

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 μ 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 24 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

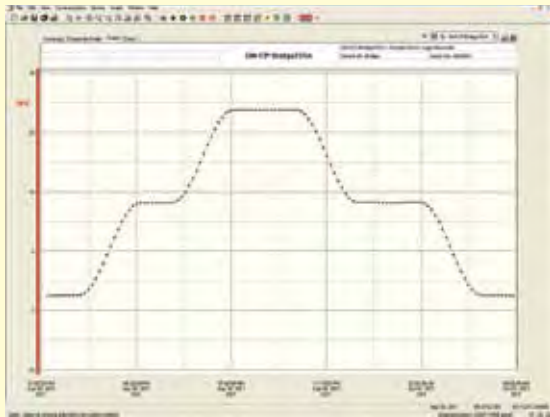
Multiple Start/Stop Mode Activation:

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

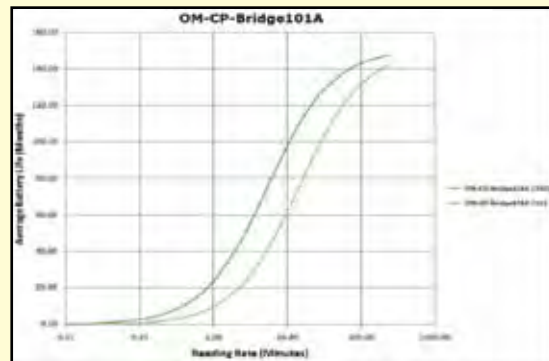
To Stop the Device: Press and hold the pushbutton for five seconds, the red LED will flash during this time. The device has stopped logging

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

Input Ranges OM-CP-BRIDGE101A Nominal Range			
Nominal Range	± 30 mV	± 150 mV	± 1000 mV
Measurement Range	± 30 mV	± 160 mV	± 1200 mV
Resolution	1 μ V	5 μ V	50 μ V
Calibrated Accuracy	$\pm 0.01\%$ FSR; ± 3 microvolts	$\pm 0.01\%$ FSR; ± 16 microvolts	$\pm 0.01\%$ FSR; ± 120 microvolts
Input Range	0 to 2.5V	0 to 2.5V	0 to 2.5V
Reference Voltage	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 350Ωohm load
2 years typical, at a 1 minute rate with 1000 ohm 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/7 and 8 (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

Model No.	Description
OM-CP-BRIDGE101A-30MV	Bridge/strain gage data logger, ±30 mV range
OM-CP-BRIDGE101A-30MV-CERT	Bridge/strain gage data logger, ±30 mV range and NIST calibration certificate
OM-CP-BRIDGE101A-150MV	Bridge/strain gage data logger, ±150 mV range
OM-CP-BRIDGE101A-150MV-CERT	Bridge/strain gage data logger, ±150 mV range and NIST calibration certificate
OM-CP-BRIDGE101A-1000MV	Bridge/strain gage data logger, ±1000 mV range
OM-CP-BRIDGE101A-1000MV-CERT	Bridge/strain gage data logger, ±1000 mV range and NIST calibration certificate
OM-CP-WATERBOX101A	Weatherproof NEMA 4 (IP65) enclosure for data logger
OM-CP-WATERBOX101A-KIT	Maintenance kit for OM-CP-WATERBOX101A
OM-CP-IFC200	Windows software and 1.8 m (6') 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-150MV-CERT**, bridge/strain data logger, ±150 mV range with NIST calibration certificate and **OM-CP-IFC200**, Windows software.