Gemini DATA LOGGERS

Tinytag

DATA SHEET

Tinytag Radio Temperature Logger for 2 x Thermistor Probes (2 x -40 to +125°C)

TGRF-3022

Issue 1
11th June 2010
E&OE

The TGRF-3022 is a radio temperature logger for use with two thermistor probes.

This unit has been designed for easy installation and will automatically find its place in a Tinytag Radio System.

The unit works with other devices in a system to transmit logged data to a receiver and can store data locally in the event of radio contact being temporarily lost.

The unit is housed in a rugged, waterproof (IP67) case and is suitable for use in many different applications.

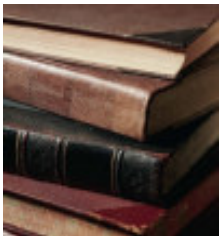
Popular Applications

- Chill Chain Monitoring
- Warehouse and Building Monitoring
- Environmental monitoring
- Composting

Features

- Wireless temperature monitoring
- Self-configuring, for easy installation
- 200m range, typical (line of sight)
- User-programmable logging interval
- Local cache can store 2 weeks of readings
- User-programmable alarms
- Waterproof case
- Low battery warning
- User-replaceable battery



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Variants

Part Number	Region	Radio Frequency	Battery Type[1]	Battery Life[2]	Operational Range[3]	Weight
TGRF-3022-AK	EU	869.88MHz	2 x Alkaline C (LR14): Duracell Procell MN1400 or Duracell Ultra MX1400	12 months, typical	-18°C to +55°C (-0.4°F to +131°F)	405g / 14.29oz
TGRF-3022-BK	AUS	917.8MHz				
TGRF-3022-AL	EU	869.88MHz	Lithium C 3.6V: Tekcell SB-C02, SAFT LS26500 or Tadiran SL-2770	24 months, typical	-40°C to +85°C (-40°F to +185°F)	305g / 10.76oz
TGRF-3022-BL	AUS	917.8MHz				

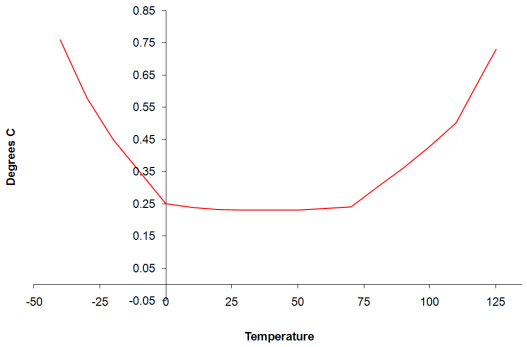
Features

Radio Power	<3mW
Radio Range	200m, Typical (Line of sight).
Radio Licence	No Licence Required
Memory type	Non Volatile
Logging Interval	2 minutes to 10 days
Offline Reading Capacity[4]	Two Weeks, at a Typical 10 Minute Logging Interval (see notes).
Alarms	2 Programmable Alarms per Channel
Low Battery Monitor	Software Warning[5] and LED indicator on the unit.

Reading Specification

Reading Range (x2)	-40°C to +125°C (-40°F to +185°F)
Sensor Type	10K NTC Thermistor (External probe)
Reading Resolution	Better than 0.2°C (-40 to +125°C) Better than 0.05°C (-4°C to 85°C)
Temperature Stability	0.002°C/°C

Reading Accuracy



The overall accuracy quoted above includes a thermistor probe.

Approvals

Gemini Data Loggers (UK) Ltd. operates a Quality Management System which conforms to ISO 9001. The scope of the system covers the manufacture, design and supply of data loggers and their associated software, accessories and services.

The radio system complies with the R&TTE Directive (1999/5/EC), EN 300 220 and EN 301 489-3.

nqa. ISO 9001 Registered

CE

Physical Specification

IP Rating	IP67 (waterproof)
Case Dimensions	
Height (Including Aerial)	140mm / 5.51"
Length	142mm / 5.59"
Width	80mm / 3.15"

Notes

[1]The logger will operate with equivalent battery types, but performance cannot be guaranteed.

[2]Battery life is dependent on the logging interval set, the number of loggers in a network and the temperature of the logger. The above figure is quoted for a typical 10 minute logging interval in a network containing 25 loggers or less operating at 25°C.

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

[4]The Offline Capacity of the logger is an indication of how much data the unit can store when it is unable to communicate with a receiver.

[5]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 (where appropriate).

The four probe channels are identified by the label on the unit's lid.

Calibration

Loggers meet Gemini's quoted specification at the time of 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.

Required Products

To use this data logger you will require:

Two thermistor probes (please contact your supplier for details of the different probes that are available).

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.

data sheet