Tinytag Plus 2 Temperature Logger with Integral Sensor and for Thermistor Probe
(-40 to +85℃/-40 to +125℃)

TGP-4510

The workhorse of the Gemini range the Tinytag Plus 2 data loggers are housed in robust, waterproof (IP68) rated cases that are designed for use in harsh and outdoor applications.

Tinytag Plus 2 data loggers have a high reading accuracy and resolution, large memories, a fast offload speed and a low battery monitor.

The TGP-4510 has an integral sensor and a connection for an external probe (not included) that makes the unit ideal for comparing ambient and process conditions.

Popular Applications

- Environmental monitoring
- Food processing and storage
- Pharmaceutical manufacture
- Logistics monitoring
- Museums and art galleries

Features

- Dual channel temperature recorder
- 32,000 reading capacity
- High accuracy
- High reading resolution
- Fast data offload
- Robust, waterproof case
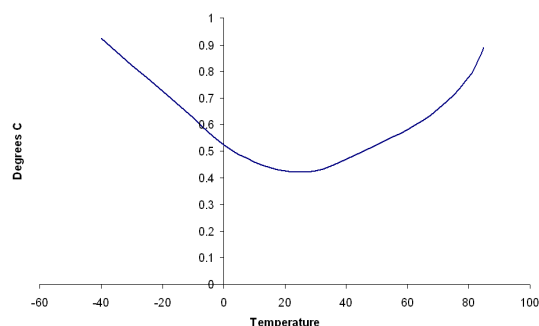- Low battery monitor
- User-replaceable battery

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

Internal Temperature

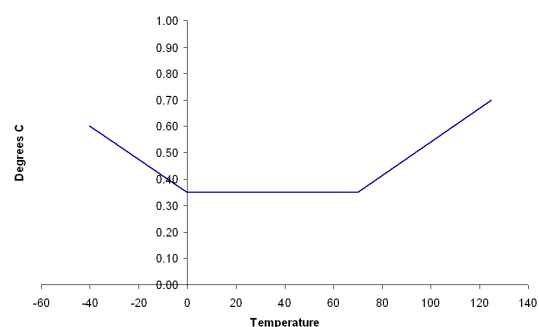|	
Reading Range	-40℃ to +85℃ (-40℉ to +185℉)
Sensor Type	10K NTC Thermistor
	(Internally mounted)
Response Time	25 mins to 90% FSD in moving air
Reading Resolution	0.01℃ or better
Accuracy	

External Temperature

Reading Range	-40℃ to +125℃ (-40℉ to +257℉)
Sensor Type	10K NTC Thermistor
	(External probe)
Reading Resolution	0.02℃ or better
Temperature Stability	±0.01℃/℃ change from 25℃

Accuracy
The graph below is the accuracy of the TGP-4510 when used with a PB-5001, 5002 or 5003 probe.

Physical Specification

IP Rating	IP68 water-proof (see notes)
Operational Range*	-40℃ to +85℃ (-40℉ to +185℉)
Case Dimensions	
Height	34mm / 1.34”
Width	59mm / 2.32”
Depth	80mm / 3.15”
Weight	110g / 3.9oz

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

Notes

Battery Type	Tekcell SBAA02P;
	SAFT LS14250 or LST14250

The logger will operate with other ½AA 3.6V Lithium (Li-SOCI2) batteries but performance cannot be guaranteed.

Replacement Interval	Annually

Before replacing the battery the data logger must be   stopped.

When replacing the battery, wait at least one minute after removing the old battery before fitting the new one.

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

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 connector cap and probe are fitted and is valid to a depth of 15m (50ft).

The position of the unit's trigger start switch is indicated by the ••• label on the back of the logger. When the "Wait until trigger event" option is selected in the Tinytag Explorer software, the green LED on the unit will flash once every eight seconds, indicating that the unit is waiting to log. When a magnet is held next to the label, the green LED will light until the magnet is removed to show that the switch is closed. After the magnet has been removed, the green LED will flash every four seconds to indicate that the logger is recording.

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

Approvals

This equipment complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause any harmful interference, and (2) the device must accept any interference received, including interference that may cause undesired operation.

Gemini Data Loggers (UK) Ltd. operates Quality and Environmental Management Systems which conform to ISO 9001 and ISO 14001. The scope of these systems covers the manufacture, design and supply of data loggers and their associated software, accessories and services.

Required and Related Products

To use this data logger you will also require one of the following probes:

PB-5001-1M5/3M/5M: Standard Thermistor Probe or
PB-5002-1M5/3M/5M: Fast Response Thermistor Probe or
PB-5003-1M5: Surface Thermistor Probe

One of the following pieces of software:

SWCD-0040: Tinytag Explorer software or
SW-0500: Easyview Pro software

and a

CAB-0007-USB: Tinytag Ultra/Plus/View USB Download Cable

Further related products:

CAB-0007: Tinytag Ultra/Plus/View Serial Download Cable
SER-9500: Tinytag Data Logger Service Kit
ACS-6000: Trigger Start Magnet