

BRIDGE110

Bridge/Strain Gauge Recorder

FEATURES

- ❖ 10 year battery life
- ❖ High speed download
- ❖ Low cost
- ❖ Programmable start time
- ❖ Reusable
- ❖ Miniature size
- ❖ User-friendly
- ❖ Reads in microstrain and engineering units
- ❖ Extremely versatile inputs for many applications

APPLICATIONS

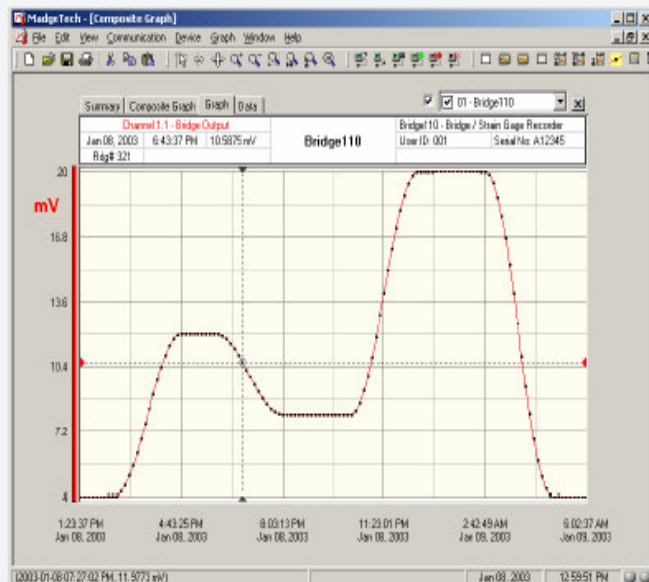
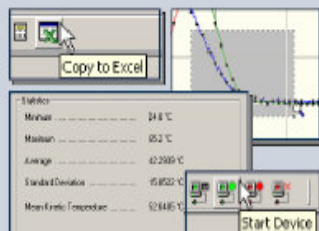
- ❖ Strain gauge
- ❖ Load cells
- ❖ Pressure transducers
- ❖ Torque sensors
- ❖ Load bolts
- ❖ Position Transducers
- ❖ Replace costly strip chart recorders



The BRIDGE110 is a miniature, battery powered, stand alone, bridge/strain gauge recorder. The BRIDGE110 features a real-time clock module that extends the battery life to > 10 years* and allows for high speed downloads. This is an all-in-one compact, portable, easy to use device that will measure and record up to 32,767 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The BRIDGE110 makes data retrieval quick and easy. Simply plug it into an empty com port and our user-friendly software does the rest.

SOFTWARE

MadgeTech's Data Recorder Software is an easy to use Windows-based software package that allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.



BRIDGE110 SPECIFICATIONS

Nominal Range:	±10 mV	±25 mV	±100 mV	±1000 mV
Measurement Range:	±15 mV	±37.5 mV	±150 mV	±1200 mV
Resolution:	1 µV	2.5 µV	5 µV	50 µV
Calibrated Accuracy:	±0.25 %	±0.10 %	±0.05 %	±0.01 %
Input Range:	0 to 2.5 V	0 to 2.5 V	0 to 2.5 V	0 to 2.5 V
Reference Voltage:	2.5 V	2.5 V	2.5 V	2.5 V

Input Connection: 6-position removable screw terminal
Input Impedance: >1 MΩ during acquisition, low impedance when inactive
Reference Output: 2.5 VDC, 2.5 mA (1 kΩ) maximum load

Maximum Input Signal Impedance: 5 kΩ

Specified Accuracy: Nominal range @ 25 °C
Temperature Effect on Span: < 25 µV over -40 °C to +80 °C
Temperature Effect on Offset: < 25 µV over -40 °C to +80 °C

Engineering Units: stored in device, user may define any desired scale and offset from ±1.0000E-31 to ±9.9999E+31

**350 Ω sensors may be used with series resistors to produce >1 KΩ; 120 Ω gauges may be used in half and quarter bridge configurations

Start Time: Software programmable start time and date. Up to six months in advance
Real Time Recording: May be used with PC to monitor and record data in real time
Memory: 32,767 readings
Reading Interval: 1 reading every 2 seconds to 1 every 12 hours
Calibration: Digital calibration through software
Calibration Date: Automatically recorded within device
***User Replaceable Battery:** 10 years (15 minute reading rate, 25 °C)
Power: 3.6V lithium battery included
Data Format: Date and time stamped %, ppm; ε, µε; V, mV, µV, engineering units specified through software
Time Accuracy: ±1 minute/month (at 20 °C to 30 °C)
Computer Interface: PC serial or RS232C COM (Interface cable required); 57,600 baud
Software: Windows 95/98/ME/NT/2000/XP based software
Operating Environment: -40 °C to +80 °C, 0 to 95 %RH non-condensing
Dimensions: 0.8" x 1.7" x 2.7" (20 mm x 42 mm x 68 mm)
Weight: 2 oz (60 g)

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series	Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
Real-Time Recording: Collect and display data in real-time while continuing to log	Export Data: Export data in a variety of common formats, or switch to Excel with a single click
Graphical Cursor: One click displays readings by time, value, parameter or sample number	Calibration: Fully digital calibration function automatically stores parameters in device
Data Table: Instantly access tabular view for detailed dates, times, values, and annotations	Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values	Communications: Automatically sets up communications port, or lets user set configuration
Formatting Options: Change colors, line styles, plotting options, show or hide channels in an instant	Printing: Automatically print graphical or tabular data

***As part of our commitment to continuous product improvement, MidgeTech reserves the right to change product specifications without notice

ORDERING INFORMATION

Model	Description
BRIDGE110-10	10 mV Bridge Recorder
BRIDGE110-25	25 mV Bridge Recorder
BRIDGE110-100	100 mV Bridge Recorder
BRIDGE110-1000	1000 mV Bridge Recorder
IFC110	Software, manual and 9-pin computer interface cable

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	pH
Humidity	Level
Pressure	Shock/Vibration
Bridge/Strain	Submersible
Current	Intrinsically Safe
Pulse/Event	RF Transmitters
Voltage	Multi-parameter

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