VOLT101A
DC VOLTAGE DATA LOGGER
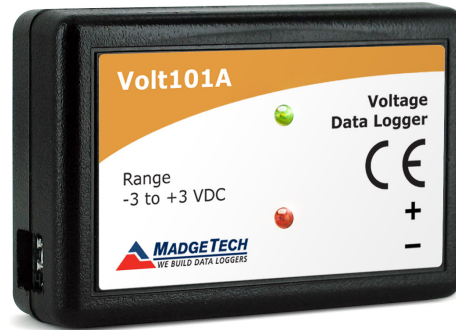

MadgeTech
WE BUILD DATA LOGGERS

Features
- 10 Year Battery Life
- 4 Hz 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
- NIST 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

MadgeTech's Volt101A data loggers are versatile data logging devices with many uses and applications. Connect negative and positive wire leads directly to the terminal port on the Volt101A to monitor and measure voltage levels. The Volt101A is commonly used to assess battery efficiencies or photovoltaic studies to identify how much energy is being created from solar cells.
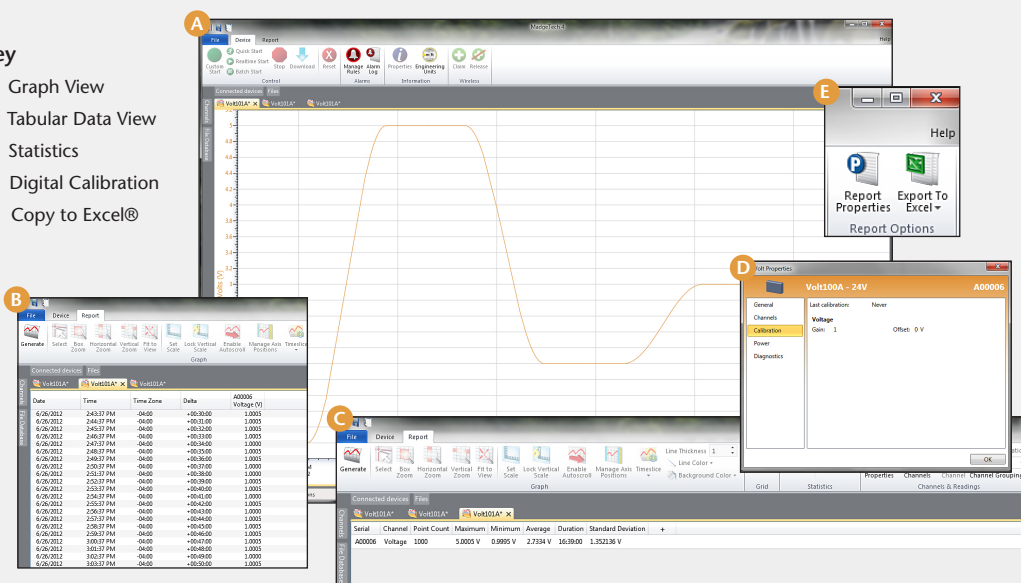
The Volt101A features a removable terminal block to allow for simple retrieval of the data logger for downloading while leaving the leads connected. With a ten year battery life and the ability to store up to one million time and date stamped readings, this device is ideal for long term deployment and voltage studies.

Four models of the Volt101A are available. The 2.5 V is capable of measuring -3V to 3 V, the 15 V capable of measuring -8 V to 24 V, and the 30 V which can measure from -8 V to 32 V. For lower voltage applications that require a higher resolution, MadgeTech also offers the Volt101A 160 mV model, which can measure voltage between -160 and 160 mV.
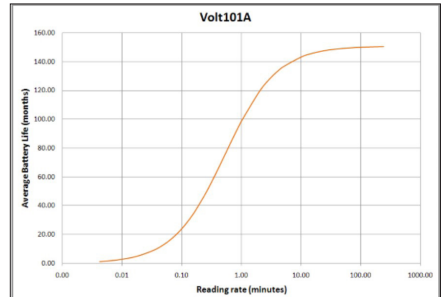
MADGETECH DATA LOGGER SOFTWARE

Key
- **A** Graph View
- **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
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

VOLT101A SPECIFICATIONS*

Input Connection:	Removable screw terminal		
Model:	**2.5V**	**15V**	**30V**
Voltage Range:	-3 to +3V	-8 to +24V	-8 to +32V
Voltage Resolution:	0.1 mV	0.5 mV	1.0 mV
Calibrated Accuracy:	±0.05% FSR at 25°C		
Input Impedance:	125kΩ		
Overload Protection:	±50 V, indefinitely		
Analog Conversion Time:	150 ms		
Frequency Rejection:	50/60Hz		
Reading Rate:	4 readings every second up to 1 reading every 24 hours		
Memory:	• 1,000,000 readings; software configurable memory wrap • 330,000 readings in multiple start/stop mode		
Wrap Around	Yes		
Start Modes:	• Immediate start • Delay start up to 18 months • Multiple pushbutton start/stop		
Stop Modes:	• Manual through software • Timed (specific date and time)		
Multiple Start/Stop Mode:	Start and stop the device multiple times without having to download data or communicate with a PC		
Multiple Start/Stop Mode Activation:	• To start the device: *Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.* • To stop the device: *Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.*		
Real Time Recording:	The device may be used with PC to monitor and record data in real time		
Alarm:	User selectable high and low limits; blinking LED for alarm and low battery		
LED Functionality:	• Green LED blinks: *10 seconds to indicate logging* *15 seconds to indicate delay or manual start mode - standby (waiting to start)* • Red LED blinks: *10 seconds to indicate low battery and/or memory* *1 second to indicate an alarm condition*		

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 25 °C, stand alone logging)
Computer Interface:	USB (interface cable required); 115,200 baud
Operating System:	XP SP3/Vista/Windows 7/Windows 8 MadgeTech Software 2.03 or higher required
Operating Environment:	-40 °C to +80 °C, 0 %RH to 95 %RH non-condensing
Dimensions:	1.4 in x 2.1 in x 0.6 in (35 mm x 54 mm x 16 mm)
Weight:	0.9 oz (24 g)
Materials:	ABS plastic
Approvals:	CE

BATTERY 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

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