Voltage Data Loggers Part of the NOMAD® Family

OM-CP-VOLT101A Series

MADE IN USA | 5 YEAR WARRANTY | NIST | CE

Optional

OM-CP-VOLT101A-160MV data logger.

- **4 Hz Reading Rate**
- **Multiple Start/Stop Function**
- **Programmable Engineering Units**
- **Large Data Storage 1,000,000 Readings**
- **10-Year Battery Life**
- **LED Alarming**
- **High Speed Download Capability**

OM-CP-VOLT101A-15V data logger, shown actual size.

OM-CP-VOLT101A-160MV data logger, shown actual size.

Voltage is one of the most fundamental and useful types of measurement performed today. Many scientific instruments and sensors provide a voltage output that represents the magnitude of some parameter being measured such as temperature, pH, flow rate, pressure, strain, etc.

The OM-CP-VOLT101A provides a low cost solution for adding recording capability to an already existing measurement system. Its high accuracy and 16-bit resolution place this product at the forefront for low level DC voltage recording devices.

This device is ideal for accurately measuring and recording battery voltages, sensor output signals, photovoltaic studies, as well as many other low level DC voltage sources. With user programmable engineering units, the user can scale the input voltage to most any type of unit desired automatically. This is a unique and very useful feature for presentations.

The OM-CP-VOLT101A is available in four different input ranges: 160 mV, 2.5V, 15V and 30V versions.

Data retrieval is simple. Plug the device into an available COM port and our easy-to-use software does the rest. The software converts a PC into a real-time strip chart recorder. Data can be printed in graphical and tabular format or exported to a text or Microsoft Excel file.

Specifications

Input Connection:
Removable screw terminal

Specified Accuracy Range:
Nominal range @ 25°C

Analog Conversion Time: 133 mS

Frequency Rejection: 50/60 Hz

Alarm: User selectable high and low limits; blinking LED for alarm and low battery

Start Modes: Software programmable immediate start, delay start up to 18 months in advance, multiple start/stop mode

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 Device: Press and hold the pushbutton and the green LED will flash twice a second. After three seconds, the green will flash rapidly for two seconds; the device has started logging.

To Stop Device: Press and hold the pushbutton and the red LED will flash twice a second; after three seconds, red will flash rapidly for two seconds; the device has stopped logging

Memory: 1,000,000 readings; software configurable memory wrap; 330,000 readings in enhanced start/stop mode

Wrap Around: Yes

Reading Rate: 4 readings a second (4 hz) to 1 reading every 24 hours

LED Functionality:

Green LED Blinks: 10 seconds to indicate logging 15 seconds to indicate delay start mode

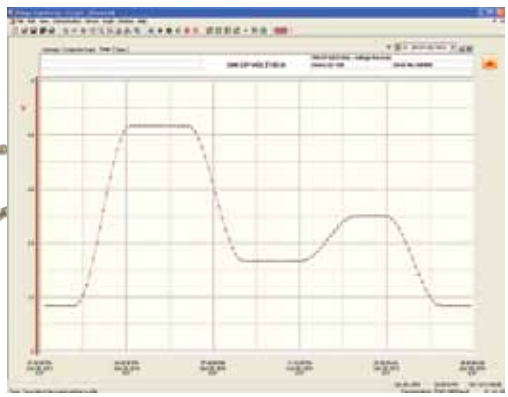
Red LED Blinks: 10 seconds to indicate low battery and/or memory 1 second to indicate an alarm condition

Input Types and Ranges

Input Ranges	OM-CP-VOLT101A-160MV	OM-CP-VOLT101A-2.5V	OM-CP-VOLT101A-15V	OM-CP-VOLT101A-30V
Voltage Range	±160 mV	-3 to 3 Vdc	-8 to 24 Vdc	-8 to 32 Vdc
Voltage Resolution	5 µV	0.1 mV	0.5 mV	1.0 mV
Calibrated Accuracy	±0.01%	±0.05%	±0.05%	±0.05%
Input Impedance	>1 MΩ	125 kΩ	125 kΩ	125 kΩ
Overload Protection	±5V**	±50V*	±50V*	±50V*
Input Type	Differential	Single ended	Single ended	Single ended

** Indefinitely*
*** For 10 seconds*

OM-CP-WATERBOX101A, optional weatherproof enclosure for data logger, shown smaller than actual size.



OM-CP-IFC200, Windows software displays data in graphical or tabular format.

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

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

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

Data Format: Date and time stamped V, mV, 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

Software:
WIN XP SP3/VISTA/7 and 8 (32 and 64-bit)

Operating Environment:
-40 to 80°C (-40 to 176°F)
0 to 95% RH non-condensing

Dimensions:
Data Logger:
36 H x 64 W x 16 mm D
(1.4 x 2.5 x 0.6")
Waterbox Enclosure:
74 H x 148 W x 39 mm D
(2.9 x 5.8 x 1.5")

Weight: 24 g (0.9 oz)

Materials:
Data Logger: ABS Plastic
Waterbox Enclosure:
Black anodized aluminum

To Order

Model No.	Description
OM-CP-VOLT101A-2.5V	Voltage data logger, -3 to 3 Vdc range
OM-CP-VOLT101A-2.5V-CERT	Voltage data logger, -3 to 3 Vdc with NIST calibration certificate
OM-CP-VOLT101A-15V	Voltage data logger, -8 to 24 Vdc range
OM-CP-VOLT101A-15V-CERT	Voltage data logger, -8 to 24 Vdc with NIST calibration certificate
OM-CP-VOLT101A-30V	Voltage data logger, -8 to 32 Vdc range
OM-CP-VOLT101A-30V-CERT	Voltage data logger, -8 to 32 Vdc with NIST calibration certificate
OM-CP-VOLT101A-160MV	Voltage data logger, ±160 mV range range
OM-CP-VOLT101A-160MV-CERT	Voltage data logger, ±160 mV with NIST calibration certificate
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-BAT105	Replacement 3.6V lithium battery
OM-CP-CONNECTOR-2	Replacement 2 position terminal block for OM-CP-VOLT101A-2.5V, OM-CP-VOLT101A-15V and OM-CP-VOLT101A-30V
OM-CP-CONNECTOR-3	Replacement 3 position terminal block for OM-CP-VOLT101A-160MV
OM-CP-WATERBOX101A	Weatherproof NEMA 4 (IP65) enclosure for data logger

*Comes complete with 3.6V lithium battery. Operator's manual and USB interface cable are included with the **OM-CP-IFC200** Windows® software (software is required to operate the data logger and is sold separately).*

***Ordering Example: OM-CP-VOLT101A-2.5V-CERT,** voltage data logger, -3 to 3 Vdc with NIST calibration certificate and **OM-CP-IFC200** Windows software and USB cable.*