

HeatFlux Data Logger

Thermaflux is a **lightweight, portable, slimline battery powered heatflux datalogger**. Its dual sensor head can directly measure top and bottom heatflux simultaneously while recording temperature separately.

An RF Remote control allows the user to start and stop measurement precisely and with the dedicated software, operators can obtain **high resolution, accurate energy profiles of their thermal processes**. The base station allows pre and post conditioning of the instrument, cooling the datalogger and optimising the sensor head, thus permitting intensive repetitive use.

Thermaflux offers next generation performance to drive down cost and enhance quality in thermal processing while being safe to use and hygienic.

General Specification

No. of sensors:	2 heat flux, 1 temperature (thermocouple)
Operating Range:	-15,000 watts/sq metre to + 15,000 watts/ sq metre over a temperature range -50°C to 450°C
Accuracy:	+/- 2% of full scale
Response Time:	T60 less than 0.1 seconds
Calculated Parameters:	Total heat flux - top surface / Total heat flux - top surface
Dimensions:	300 x 200 x 25mm
Weight:	1.5 kg
Sampling:	Multi-Channel sampling at 4 samples / sec up to 2 Hours continuous Data collection
Software:	Compatible with Windows '95 or higher

What is HeatFlux? And Why is Important to Measure it?

Amount of Heat Energy passing through a surface unit cross sectional area per unit time. A fundamental measure of rate of energy transfer measured in **Units: W/m²**

In many thermal processing applications it is the amount and rate at which heat is transferred to or from a product that determines its characteristics. It takes all contributory factors into account:

- temperature
- air movement
- mode of heat transfer
- equipment design

Main Applications

A **world leader** in digital thermometers, Rototherm has become the standard for accurate and reliable measurement across the following industries:



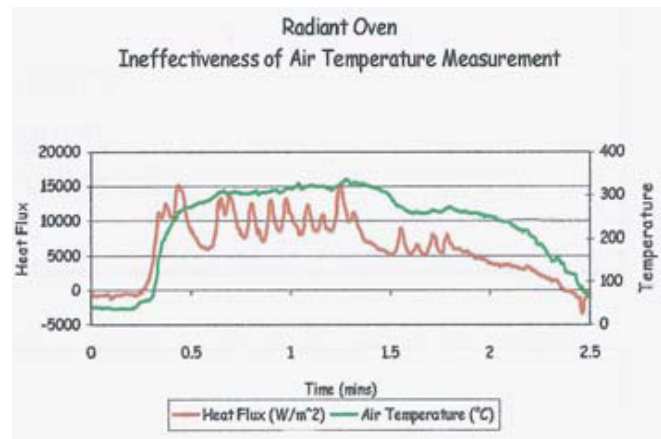
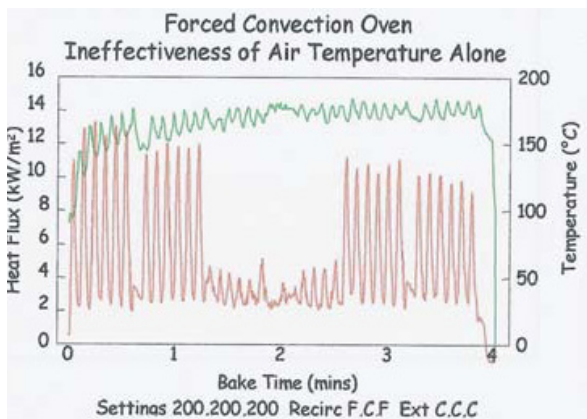
Food & Beverage



Why not Measure Temperature Alone?

Measurement of Temperature only does not take into account air velocity or mode of energy transfer during the thermal process. The two graphs illustrate the ineffectiveness of air temperature measurement in a Forced and Radiant Convection ovens

ThermaFlux technology has been proven within an international food company for over 5 years. Its accuracy and discrimination allows a level of analysis to be achieved not previously available in a user friendly, robust package aimed at process operators as well as technical staff. Weighing less than 2kg, the instrument is genuinely portable with the robustness for routine and regular use in a production environment. Standard graphical analysis of software allows for data comparison and manipulation while enhanced features provide multi profile comparison for easy equipment diagnostics.



Key Features

- **Reduce:**
 - Waste
 - Energy
 - Downtime
 - Product Transfer Time
 - Plant Commissioning Time
- **Increase:**
 - Process Efficiency and Diagnostics
 - Product Quality
 - Plant Availability

Process Applications

- Biscuit Baking
- Bread Baking
- Spiral Freezers
- Chocolate Cooling
- Baked Products
- Ceramics
- Pizza Baking
- Tunnel Coolers
- Desserts
- Cake Baking
- Textiles