materials, rings or other external fittings.*
Length	16	*mm*	*Excluding pins and stalk, if fitted. Excluding stalk, if fitted*
Width	14	*mm*	
Depth	6	*mm*	
Sampling Regime			
Light	5	*minutes*	*Period between saved light data samples.*
Wet/Dry	OSC	*minutes*	*Period between saved wet/dry data samples. Some geolocators record only On State Change (OSC). See note 3.*
Temperature	25	*minutes*	*Period between saved temperature data samples, if temperature is measured. Sometimes two measurements are made (see note 4)*
Options			
Stalk length	NA	*mm*	*From base to CENTRE of light sensor. See note 5.*
Stalk angle	NA	*degrees*	*Measured relative to horizontal plane of tag.*
Tube diameter	NA	*mm*	*Internal diameter of tube at one end of tag.*
Loop diameter	NA	*mm*	*Usually gold pins, but can be metal loops for harness.*
Customisation	NA		

Notes

1) Naming conventions: We have implemented new names to avoid inconsistencies in the previous system. In some cases, our tags will be identical to the original BAS ones, but we will discuss and confirm the specifications with you, and start using the new name, rather than rely solely on the old one.

2) Tag life: Tag life is usually determined by how long the battery lasts. However, for tags with large batteries deployed for more than a year, the size of memory may set the ultimate limit. The rate at which memory is filled is variable and depends on the sampling rate and which parameters are recorded. To some extent the behaviour, location and habitat of the bird also affect how quickly memory is filled.

3) Wet/dry sampling: Where this is recorded, it has two different sampling regimes. Usually wet/dry state is recorded regularly at the interval stated in the specifications table. Alternatively, if the table entry is 'OSC', the state of the device is recorded only when there is a change (from wet to dry or from dry to wet).

4) Temperature sampling: Where temperature is recorded, it is sampled only when the tag is in water. There are two sampling rates: one sample only after 25 minutes immersion or one sample after 20 minutes, and a second sample after 40 minutes. In the latter case, the sampling pattern is cycled every 240 minutes.

5) Light stalk: The light sensor should be clear of feathers if used on the back. This is achieved using a short stalk, the dimensions and angle of which can be user-defined (we can advise). Shorter stalks seem less likely to adversely affect the bird. Stalk length is from where it exits the tag to the CENTRE of the light sensor.