TGRF-4024

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termómetros **e** instrumentación
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Tinytag

Tinytag Plus Radio Temperature Data Logger for 4 x Thermistor Probe

a logging products designed for outdoor and industrial use.
nat forms a robust data network that allows a user to see
cross a LAN or the Internet.

ta logger that is ideal for temperature monitoring in a

Popular Applications

Used for temperature monitoring in:

• Warehouses and product storage
• Fridges and freezers
• Industrial processes
• Outdoor applications

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DATA LOGGERS

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Specification

Reading Range	-40°C to 125°C (4 x)
Sensor Type	Thermistor (external probe)
Logger Resolution	0.02°C or better
Temperature Stability	0.01°C / change from 25°C
Logger Accuracy	

The graph below is the accuracy of the TGRF-4024 when used with a Tinytag Thermistor probe.

How Logger Works

The TGRF-4024 is a battery powered, temperature radio data logger.

It is used with four thermistor probes that are suitable for use in temperatures up to 125°C.

The logger is part of a Tinytag Connect system that requires a receiver and the Connect version of the Tinytag Explorer software.

After the installation of the software and the configuration of the receiver, the logger is turned on and will establish itself as part of the mesh network the system creates.
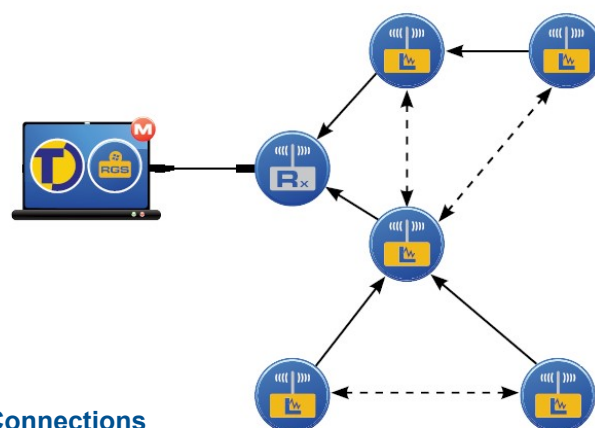
Connections

The typical range of the logger on a clear line of sight is 200m.

The logger is the ... ..., anything from once every ...

The data recorded ... ... ng the system by a Windows se... ... ... n viewed across a LAN or ... ... ct software.

If a logger cann... ... ... eason, it will record locally un...

The logger can b... ... ... n be sent when the limits e...

Data recorded by... ... ... table of readings. There... ... ... about the recording run an...

Data from multip... ... ... mbined into a single graph usin...

Data can be exp... ... ... se in report writing, or as a d... ... ... adsheet programs.

Antenna

Probe Probe

Probe Probe

Power

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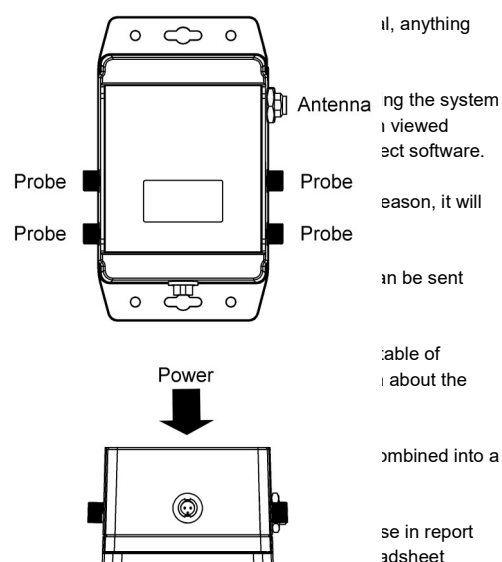
Tinytag Plus Radio Temperature Data Logger for 4 x Thermistor Probe

Physical Specification

Features

IP Rating	IP67
Logging Interval	2 minutes to 10 days
Off-line storage Capacity*	2 weeks typical, at a 10 minute logging
Operational Range*	-20°C to +55°C

Case Dimensions (excluding antenna)

Data loggers can be set to record in intervals of once every 2 minutes or greater (by default the logging interval is set to once every 10 minutes).

