

## Tinytag Plus Re-Ed Count Input Logger (0-255n)

### TGPR-1201

#### Issue 14

14th August 2009  
E&OE

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

Common applications include flow rate and quantity monitoring.

#### Popular Applications

- Flow Rate Monitoring
- People Counting
- Wind Speed
- Rainfall



#### Features

- Count input data logger
- Volt-free contact and digital input
- 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

|                               |   |
|-------------------------------|---|
| <b>Total Reading Capacity</b> | 64,000 readings (current product);<br>16,000 readings (below SN 515899) |
| <b>Memory type</b>            | Non Volatile  |
| <b>Trigger Start</b>          | Magnetic Switch   |
| <b>Delayed Start</b>          | Relative / Absolute<br>(up to 45 days)                                  |
| <b>Stop Options</b>           | When full<br>After n Readings<br>Never (overwrite oldest data)          |
| <b>Logging Interval</b>       | 1 sec to 10 days  |
| <b>Offload</b>                | While stopped or when logging in minutes mode                           |
| <b>Alarms</b>                 | 2 fully programmable; latching  |

### Reading Specification

|                            |                                      |
|----------------------------|--------------------------------------|
| <b>Reading Range</b>       | 0 to 255 Counts/Interval (See Notes) |
| <b>Maximum Frequency</b>   | 50 Counts/Second                     |
| <b>"Divide by" counter</b> | 1 to 255 (See Notes)                 |
| <b>Input Type</b>          | Digital or Volt-Free Contact Switch  |
| <b>Maximum Error</b>       | ± Divisor/2 (See Notes)              |

#### Digital Input

|                              |                     |
|------------------------------|---------------------|
| <b>Low Level</b>             | -0.5V to +1V        |
| <b>High Level</b>            | 2.5V to 10V         |
| <b>Min. Pulse Width</b>      | 50µS (at 5V)        |
| <b>Min. Pulse Separation</b> | 50µS (at 5V)        |
| <b>Edge Detection</b>        | High-Low Transition |

#### Contact Input

|                         |  |
|-------------------------|--|
| <b>Type</b>             | Normally Open (With Minimal De-bounce) |
| <b>Min. Closed Time</b> | 50µS                                   |
| <b>Min. Open Time</b>   | 2µS                                    |
| <b>Edge Detection</b>   | Open to Closed                         |

### Physical Specification

|                           |                                  |
|---------------------------|----------------------------------|
| <b>IP Rating</b>          | IP68 water-proof (see notes)     |
| <b>Operational Range*</b> | -40°C to +85°C (-40°F to +185°F) |
| <b>Case Dimensions</b>    |                                  |
| <b>Height</b>             | 34mm / 1.34"                     |
| <b>Width</b>              | 59mm / 2.32"                     |
| <b>Depth</b>              | 80mm / 3.15"                     |
| <b>Weight</b>             | 110g / 3.9oz                     |

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

### 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 a Quality Management System which conforms to ISO 9001. The scope of the system covers the manufacture, design and supply of data loggers and their associated software, accessories and services.



### Notes

**Battery Type**            Tekcell SBAA02P,  
SAFT LS14250 or LST14250;

The logger will operate with other 1/2AA 3.6V Lithium (Li-SOCl<sub>2</sub>) 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).

If a volt-free switch is being used that requires further de-bounce, this can be achieved by connecting a 10nF capacitor across the switch contacts.

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. Also, using Re-Educator, a divide by counter - or "divisors" - can be set in the unit to increase the number of counts the logger can record to 65,536 per interval.

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.

### Required and Related Products

To use this data logger you will require either a:

CAB-3246: Tinytag Current/Millivolt/Count Input Lead or a ACS-9700: 2-Pin Plug

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  
SER-9530: Tinytag Plus/IS Service Kit  
ACS-6000: Trigger Start Magnet