D A T A   S H E E T

Tinytag Aquatic 2
(-40 to +70℃)

TG-4100

Issue 7
17th October 2014
E&OE

Designed with long term immersion in mind, this unit is waterproof to a depth of 500m making it ideal for environmental monitoring in rivers and oceans. The high visibility yellow case has an attachment point that can be used to secure the logger in position.
The lid can be removed to enable user replacement of the battery.
Data is downloaded to the computer via a USB or serial download pad. This 'wireless connection' eliminates the need for sockets with waterproof caps which can easily be lost or forgotten.
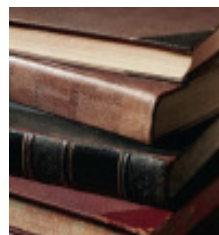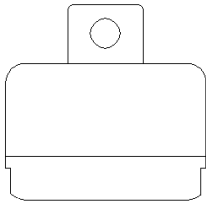For depths greater than 500m see ACS-0001.

Popular Applications

- Environmental monitoring
  - Fisheries
  - Aquaculture
  - Rivers

- Food Processing

Features

- Submersible temperature recorder
- Waterproof to 500m
- 32,000 reading capacity
- User-programmable logging interval
- 2 user-programmable alarms
- Delayed and trigger start options
- 3 stop options
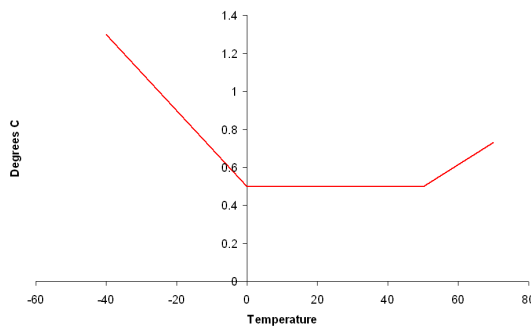- User-replaceable battery
- Low battery warning

Gemini
DATA LOGGERS

Tinytag Aquatic 2
(-40 to +70°C)
TG-4100

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data sheet

Features

Total Reading Capacity	32,000 readings
Memory type	Non Volatile
Trigger Start	Magnetic Switch
Delayed Start	Relative / Absolute
	(up to 45 days)
Stop Options	When full
	After n Readings
	Never (overwrite oldest data)
Reading Types	Actual, Min, Max
Logging Interval	1 sec to 10 days
Offload	While stopped or when
	logging in minutes mode
Alarms	2 fully programmable; latchable

Reading Specification

Reading Range	-40°C to +70°C (-40°F to +158°F)
Sensor Type	10K NTC Thermistor
	(Internally mounted)
Response Time	<20mins to 90% FSD in moving
	water
Reading Resolution	0.01°C or better

Reading Accuracy

Physical Specification

IP Rating	IP68 water proof (see notes)
Operational Range*	-40°C to +70°C (-40°F to +158°F)
Case Dimensions	
Diameter	51mm / 2.01"
Height	50mm / 1.97"
Weight	90g / 3.17oz

*The Operational Range indicates the physical limits to which the unit can be exposed, not the reading range over which it will record.

Calibration

This unit is configured to meet Gemini's quoted specification during its manufacture.

We recommend that the calibration of this unit should be checked annually against a calibrated reference meter.

A certificate of calibration, traceable to a national standard, can be supplied for an additional charge either at the point of purchase, or if the unit is returned for a service calibration.

Notes

This unit should only be opened when a battery replacement is required.

Battery Type	Renata CR2450N
Replacement Interval	Annually*

*If deployed for long periods, the logger's battery should be replaced annually to prevent the loss of data during a recording run. If the logger is being used frequently, the battery should be changed when prompted by a low battery warning from the Tinytag Explorer software.

Before replacing the battery the data logger must be stopped.

Data stored on the logger will be retained after a battery is replaced.

Please refer to the service kit instruction sheet for battery replacement instructions.

If used at low temperatures the data logger should be allowed to warm to room temperature before it is opened to avoid condensation forming inside the unit.

The IP68 rating is valid only when the unit's lid is securely fitted and is valid to a depth of 500m (1640ft).

The gasket fitted in this unit must be replaced every time it is opened.

The position of the unit's trigger start switch is indicated by the · · marking on its base. The switch itself is positioned on the side of the unit, just above the base-lid join, on the edge indicated. When a magnet is held in the correct location, the status LED will light until the magnet is removed.

LED Flash Patterns

When logging, a status LED is visible through the base of the unit. The flash patterns of this indicator are as follows:

Flash Pattern	Indication
1 flash every 4 seconds	Logging
1 flash every 8 seconds	Waiting to Log (trigger or delayed start set)
A double flash every 4 seconds	Alarm limit breached

Approvals

Gemini Data Loggers (UK) Ltd. operates a Business Management System which conforms to ISO 9001 and ISO 14001.

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Required and Related Products

To use this data logger you will require a copy of the following software:

SWCD-0040: Tinytag Explorer software

and an ACS-3030: USB Inductive Pad

Further Related Products

SER-9525: Tinytag Aquatic 2 Service Kit