

Tinytag Plus Re-Ed Voltage Input Logger (0-2.5/10/25V)

TGPR-0704

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A voltage input data logger that is housed in a robust, waterproof (IP68) rated case.

This logger can measure voltages up to 25V DC and can be connected to many industry standard devices, such as CO₂ sensors and current clamps, enabling the logging of a wide range of process parameters.

Popular Applications

- Battery condition monitoring
- Customised data logging:
 - CO₂
 - Pressure
 - Flow Rate
 - Light
 - Power (with a current clamp)



Features

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





Features

Total Reading Capacity	64,000 readings (current product); 16,000 readings (below SN 503205)
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)
Logging Interval	1 sec to 10 days
Offload	While stopped or when logging in minutes mode
Alarms	2 fully programmable; latching

Reading Specification

0 to 2.5V Range

Maximum Input	3.5V
Max. input current	±1µA (typically ±0.4µA)
Resolution	10mV
Accuracy	±10mV ±0.5% reading

0 to 10V Range

Maximum Input	14V
Input Impedance	400kΩ
Resolution	40mV
Accuracy	±40mV ±1% reading

0 to 25V Range

Maximum Input	35V
Input Impedance	1MΩ
Resolution	100mV
Accuracy	±100mV ±1% reading

Physical Specification

IP Rating	IP68 water-proof (see notes)
Operational Range*	-25°C to +85°C (-13°F to +185°F)
Case Dimensions	
Height	34mm / 1.34"
Width	59mm / 2.32"
Depth	80mm / 3.15"
Weight	110g / 3.9oz

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

Notes

Battery Type Tekcell SBAA02P,
 SAFT LS14250 or LST14250;

The logger will operate with other 1/2AA 3.6V Lithium (Li-SOCl₂) 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.

If used at low temperatures the data logger should be allowed to warm to room temperature before it is opened to avoid condensation forming inside the unit.

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

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.

As supplied, the unit is set to record using the 2.5V range. To change the range to 10 or 25V, jumper links must be moved within the logger and the correct reading range must be selected using the Re-Educator software.

The position of the unit's trigger start switch is indicated by the ••• label on the back of the logger. When the "Wait until trigger event" option is selected in the Tinytag Explorer software, the green LED on the unit will flash once every eight seconds, indicating that the unit is waiting to log. When a magnet is held next to the label, the green LED will light until the magnet is removed to show that the switch is closed. After the magnet has been removed, the green LED will flash every four seconds to indicate that the logger is recording.

Connection Information

The Tinytag Plus Re-Ed Voltage Logger can be used with a CAB-3239 Tinytag Voltage/XP Input Lead (supplied) or an ACS-9703 5-Pin Plug.

The connection details for the cable and plug are as follows:

CAB-3239	5-Pin Plug	Function
Red	A	Reference
Green	B	Not Connected
White	C	Sense Line
Black	D	Common/0V
Yellow	E	Signal Input

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 line has an impedance of 100KΩ.

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



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

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.



Required and Related Products

To use this data logger you will require either a:

CAB-3239: Tinytag Voltage Input Lead (supplied) or an
ACS-9703: 5-Pin Plug

The following piece of software:

SWCD-0040: Tinytag Explorer 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

SER-9500: Tinytag Data Logger Service Kit

ACS-6000: Trigger Start Magnet