

## Tinytag Medical Internal Temperature (-40°C to +85°C)

### TGM-0040

#### Issue 2

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E&OE

The Tinytag Medical is a simple, cost effective way of monitoring the temperature of pharmaceuticals in fridges, freezers and cool (ambient) storage. Used widely by hospital pharmacies, surgeries and health centres, the logger automatically records and stores a complete temperature history.

The Tinytag Medical has two alarms that can be user set at high and low levels specific to the products being monitored. Breaching these set-points will trip a flashing red light, enabling spot assessment of ongoing temperature levels.

This compact, battery powered unit is reliable and highly accurate. Designed with a temperature response similar to many vaccine formats, it accurately profiles the temperature changes experienced by the pharmaceuticals being monitored.

The recording interval is user defined and with a memory capacity of 8000 readings this would provide six months of data with a reading every half hour. The temperature history is transferred easily to PC, where Tinytag Explorer will automatically produce a graph and table of the data, creating a permanent record.

#### Typical Applications

- Fridge and freezer monitoring
- Transportation of pharmaceuticals and blood products
- Mobile vaccination programs
- Culture room monitoring

#### Features:

- Low cost temperature recorder
- 8,000 reading capacity
- High accuracy and reading resolution
- User-programmable logging interval
- Delayed and trigger start options
- 3 stop options
- Splash-proof case
- User-replaceable battery





### Features

<b>Total Reading Capacity</b>	8,000 readings (approximately).
<b>Memory type</b>	Non Volatile
<b>Trigger Start</b>	Magnetic Switch
<b>Delayed Start</b>	Relative / Absolute (up to 45 days)
<b>Stop Options</b>	When full After n Readings Never (overwrite oldest data)
<b>Reading Types</b>	Actual, Min, Max
<b>Logging Interval</b>	1 sec to 10 days
<b>Offload</b>	While stopped or when logging in minutes mode
<b>Alarms</b>	2 fully programmable; latching

### Reading Specification

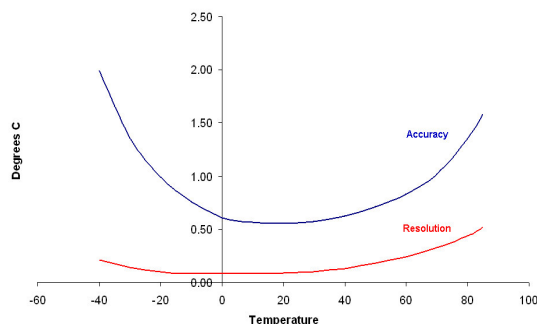
#### Temperature

<b>Reading Range</b>	-40°C to +85°C (-40°F to +185°F)
<b>Sensor Type</b>	10K NTC Thermistor (Internally mounted)
<b>Response Time</b>	40 min to 90% FSD in air

The response time of this unit can be improved by removing it from its case but care must be taken to ensure that it doesn't come into contact with any liquids.

<b>Reading Resolution</b>	12 bit
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#### Resolution and Accuracy



### Physical Specification

<b>IP Rating</b>	IP20 (Splash-proof)
<b>Operational Range*</b>	-40°C to +85°C (-40°F to +185°F)
<b>Case Dimensions</b>	
Height	54mm / 2.13"
Diameter	34mm / 1.34"
<b>Weight</b>	30g / 1.1oz

\*The Operational Range indicates the physical limits to which the unit can be exposed.

### Notes

<b>Battery Type</b>	SAFT LST14250 (3.6v ½AA Lithium Cell)
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<b>Replacement Interval</b>	Every 2 years
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Before replacing the battery the data logger must be stopped.

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

If used at low temperatures data loggers should be allowed to warm to room temperature before they are opened to avoid condensation forming inside the unit.

### 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 once every twelve months against a calibrated reference meter.

A UKAS 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.

This product is manufactured by Gemini Data Loggers (UK) Ltd to BS EN ISO9001:2000 (Certificate No. 6134) and is approved to EN61326:1997 with any standard leads supplied.



### Required and Related Products

To use this data logger you will require:

SWCD-0040: Tinytag Explorer software  
or  
SW-1500: Easyview Light software  
or  
SW-0500: Easyview Pro software

and a  
CAB-0005: Serial PC Download Cable

Further related products:

CAB-USB: USB to Serial Converter  
ACS-6000: Trigger Start Magnet  
SER-9510: Tinytalk Service Kit