DuSense Emirates

دبي لحلول الاستشعار

DataTaker

Data Loggers

Sensing Safety for the Middle East

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Data Loggers Inteligentes

DuSense is Middle-East Agent by *DataTaker* which is one of the worlds leading brands of general purpose and specialised data loggers and data recording equipment.

We supply a broad range of customers across many industries including environmental, industrial, construction, manufacturing, process management, scientific, laboratory and education.

Our data loggers are designed to be compatible with almost all types of sensors, with a strong focus on communications to make your data easily accessible.

The products and services philosophy of DataTaker is simple. We supply solutions based on easy-to-use hardware and software. Our data loggers accept all common sensors without the need for extra modules.

DataTaker Customers

Among the industrial end users are such organization as BHP, NASA, Bethlehem Steel, Kennecott Mining, ESSO, Dome Petroleum, General Motors, Ford, Volvo, Subaru, British Aerospace, British Airways, Ansett, Bell Telephone, General Electric, Westinghouse, British Rail, BMW and Philips just to name a few.

Government Customers

Government instrumentality's using DataTaker equipment include SCIRO, DSIR, Departments of Agriculture in all Australian and many American states, electricity authorities in Sweden, Holland and Australia, the Swedish Standards Bureau, the Danish Atomic Energy Commission, the Australian, West German and Swedish military forces and the Chinese Academy of Science.

ISO 9001 Quality

We are certified to the ISO 9001 International Quality Standard. This means that we have a competent and internationally recognized management system—for the "manufacture, factoring and servicing of microprocessor—based data acquisition, data logging and ancillary equipment" - to ensure supply of conforming products and services, and customer satisfaction. We also carry out extensive environmental runtime testing to ensure the highest level of reliability in all our products, which is reflected by our 3-year warranty. High Quality customer service and technical support are always available from our worldwide distributor network.

CE and C-Tick Certification

Our products are all certified to CE standards for emissions, susceptibility and safety.

What is Data Acquisition?

Data Acquisition is simply the gathering of information about a system or process. It is a core tool to the understanding, control and management of such systems or processes. Parameter information such as temperature, pressure or flow is gathered by sensors that convert the information into electrical signals. Sometimes only one sensor is needed, such as when recording local rainfall. Sometimes hundreds or even thousands of sensors are needed, such as when monitoring a complex industrial process. The signals from the sensors are transferred by wire, optical fibre or wireless link to an instrument which conditions, amplifies, measures, scales, processes, displays and stores the sensor signals. This is the Data Acquisition Instrument.

In the past Data Acquisition equipment was largely mechanical, using smoked drums or chart recorders. Later, electrically powered chart recorders and magnetic tape recorders were used. Today, powerful microprocessors and computers perform Data Acquisition faster, more accurately, more flexibly, with more sensors, more complex data processing, and elaborate presentation of the final information.

What is a Data Logger

A data logger is an electronic instrument which connects to real world devices for the purpose of collecting information. Data logger can be pictured as a black box recorder in aeroplanes. These data loggers record mainly voice and the plane stats data information.

Real world Devices could include the following:

- Temperature sensors
- Pressure sensors and strain gauges
- Flow and speed sensors
- Current loop transmitters
- Weather & hydrological sensors
- Laboratory analytical instruments

Why Collect Information?

To look back on past events and identify areas of interest and most of all saving cost and time. These events could assist in improving the following:

- Efficiency
- Performance
- Accuracy
- Reliability
- Energy consumption
- Quality Assurance

Real Time Data Acquisition and Data Logging

Data Acquisition can be divided into two broad classifications—real time data acquisition and data logging. Real time data acquisition is when data acquired from sensors is used either immediately or within a short period of time, such as when controlling a process. Data logging on the other hand is when data acquired from sensors is stored for later use. In reality, there is a continuum of devices between real time data acquisition and data logging that share the attributes of both of these classifications.

Stand-Alone or PC based?

