

## HELPING YOU ACHIEVE TEMPERATURE MONITORING SOLUTIONS FOR YOUR HACCP PLAN

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Specialists in the design & manufacture of  
temperature measuring equipment for catering



# TEMPERATURE MONITORING SOLUTIONS FOR YOUR HACCP PLAN

All food businesses are required to assess the food hazards in their operation to identify steps that are critical to food safety, i.e. cooking food to kill bacteria. Controlling the temperature of food is extremely important in ensuring that food is safe to eat, and you must ensure that food is always stored, cooked, cooled, chilled or reheated properly to minimise the risk of harmful levels of bacteria in the food that you sell or serve.

When developing your HACCP plan, you need to ensure that you document all key stages of the process, from deliveries to food storage to cooking and reheating foods. Using a temperature probe is the safest method to provide this reassurance and will ultimately minimise risks, save time and ensure quality standards are met at all times.

In this guide we hope to help you choose the right type of temperature monitoring solution for each key stage of the process listed below:



## ● **Thermapen® Professional - blue (234-457)**

The Thermapen Professional thermometer is the UK's number one selling food thermometer. Measuring temperature over the range of -49.9 to 299.9 °C.



**CONTROLLING THE TEMPERATURE OF YOUR FOOD IS EXTREMELY IMPORTANT IN ENSURING YOUR FOOD IS SAFE TO EAT.**

## ● **ThermaData® Lite - yellow (293-020)**

The ThermoData Lite logger is a cost-effective self-contained temperature data-logger. Housed in a water resistant polyethylene case and incorporates two LED status indicators.



**DELIVERIES**



**FOOD  
STORAGE**



**FOOD  
PREPARATION**



**FOOD  
SERVICE**



**CALIBRATION**

## DELIVERIES



The point at which any food service operation receives goods into the kitchen or storage room represents a potential hazard which can penetrate the food supply chain. It is therefore vital that the temperature of the goods being received is measured and recorded to eliminate these risks and ensure fresh produce is being received. Once a temperature reading has been achieved, the goods can be accepted or rejected appropriately.

A between pack probe used in conjunction with a HACCP compliant thermometer is ideal for taking measurements between packaging or boxes of produce and Infrared thermometers are designed for taking surface temperatures. For core temperature measurements, a penetration probe would be required.



- **RayTemp® 2 (832-050)**

The RayTemp 2 is suitable for a wide range of food applications.



- **Therma 20 (226-040)**  
**Between pack probe (170-090)**

This probe has been specifically designed to measure the temperature between packs or boxes of produce. The between pack probe has a response time of less than three seconds.

**ONCE A TEMPERATURE READING HAS BEEN ACHIEVED, THE GOODS CAN BE ACCEPTED OR REJECTED APPROPRIATELY.**

# FOOD STORAGE



If your equipment runs at unsafe temperatures, harmful bacteria can quickly grow in food. This poses a serious risk to consumers' wellbeing. Failure to check and maintain your fridge and freezer temperatures can therefore easily lead to negative consequences.

The law requires food businesses to keep chilled food at 8 °C or below. The Food Standards Agency recommend you keep it at 5 °C or lower, so your food is well within the 8 °C or lower threshold. It also ensures that every part of the fridge remains at an acceptable temperature. For freezer temperatures, industry best practice is -18 °C or lower. To ensure your equipment is working properly, you should check the temperature of your fridges, freezers and chilled display equipment at least once a day.

When you display cold food (e.g. on a buffet) you should use suitable chilled display equipment to keep it at 8 °C or below. You can display food out of chilled storage for up to four hours, but this can only be done once. Food which has been displayed out of chilled storage for less than four hours can be put back in the fridge and kept at 8 °C or below until it is used. If it has been out for more than four hours it must be thrown away. Some foods may require storage at temperatures 8 °C or below to keep them safe so always follow the manufacturer's storage guidance. Minimise the time chilled foods are kept out at room temperature during preparation.



- **ThermaGuard® 101 (226-511)**  
**ThermaGuard® 102 (226-512)**

ThermaGuard Thermometers for high accuracy fridge temperature monitoring.



To check chilling equipment is working effectively you can use a clean temperature probe to check the food is kept at a safe temperature. When you have cooked the food, use a temperature probe to test the core temperature. Test the temperature again at regular intervals to find out how fast the food is cooling. Remember to use a clean probe every time you check the food.

You can use the digital display, a dial thermometer or a probe thermometer to check your freezer is keeping food at a safe temperature.

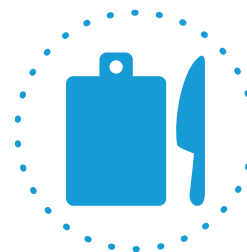
- **ThermaData® WiFi Data Logger TD Wireless with internal sensor (298-001)**  
**ThermaData® WiFi Logger TD2TC - two channel type K or T thermocouple logger (298-121)**

The ThermaData WiFi loggers utilise the latest WiFi wireless technology. The loggers are a battery powered, cost-effective, temperature monitoring system that remotely records the temperature of appliances.



# FOOD PREPARATION

It is essential to cook food properly to kill any harmful bacteria. If it is not cooked properly, it might not be safe for your customers to eat.



