Tinytag Radio Logger Temperature /Relative Humidity (-15 to +60°C/0 to 100%RH)

TGRF-2500

Issue 1 : 24th August 2007 (E&OE)

Features

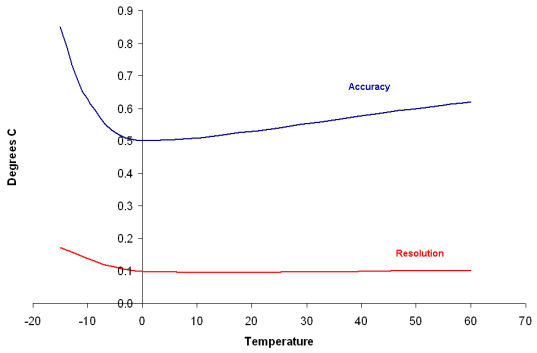
Radio Frequency	869.8MHz (EU Version)
Radio Power	3mW
Radio Range	100m, Typical (Line of sight).
Radio Licence	No Licence Required
Memory type	Non Volatile
Logging Interval	5 sec to 10 days
Offline Capacity	One Week, at a Typical 8 Minute Logging Interval (see notes)
Alarms	2 Programmable Latching Alarms (Upper and Lower) per Channel
Low Battery Monitor	Software Warning

Reading Specification

Temperature

Reading Range	-15°C to +60°C (-5°F to +140°F)
Sensor Type	10K NTC Thermistor (External probe)

Reading Resolution and Accuracy



The accuracy quoted above includes the unit's thermistor probe.

Relative Humidity

Reading Range	0% to 100% RH
Accuracy	±3.0% RH
Reading Resolution	0.04% RH
Sensor Location	Integral
Response Time	15 seconds* to 90% FSD in moving air
Stability	<1%/year typical

*The thermal response of humidity measurement is 2.5 minutes.

Physical Specification

IP Rating	IP67 water-proof (see notes)
Operational Range*	-15°C to +60°C (-5°F to +140°F)
Case Dimensions	
Height (inc. Aerial)	140mm / 5.51"
Width (inc. probe)	210mm / 8.27"
Depth	80mm / 3.15"
Weight	280g / 9.88oz

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

Notes

Battery Type	Tekcell SB-AA11 or SAFT LS14500 AA 3.6V Lithium (x2)
Replacement Interval	Annual*

*Battery life is dependant on the logging interval set and the number of loggers in a network. The above figure is quoted for a typical 8 minute logging interval and a network containing 50 loggers or less.

A low battery warning will be displayed in the Tinytag Explorer software when the unit's battery needs replacing.

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

Batteries should be replaced in pairs.

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 Offline Capacity of the logger is an indication of how much data the unit can store when it cannot communicate with a receiver.

The IP67 rating does not apply to the unit's RH sensor.

If moisture forms on the unit's RH sensor readings will become unpredictable. Once the sensor has dried out, and provided no residue is left behind, the unit should return to normal reading within 30 minutes.

Any dust or residue that is allowed to build up on the RH sensor will affect the unit's reading accuracy.

The sensor may be cleaned with de-ionised water or compressed air.

The RH sensor will resist small amounts of the following chemicals and substances: formaldehyde, carbon monoxide, sulphur dioxide, ethylene oxide, hydrogen chloride, hydrogen fluoride, hydrogen peroxide, nitrogen dioxide, methyl chloride, chlorine, freon, methanol, ethanol, isopropanol, ozone, diesel, automotive preservative, gasoline, motor oil, denatured alcohol, automotive solvent, window detergent, anti-freeze, bio-diesel, de-preservative agent, cleaner solvent, and battery acid. It also offers resistance to ultraviolet rays.

Salt solutions may cause permanent damage as crystals forming within the porous layers affect moisture levels there.

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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 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 product is manufactured by Gemini Data Loggers (UK) Ltd to BS EN ISO9001:2000 (Certificate No. 6134).

The radio system is classified as a Short Range Device (SRD) and complies with EC Directive 99/5/EC & the applicable technical requirements of EN300220 and EN301489

Required Products

This data logger is designed to be used as a part of a Tinytag Wireless Data Logging System.

For further information on this system, and the additional equipment you will require, please see the Tinytag Wireless Data Logging Systems brochure.

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