Dedicated data loggers have many inherent advantages over PC based alternatives for the bulk of data acquisition tasks. These include low power operation, standby power sources and security of data in the event of power or communications failure. Being specifically designed for the task, errors due to influences such as poor noise immunity and unstable operating systems are minimised. A dedicated data logger supporting anything from thermocouples to strain gauge sensors, will process and return data to a PC in real time.

Evolution in Data Acquisition

Data Acquisition technology continues to evolve, with high speed data interfaces and networking forcing major change to previous practices. Sensitive low level signals can now be left in the field, with just the desired data being returned to a remote computer for analysis. This is the function of a DataTaker data logger or DAQ box, providing the functionality and speed of a DAQ board, adding the standalone capability to process, consolidate and log data for later downloading. A series of data loggers interconnected by a network allows data gathering closer to sensors, for improved signal quality and reduced installation cost.

A Simple Decision

So why choose data logger over other data acquisition systems? Most data acquisition systems require installation of a DA card in a PC and the connection and wiring of the sensors. These systems work well in permanently configured, on-line applications but is difficult to implement and can be costly. Data loggers significantly reduce the cost for most logging applications and are much easier to implement, and can be placed in areas that digital systems can not reach. The simple alternative, DataTaker data loggers stand alone solid state data loggers that operate anywhere, independent of your computer. They store data in the format you choose, compatible with your computer and your software systems. DataTaker data loggers are flexible and any one of our data loggers can be easily be configured to gather data in almost any environment you choose. There are dataTakers in rain forests, down mines and in the upper atmosphere. In cars, in boats and planes, on farms, in factories and laboratories, DataTaker is truly universal.

General Purpose Logging

DT80

Take the next step!

The DataTaker DT80 is a smart data logger that provides an extensive array of features that allow it to be used across a wide variety of applications. The DT80 is a robust, stand alone, low power data logger featuring USB memory stick support, 18 bit resolution, extensive communications capabilities and built-in display.

DT85

The Smarter Solution

The DT85 is a robust, stand alone, low power data logger featuring USB memory stick support, 18 bit resolution, extensive communications capabilities and built-in display. The DataTaker DT85's Channel concept allows up to 32 isolated or 48 common referenced analog inputs to be used in many combinations.

DT80M

For Remote Applications

The DataTaker DT80M is an ultra low powered logger with integral 2G/3G modem designed specifically for remote applications. The next step up from the DT82EM, it has more analogue inputs and Modbus master and slave capabilities.

DT85M

For Remote Applications with High Channel Counts

The DT85M has an integral modem, Modbus master and slave support and can accept up to 48 analogue inputs as standard. Add CEM20 expansion modules and the DT85M can accept up to 960 sensors.

DT800

When Speed or Precision is Essential

The first of the next generation of faster, smarter and versatile units. Ethernet, RS232 and modem communications, the DT800 has 12 universal channels that provide direct connection of 12 to 42 sensors supporting thermocouples, RTD, strain gauges, bridges and more. With 16 digital I/O and counters, FLASH and disc PC Cards for data storage.

CEM20

Channel Expansion Module

Extending the channel capacity of the latest DataTaker DT80 range of data loggers is made easy by the addition of DataTaker Channel Expansion Modules (CEM20). A DataTaker CEM20 connects to one analogue channel of the DataTaker data logger. Each CEM20 connects 20 universal data logging channels. The Module is suitable for the DT80 range DataTaker data loggers.

APPLICATIONS

The DataTaker Geotechnical data loggers are easy to configure, cost effective data loggers. Rugged, reliable and low power—yet offer extremely versatile features for configuration, communications, data capture and data analysis.

The DataTaker GeoLoggers have built-in vibrating wire support providing an 'All-in-One' data acquisition and monitoring solution for the engineer working in the geotechnical environment.

The DataTaker GeoLoggers can monitor a wide variety of geotechnical applications including slope stability, subsidence, dam wall monitoring, tunnel and mining excavation, ground water, tunnel wall monitoring and site assessment.

More technical information on the latest most advanced GeoLoggers are now available:

DataTaker DT85G (16 Geotechnical Channels expandable to 300 channels)

DataTaker DT80G (5 Geotechnical Channels expandable to 100 channels)

DataTaker CEM20 (20 Channel Expansion module)

Geotechnical Generic Sensor Types

Vibrating Wire Piezometer, Extensometer, Inclinometers, Pressure and Load Cells, Crack meters, Tilt meters, Strain and Carlson strain gauges.

