MADGETECH
WE BUILD DATA LOGGERS

Bridge101A

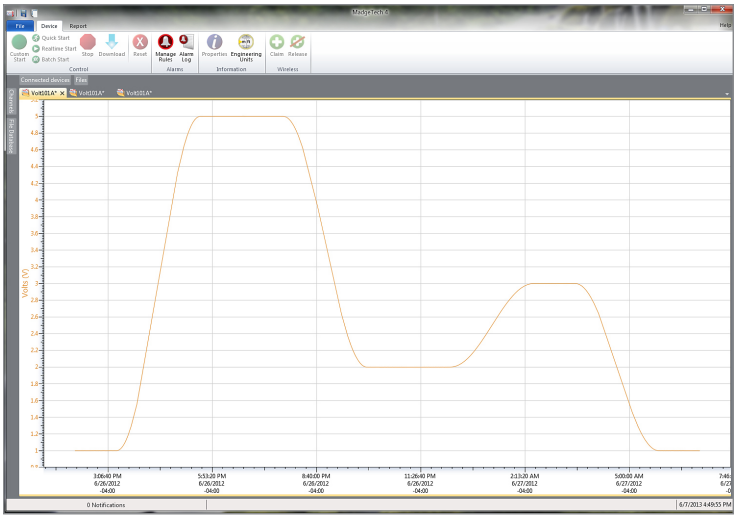
Bridge/Strain Gauge Data Logger

The Bridge101A Data Logger measures and records voltage, typically used in conjunction with strain gauges, load cells or other low-level DC voltage sources. This device is designed to accurately measure and record the output of the gauge to determine parameter levels such as stress, torque, strain, and pressure on a structure or item over a period of time.

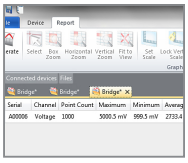
Available in three different measurement ranges (±30 mV, ±160 mV or ±1200 mV), the Bridge101A offers a reading rate of up to 4 Hz with memory capacity of 1,000,000 readings (memory wrap optional). The device can be configured to start at a specified date and time up to 24 months in advance and the pushbutton start/stop feature allows the user to initiate or cease logging data in the field if desired.

The MadgeTech Data Logger Software offers user programmable Engineering Units which allows collected data to be presented in the established unit being measured. Equipped with endless data analysis and reporting tools, the MadgeTech software simplifies device management and provides the user with graph, tabular or summary reports with the ability to export data to Excel® as needed.

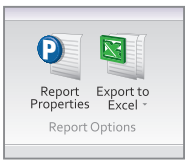
MadgeTech 4 Software Features



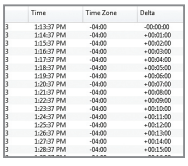
Graph View



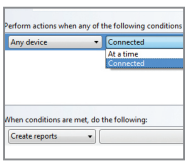
Statistics



Export to Excel



Tabular Data View



Automation

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view

Features

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

Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

Applications

- Strain Gauge
- Load Cell
- Pressure Transducer
- Torque Sensors
- Load Bolts
- Position Transducer

SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply.

MEASUREMENT			
Nominal Range	**±30 mV**	**±150 mV**	**±1000 mV**
Measurement Range	±30 mV	±160 mV	±1200 mV
Resolution	1 µV	5 µV	50 µV
Calibrated Accuracy	±0.01% FSR; ±3 Microvolts	±0.01% FSR; ±16 Microvolts	±0.01% FSR; ±120 Microvolts
Input Range	0 to 2.5 V		
Reference Voltage	2.5 V		
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 temperature, CO_2, flow rate and more.		

GENERAL	
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
Real Time Recording	May be used with PC to monitor and record data in real time
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.
Memory	1,000,000 readings; software configurable memory wrap 330,000 readings in multiple start/stop mode
Wrap Around	Yes

Alarm	User selectable high and low limits; blinking LED for alarm and low battery
LEDs	2 status LEDs
Reading Rate	4Hz to 1 every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6V lithium battery included; user replaceable
Battery Life	10 months typical at a 1 minute reading rate with a 350 Ω load 2 years typical at a 1 minute reading rate with a 1000 Ω load
Data Format	Date and time stamped V, mV, µV, engineering units specified through software
Time Accuracy	±1 minute/month at 25 °C (77 °F) (Stand alone mode)
Computer Interface	USB (interface cable required); 115,200 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.03.06 or later Secure Software version 4.1.3.0 or later
Operating Environment	-40 °C to +80 °C 0 %RH to 95 %RH non-condensing
Dimensions	1.4 in x 2.1 in x 0.6 in (35 mm x 54 mm x 15 mm)
Material	ABS plastic
Weight	0.8 oz (24 g)
Approvals	CE

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100 °C (212 °F), INCINERATE, CRUSH, OR EXPOSE CONTENTS TO WATER.

Ordering Information

Bridge101A-30	PN 900019-00	±30 mV Bridge/Strain Data Logger
Bridge101A-160	PN 900017-00	±150 mV Bridge/Strain Data Logger
Bridge101A-1000	PN 900016-00	±1000 mV Bridge/Strain Data Logger
IFC200	PN 900298-00	USB interface cable
LTC-7PN	PN 900352-00	Replacement battery for the Bridge101A

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MEASURING THE WORLD AND BEYOND

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