



Solutions to Ensure

**FOOD  
SAFETY  
and  
QUALITY**



# Your Best Source



Only DeltaTRAK offers a comprehensive range of high quality instruments and software for monitoring environmental and processing conditions of food all the way from its source to the moments prior to its consumption, the "farm to fork" sequence. Monitoring, recording, and analyzing the data of these conditions are essential to maintaining the safety and quality of food products. We all know that safety, quality and shelf life play a huge role in the food industry. And there is growing public awareness of these issues, not to mention the financial risks incurred when goods are damaged during transit, processing or storage.

Whether you're checking the environmental conditions in your greenhouse or hatchery, the temperature of your coleslaw throughout its entire transport and storage, or the internal cooking temperature of your rack of lamb, we have just what you need.



WHERE IT GROWS



## As a Part of Your HACCP Program

Hazard Analysis and Critical Control Point, or HACCP, is a practical, systematic management tool designed to ensure food safety. As food products move from the field through the processing plant to the table, contamination (microbial, chemical, or physical) may pose a health hazard. HACCP is a specific action plan to identify and control these hazards from entering the handling process, and to document the safety of food products. DeltaTRAK's time/temperature monitoring instruments play an important role in HACCP programs to prevent dangerous levels of microbial contamination. The U.S. Food and Drug Administration's Food Code requires all businesses which handle, distribute or process food products to develop and implement a food safety plan based on the principles of HACCP.

## At the Farm, or on the Fishing Boat

DeltaTRAK offers several instruments to assist in monitoring environmental conditions during the production and harvest of food products at the source. Use **Digital Thermo-Hygrometers**, either hand held or wall mounted, to check temperature and relative humidity in greenhouses, broiler houses, and hatcheries. Check the performance of holding tanks in dairies or on fishing boats with the **Min/Max Dual Sensor Thermometer**. Its internal sensor shows ambient air temperature, while the stainless steel external sensor shows the temperature of any environment or substance to which it is exposed. The Min/Max memory will recall the highest and lowest temperature since the last reset. Install an **Environmental Temperature Recorder** in any facility for continuous visible access to current and recorded temperature data over time. Disperse reusable **FlashLink Data Loggers** throughout citrus orchards or vineyards to get accurate data on varying temperature conditions in different sections, for round-the-clock monitoring.

# At the Processing Plant or Packing House

The environmental and internal conditions of food products must be carefully monitored and documented during processing. The **TQM 500 Microcomputer Recording Thermometer** measures and stores product temperature, lot number ID, sample number, date, and time. It is the most advanced thermometer available for quality assurance and HACCP documentation. For pH monitoring, DeltaTRAK's **Non-Glass (ISFET) pH Meters** will help you maintain quality control during food processing. Measure pH in fruits before harvest and during wine making. Check the pH level of your canned foods, cheeses, baking dough, or fresh or cured

meats. To validate the proper cooking process in smokehouse operations, use the **FlashLink Data Logger** with an external probe that is left in the meat product while the logger is left outside the chamber. In large food processing operations, choose the **CDX Central Data Reporting System**. It will monitor and record up to ten different channels or locations, using both temperature and humidity sensors. Alarms may be used to activate a bell, light, pager system or automatic telephone dialer to notify you of out-of-range conditions.



# On the Truck, Railcar, Ship, or Airliner

Record and archive the temperature data of your food products during transport – from the supplier to the distribution center, to the retail store or restaurant.

**In-Transit Temperature Recorders** generate permanent records of transit conditions on single-use strip charts, providing quality assurance documentation and corroborating evidence to support insurance claims when temperature-sensitive commodities have been damaged. They are available with various time frames and temperature ranges. **FlashLink™ In-Transit Data Loggers** provide the same functions in electronic versions, with many additional capabilities. These units can be custom programmed to flash an alarm



