Data Logging Solutions to Aid in
Alternative Energy Studies

MADGETECH
WE BUILD DATA LOGGERS

Simplifying How the World Measures & Records Data

MadgeTech, Inc. is a global company, based in New England and founded on old-fashioned principles, customer service, quality, and trust. MadgeTech's President, Norman Carlson, started the company in 1996 and charted the growth of the product lines and services while maintaining those solid core principles.

Our Can Do team of engineers and technical staff consistently incorporate new and innovative ideas into our data loggers. In short, we push the envelope, raising the bar in innovation and quality. Our competitors have praised us by adopting many of our ideas as their own. Over time, MadgeTech has become the industry standard in the data logger market.

MadgeTech continuously develops new, cutting-edge products, creating solutions for our customers around the world in industries across the board. Our growing network of distributors has expanded our presence to markets far beyond our home-headquarters in New Hampshire, our products are now sold in over 100 countries around the world.

Our employees are committed to quality and customer satisfaction. Behind the full range of MadgeTech's products and services is the cumulative expertise of experienced engineers, manufacturing and electronic professionals and technicians. Our knowledgeable sales team can offer technical advice to assist in selecting the right product for each application, as well as providing after-sales support. MadgeTech is dedicated to providing customers with reliable, affordable products, hassle-free ordering, and excellent service, saving customers time and money. It is our goal to earn your trust in meeting your needs and providing innovative solutions. The products and services that bear the MadgeTech name come with quality assurance and the best support in the industry today.

Norman E. Carlson,

Founder & President

Data Logging Solutions for Alternative Energy Production & Usage Studies

MadgeTech data loggers can be used to monitor and record parameters in alternative energy production and usage studies. The energy product line includes devices for pressure, temperature, pulse, event and shock. They are commonly used in applications such as utility usage studies, energy audits, testing and verification, and in energy production processes.

Solar Power

Wind

Hydroelectric

Geothermal

Solar Power

Data loggers play an important role in the production of many alternative energy sources including solar power. Measuring and auditing energy consumption is another way that data loggers help support and guide the energy industries. MadgeTech's voltage data loggers are also ideal for use in determining possible locations for solar panels.

RFVolt2000A
Wireless Voltage Data Logger

The **RFVolt2000A** is a wireless data logger designed to measure and record DC voltage signals. The data logger can connect directly to DC voltage sources, making it ideal for solar energy monitoring and other DC voltage monitoring applications. The RFVolt2000A can also be interfaced with a wide range of voltage output sensors, as well as transmitters and other transducers. The RFVolt2000A is available in a 2.5 V, 15 V, 30 V or 160 mV measurement range.

Volt101A
Voltage Data Logger

The **Volt101A** is a single channel low level DC voltage data logger that can be used to monitor and record time and date stamped voltage readings. The Volt101 is available in 2.5V, 15V and 30V ranges.

The Volt101A can be interfaced with solar cells to determine voltage output over time. Thin film solar cells are recommended due to their ease of use and portability. By using the **Waterbox101A** the device is protected from environmental conditions and can be placed in remote locations for long periods of time.

Wind

Data logging technology is used to continuously monitor and measure the output of wind turbines as well as identifying sites for future wind turbine placement.

Wind101A
Wind Speed Data Logging System

The **Wind101A** is a complete system to accurately measure and record wind speed. The Wind101A data logger can measure and record data for up to 500,000 readings. The device can be started and stopped directly from a computer with the user-friendly MadgeTech software.

This wind speed recording system comes complete with the Wind101A data logger, weatherproof enclosure, a three-cup anemometer and all the necessary cabling to quickly get up-and-running.

Hydroelectric

MadgeTech's pressure and vibration data loggers are ideal for use in hydroelectric power applications.

SVR101
Spectral Vibration Data Logger

The **SVR101** is a spectral vibration data logger that records time-tagged 3-axis vibrations and peaks. It computes real-time spectral vibration data using an FFT (Fast Fourier Transform) from 0 to 128 Hertz. To make efficient use of memory, the SVR101 only takes data readings when the (user preset) trigger level is exceeded. The SVR101 is available in ±5G and ±50G ranges.
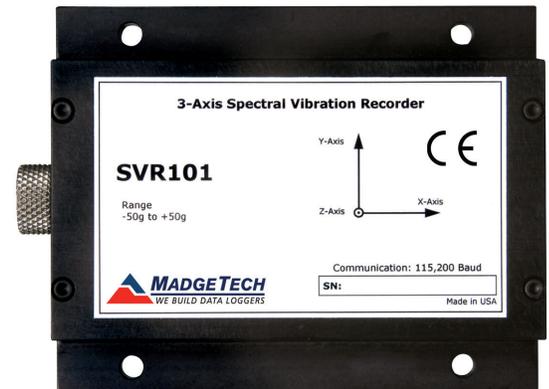
PRTrans1000
Transient Pressure Data Logger

