METEOROLOGICAL DATA LOGGING USING A DATATAKER INTELLIGENT UNIVERSAL DATA LOGGER

Intelligent Universal Data Logger Connects to Every Weather Sensor Required

CAS Data Loggers has provided the dataTaker DT-85 for an environmental monitoring solution a construction company required for an onsite weather station to study the effects on building materials such as roofing tile. Long-term monitoring is required to determine what exact ways this degradation occurs and over what time period. The field engineer desired a single recording device to connect with various types of environmental sensors and will be reliable enough to log unattended in harsh winter weather.

The field engineer assembled a fully-functioning weather station using a dataTaker DT-85 Intelligent Universal Data Logger as the brain of the system. Using the data logger's 16 analog inputs allows for connection of up to 32 differential or 48 single ended sensors providing for potential future expansion. The DT-85 data logger records the analog signals from all these sensors and automatically scales the data into engineering units.

The rugged DT-85 data logger boasts a high-quality design that can stand up to extreme temperatures and hazardous environments. For additional protection, the dataTaker is housed in a weatherproof Pelican© enclosure secured to a metal panel on the roof of a building. External ports in the enclosure enable the dataTaker to connect to the extensive network of sensor wires.

The dataTaker DT-85 data logger now collects data on solar radiation, ultraviolet radiation, surface temperatures, humidity, periods of wetness, wind speed, wind direction, and rainfall. The dataTaker records and stores a reading from each of these sensors at any interval chosen during configuration, for this application the engineer chose once every 15 minutes.

The dataTaker data loggers have a 10 million data point memory for extended logging applications where automated data offload is not possible and users can choose to overwrite or stop logging once memory is full. In this application the engineer has

chosen to offload the data with a USB thumb drive twice a month with a simple push of a button. From that point the data can easily be transferred to a PC for analysis. Using the saved data files, the engineer can create tables, charts and graphs illustrating the historical data.

The dataTaker dEX software is built-in and accessed with a web browser enabling quick setup and configuration in the familiar format. Users can view the software locally with a USB or RS-232 serial connection or remotely over the Internet by using the Ethernet connection.

The Intelligent Universal dataTaker DT-85 is a flexible and reliable solution for recording and storing the necessary meteorological data at a cost-effective price. The field engineer doesn't have to waste time learning two or more incompatible software applications thanks to the included dEX software. And the easy to use system is rugged enough to keep logging within its enclosure no matter the weather.