Use a clean temperature probe to check food dishes are properly cooked or reheated. Examples of safe time/temperature combinations for cooking include: 80 °C for at least 6 seconds, 75 °C for at least 30 seconds, 70 °C for at least 2 minutes, 65 °C for at least 10 minutes, and 60 °C for at least 45 minutes.



## ● **Thermapen® Blue (179-607)**

Reaches temperature in just three seconds and securely transmits data to your smart device. Colour-coded ID for different applications.



## ● **Thermapen® Professional - white (234-417)**

Reaches temperature in just three seconds, waterproof to IP66/67 and the casing includes Biomaster technology that reduces bacterial growth.



## ● **Therma 20 (226-040)** **Thermistor penetration probe (174-166)**

Assured accuracy for the life of the thermometers specifically designed for use in catering industry with HACCP health and safety procedures in mind.

**USE A CLEAN TEMPERATURE PROBE  
TO CHECK FOOD DISHES ARE  
PROPERLY COOKED OR REHEATED.**

# FOOD SERVICE



It is very important to reheat food properly to kill harmful bacteria that may have grown since the food was cooked. Remember, reheating means cooking again, not just warming up. Always reheat food thoroughly to 75 °C. You should only reheat once. Do not put food into hot holding without reheating to 75 °C first.

## HOT HOLDING

Hot food must be kept at 63 °C or above using suitable hot holding equipment to keep food at this temperature. If this is not possible, you can take food out of hot holding to display it for up to two hours, but you can only do this once. Food that has not been used within two hours, should either be reheated until it's 75 °C and put back in hot holding or chilled down as quickly as possible to 8 °C or below. If it has been out for more than two hours throw it away. Remember to keep the food at a safe temperature until it is used. Use a clean temperature probe to prove your method keeps food at a safe temperature of 63 °C or above.



- **Therma 20 (226-040)**  
**Thermistor penetration probe (174-166)**

Reaches temperature in just three seconds, waterproof to IP66/67 and the casing includes Biomaster technology that reduces bacterial growth.

One of the most common causes of food poisoning is cross contamination. ETI have various colour coded instruments and accessories to help you with controlling cross contamination as well as anti-bacterial probe wipes.



- **Thermapen® Professional - red (234-447)**

The Thermapen Professional thermometer is the UK's number one selling food thermometer. Measuring temperature over the range of -49.9 to 299.9 °C.



- **Thermapen® Blue (179-607)**

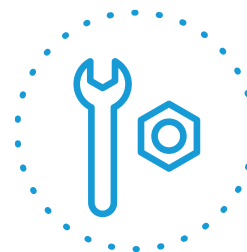
Colour-coded ID for different applications.

# CALIBRATION/VALIDATION

Temperature is a critical measurement for ensuring the safety and quality of many products. Whether monitoring temperature at delivery, storage, cooking or re-heating, thermometer calibration is essential. The importance of thermometer calibration is not just a food safety issue, but also an economic consideration, as thermometer accuracy can affect both quality and productivity.

## EXTRA CHECKS

Check the temperature probe is working via a boiling water/ice bath check – within 1 °C of 100 °C and 0 °C



## CARING FOR YOUR THERMOMETER AND PROBE

It is very important to keep your probe clean, otherwise it could spread dirt and harmful bacteria to the food you are testing. After a temperature probe has been inserted into food, clean it with an anti-bacterial probe wipe. You need to look after your probe to prevent it from getting damaged and help keep it working properly. Do not leave a digital probe inside your fridge or freezer, or on hot surfaces. When you are not using it, store it safely, away from extreme temperatures and liquids. Keep the probe in its case, if it has one. Avoid banging or dropping your probe. If the battery is low, replace it immediately.



### ● Reference Thermometer (222-055)

The Reference thermometers are high accuracy PT100 instruments that are supplied with a five-point UKAS Certificate of Calibration.

### ● Comparator (814-132)

The comparator provides a best practice way of checking the temperature of infrared thermometers when used in conjunction with a Reference thermometer.

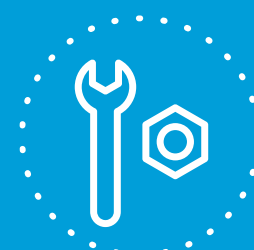
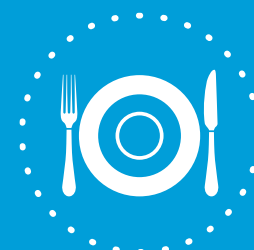
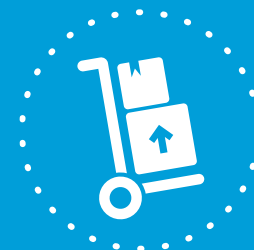


### ● Therma 20 (226-040) Thermistor Test caps (286-003)

The test caps provide assurance that thermometer readings are accurate and supplied with a UKAS Certificate of Calibration.



In 2018 ETI was awarded with a **Queen's Award for Enterprise** within the category of **Innovation**. Since 2012, ETI has also received three **Queen's Awards for Enterprise** for **International Trade**.



British Manufacturer

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