DATA LOGGING SOLUTIONS

OIL & GAS INDUSTRIES

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 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.

Data Logging Solutions for Applications in the Oil and Gas Industry

At MadgeTech we take pride in maintaining meaningful relationships with our customers, going above and beyond to turn their everyday problems into new data logging solutions. To ensure the instrument's accuracy, MadgeTech offers in-house standard and customized calibration services, including ISO/IEC 17025 accredited calibrations for certain products.

- Complying with BMPs (Best Management Practices)
- Providing data to control rooms for analysis and decision making
- Well monitoring and management
- Identifying potentially unsafe operating conditions
- Reliability studies

Pressure
Data Logging

Shock & Vibration
Data Logging

Flow Rate
Data Logging

Pressure & Temperature Data Loggers

MadgeTech data loggers are an ideal choice for measuring and recording water and steam pressure. Rugged and easy to use in the field, they are available in multiple ranges from 30 PSI to 5000 PSI.

Rugged Pressure (Transient) & Temperature Data Logger

The **PR1000** 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 PR1000 comes standard with a ¼ inch NPT fitting, which allows it to be connected to almost any pressure adapter.

The PR1000 can also monitor and record transient pressure through software configuration of user defined trigger thresholds and time periods. The logger can be configured to record measurements at rates as fast as 128Hz or as slow as once every 24 hours.

The non-volatile memory has a capacity of over 1 million readings.

PR1000 Pressure Range

Range	0-30 PSIA/PSIG	0-100 PSIA/PSIG	0-300 PSIA/PSIG	0-500 PSIA/PSIG	0-1000 PSIA	0-5000 PSIA
Resolution	0.0005 PSIA/PSIG	0.002 PSIA/PSIG	0.005 PSIA/PSIG	0.01 PSIA/PSIG	0.02 PSIA	0.1 PSIA

Differential Data Loggers

MadgeTech's differential pressure data logger simultaneously measures fluid pressure and temperature. Designed specifically for harsh environments, the devices measure fluid pressure as it moves through pipes in order to determine flow rate.

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 .25 inch NPT connections for easy installation.

The PRTemp1000D is available in four pressure ranges. The pressure range determines the amount of differential pressure the device will measure between the dual .25 inch NPT connections.

PRTemp1000D Pressure Range

Range	0-30 PSIA/PSIG	0-100 PSIA/PSIG	0-300 PSIA/PSIG	0-500 PSIA/PSIG
Resolution	0.002PSIA/PSIG	0.005 PSIA/PSIG	0.02 PSIA/PSIG	0.05 PSIA/PSIG

Real-Time Pressure Data Loggers

Featuring the ability to connect directly to pipes through NPT port, real-time pressure data loggers can provide users with immediate readings on the large LCD screen. These heavy duty loggers are ideal for long field deployments and can withstand even the harshest conditions.

Real-Time Pressure Data Logger

The **PR2000** is a pressure data logger equipped with an LCD screen. The 8 button key pad and large LCD provide convenient access to current data and recorder setup. Available on-screen data include: statistics (min, max and average), recording status (start, stop and recording rate), and calibration information (data calibrated, date for recalibration). The LCD also displays a graph of the last 100 readings to show data trends.

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.

PR2000 Pressure Range

| Range	0-30 PSIA/PSIG	0-100 PSIA/PSIG	0-300 PSIA/PSIG	0-500 PSIA/PSIG	0-1000 PSIA	0-5000 PSIA
Resolution	0.002 PSIA/PSIG	0.005 PSIA/PSIG	0.02 PSIA/PSIG	0.05 PSIA/PSIG	0.05 PSIA	0.2 PSIA

Shock & Vibration Data Loggers

Valuable equipment can be damaged by high impacts caused by other machinery if exposed to excessive amounts of vibration. When failure occurs, it can be difficult to determine when the impact/vibration occurred, how much occurred and what caused the failure. Using the MadgeTech shock and vibration data loggers, shock and vibration data can be gathered to correlate outside factors causing machinery or equipment failure.

UltraShock Data Logger

The new **UltraShock** contains powerful improvements and an all-in-one functionality capable of recording shock, temperature, pressure and humidity. The UltraShock features a smaller, lighter design and is equipped with LED status indicators. Other features include a significantly improved battery life of up to 90 days and the use of a USB-C cable, making it easily rechargeable.

Other features include a significantly improved battery life and the use of a USB-C cable making it easily rechargeable. Each UltraShock purchase includes an AC adapter and USB cable, eliminating the need for an additional interface cable.
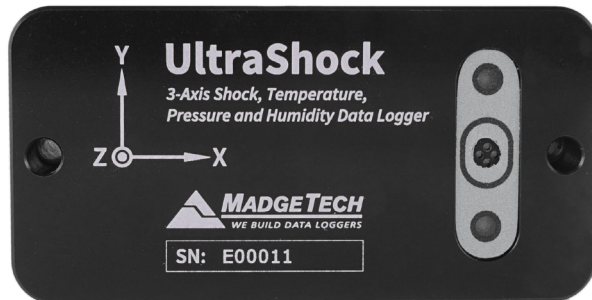
Shock300 Data Logger

The **Shock300** is a tri-axial, stand-alone, compact shock data logger with three built-in acceleration ranges. The ranges are implemented on separate low-g and high-g accelerometers for excellent resolution and accuracy. Compact and lightweight, the Shock300 can measure and record up to 4,192,254 readings and is equipped with a rechargeable battery for convenience.