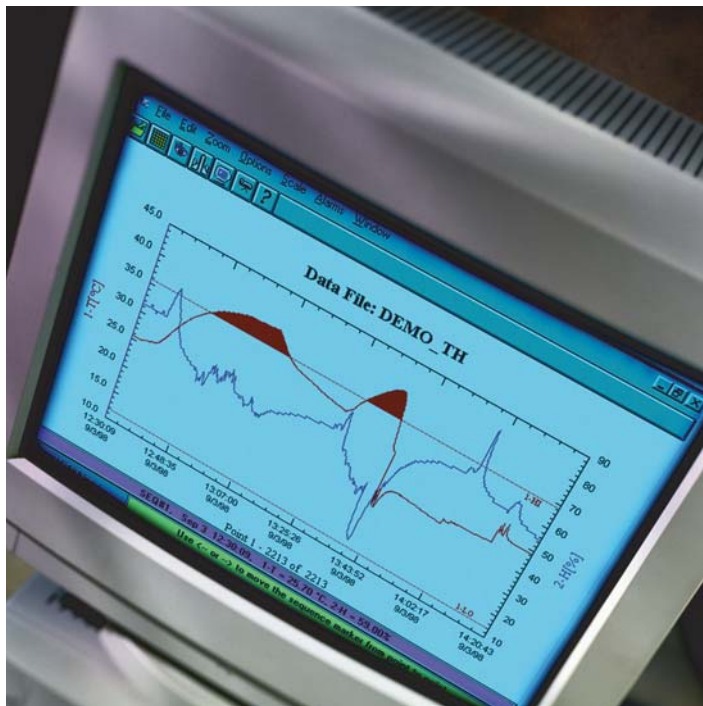
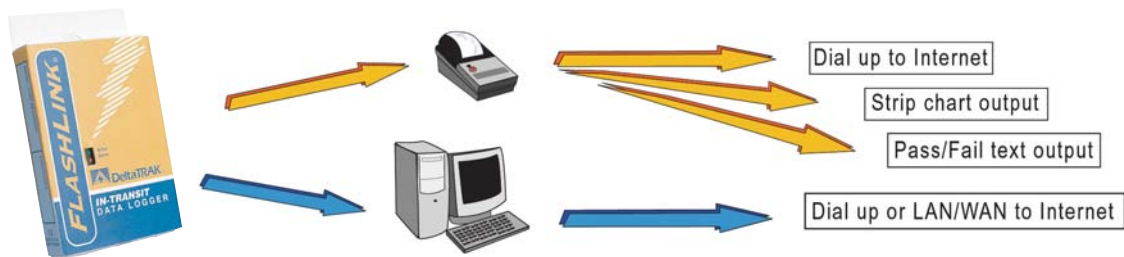
if a shipment was not kept within contracted temperature ranges. A patented **Shadow Logging** fail-safe feature guarantees data recording even if the operator fails to activate the unit. Data can be exported into a spreadsheet or sent via E-mail from the free FlashLink In-Transit Program Manager Software available from our Web site, or downloaded directly into a handheld printer. It can also be integrated into DeltaTRAK's Web-hosted, global logistics information services program.



# At the Distribution Center

With the **FlashLink In-Transit Data Logger** ColdTrak program, you have various options for gaining greater control of your cold chain information. You can order customized programs with high and low temperature alarm settings and two types of alarm delays for the red LED alarm indicator. This is a powerful and unique feature with FlashLink data loggers. Pass/fail criteria can also be programmed into a handheld printer, indicating whether you need to take immediate action with a shipment. After the data is downloaded, further analysis can be done. Determine the effects of temperature during transport on product shelf life.

Identify frequency of temperature abuse among your suppliers. See variables affected by seasonal patterns to help with logistics issues. E-mail data anywhere in the world for enterprise-wide information management. Take advantage of web-hosted services to gain even further flexibility in the management of your cold chain information. As perishable products are shipped on your internal fleets from the DC to the retail facility, place reusable **FlashLink Data Loggers** on the loads to gain additional control of temperature information and logistics issues during distribution.



## Guaranteed Data with Shadow Logging Feature

The DeltaTRAK **FlashLink In-Transit Data Logger** is the *only* electronic data logger that provides the patented "**shadow logging**" feature. Even if a shipper fails to activate the unit, temperature logging is continuously occurring in the background with a data point recorded every 30 minutes, in an 80 day loop mode. At the time of download, the previous 80 days of data stored in the background memory will be exhibited. (Re-trace the data backward from the download date to determine the recent trip information.) This feature is not available on any other data logger on the market.

# In the Supermarket or Other Retail Food Facility

Save yourself the time and hassle of frequently hand recording the temperatures of your refrigeration units while verifying the accuracy of built-in thermometers by placing reusable **FlashLink Data Loggers** within each unit. FlashLink will do all of the temperature and/or humidity recording for you. To review the data, insert the unit into a computer printer port or directly into a printer, and produce a report to document portions of your HACCP procedures.

