

Tinytag Plus Intrinsically Safe External Temperature (-40°C to +125°C)

TGIS-0020

Issue 14

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E&OE



The TGIS-0020 Intrinsically Safe Tinytag from Gemini is an ATEX certified data logger for use in hazardous areas. The unit is robust and self contained, with a reputation for reliability.

This model is battery powered and measures temperature using an external probe, providing cost effective environmental monitoring ideal for inaccessible locations or where a faster response time is required.

Features include waterproof casing (rated IP68), two user-programmable alarms and multiple start/stop options. Data recorded by the TGIS-0020 is downloaded to PC via a cable; no expensive base station is required.

Gemini's Tinytag Explorer software provides a powerful, easy to use interface with the loggers, enabling visualisation of recorded data and the ability to set logging parameters.

Typical Applications

- Gas/Petroleum installation condition and process monitoring
- Chemical manufacture and storage
- Weapons lifting and storage
- Condition monitoring during the transportation of hazardous materials
- Chemical sterilisation
- Temperature monitoring of paint shops

Features

- ATEX certified temperature recorder with external probe



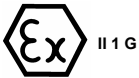
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EEx ia IIC T4 (Ta = -30° to 40°C)
EEx ia IIC T3 (Ta = -30° to 75°C)

Certificate: Sira 03ATEX2325X

- 16,000 reading capacity
- Low cost cable download
- 2 user-programmable alarms
- Delayed and trigger-start options
- 3 stop options
- Antistatic, robust, waterproof case
- User-replaceable battery





Ex ia IIC T4 (Ta = -30° to 40°C)
Ex ia IIC T3 (Ta = -30° to 75°C)

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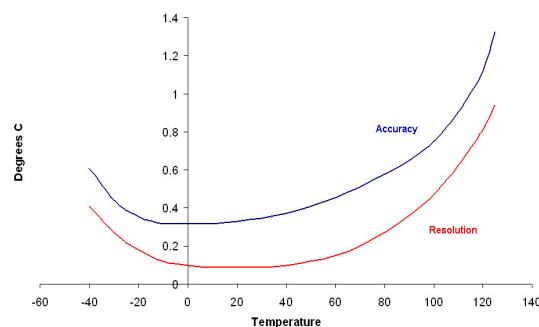
Features

Total Reading Capacity	16,000 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; latch-able

Reading Specification

Reading Range	-40°C to +125°C (-40°F to +257°F)
For Use With	Standard thermistor probe
Reading Resolution	10 bit

Logger Resolution and Accuracy*



*The overall accuracy of this unit will depend on the probe used.

Physical Specification

IP Rating	IP68 Waterproof (see notes)
Operational Range*	-40°C to +85°C (-40°F to +185°F)
Case Dimensions	
Height	34mm / 1.34"
Width	59mm / 2.32"
Depth	80mm / 3.15"
Weight	100g / 3.5oz

*The Operational Range indicates the physical limits to which the unit can be exposed in a non IS rated area.

The unit's IS certification is valid only between -30°C and +75°C (for further information please see the Approvals section of this data sheet).

Notes

Battery Type	SAFT LS14250 or LST14250; Tekcell SBAA02P*
Replacement Interval	Every 2 years
*To comply with the unit's IS certification one of these batteries must be used in this logger.	
Batteries should only be replaced in a non-hazardous area.	
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.	

The IP68 rating is valid to a depth of 15m (50ft) only when the unit's connector cap and probe are securely fitted.

The logger is housed in a static-dissipative case and is not capable of causing ignition due to electrostatic discharge. Surface resistivity is less than 1×10^9 ohms/square.

Calibration

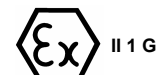
This unit is configured to meet Gemini's quoted specification during its manufacture.

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

Tinytag Intrinsically Safe data loggers are certified for use in hazardous areas to the following standard:



Ex ia IIC T4 (Ta = -30° to 40°C)
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The loggers may be used in zones 0, 1 & 2 with flammable gases and vapours with apparatus groups IIA, IIB & IIC and with temperature classes T1, T2, T3 (up to 75°C ambient) and T4 (up to 40°C ambient).

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 or probes supplied.





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Required and Related Products

To use this Tinytag data logger you will require:

A PB-5008-1M5: IS Thermistor Probe (*supplied with the logger*)

a copy of

SWCD-0040: Tinytag Explorer software

or

SW-1500: Easyview Light software

or

SW-0500: Easyview Pro software

and a

CAB-0007: Tinytag PC Serial Download Cable

Further related products:

CAB-USB: USB to Serial Converter

ACS-6000: Trigger Start Magnet

SER-9530: Tinytag Plus/IS Service Kit