

## Tinytag Plus Vibration (0 to 50mm/s)

### TGP-0650

#### Issue 13

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E&OE

The workhorse of the Gemini range the Tinytag Plus data loggers are housed in robust, waterproof (IP68) rated cases that are designed for use in harsh and outdoor applications.

The TGP-0650 measures vibration and can be used for machine condition monitoring and the monitoring expensive and/or fragile shipments.

#### Popular Applications

- Fragile goods storage and transportation
- Building work monitoring
- Machine condition monitoring



#### Features

- Vibration recorder
- 64,000 reading capacity
- User-programmable logging interval
- 2 user-programmable alarms
- Delayed start options
- 3 stop options
- Waterproof case
- User-replaceable battery





### Features

<b>Total Reading Capacity</b>	64,000 readings (current product); 16,000 readings (below SN 526080)
<b>Memory type</b>	Non Volatile
<b>Delayed Start</b>	Relative / Absolute (up to 45 days)
<b>Stop Options</b>	When full After n Readings Never (overwrite oldest data)
<b>Reading Types</b>	Actual, Min, Max
<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 50mm/s
<b>Sensor Type</b>	Piezo Electric
<b>Frequency Response</b>	20Hz to 1kHz
<b>Accuracy</b>	±10% Reading + 0.2mm/s (from 1 to 40mm/s)
<b>Resolution</b>	0.2mm/s (from 1 to 40mm/s)

### 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>	73mm / 2.9"
<b>Depth</b>	68mm / 2.68"
<b>Weight</b>	140g / 4.94oz

\*The Operational Range indicates the physical limits to which the unit can be exposed, not the reading range over which it will record.

### 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.

A 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.

### Notes

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

The logger will operate with other 1/2AA 3.6V Lithium (Li-SOCl<sub>2</sub>) batteries but performance cannot be guaranteed.

**Replacement Interval** Annually

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 is fitted and is valid to a depth of 15m (50ft).

The TGP-0650 records the magnitude of vibration experienced by the unit along the axis running through the logger's lid to its base.

To avoid reading errors the logger must be securely fitted to a flat surface using the unit's two mounting flanges.

This data logger contains sensitive electronics which may be influenced by strong electromagnetic signals. Keep it clear of any sources of electrical interference, especially mobile phones, when logging.

### 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.



### Required and Related Products

To use this data logger you will also require 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/Plus 2/IS Service Kit