

| Description                | QuadVolt                                              | OctVolt                                              |
|----------------------------|-------------------------------------------------------|------------------------------------------------------|
| Voltage Range              | *See Table Below                                      |                                                      |
| Voltage Resolution         |                                                       |                                                      |
| Voltage Accuracy           |                                                       |                                                      |
| Memory                     | 32,767/channel                                        | 16,383/channel                                       |
| Reading Rate               | 1 reading every second up to 1 reading every 12 hours |                                                      |
| LED Indicator              | None                                                  |                                                      |
| Channels                   | 4                                                     | 8                                                    |
| Required Interface Package | IFC200                                                |                                                      |
| Baud Rate                  | 2,400                                                 |                                                      |
| Typical Battery Life       | 1 year                                                |                                                      |
| Operating Environment      | -40 °C to +60 °C, 0 %RH to 95 %RH (non-condensing)    |                                                      |
| Material                   | Anodized aluminum                                     |                                                      |
| Dimensions                 | 3.5 in x 4.4 in x 1.0 in<br>(89 mm x 112 mm x 26 mm)  | 3.5 in x 4.4 in x 1.5 in<br>(89 mm x 112 mm x 39 mm) |
| Weight                     | 13 oz (370 g)                                         | 17 oz (480 g)                                        |

\*QuadVolt & OctVolt Range, Resolution and Calibrated Accuracy

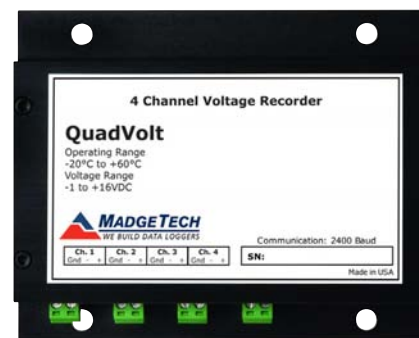
|                                |            |               |            |            |
|--------------------------------|------------|---------------|------------|------------|
| <b>Nominal Range</b>           | ±100 mV    | 0 to 2.5 V    | 0 to 15 V  | 0 to 30 V  |
| <b>Measurement Range (VDC)</b> | ±150 mV    | -0.25 to 2.75 | -1 to 16   | -2 to 32   |
| <b>Accuracy</b>                | ±0.01 %FSR | ±0.01 %FSR    | ±0.10 %FSR | ±0.10 %FSR |
| <b>Resolution (mV)</b>         | 5 µV       | 0.1           | 0.5        | 1.0        |
| <b>Common Mode Input Range</b> | 0 to 2.5 V | 0 to 2.5 V    | 0 to 2.5 V | 0 to 2.5 V |

### 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 60 °C (140 °F).

# Product User Guide

## QuadVolt and OctVolt



### QuadVolt-100mV

4-Channel ±100mV Low Level DC Voltage Data Logger

### QuadVolt-2.5V

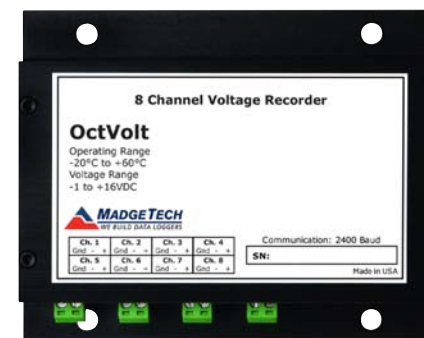
4-Channel 2.5V Low Level DC Voltage Data Logger

### QuadVolt-15V

4-Channel 15V Low Level DC Voltage Data Logger

### QuadVolt-30V

4-Channel 30V Low Level DC Voltage Data Logger



### OctVolt-100mV

8-Channel ±100mV Low Level DC Voltage Data Logger

### OctVolt-2.5V

8-Channel 2.5V Low Level DC Voltage Data Logger

### OctVolt-15V

8-Channel 15V Low Level DC Voltage Data Logger

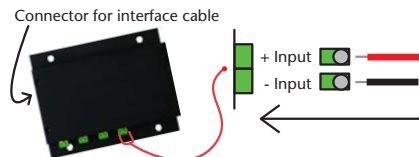
### OctVolt-30V

8-Channel 30V Low Level DC Voltage Data Logger

## Wiring the Data Logger

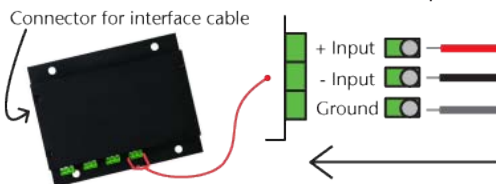
### QuadVolt and OctVolt Single Ended Wiring (2.5V, 15V and 30V)

Two-position removable screw terminal connections; accepts 2-wire configurations.



### QuadVolt and OctVolt Differential Wiring ( $\pm 100\text{mV}$ )

Three-position removable screw terminal connections; accepts 3-wire configurations.



Warning: Note the polarity instructions. Do not attach wires to the wrong terminals.

## Product Notes

### Engineering Units

Engineering units are used to convert one measurement reading to another. The MadgeTech software allows for software level Engineering Units (conversion applied to data after download). Certain devices have device level Engineering Units, which upon download automatically appear in the chosen unit of measure.

Please refer to the application note "Engineering Units" and Technical Support Videos, found on the MadgeTech website, for information on how to manage Engineering Units. Also view the Engineering Units Video for step-by-step setup instructions.

## Installation Guide

### Installing the Interface Cable

- IFC200

Insert the device into a USB port. The drivers will install automatically.

### Installing the software

The Software can be downloaded from the MadgeTech website at the following link: [www.madgetech.com/software-download](http://www.madgetech.com/software-download). Follow the instructions provided in the Installation Wizard.

## Device Operation

### Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the Connected Devices list, highlight the desired data logger.

- For most applications, select "Custom Start" from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click "Start". ("Quick Start" applies the most recent custom start options, "Batch Start" is used for managing multiple loggers at once, "Real Time Start" stores the dataset as it records while connected to the logger.)
- The status of the device will change to "Running", "Waiting to Start" or "Waiting to Manual Start", depending upon your start method.
- Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

### Downloading data from a data logger

- Highlight the data logger in the Connected Devices list. Click "Stop" on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click "Download". You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

## Device Maintenance

### Battery Replacement

Materials: 3/32" HEX Driver (Allen Key) and Replacement Battery (U9VL-J)

- Remove the cover from the device by unscrewing the four screws.
- Remove the battery from its compartment and unsnap it from the connector.
- Snap the new battery into the terminals and verify it is secure.
- Replace the cover taking care not to pinch the wires. Screw the enclosure back together securely.

Note: Be sure not to over tighten the screws or strip the threads.

### Recalibration

The QuadVolt or OctVolt standard calibration is dependant upon the range.

Additional Services:

Custom calibration and verification point options available, please call for pricing.

| Range             | 100 mV             | 2.5 V               | 15 V                 | 30 V             |
|-------------------|--------------------|---------------------|----------------------|------------------|
| Calibration Point | 0 mV and 90-100 mV | 0 mV and 2.25-2.5 V | 0 mV and 14.9-15.5 V | 0 mV and 27-30 V |