

# VOLT101A

## DC VOLTAGE DATA LOGGER



### Features

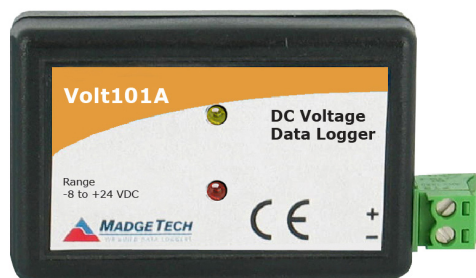
- 10 Year Battery Life
- 4Hz Reading Rate
- Multiple Start/Stop Function
- Ultra High Speed Download
- 1 Million Reading Storage Capacity
- Memory Wrap
- Battery Life Indicator
- Optional Password Protection
- Programmable High and Low Alarms
- N.I.S.T. Traceable
- Field Upgradeable

### Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

### Applications

- Low Level Signal Monitoring
- Battery Studies
- Power Supply Monitoring
- Process Plants
- Research and Development
- General Purpose Voltage Recording



The Volt101A is one of MadgeTech's newest data loggers. It is part of a new series of low cost, state-of-the-art data logging devices. MadgeTech has taken the lead in offering the most advanced, low cost, battery powered data loggers in the world today.

The Volt101A offers a 10 year battery life, 4Hz reading rate, a multiple start/stop function, ultra-high speed download capability, 1 million reading storage capacity, optional memory wrap, battery life indicator, optional password protection, programmable high-low alarms and more. Our research has shown that the Volt101A is second to no other data logger when it comes to price and performance.

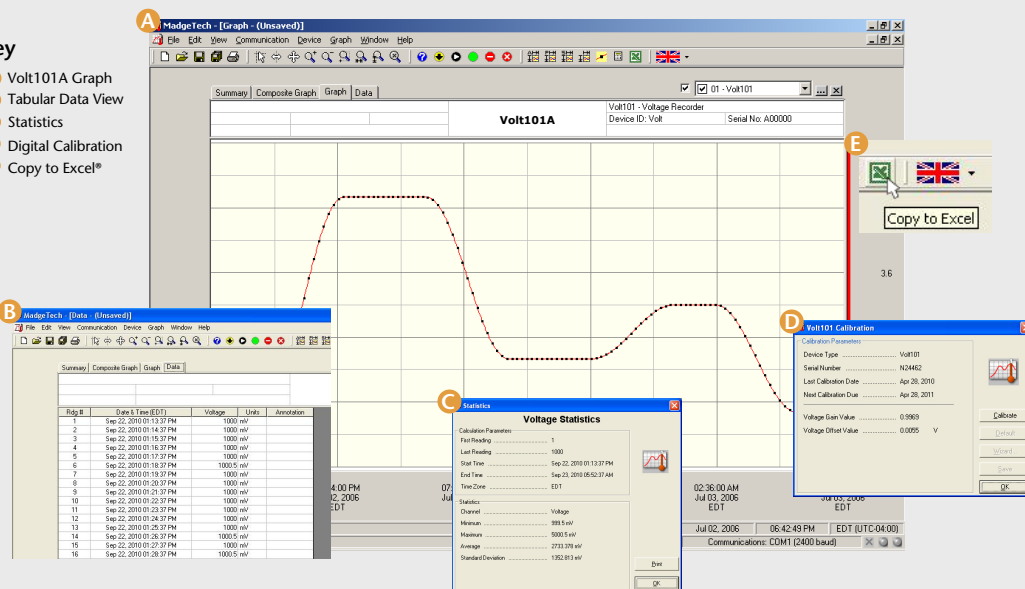
Using the MadgeTech Software, starting, stopping and downloading from the Volt101A is simple and easy. Graphical, tabular and summary data is provided for analysis and data can in multiple units, using the Engineering Units function. The data can also be automatically exported to Excel® for further calculations.

As the leader in low power data logger technology, MadgeTech continuously improves its products and develops solutions to meet ever-changing challenges. The Volt101A was designed with our customers in mind. MadgeTech offers free firmware upgrades for the life of the product so that data loggers already deployed in the field can grow with new technological developments. Units do not need to be returned to the factory for upgrades. The user can do this automatically from any PC.

