



## Bridge/Strain Gage Data Logger Part of the NOMAD® Family

OM-CP-BRIDGE101A



- ✓ Multiple Start/Stop Function
- ✓ Ultra High Speed Download
- ✓ 1 Million Reading Storage Capacity
- ✓ Memory Wrap
- ✓ Battery Life Indicator
- ✓ Optional Password Protection
- ✓ Field Upgradeable

The OM-CP-BRIDGE-101A is a battery-powered, stand-alone data loggers that measure and record voltage signals from strain gages, load cells and other low level dc sources. This compact, unit is perfect for monitoring stress, torque, strain, pressure and data from many other sensors/transducers.

The OM-CP-BRIDGE101A offers 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 alarms and more.

Data retrieval is simple. Plug it into an available USB port and the easy to use Windows software does the rest. The software converts your PC into a real time strip chart recorder.

Using the Windows® software, starting, stopping and downloading from the OM-CP-BRIDGE101A is simple and easy. Graphical, tabular and summary data is provided for analysis and data can be viewed in V, mV and  $\mu$ V. The data can also be automatically exported to Excel® for further calculations.

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.

OM-CP-BRIDGE101A, shown actual size.



OM-CP-WATERBOX101A, enclosure assembly shown smaller than actual size.

The OM-CP-BRIDGE101A was designed with our customers in mind. There are 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.

### SPECIFICATIONS

#### Data Logger

**Reading Rate:** 4 Hz to 1 every 24 hours

**Memory:** 1,000,000 readings; software configurable memory wrap 333,000 readings in multiple start/stop mode

**Memory 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:

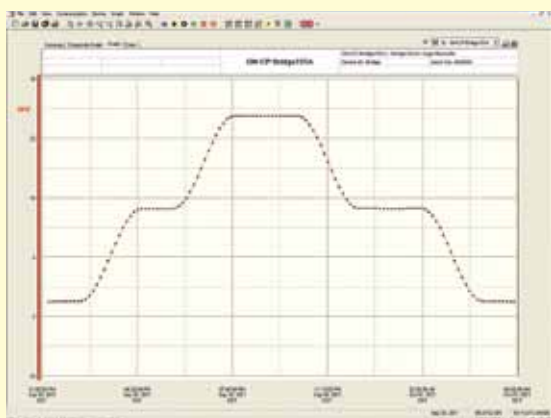
**To Start the Device:** Press and hold the pushbutton for five seconds, the green LED will flash during this time. The device has started logging

**To Stop the Device:** Press and hold the pushbutton for five seconds, the red LED will flash during this time. The device has stopped logging

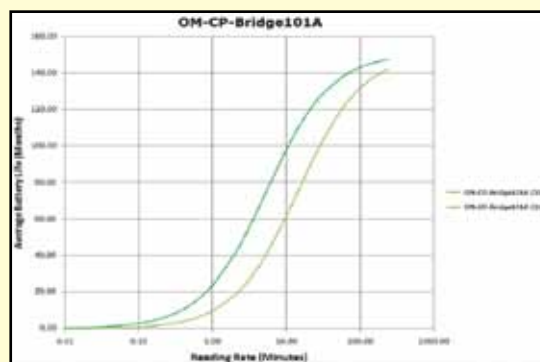
**Real Time Recording:** The device may be used with PC to monitor and record data in real-time

† Refer to ordering chart on next page for NIST calibration ordering information.

Input Ranges OM-CP-BRIDGE101A Nominal Range			
<b>Nominal Range</b>	±30 mV	±150 mV	±1000 mV
<b>Measurement Range</b>	±30 mV	±160 mV	±1200 mV
<b>Resolution</b>	1 $\mu$ V	5 $\mu$ V	50 $\mu$ V
<b>Calibrated Accuracy</b>	±0.01% FSR; ±3 microvolts	±0.01% FSR; ±16 microvolts	±0.01% FSR; ±120 microvolts
<b>Input Range</b>	0 to 2.5V	0 to 2.5V	0 to 2.5V
<b>Reference Voltage</b>	2.5V	2.5V	2.5V



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



Average battery life vs. reading rate of OM-CP-BRIDGE101A recording in a 25°C environment.

### LED Functionality:

**Green LED Blinks:** 10 second rate to indicate logging; 15 second rate to indicate delay start mode

**Red LED Blinks:** 10 second rate to indicate low battery and/or full memory; 1 second rate 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 strain gauges and load cells.

**Battery Type:** 3.6V lithium battery (included); user replaceable

**Battery Life:** 10 months typical, at a 1 minute rate with 350Ω load  
2 years typical, at a 1 minute rate with 1000Ω load

**Time Accuracy:** ±1 minute/month at 20°C (68°F), stand alone data logging

**Computer Interface:** USB (interface cable required); 115,200 baud

**Software:** XP SP3/Vista and Windows® 7 (32 and 64-bit)

**Operating Environment:** -40 to 80°C (-40 to 176°F), 0 to 90% RH non-condensing

### Dimensions:

36 H x 64 W x 16 mm D  
(1.4 x 2.5 x 0.6")

**Weight:** 24 g (0.8 oz)

**Material:** ABS plastic

### OM-CP-WATERBOX101A

**Operating Temperature:** -20 to 80°C (-4 to 176°F)

**IP Rating:** IP65

### Dimensions:

62 H x 93 W x 25 mm D  
(2.45 x 3.66 x 0.93")

**Material:** Anodized aluminum with polycarbonate cover

**Weight:** 140 g (5 oz)

## To Order Visit [omega.com/om-cp-bridge101a](http://omega.com/om-cp-bridge101a) for Pricing and Details

Model No.	Description
OM-CP-BRIDGE101A-30	Bridge/strain gage current data logger, ±30 mV range
OM-CP-BRIDGE101A-30-CERT†	Bridge/strain gage data logger, ±30 mV range and NIST calibration certificate
OM-CP-BRIDGE101A-150	Bridge/strain gage data logger, ±150 mV range
OM-CP-BRIDGE101A-150-CERT†	Bridge/strain gage data logger, ±150 mV range and NIST calibration certificate
OM-CP-BRIDGE101A-1000	Bridge/strain gage current data logger, ±1000 mV range
OM-CP-BRIDGE101A-1000-CERT†	Bridge/strain gage data logger, ±1000 mV range and NIST calibration certificate
OM-CP-WATERBOX101A	Water resistant enclosure for data logger
OM-CP-IFC200	Windows software and 3.7 m (12') USB interface cable
OM-CP-BAT105	Replacement 3.6V lithium battery

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

**Ordering Example:** OM-CP-BRIDGE101A-150-CERT, bridge/strain data logger, ±150 mV range with NIST calibration certificate and OM-CP-IFC200, Windows software.