

ColdTrak



CMS SupaTrak's Cold Chain temperature monitoring system provides enhanced control over goods in transit and helps operators meet new legal requirements to track temperatures throughout the delivery cycle.

CMS SupaTrak has developed a system that can help operators meet the requirements of new EU regulations, which require them to track the temperature of goods throughout the delivery cycle and not just at the collection and delivery point, which is the current requirement.

The Cold Chain Supply temperature monitoring system not only meets and exceeds the relevant European and British quality standards (BS EN

12830:1999), it also provides operators with a number of other benefits that increase their control over goods and the vehicles carrying them.

This will become increasingly relevant for wholesalers and retailers as they assume new responsibilities

to ensure food is always transported at the correct temperature, and for other operators that must have systems in place that can reliably record the temperature of goods in transit at least every five minutes, and records that show what these readings were throughout the journey.



Simple to use and fully compliant with BS EN 12830, ColdTrak is wireless and uses the company's unique OWP middleware technology to ensure all the data is recorded when it should be and transmitted to the CMS SupaTrak-hosted web server in real-time for monitoring and storage.

The distributed system uses Wireless Measurement sensors that are fitted within a compartment and connected via radio and GRPS to a recording facility on a centralised data server.

Each sensor has a two year battery life and is easy to fit. They use a system called ZigBee and when in range, i.e. installed in a refrigerated trailer, this sends a temperature reading to a black box recorder fitted in the trailer unit. The black box relays the signal to the cab, alerting the driver if temperatures move outside programmed parameters, and to the SupaTrak database. Customers then access this database via the web based interface available at www.supatrak.com.

As the whole system works over the airwaves, no wires are needed, and multiple sensors can be installed in each refrigerated unit to enable precise separate compartment monitoring. Importantly, the system links the sensor location to the temperature, which gives the flexibility to provide alerts if doors are left open, or over-ride alerts if the system recognises the doors are open because the vehicle is at the delivery point.

The system can also be used as a trailer tracking solution, providing enhanced security, whilst the addition of other sensors enable it to track and record other

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measurements such as humidity, which may be more relevant to the carriage of certain types of goods. The system is fully managed by CMS SupaTrak and includes the yearly calibration of all components required by law.

System features in more detail:

- Independently powered radio sensors inside the refrigerated space ensure that temperature measurement is independent of any temperature measurement used to control the refrigerated system.
- Sensors have a measurement range from -50 to +110 degrees C and are encased in enclosures offering protection to IP67. They comply with EN61010-1, EN50081-1 and 50082-1. Resolution is < 0.1C and accuracy better than + 0.5C.
- Sensors record temperature every minute, with the interval programmable in integer numbers of minutes up to 18 hours. Sensors are constantly updated with time from the GPS receiver, making their timing extremely accurate.
- Every sensor reading is time stamped with the absolute time (UTC) maintained in a real-time clock that is set from a GPS receiver and these times cannot be altered. Measurement intervals are set by a command only available to authorized personnel.
- The time-stamped temperature readings are recorded centrally on a web server in a read-only database, with each sensor mapped to a specific location or refrigerated trailer. This information is available to

users via the web based interface available at www.supatrak.com.

- The database on the web server is a permanent record and is available for viewing online for at least one year. Archives of older data are retained indefinitely. The data cannot be modified.
- The database server indicates the battery condition of each sensor and when the battery is nearing the end of its life. Sensors are clearly marked with the type of replacement battery they require.
- The CMS system has an infinite recording capacity that is only limited by the hard disk storage space on the server.

Launching the new ColdTrak solution, Managing Director Jason Airey said it provided one of the most advanced and flexible solutions currently available on the market to meet both current requirements and those expected to be enforced with new legislation.

For further information or an online demonstration please call us on 0844 477 4870 or visit www.supatrak.com