Industrial Data Loggers For Temperature Monitoring And Much More

Universal Data Loggers Monitor Equipment and Processes

Have you been tasked with monitoring industrial equipment or an industrial process like oven profiling, PLC performance, paper press statistics or any piece of equipment? At CAS DataLoggers, we provide solutions for simple temperature monitoring to identifying faults for an entire assembly line. We’ve put together this application note to explore some of the capabilities of our industrial data loggers that will replace manual measurements and help avoid costly production delays.

Data Logger Types

Broadly speaking, our industrial data loggers can be divided into two types; single input and universal input. The differences are:

• Single-input data loggers are designed to measure one specific parameter such as temperature. These loggers are typically available with 1 to 8 channels and are ideal for smaller applications where cost is a concern.

• Universal input data loggers are available in configurations with up to hundreds of input channels used to measure multiple signal types and are used to record data from multiple sensors like temperature, pressure, RPM and many more.
Our intelligent data loggers are rugged and reliable offering a host of features for configuration, communications, data capture and data analysis. For example, many data loggers have Ethernet, USB and serial communication ports that provide flexibility for configuring and retrieving the data.

**Find the Perfect Product**

At CAS DataLoggers, our Applications Specialists know the right questions to ask to determine the ideal temperature monitoring system for your application. These include:

- How often do you need to take a measurement?
- How many channels do you feel you need?
- Do you require a real-time display?
- Do you need an alarm either locally or remotely?
- How do you want to connect to view or retrieve the data?

We also understand that while cost is important the added value we provide goes beyond just price delivering peace of mind and convenience. Here are a few manufacturers producing popular industrial data loggers.

**DataTaker**

Sophisticated and versatile data loggers with the ability to connect to almost any analog sensor. They also offer powerful alarming for fault notifications and intuitive software that makes configuration easy.
The **dataTaker DT80** allows up to 10 isolated or 15 common-referenced analog inputs to be used in any combination. This robust low-power data logger features USB memory stick support for local data retrieval, 18-bit resolution for superior data quality, extensive communications capabilities and a built-in display. The DT80 also offers support for Modbus, FTP data push, integrated Web interface, and regulated 12VDC output to power sensors.

The web interface allows users to configure the DT80, access logged data, and see current measurements as mimics or in a list with a web browser. PLC monitoring and other intelligent devices are supported via 2 serial sensor ports (RS-232 or RS-422, RS-485).

**Novus Fieldlogger**

The **Novus Fieldlogger** is a versatile and cost-effective industrial data logger that records analog and digital signals at high resolution and speed. With Novus users can create a customized system using expansion modules and wireless communication accessories. The Fieldlogger has 8 configurable analog inputs that can read thermocouples, Pt100, Pt1000, voltage and current signals. This logger also has 2 relay outputs and 8 digital ports configurable as inputs or outputs. The RS-485 interface allows the Fieldlogger to operate as a Modbus RTU master or slave.
The Novus AirGate-GPRS is a gateway designed for remote access to a Modbus network and sending alarm and status notifications by SMS messaging. The gateway is able to route Modbus packets from local and remote masters to local network segments. The AirGate GPRS embeds two on-board analog or digital inputs for cost-effective telemetry applications. The two local RS-485 interfaces provide a connection to remote Modbus devices through the cloud gateway.

The Novus AirGate Modbus is a wireless multi-function gateway that allows the transparent and easy insertion of wireless branches into existing wired RS485 networks. The AirGate Modbus has four operation modes: master, multiplexer, USB to RS-485 converter, and simple wireless RS-485 extension. Star operation mode allows the connection of several wireless segments to an existing Modbus RS-485 network.

**T & D**

**T&D** offers compact, wireless data loggers for harsh environments with USB, Ethernet, or Wi-Fi interfaces. T&D has proprietary sensors for temperature and humidity but the RTR-500 Wireless Data Logging system can capture and record almost any 3rd party sensor built to industry standard. This makes the RTR-500 Wireless Data Logging system an expandable data logger system with universal inputs. The RTR-500 Wireless Data Logging system has a 900MHz communication range of 500’ line of site or around 150’ in a typical indoor environment.
The T&D RTR-500 Series of Wireless data loggers automatically sends data and alarms at the users programmed time interval, automating remote data collection. These data loggers will also send you a ‘back to normal’ alarm as soon as the parameter goes back into specification. This allows you to manage your important data anytime from anywhere, even from your mobile device.

T&D’s free WebStorage Service is the perfect way to share your recorded data via the Internet. This free cloud service is ideal for processing and managing data recorded in remote places or for allowing several people to view the same recorded data at their convenience. Additionally, the data transmitted to T&D Webstorage Service can be accessed via your browser from anywhere, anytime.

For more information about the right product for your application, industrial data loggers or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at (800) 956-4437 or www.DataLoggerInc.com.