



DATA LOGGERS

VS.

STRIP CHART  
RECORDERS





In today's world, measurement and storage of data has become more critical than ever. Companies are heavily reliant on data analysis and recordings to determine errors, points of interest, and ways to make improvements within their processes, production, and shipments.

The following comprehensive eGuide will give an in-depth understanding of both strip chart recorders and data loggers, how they differentiate, and which system is ultimately more cost efficient and accurate.



# STRIP CHART RECORDER

A strip chart recorder is defined as a device that can record electrical or mechanical input onto a hardcopy which translates into a chart. The strip chart recorder uses a stylus pen that archives and plots the data points over a set of timed intervals. Some strip chart recorders may record several inputs at a time using different colored ink.

The strip chart recorder contains a strip or roll of paper that is passed through directly beneath one or multiple pens. As the data changes, each pen records the process of being measured in the form of a chart.

Used to record temperature, humidity and more, many strip chart recorders are available in single or multichannel styles. Strip chart recorders are commonly used in laboratories and process measurement applications.




# DATA LOGGER

A data logger is defined as an electronic device that can record data over the course of a certain time frame. Data loggers come in a variety of shapes and sizes and can be used individually or with others to create a system.

Data loggers measure and record physical parameters such as temperature, humidity, shock and more. These battery powered instruments utilize a computer or user software to store information. Standalone data loggers are ideal for long-term deployments in harsh conditions while wireless loggers offer real-time, continuous monitoring with configurable alarm notifications.



# WHICH IS MORE ECONOMICAL?



As they were first introduced to the market, strip chart recorders built a reputation of being easy to use while providing quick, legible results. With companies looking to constantly improve efficiency and quality, strip chart recorders are quickly being overtaken by digital loggers for multiple reasons:


- PRICE
- VERSATILITY



## PRICE

After purchasing a data logger and the available software, the operational costs and upkeep are significantly less than maintaining paper chart recorders. There are no frequent hardware costs as opposed to strip chart recorders that may have pens to change, paper to replace, or large amounts of files to store. The ink and paper may be difficult to find seeing as only certain stores will carry it, and file storage could be limited depending on how much space the owner may have.

For example, a generic data logger has a total cost of \$330 dollars without any recurring costs besides the battery and associated power cords. An average strip recorder is \$500 dollars, not including the accessories. Not only is a strip chart recorder a more expensive purchase, but the extra costs associated with the frequent upkeep provides more work for the user.





# VERSATILITY



Data loggers digitally save the exact values of measurements, making the data transferable to a computer. With Microsoft Excel as well as other analysis tools, users can export their digital information collected to calculate maximum, minimum, average temperature, or all other values of measurement in just a few seconds. This data can be saved on the cloud or stored onto a computer, making the files easily accessible as opposed to chart recorder data that could only be saved as a hard copy making it difficult to locate.

For example, MadgeTech offers free software equipped with customizable features that allows users to monitor in real-time, store all readings, and even generate reports for analysis or validation.



# CONCLUSION



With accurate readings, convenient size and the ability to store, share and provide analysis and statistics, data loggers are proven to be a better choice when compared to strip chart recorders. Factor in low maintenance and low operational costs, data loggers not only save users time, but also money.

In the age of convenience, a data logger is there to provide real-time information, right in the palm of your hands, anytime, without having to wait for the results. By purchasing a modern data logger, users have the advantage of better accuracy, more functionality and less maintenance with an overall cost savings. For more information on data loggers, please contact [info@madgetech.com](mailto:info@madgetech.com).