Compatible with all major brands of geotechnical instrumentation including Slope Indicator, GeoKon, RST Instruments, Roctest, Soil Instruments, and AGI—Applied Geometrics Inc.

Stand Alone & Low Power

The low power drain of the DataTaker GeoLoggers provide excellent stand alone data logging solution. Power can be applied to the logger via external batteries, solar panels or other independent sources as well as from mains power where available.

Superior Data Storage & Communications

Store up to 5 million data points in user defined memory, log as much or little as you need with independent control of schedule size and mode. Overwrite or stop logging once allocated memory is full. Archive data on alarm event, copy to USB memory or transfer via FTP, the choice is yours. Communications features include RS232 with modem support, USB, Ethernet and USB memory.

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environmental logging

Organisations, whether in the public or private sector, are becoming increasingly aware that the environmental impact of the operations has implications for the environment we all share. Environmental impact can take many different forms including energy usage, waste treatment and disposal, emissions and air borne pollutants, toxins, water quality and salinity, radiated and conducted emissions etc.

Environmental Improvement Programs need to be prepared that identify areas where improvements can be made. The programs require costing and clearly specified expected outcomes from implementation—this could be a combination of environment impact and efficiency improvements in areas such as material and energy usage.

Organisations implementing environmental improvement programs need to monitor their performance. Environmental data acquisition and monitoring using a data logger provide the means to monitor almost every aspect of an organisation's performance.

Designed and manufactured in Australia the DataTaker DTE and DTEM data loggers have been designed specifically for the environmental monitoring project.

Our data loggers are compatible with thousands of sensor types, including almost all temperature sensors, humidity sensors, pressure sensors, rain gauges and smart sensors.

Data Taker products and some of the environmental projects:

DT82E data logger

DT82EM remote data logger with integrated cellular modem

The DataTaker Industrial data loggers are easy to configure, cost effective data loggers. Rugged and reliable, these intelligent data loggers offer a host of features for configuration, communications, data capture and data analysis.

The DataTaker Industrial data loggers are ideal for a wide variety of applications including process monitoring, temperature profiling, fault identification, research and development, energy monitoring and vehicle testing.

Connect just about any sensor you like through the versatile analogue and digital channels, high speed counter inputs, phase encoder inputs, series sensor channels and the optional CANgate interface.

Temperature, voltage, current, 4-20mA loops, resistance, bridges, strain gauges, frequency, digital, serial and calculated measurements can all be scaled, logged and returned in engineering units or within statistical reporting.

More technical information on the latest most advanced Industrial data loggers is available:

DataTaker DT82I—2 channels (up to 6 analogue inputs)

DataTaker DT80—5 channels (up to 15 analogue inputs), expandable to 320 sensors

DataTaker DT85—16 channels (up to 48 analogue inputs), expandable to 960 channels

DataTaker CEM20—20 channels (up to 60 analogue inputs) expansion module

USD Memory Stick Port

The simplest way to retrieve your data. No expertise required—send the work experience kid! You can even use the memory stick port to load programs or give immediate commands.

10 Million Data Points

DataTaker data loggers come with an internal 128MB flash card. 128MB doesn't sound like much these days, but it means you can store 10,000,000 data points. That's a lot of data! If you don't want to store that much, the data store size is freely configurable.

Simple to Set Up and Use

Most applications can be configured in minutes using our dEX graphical interface. dEX allows you to configure your data logger, view real-time data mimics, trend charts or tables and retrieve your historical data for analysis.

Not all applications fit neatly into a standard graphical interface. DeTransfer software allows you to program even the most complicated applications. Our tech support team are there to help if you need them.

Modbus Master and Slave

Your data logger can be configured as a Modbus Slave to send data directly to your SCADA system. It can also be configured as a Modbus Master to accept data from Modbus Slave devices such as sensors or power meters. It can even be configured to be both a Master Slave on separate networks at the same time.