To monitor pressure events that SCADA systems cannot capture, the **PRTrans1000** is the data logger to use. The device samples at 100Hz and takes readings to memory when the user selectable trigger settings are exceeded. It can screw directly into a ¼ inch NPT female fitting in pipelines to measure the internal pressure. It is ideal for monitoring penstocks for overpressure in the case of wicket gates suddenly closing. The PRTrans1000 will record to memory pre and post trigger pressure data of the even for later analysis.

Intrinsically Safe version also available!

Geothermal

Data loggers provide a durable, simple and reliable process for monitoring temperature, pressure and flow rate without the maintenance and data loss risk associated with strip chart recorders. MadgeTech data loggers are rugged enough to survive even the harshest weather conditions and feature long battery lives to allow for long term deployment.

PRTemp1000
Rugged Pressure & Temperature Data Logger

The **PRTemp1000** is a pressure and temperature data logger that accurately records data at user programmable reading rates, over long periods of time. The device can be deployed in the field to record data for weeks or even months based on the user selected reading rate. The rugged stainless steel design allows it to be placed in harsh environments which makes it well suited for steam pressure systems. The PRTemp1000 comes standard with a ¼ inch NPT fitting, which allows it to be connected to almost any pressure adapter.

Intrinsically Safe version also available!

PRTemp1000D
Differential Pressure & Temperature Data Logger

The **PRTemp1000D** is a rugged, submersible data logger that records ambient temperature and differential pressure. The device is designed to record over long periods of time at the user selected reading rate and has a pressure accuracy of ±.25% over the Full Scale Range, making the device extremely accurate. The stainless steel enclosure allows it to withstand harsh environments and the flexible cable is equipped with dual ¼ inch NPT connections for easy installation.

PR2000
Real-Time Pressure Data Logger

The **PR2000** is a pressure data logger equipped with an LCD screen. This rugged, splash-proof (IP65) device has one of the largest memory capacities of any similar data recorder on the market, logging up to 262,143 readings. The non-volatile memory will retain recorded data, even when battery power is lost. The PR2000 is ideal for applications requiring precise displayed pressure readings, such as the real-time monitoring of outdoor geothermal pipelines.
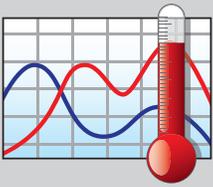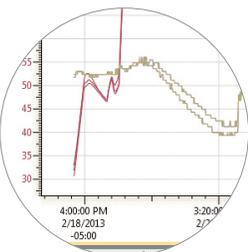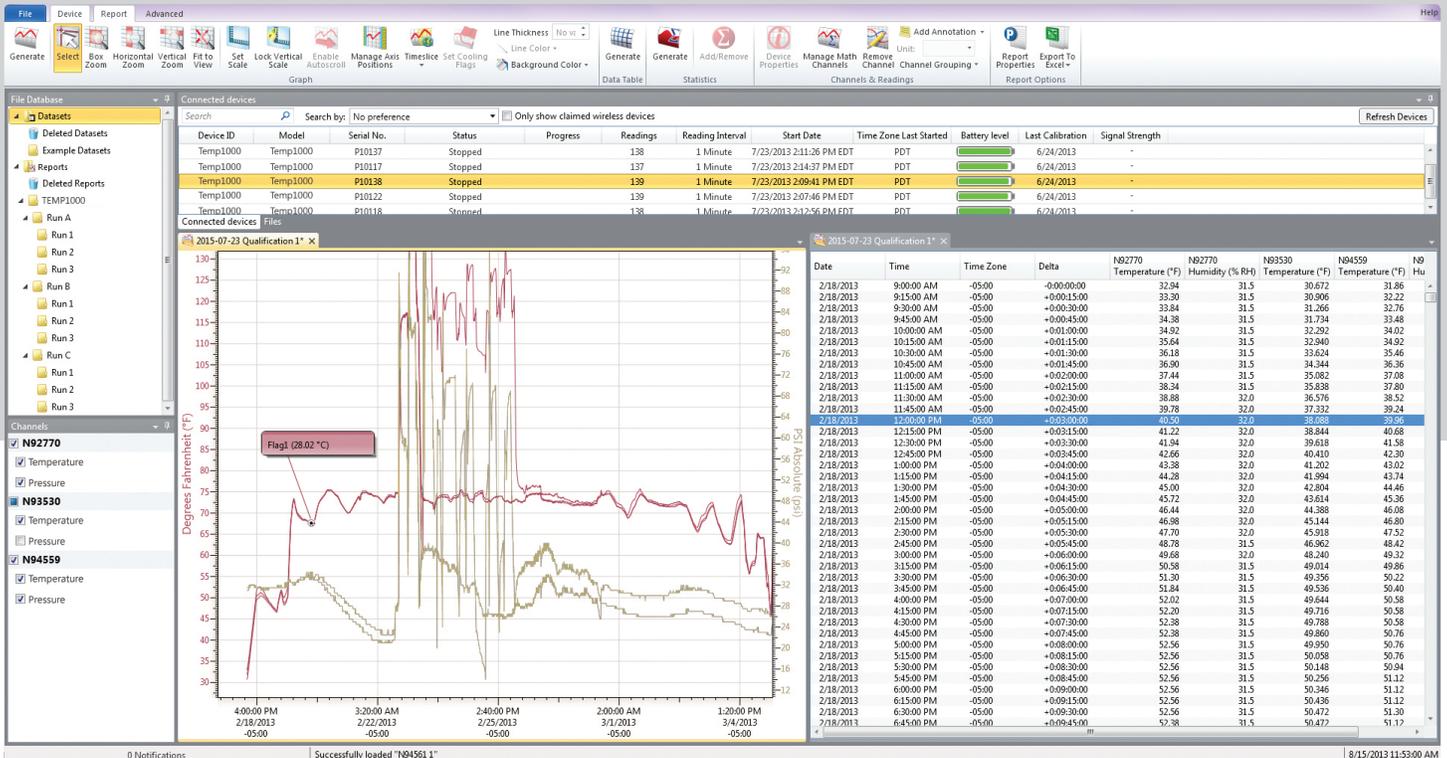
MadgeTech Data Logger Software

