

## MAKE YOUR OWN WEATHER MONITORING SYSTEM USING A DATATAKER DT80M

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### MODEM DATA LOGGING IS IDEAL FOR REMOTE WEATHER MONITORING APPLICATIONS

Weather stations are a valuable tool for many different businesses and organizations in the community, from the farmer who needs to know the best time for crop planting to the agricultural scientist researching crop yields to the local news station in its daily weather forecasting. Now the Applications Specialists at [CAS DataLoggers](#) show you how to put together your own weather monitoring system using a [dataTaker DT80M](#) modem universal input data logger. The dataTaker product range has been selected as the solution of choice for a number of manufacturers of remote weather stations, and now you can take advantage of its automated recording and calculation features to record and monitor the weather from a remote location.



### INSTALLATION

You'll need your DT80M intelligent data logger as well as the following sensors: a Vaisala Temperature and Humidity probe, a tipping bucket [rain gauge](#), an anemometer to measure wind speed/pressure, and a wind vane. Ideal for outdoor installation within an enclosure, the DT80M's rugged design and construction provides you with years of dependable operation even in extreme conditions.

Once your sensors are connected to the data logger's 5 to 15 universal analog sensor channels, the dataTaker DT80M reads these multiple types of sensors and directly scales them to usable engineering units. For example, the digital output from the tipping bucket rain gauge is connected to one of 8 available counter inputs—these counters will increment even when the dataTaker logger is in Sleep mode to conserve power. The logic of the dataTaker can count and totalize the pulses from the rain gauge resulting in totalized rain amounts per hour or per day.

## USAGE/BENEFITS

The dataTaker DT80M also provides powerful mathematical capabilities enabling it to accurately calculate wind direction, wind run and wind roses—all in real-time. These calculated results are logged in the dataTaker's internal memory and can be downloaded manually or automatically via the modem connection for an ideal weather monitoring system.

With the dataTaker Series 4 modem data logger, you don't have to separately purchase a compatible modem for your weather monitoring system. The built-in 2G/3G cellular modem's automatic data delivery sends emails of all captured data to specified addresses so your personnel now have access to this remote data anytime, anywhere. Your critical data can be immediately sent via FTP or e-Mail with alert messages sent via SMS text. The dataTaker's low power consumption and remote data retrieval/accessibility provide you with a cost-effective monitoring solution for the most remote site, saving you and your personnel the need to travel out to collect the data or miss an alarm.



The dataTaker DT80M provides precision real-time recording, taking measurements at 18-bit resolution. Current readings are shown on a built-in LCD display and for extended data collection, the data logger can store up to 10,000,000 data points on its internal memory. The dataTaker also includes free [dEX configuration software](#) for hassle-free data logger setup and configuration directly in a web browser, and the software can also perform live data analysis and data processing functions as it is recorded. With dEX you can view your real-time data as mimics or charts, and for additional ease of use, dEX also allows remote reconfiguration over the Internet.



For further information on the [dataTaker DT80M](#), weather monitoring systems, or to find the ideal solution for your application-specific needs, contact a CAS Data Logger Application Specialist at **(800) 956-4437** or [www.DataLoggerInc.com](http://www.DataLoggerInc.com).