Length/Height	124mm / 4.49"
Width	55mm / 2.17"
Depth	62mm / 2.44"

Weight (inc. antenna)

Radio communications are good, data is transmitted immediately and stored by the gateway service.

56.4g / 1.99oz

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

When communications with the gateway service are interrupted, by a power failure to the computer running the gateway service or an obstacle causing a

155.0
106.0

241
161
62.0
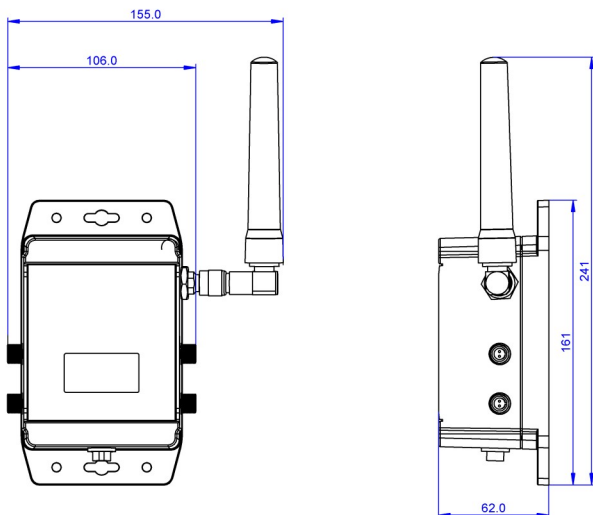
can be used to send SMS messages using the

Mounting/Positioning Instructions

Radio Specification

The logger can be wall mounted or placed on its back on a flat surface, such as a shelf.

| **Radio Frequency**	**EU**	869.88M...
	AUS	917.8MH...
Radio Power	**EU**	<5mW (-...
	AUS	<3mW (-...
Radio Range		200m, ty...
Radio License		SRD lice...

The logger back-plate has mounting holes, as shown.

The logger uses FSK modulation, with +/-32 k...

These frequencies will easily penetrate most... be reduced to between 30% and 80% (howev... increased, maybe up to double the nominal ra... and roofs etc.).

Although the radio waves cannot penetrate a... iron sheds etc.) the signal will often still get th... windows and air vents etc.

The logger can also be positioned on a non-conductive flat surface, such as a desk or a shelf, with its antenna positioned vertically, a... fruit or bottled water, for example.

These frequencies are very rarely affected by... shelf, with the antenna positioned vertically, ... with no loss of performance.

The advantage of the mesh network is that lo... ranges will often be able to relay data though... transmit further.

Ø5.0
140.8
50.8

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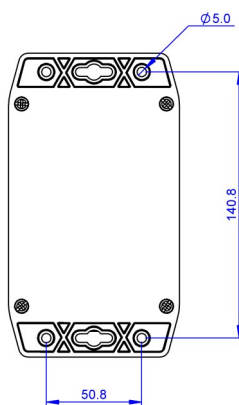
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Power Information

Battery Power

Battery Type   2 x Duracell Industrial ID1400 C (LR14) 1.5V (supplied)

The logger will operate with other C cell batteries but performance cannot be guaranteed.

Battery Life   Typically 12 months

When the logger's batteries start to run flat, a low battery warning will be displayed in the Tinytag Explorer Connect software and the LED on the front of the logger will flash red. The low battery warnings will start to flash when the logger has approximately two weeks of battery power remaining.

Before replacing batteries the logger must be turned off.

Alkaline batteries should always be replaced in pairs.

Data stored in the radio system will be retained after batteries are replaced.

A lithium battery powered version of the logger is also available, that provides a wider working temperature range and a longer battery life. Please contact your supplier for further details.

Mains Power

The logger can also be powered from the mains using a plug-in power supply.

If the power supply is interrupted, the logger's batteries will power the logger and continue recording until the supply is restored.

Note: This logger should only be used with an ACS-0044 Tinytag Plus Radio power supply.

Calibration

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

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

A 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.

Warranty

This product carries a manufacturing defects warranty of 12 months from the date of purchase. Units returned under warranty will be repaired or replaced at the manufacturer's discretion. This warranty does not cover mishandling, modification or battery replacement and is subject to our standard Terms and Conditions of Sale, a copy of which can be found at **www.tinytag.info**.