Gemini
DATA LOGGERS

Tinytag

Tinytag Plus Re-Ed
OEM Millivolt Input Logger
(0 to 200mV)

TGPR-1000

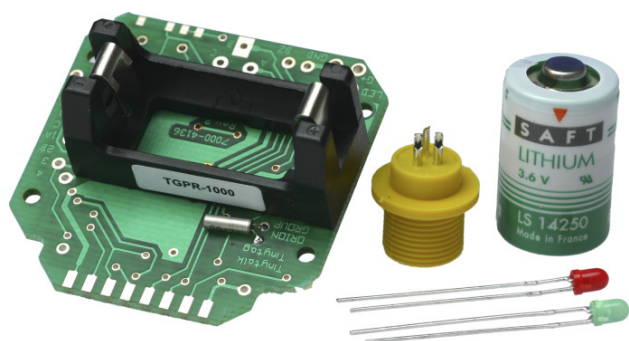**Issue 12**
9th August 2019
E&OE

A millivolt input data logger that is supplied un-cased so that it can be built into custom applications.

The TGPR-1000 can be used to record the output from a number of industry standard sensors.

Common applications include mains and power consumption monitoring.
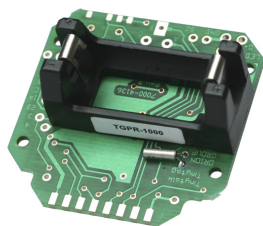
Popular Applications

- Customised data logging:
    - CO_2
    - Pressure
    - Flow Rate
    - Light
    - Power (with a current clamp)

Features

- Millivolt input data logger
- 64,000 reading capacity
- User-programmable logging interval
- 2 user-programmable alarms
- Delayed start options
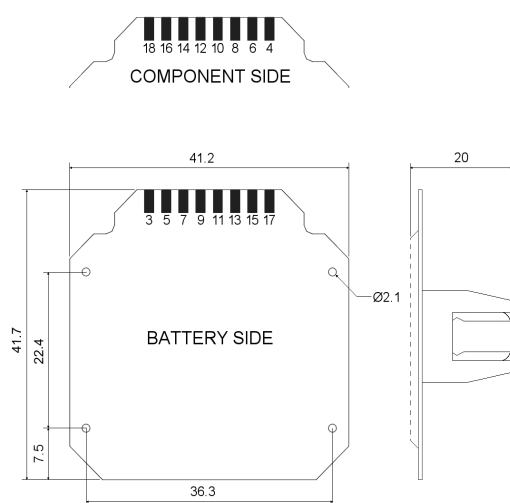- 3 stop options
- User-replaceable battery

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Features

Total Reading Capacity	64,000 readings (current product); 16,000 readings (below SN 501182)
Memory type	Non Volatile
Delayed Start	Relative / Absolute (up to 45 days)
Stop Options	When full
	After n Readings
	Never (overwrite oldest data)
Logging Interval	1 sec to 10 days
Offload	While stopped or when logging in minutes mode
Alarms	2 fully programmable; latchable

Connection Information

18 16 14 12 10 8 6 4

COMPONENT SIDE

41.2

20

Ø2.1

41.7

22.4

7.5

3 5 7 9 11 13 15 17

BATTERY SIDE

36.3

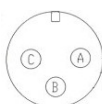**Battery Side**

3: Battery +Ve (3.6V)
5: Green LED Anode
7: RS232 Logger Transmit (Tx)
9: RS232 Logger Receive (Rx)
11: Do Not Connect
13: Do Not Connect
15: Do Not Connect
17: Power and Signal GND (0V)

Component Side

4: Do Not Connect
6: Red LED Anode
8: Do Not Connect
10: Sense Line*
12: Reference Line*
14: Do Not Connect
16: Do Not Connect
18: mV Signal Input

Communication Socket *(supplied)* **as viewed from behind.**

A: RS232 Logger Receive (Rx)
B: RS232 Logger Transmit (Tx)
C: Power and Signal GND (0V)

*See Notes.

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 certificate of calibration, traceable to a national standard, can be supplied for an additional charge either at the point of purchase, or if the unit is returned for a service calibration.

Physical Specification

Operational Range*	-40 ℃ to +85 ℃ (-40 ℉ to +185 ℉)

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

Reading Specification

Range	0 to 200mV DC
Maximum Input	500mV
Input Impedance	100kΩ
Resolution	0.8mV
Accuracy	±1mV ±0.5% of reading

Notes

The battery fitted in this product is a single cell containing less that 1g of lithium and meets the requirements of the UN Manual of Tests and Criteria, Part III, Subsection 38.3.

Recommended Battery Types	SAFT LS14250, Tekcell SBAA02P or Eve ER14250

The logger will operate with other ½AA 3.6V Lithium batteries but performance cannot be guaranteed.

Replacement Interval   Every two years

Before replacing the battery the data logger must be stopped.

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

A battery and 2 LEDs are supplied, but not fitted to the PCB.

The Reference line is an output from the logger that provides a 2.5V (100µA max) reference voltage for external application, if required.

The Sense Line is an output from the logger that changes state when a reading is taken.

This line goes from 0v to +3.5V, for approximately 50mS, whilst a reading is being taken (the line goes back to 0V when the reading cycle is complete).

The Sense Line has an impedance of 100KΩ.

The Reference and Sense Lines do not need to be connected for the data logger to record correctly.

Using the Re-Educator software, which is supplied on the Tinytag Explorer CD, or can be downloaded free of charge from our web site (http://www.tinytag.info/downloads), the unit can be configured to display recorded data in the appropriate engineering units for the application it is being used in.

Approvals

Gemini Data Loggers (UK) Ltd. operates a Business Management System which conforms to ISO 9001 and ISO 14001.

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Required and Related Products

To use this data logger you will require the following software:

SWCD-0040: Tinytag Explorer software

Further Related Products

CAB-0007: Tinytag PC Serial Download Cable

The SWCD-0040 software and CAB-0007-USB cable can be ordered together in a pack using the part number SWPK-7-USB.

data sheet