Gemini DATA LOGGERS

Tinytag

DATA SHEET

Tinytag Plus Re-Ed OEM Current Input Logger (0 to 20mA)

TGPR-0800

Issue 12
9th August 2019
E&OE

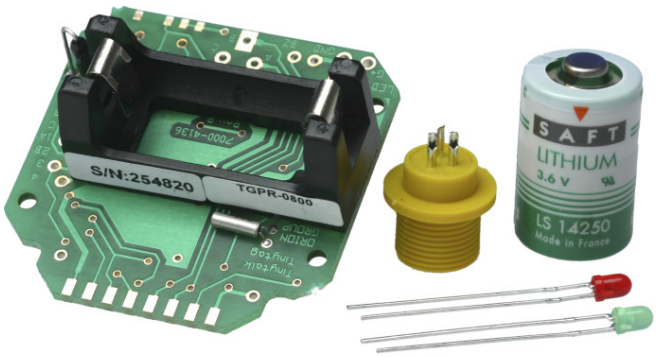
A current input data logger that is supplied un-cased so that it can be built into custom applications.

The TGPR-0800 can be used to record the output from a number of industry standard 4-20mA sensors.

Common applications include pressure and flow rate monitoring.

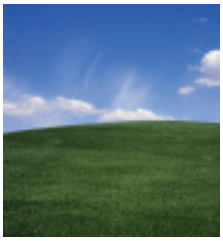
Popular Applications

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



Features

- Current 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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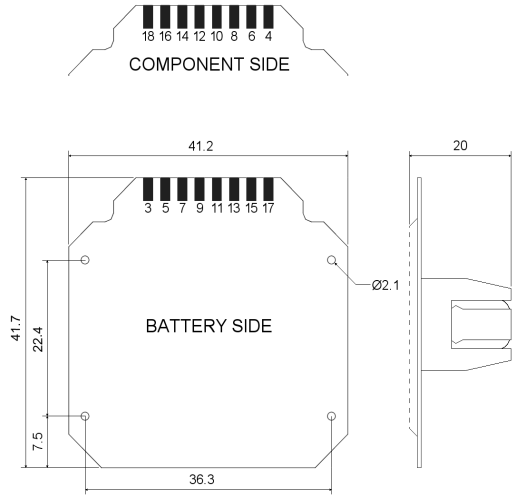
Features

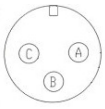
Total Reading Capacity	64,000 readings (current product); 16,000 readings (below SN 501162)
Memory type	Non Volatile
Delayed Start	Relative / Absolute (up to 45 days)
Stop Options	When full After n Readings Never (overwrite oldest data)
Logging Interval	1 sec to 10 days
Offload	While stopped or when logging in minutes mode
Alarms	2 fully programmable; latchable

Connection Information



Battery Side	Component Side
3: Battery +Ve (3.6V)	4: Do Not Connect
5: Green LED Anode	6: Red LED Anode
7: RS232 Logger Transmit (Tx)	8: Do Not Connect
9: RS232 Logger Receive (Rx)	10: Sense Line*
11: Do Not Connect	12: Reference Line*
13: Do Not Connect	14: Do Not Connect
15: Do Not Connect	16: Do Not Connect
17: Power and Signal GND (0V)	18: Current 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.

Physical Specification

Operational Range*	-40°C to +85°C (-40°F to +185°F)

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

Reading Specification

Range	0 to 20mA DC
Maximum Input	50mA
Input Impedance	10Ω
Resolution	0.08mA
Accuracy	±0.1mA ±0.6% 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 (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.

When using the current reading feature in the Tinytag Explorer software, this data logger must not be connected to a mains powered device or a current loop will be created that will damage the unit's input circuit.

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.

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Approvals

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

CE

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-USB: Tinytag Ultra/Plus/View USB 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.

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