Gemini DATA LOGGERS

Tinytag

DATA SHEET

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

TGIS-0020

Issue 20
16th September 2011
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 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 lifing 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

II 1 G

Ex ia IIC T4 Ga (Ta = -30° to 40°C)
Ex ia IIC T3 Ga (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 case
- User-replaceable battery






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Features

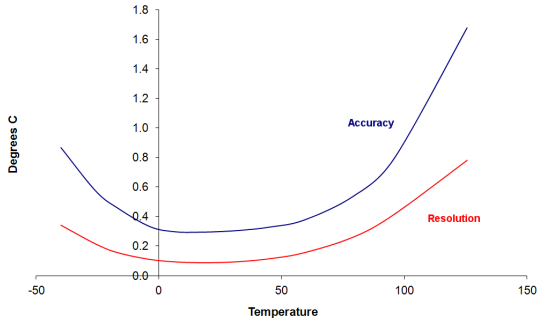
Total Reading Capacity	16,000 readings
Memory type	Non Volatile
Trigger Start	Magnetic Switch
Delayed Start	Relative / Absolute (up to 45 days)
Stop Options	When full After n Readings Never (overwrite oldest data)
Reading Types	Actual, Min, Max
Logging Interval	1 sec to 10 days
Offload	While stopped or when logging in minutes mode
Alarms	2 fully programmable; latchable

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 graph below shows the accuracy of the TGIS-0020 when used with the supplied PB-5008-3M probe.



Physical Specification

IP Rating	IP67 (temporary immersion to 1m depth - see notes)
Case Material	Static-dissipative
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 ATEX certified ambient temperature limits are less than the operational range shown above. Refer to the ATEX certification section of this data sheet for conditions for safe use.

Notes

Battery Type	SAFT LS14250 or LST14250; Tekcell SBAA02P*
Replacement Interval	Every 2 years

*To comply with the unit's ATEX certification, one of these batteries must be used in this logger.

DO NOT REPLACE BATTERY WHEN AN EXPLOSIVE GAS ATMOSPHERE MAY BE PRESENT

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 IP rating is valid only when the unit's connector cap is securely fitted.

ATEX Certification

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

II 1 G

Ex ia IIC T4 Ga (Ta = -30° to 40°C)
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with the following conditions:

I. Connection to the 3-pin socket (for communication with the host computer) may only be made when the Tinytag IS logger is in a non-hazardous area.
II. Connection must only be made to equipment fitted with a SELV power supply.
III. Only Tekcell SB-AA02P, SAFT LS14250 or LST14250 batteries may be used. Batteries must only be replaced in a non-hazardous area.

Tinytag Plus IS data loggers are clearly distinguishable from standard Tinytag data loggers by their black anti-static cases and yellow labelling.

They incorporate special components to ensure intrinsic safety in hazardous areas.

Any modification will invalidate the intrinsically safe certification.

Please refer to the EC Type Examination Certificate (ATEX Certificate) on www.tinytag.info/support for further details.

data sheet

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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.

Gemini Data Loggers (UK) Ltd. operates Quality and Environmental Management Systems which conform to ISO 9001 and ISO 14001. The scope of these systems covers the design, manufacture and servicing of data logging and associated equipment, including software.

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.

Required and Related Products

To use this Tinytag data logger you will require:

A PB-5008-3M: IS Thermistor Probe (*supplied with the logger*)

one of the following pieces of software:

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

and a

CAB-0007-USB: Tinytag Ultra/Plus/View USB Download Cable

Further related products:

CAB-0007: Tinytag Ultra/Plus/View Serial Download Cable
ACS-6000: Trigger Start Magnet
SER-9500: Tinytag Data Logger Service Kit