

VOLT101A-160MV

DIFFERENTIAL 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
- Photovoltaic Studies
- Current Shunts
- General Purpose Voltage Recording



The Volt101A-160mV 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-160mV 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. The Volt101A-160mV is priced at \$179 each and can be delivered from stock now. Our research has shown that the Volt101A-160mV is second to no other data logger when it comes to price and performance.

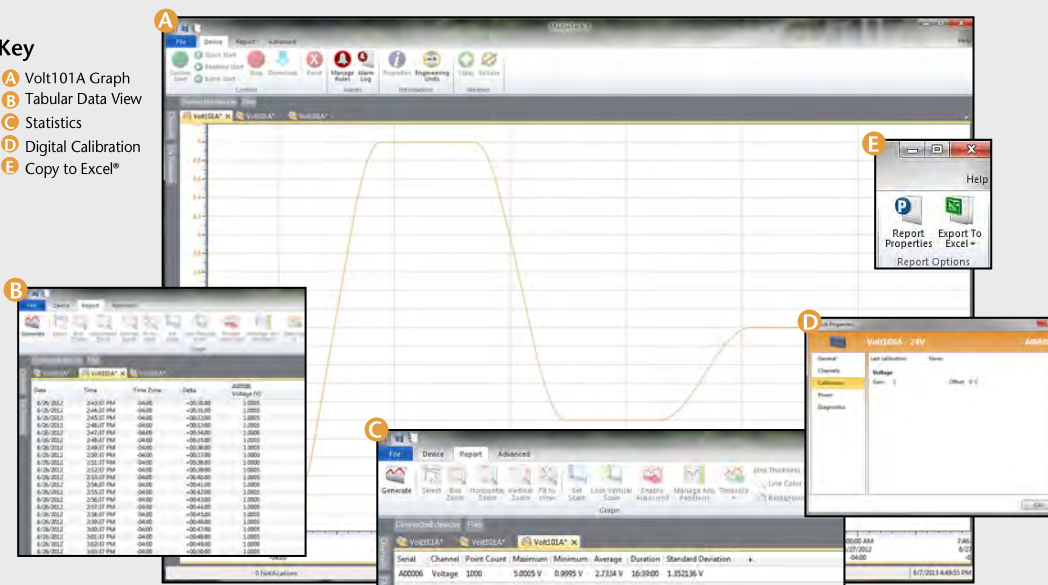
Using the MadgeTech Software, starting, stopping and downloading from the Volt101A-160mV is simple and easy. Graphical, tabular and summary data is provided for analysis and data can in multiple units, using the Engineering Units function. The data can also be automatically exported to Excel® for further 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-160mV 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-160MV SPECIFICATIONS*

Input Connection: Removable screw terminal

Voltage Range: ± 160 mV

Voltage Resolution: 5 μ V

Calibrated Accuracy: $\pm 0.01\%$ FSR

Specified Accuracy Range: Nominal range @ 25°C

Input Impedance: >1M Ω

Analog Conversion Time: 133 ms

Frequency Rejection: 50/60Hz

Overload Protection: ± 5.0 V for 10 seconds

Reading Rate: 4 readings every second to 1 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 To start the device:

Activation: 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 start mode
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.

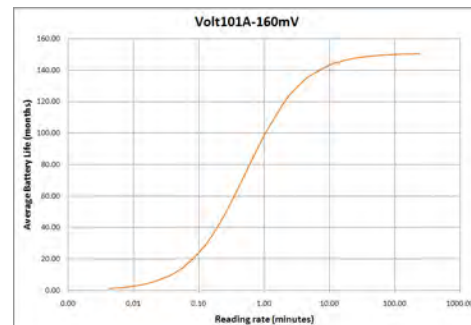
Engineering Units: Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as temperature, CO2, flow rate and more

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, μ V, 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	PRICE (U.S.)
VOLT101A-160MV	± 160 mV Differential Voltage Data Logger	\$179.00
IFC200	Software, manual and USB interface cable	\$119.00
*NIST	N.I.S.T. Calibration Certificate	\$60.00
LTC-7PN	Replacement battery for Volt101A-160mV	\$10.00

For Quantity Discounts call 603-456-2011 or email sales@madgetech.com

*To order the product with the N.I.S.T. certificate add -CERT to the end of the part number and add \$60.00 to the price.