WHILE IT'S  
STORED AND  
DISPLAYED

FlashCheck Pocket Probe Thermometer

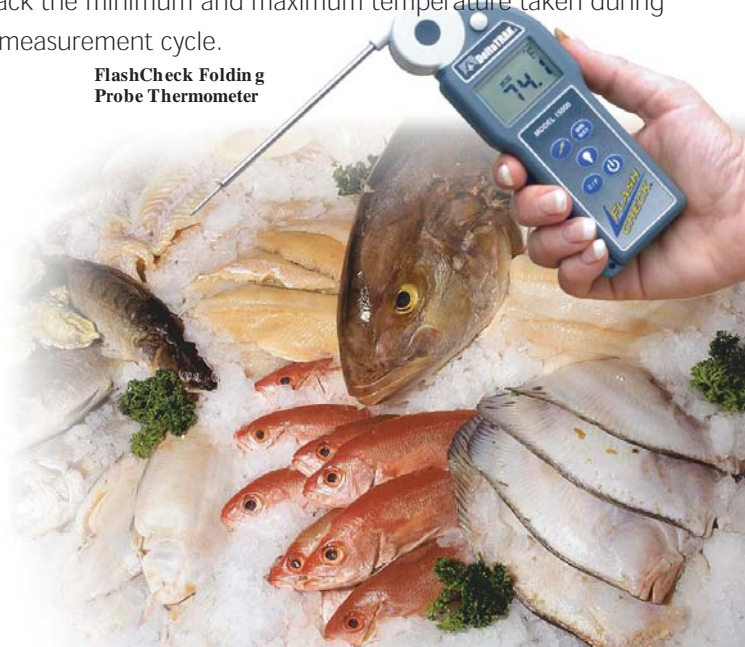


The **FlashLink Pro** models offer an LCD screen to view current temperature. Both versions offer optional external probes attached to Teflon wires for tracking specific product temperatures.

If you are a Quality Assurance Manager for a produce, meat, or seafood department, you can rely on **FlashCheck™ Pocket Probe Thermometers** for product

temperature spot-checks. Reduced tip probes give faster response readings on the digital display. The high-end **FlashCheck™ Folding Probe Thermometer** provides additional features for professional quality control applications. With a probe that folds back for safety, it beeps and locks in a final accurate temperature in about six seconds. It can be field calibrated, and also allows you to track the minimum and maximum temperature taken during a measurement cycle.

FlashCheck Folding Probe Thermometer



Reusable FlashLink Data Loggers

# In the Restaurant or Food Service Operation

According to the Centers for Disease Control, many of the major causes of foodborne illness are temperature-related. They include (1) failure to properly cool foods, (2) failure to thoroughly cook foods, (3) refrigerated food allowed to get into the "danger zone" from 41 F to 140 F (5 C to 60 C), and (4) failure to reheat food to a high enough temperature. If your company handles, cooks, and serves food, you can incorporate DeltaTRAK's products and services into your food safety programs. Use **Non-Contact Infrared Thermometers** to spot-check the surface temperatures of food products as they arrive at your facility. These infrared instruments will

Heat/Cool Cooking Thermometer



AS IT'S  
PREPARED  
& SERVED



instantly alert you to warm spots in refrigerated shipments, or when a product has been sitting out of its chilled environment too long. Infrared thermometers also allow you to safely measure extremely hot surfaces, and to check the surface temperatures of food at salad bars or hot buffets. Follow up with a probe-type digital thermometer whenever questionable readings are obtained. The probe thermometers, mentioned earlier, are also handy for checking cooking temperatures of foods on grills and stovetops. The **FlashCheck Folding Probe Thermometer** is especially popular since it allows you to check foods on a grill while keeping your hand further away from the heat.

It is so sturdy and waterproof that it can be put through commercial dishwashers, giving you an accurate hot water temperature reading by using the min/max feature, guaranteeing that your cookware and dishes are properly sanitized. For food safety and quality during cooking and cool down, try the **Heat/Cool Cooking Thermometer**. You can program an alarm to announce desired internal cooking temperature without ever opening the oven door because the probe is attached to a heat-resistant Teflon wire. You can also track the **cooling rate** of a pre-cooked container of food, so that you are assured that it cooled down below 41 F (5 C) in a safe amount of time.

*DeltaTRAK takes great pride in the thoughtful, carefully engineered design of its products, services, and programs to help ensure food safety and quality throughout the entire food growing-processing-transporting-serving chain. Please visit our Web site at [www.deltatrak.com](http://www.deltatrak.com) for more detailed information.*

