

## **Data Loggers, Monitoring Temperature, Measuring Temperature**

[Monitoring temperature](#) is a critical element in many different segments of industry and business today. There are several means of [measuring temperature](#), each of which has its own pluses and minuses. In the past you had to use a manual method, where an employee used a thermometer to determine temperature and a piece of paper and a pencil to record. This was time consuming, expensive and of questionable accuracy.

When chart recorders were invented it was used for [monitoring temperature](#) twenty-four hours a day. However it still required an employee to change the chart every day or week and because it was mechanical it often broke down requiring even more maintenance.

[Data loggers](#) appeared in the late 80s. They were not mechanical, which eliminated the ongoing maintenance and made [monitoring temperature](#) easier and less expensive. They recorded temperature in RAM memory and could do their work unattended. They were also rugged so they would be put in places that were inhospitable to humans.

Many businesses adopted [data loggers](#) for monitoring temperature. This worked fairly well as long as the temperature they were monitoring didn't change frequently or require a response to certain events. The big drawback to [data loggers](#) is that the temperature can't be seen until it is downloaded into a computer. [Data loggers](#) haven't until recently come with a display.

There is now a new type of [data logger](#) available which does have a display. This class of instrument, called data viewers collects and stores temperature history, just like a [data logger](#), but it also displays the temperature on an LCD display. This improves the utility of the device immensely. The most useful and low cost data viewer is the ThermaViewer, manufactured by Two Dimensional Instruments, LLC.

This very useful instrument has been made so that it can be installed in minutes and used by every employee. It doesn't require an IT professional to set it up or interpret the measured temperature. Once in place it draws a chart on the large LCD display that is very easy to read. It is being used in laboratories and hospitals for [monitoring temperature](#) of refrigerators and freezers where drugs and vaccines are stored.

