



MONARCH INSTRUMENT

Innovation in Instrumentation

DataChart® QuadVolt

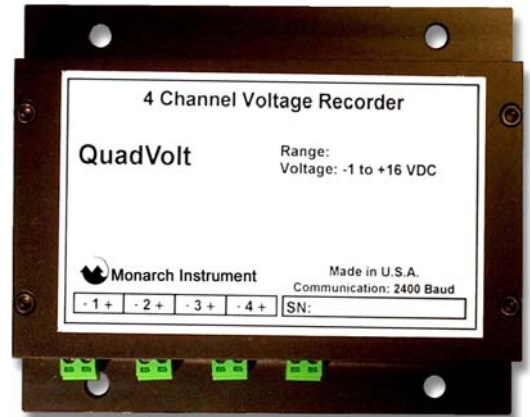
4 Channel Low Level Voltage Data Logger

Features

- 4 Inputs
- Rugged
- 16 Bit Resolution
- Memory Size: 32,767 Readings
- Programmable Engineering Units
- Programmable Scale Factor
- Programmable Offset Value
- Memory Wrap Around
- Reusable
- User Calibration through Software
- No Programming Experience Necessary
- Real Time Operation
- Low Cost
- Quick Setup

Applications

- -0.1000 to + 15.0000 Vdc Voltage Range
- pH Recording
- Remote Monitoring of Low Level Signals
- Battery Studies
- Photovoltaic Studies
- Biological Sensor Monitoring
- Environmental Studies
- Replace Costly Strip Recorders



Description

The QuadVolt is a low cost, high resolution, miniature battery powered, stand-alone data logger used for automatically recording voltages between - 0.1000 and +15.0000 volts. The Volt101 uses a 16 bit ADC to achieve a resolution of 0.5 milliVolts. The unit is very rugged. It's case was machined from aluminum blocks which is anodized. In addition, the QuadVolt allows the user to store user defined units such as pH into the device as well as scale factors and offset values. This enables the user to easily linearize and scale any transducer that provides a voltage (current) output to any user required units automatically. This is ideal for scaling a 4 and 20mA output. This all-in-one compact, portable, easy to use device will measure and record up to 32,767 voltage measurements. The QuadVolt is a major leap forward in both size and performance. Its real time clock ensures that all data is time and date stamped. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its small size allows it to fit almost anywhere. Data retrieval is simple. Plug it into an empty com port and our easy to use software does the rest.



Specifications

Input Channels: 4

Input Connection: Removable Screw Terminal

Voltage Range: -1.0 to 16.0 VDC

Calibrated Voltage Accuracy: $\pm 0.1\%$ of FSR at calibrated temperature.

Voltage Resolution: 0.5mV

Input Connection: Removable Screw Terminal

Input Impedance: $>10\text{Kohm}$

ADC Resolution: 16 Bits

Voltage Calibration: Digital calibration is available in software.

N.I.S.T. Traceable: N.I.S.T. certificates available

Calibration Date: Automatically recorded within device to alert user when calibration is required.

Recording Interval: 30/minute to 2/day selectable.

Memory Wrap Around: Selectable in software.

Engineering Units: Software programmable.

User may program any desired units up to 10 characters in length. This value is stored within the device.

Scale Factor: Software programmable. User may program any desired scaling factor from $\pm 1.000\text{E}-99$ to $\pm 9.9999\text{E}+99$. The scaling factor is stored within the device.

Offset Value: Software programmable. User may program any desired offset value from $\pm 1.000\text{E}+99$ to $\pm 1.000\text{E}-99$. This offset value is stored within the device.

Real Time Recording: Device may be used with PC to monitor and record data in real time.

Memory: 32,768 voltage readings max.

User-Replaceable Battery: 1 year typical.

Time Accuracy: ± 1 min/month at 20°C

Data Format: Date and Time stamped, volts, other engineering units programmable through software.

Shock resistance: Drop proof to 5'.

Weight: 1oz. (30g)

Computer Interface: RS232 Serial Port.

Software: Windows[®]95/98/NT based software for complete control and operation.

Operating Environment: -40°C to $+80^\circ\text{C}$, -40°F to 176°F , 5% to 95% RH (non-condensing)

Dimensions: 0.75"H x 3.2"L x 5.0"D

Material: Black Anodized Aluminum

Software Features

The software used to operate the QuadVolt requires no programming skills, enables users to effortlessly select reading rate, user ID and initiate the start of data collection within moments after user connects hardware. After retrieving the data, it may be viewed instantly in graphical or tabular form.

Zoom In/Out: Use mouse to click and drag to select area for zooming in or out.

Statistics: min, max, mean, standard deviation

Cursor: Use mouse to click on graph to obtain specific reading information.

Real Time Operation: Convert PC into strip chart recorder for real time data collection.

Annotating Data: All data points may be easily annotated.

Printing: Automatic printing of data in graphical or tabular form

Units: Volts or user specified engineering units.

User ID: Programmable through software and stored within device.

AutoScale: Autoscale function may be enabled or disabled by user.

Calibration: Automatic calibration in software and calibration parameters stored within device

Exporting Data: All data can be directly exported to Microsoft Excel[®] or to text format.

Graph Grid Size: The grid size is user selectable.

ORDERING INFORMATION

Item No.	Model	Description
5399-0113	QuadVolt	4 Channel Low Level Voltage Data Logger
5399-9901	IFC101	Interface Cable, Software, Manual
5399-9999	N.I.S.T. Cert.	N.I.S.T. Calibration Certificate

Ask About Our Other Data Loggers

Temperature	4.0 to 20.0 mA
Humidity	Pulse/Counter
Pressure	Submersible
pH	Level
Shock/Vibration	Multi-Parameter
Voltage	Intrinsically Safe
RF Transmitters	

Visit Monarch Instrument on the web at www.monarchinstrument.com
Monarch Instrument 15 Columbia Drive Amherst, NH 03031 USA
Tel:603-883-3390 Fax:603-886-3300 e-mail: sales@monarchinstrument.com

