

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 (± 32 mV, ± 160 mV or ± 1200 mV), the Bridge101A offers a reading rate of up to 4 Hz with memory capacity of 2,000,000 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.

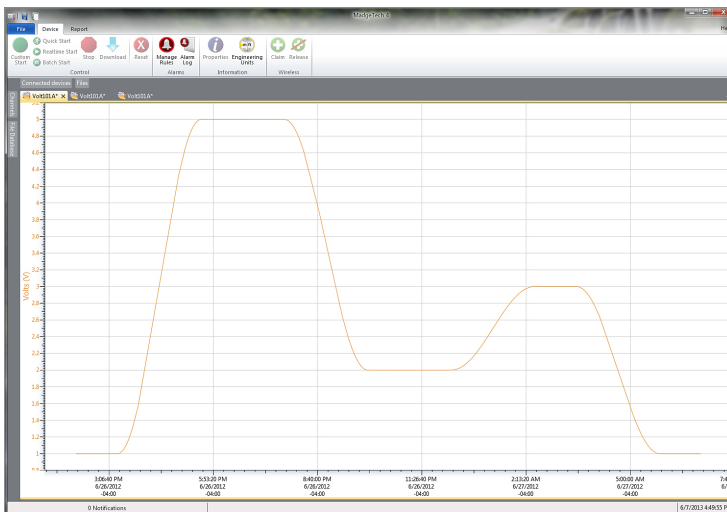
Features

- Multiple Start/Stop Function
- Ultra High Speed Download
- 2,095,104 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

MadgeTech 4 Software Features



Graph View

- 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

| Serial | Channel | Point Count | Maximum | Minimum | Average |
|--------|---------|-------------|----------|---------|---------|
| 400006 | Voltage | 1000 | 500.5 mV | 99.5 mV | 273.0 |

Statistics

Report Properties Export to Excel
Report Options

Export to Excel

| Time | Time Zone | Delta |
|------------|-----------|-----------|
| 1:13:37 PM | -0400 | -00:00:00 |
| 1:14:37 PM | -0400 | +00:00:00 |
| 1:15:37 PM | -0400 | +00:00:00 |
| 1:16:37 PM | -0400 | +00:00:00 |
| 1:17:37 PM | -0400 | +00:04:00 |
| 1:18:37 PM | -0400 | +00:05:00 |
| 1:19:37 PM | -0400 | +00:06:00 |
| 1:20:37 PM | -0400 | +00:07:00 |
| 1:21:37 PM | -0400 | +00:08:00 |
| 1:22:37 PM | -0400 | +00:09:00 |
| 1:23:37 PM | -0400 | +00:10:00 |
| 1:24:37 PM | -0400 | +00:11:00 |
| 1:25:37 PM | -0400 | +00:12:00 |
| 1:26:37 PM | -0400 | +00:13:00 |
| 1:27:37 PM | -0400 | +00:14:00 |
| 1:28:37 PM | -0400 | +00:15:00 |

Tabular Data View

Perform actions when any of the following conditions

Any device: Connected

At a time: Connected

When conditions are met, do the following:

Create reports

Automation

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. Call (603) 456-2011 or go to madgetech.com for details.

| MEASUREMENT | | | |
|---------------------|--|---------|----------|
| Nominal Range | ±32 mV | ±160 mV | ±1200 mV |
| Measurement Range | ±32 mV | ±160 mV | ±1200 mV |
| Resolution | 1 µV | 5 µV | 50 µV |
| Calibrated Accuracy | ±6 µV | ±32 µV | ±240 µV |
| 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 | 2,095,104 readings; software configurable memory wrap 419,020 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-32 | PN 900019-00 | ±32 mV Bridge/Strain Data Logger |
| Bridge101A-160 | PN 900017-00 | ±160 mV Bridge/Strain Data Logger |
| Bridge101A-1200 | PN 900016-00 | ±1200 mV Bridge/Strain Data Logger |
| IFC200 | PN 900298-00 | USB interface cable |
| LTC-7PN | PN 900352-00 | Replacement battery for the Bridge101A |

For Quantity Discounts call (603) 456-2011 or email sales@madgetech.com