This simple, easy-to-use, Windows-based software enables the user to effortlessly collect, display, and analyze data. A variety of powerful tools can be used to examine, export, and print professional quality reports with just a click of the mouse. The user-friendly MadgeTech software is available for free download from www.madgetech.com.
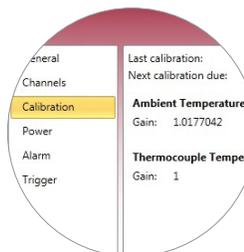
Simple, Easy-to-use, Windows-based Software

Customizable Graphs

Tabular Data View

Automatic Statistics Calculation

Digital Calibration

Copy to Excel

Software Features

- Multiple Graph Overlay
- Statistics
- Digital Calibration
- Zoom In / Zoom Out

- Timeslice
- Lethality Equations (F0, PU,Fh, Fd)
- Mean Kinetic Temperature
- Full Time Zone Support

- Data Annotation
- User Friendly File Management
- Min / Max. / Average Lines
- Data Table View

- Automatic Report Generation
- Summary View

Data Logger Calibration

Why Calibrate?
All physical sensors become less accurate due to the environment, usage, stress, and even time. The degree to which these changes occur varies from device to device. For example, a voltage device will drift very little over the years whereas a humidity sensor can drift significantly in several weeks if subjected to a corrosive environment.

Calibration Certificates
The calibration certificates are generated at the end of the manufacturing process. Each certificate indicates the date and conditions of calibration. These certificates provide the documentation needed to satisfy most requirements, certifying that a product has been properly calibrated.

Calibration Services
MadgeTech's calibration laboratory offers a variety of standard and customized calibration services. The scope of MadgeTech's services covers the following parameters temperature, humidity, pressure, voltage, current, shock and more.

Standard calibration values and pricing can be found on the Product Information Card for each data logger. The Product Information Card can be found on the website page for that product. The standard calibration is normally a one or two point correction of the reported values, depending on the type of device being calibrated. Additional or nonstandard points incur an additional fee.

Calibration Certificates

MadgeTech's calibration laboratory offers a variety of standard and customized calibration services. The scope of MadgeTech's Calibration Services include the following parameters:

- **Temperature**
- **Humidity**
- **Pressure**
- **Voltage**
- **Current**

A certificate of conformance is of offered for the Pulse, Event and State data loggers which do not require calibration.
For details on MadgeTech's calibration services, please contact the services department.

ISO 17025/A2LA Accredited Calibration Certification

MadgeTech can supply A2LA accredited calibrations to ISO 17025 standards. Please contact a sales representative for details on calibration abilities and pricing. *Note: This certification must be requested prior to sending the device in for recalibration.*

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