Flow Rate Data Loggers

Easily connect data loggers directly to a variety of flow meters to accurately record thousands of readings to create a complete overview of flow rate over an extended period of time. MadgeTech Data Logger Software's build in engineering units to convert data into flow rate for easy, automatic record keeping.

Pulse Data Logger

The **Pulse101A** is a compact data logger compatible with many flow meters. This multipurpose pulse recording device is designed to accurately monitor and record events occurring within a specified time frame.

The Pulse101A has a maximum pulse rate of 10KHz to capture rapid events for a wide range of applications. With a ten year battery life and the ability to store up to 500,000 readings, the Pulse101A can be deployed for long term assignments and configured to start and stop logging as specified by the user.
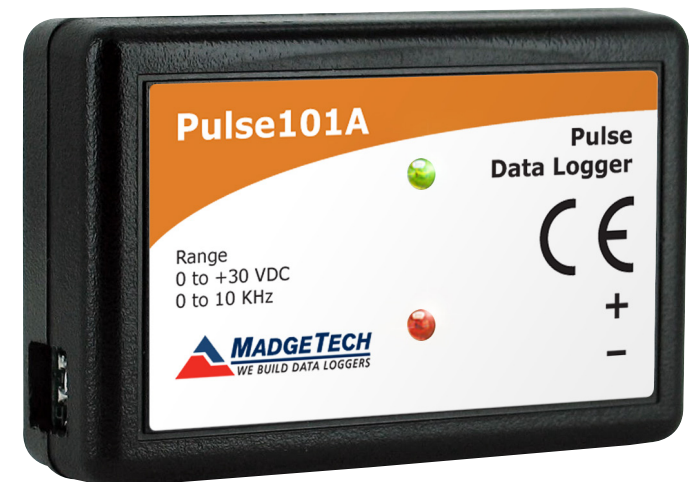
MadgeTech 4 Software

The 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. This software can be downloaded for free from the MadgeTech website.

MadgeTech 4 Software Customizable Features and Options

MadgeTech 4 Software can communicate with multiple loggers through multiple interface cables. Capable of simultaneous start, stop and download of over 100 devices, this software serves as your virtual command center for large scale facilities and small. Display your data in graphs, with tabbed views and multi-monitor support. Utilize the infinite graphing flexibility by combining channels and datasets as desired. All graphing makes use of accelerated graphics hardware for real-time updating and high performance visuals.

MadgeTech 4 Software is designed with a built-in database for automatic storage of downloaded data. The look and feel is organized much like standard email programs to aid in user friendliness and ease of use. MadgeTech 4 Software also offers extensive alarming options across multiple devices, wireless and non-wireless. Alarm output options include email, on-screen, text message and run-a-program alerts.

MadgeTech 4 Software has a powerful and comprehensive statistics system that allows the user to customize and view statistics as desired. Another feature is customizable engineering units. This enables users to support and program devices with many different unit types as well as the ability to display them as an alternate unit if desired.
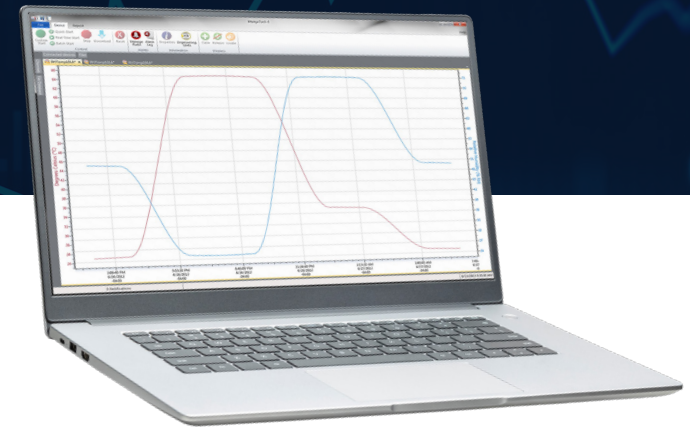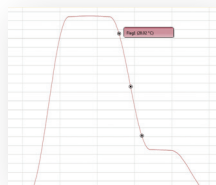
Software Features

- Multiple Graph Overlay
- Statistics
- Digital Calibration
- Zoom In / Zoom Out
- Cooling Flags
- Lethality Equations (F0, PU)
- Mean Kinetic Temperature
- Full Time Zone Support
- Data Annotation
- User Friendly File Management
- Min. / Max. / Average Lines
- Timeslice
- Automatic Report Generation
- Summary View
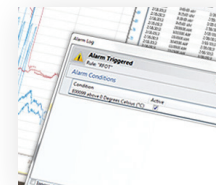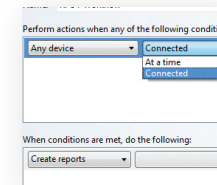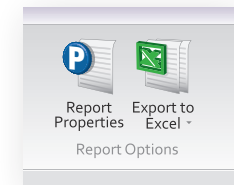- Workflows / Automation
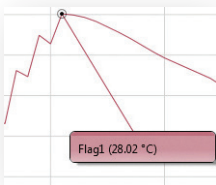
Cooling Flags

Graph View

Tabular Data View

Alarm Notifications

Automation

Export to Excel