## MADGETECH DATA LOGGER SOFTWARE

### Key

- A Volt101A Graph
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# VOLT101A SPECIFICATIONS

|                                  |                    |                                                                                                                                                                                                                                                                                                                                      |            |  |
|----------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|
| <b>Input Connection:</b>         |                    | Removable screw terminal                                                                                                                                                                                                                                                                                                             |            |  |
| <b>Model:</b>                    | <b>2.5V</b>        | <b>15V</b>                                                                                                                                                                                                                                                                                                                           | <b>30V</b> |  |
| <b>Voltage Range:</b>            | -3 to +3V          | -8 to +24V                                                                                                                                                                                                                                                                                                                           | -8 to +32V |  |
| <b>Voltage Resolution:</b>       | 0.1 mV             | 0.5 mV                                                                                                                                                                                                                                                                                                                               | 1.0 mV     |  |
| <b>Calibrated Accuracy:</b>      | ±0.05% FSR at 25°C |                                                                                                                                                                                                                                                                                                                                      |            |  |
| <b>Input Impedance:</b>          |                    | 125kΩ                                                                                                                                                                                                                                                                                                                                |            |  |
| <b>Overload Protection:</b>      |                    | ±50 V, indefinitely                                                                                                                                                                                                                                                                                                                  |            |  |
| <b>Analog Conversion Time:</b>   |                    | 133 ms                                                                                                                                                                                                                                                                                                                               |            |  |
| <b>Frequency Rejection:</b>      |                    | 50/60Hz                                                                                                                                                                                                                                                                                                                              |            |  |
| <b>Reading Rate:</b>             |                    | 4 readings every second to 1 every 24 hours                                                                                                                                                                                                                                                                                          |            |  |
| <b>Memory:</b>                   |                    | 1,000,000 readings; software configurable memory wrap<br>330,000 readings in multiple start/stop mode                                                                                                                                                                                                                                |            |  |
| <b>Wrap Around:</b>              |                    | Yes                                                                                                                                                                                                                                                                                                                                  |            |  |
| <b>Start Modes:</b>              |                    | <ul style="list-style-type: none"><li>• Immediate start</li><li>• Delay start up to 18 months</li><li>• Multiple pushbutton start/stop</li></ul>                                                                                                                                                                                     |            |  |
| <b>Stop Modes:</b>               |                    | <ul style="list-style-type: none"><li>• Manual through software</li><li>• Timed (specific date and time)</li></ul>                                                                                                                                                                                                                   |            |  |
| <b>Multiple Start/Stop Mode:</b> |                    | Start and stop the device multiple times without having to download data or communicate with a PC                                                                                                                                                                                                                                    |            |  |
| <b>Multiple Start/Stop Mode</b>  |                    | To start the device:<br><b>Activation:</b> <i>Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.</i><br><br>To stop the device:<br><i>Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.</i> |            |  |
| <b>Real Time Recording:</b>      |                    | The device may be used with PC to monitor and record data in real-time                                                                                                                                                                                                                                                               |            |  |
| <b>Alarm:</b>                    |                    | User selectable high and low limits; blinking LED for alarm and low battery                                                                                                                                                                                                                                                          |            |  |
| <b>LED Functionality:</b>        |                    | Green LED blinks:<br><i>10 seconds to indicate logging</i><br><i>15 seconds to indicate delay start mode</i><br><br>Red LED blinks:<br><i>10 seconds to indicate low battery and/or memory</i><br><i>1 second to indicate an alarm condition</i>                                                                                     |            |  |

**Password Protection:** An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.

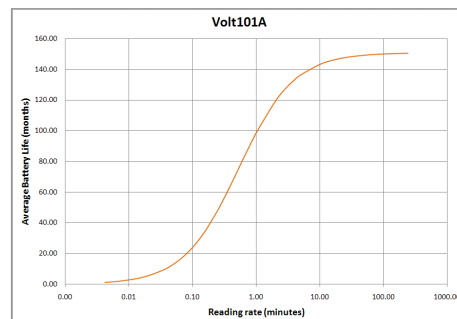
**Engineering Units:** Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as temperature, CO2, flow rate and more

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Battery Type:** 3.6V lithium battery included; **user replaceable**

**Battery Life:** 10 years typical at a 15 minute reading rate



Graph display of the device recording in a 25°C environment.

**Data Format:** Date and time stamped V, mV, µV, engineering units specified through software

**Time Accuracy:** ±1 minute/month (at 20°C, stand alone logging)

**Computer Interface:** USB (interface cable required); 115,200 baud

**Operating System:** XP SP3/Vista/Windows 7  
MadgeTech Software 2.03 or higher required

**Operating Environment:** -40°C to +80°C, 0 to 95%RH non-condensing

**Dimensions:** 1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm)

**Weight:** 0.9 oz (24 g)

**Materials:** ABS plastic

**Approvals:** CE

**BATTERY WARNING:** WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80°C (176°F).

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## ORDERING INFORMATION

| MODEL         | DESCRIPTION                              |
|---------------|------------------------------------------|
| VOLT101A-2.5V | 2.5V Voltage Data Logger                 |
| VOLT101A-15V  | 15V Voltage Data Logger                  |
| VOLT101A-30V  | 30V Voltage Data Logger                  |
| IFC200        | Software, manual and USB interface cable |
| LTC-7PN       | Replacement battery for Volt101A         |

For quantity discounts call 1300 737 871 or email [customer-service@instrumentchoice.com.au](mailto:customer-service@instrumentchoice.com.au)

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