Food Tracker System

Comprises a data logger, charger, thermal barrier, thermocouples, computer interface cable, Insight Software, carry case and manuals.

Uncompromising Service. Guaranteed.

Each Datapaq system is supported with a full one-year warranty. Complementing the warranty, we offer a yearly service and recalibration contract, including free software updates and loan equipment, for guaranteed peace of mind.

DATAPAQ

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Technical Specifications

MultiPaq21 Data Loggers

Memory:	1.81Mb
	16 hours (8 thermocouples / 0.5 sec sampling)
Sampling interval:	0.5 sec to 50 min (standard use – temperature only)
	2 sec to 50 min (radio telemetry – temperature only)
	2 sec to 50 min (temperature and humidity measurement)
Accuracy:	±0.2°C / 0.36°F
Resolution:	0.1°C / 0.18°F
Max internal operating temp:	-40°C to 85°C / -40°F to 185°F
Data collection start:	Start/stop buttons, time or temperature trigger
Battery:	Rechargeable NiMH. Battery life up to 250 hours.
Thermocouples:	Type T, British Standard Class I
	Type K, Special Limits of Error ANSI MC 96.1

Part Number	H	W	L	Thermocouple Type	Temperature Range	Number of Channels	Telemetry Option	Humidity Compliant
DP2162A	23mm 0.9"	100mm 3.9"	205mm 8.1"	T	-196°C to 400°C -320.8°F to 752°F	6	no	no
DP2166A	23mm 0.9"	100mm 3.9"	205mm 8.1"	K	-150°C to 1370°C -238°F to 2498°F	6	no	no
DP2182A	23mm 0.9"	100mm 3.9"	205mm 8.1"	T	-196°C to 400°C -320.8°F to 752°F	8	yes	yes
DP2186A	23mm 0.9"	100mm 3.9"	205mm 8.1"	K	-150°C to 1370°C -238°F to 2498°F	8	yes	yes

Thermal Barriers

Part Number	H	W	L	Weight	Thermal Duration at 200°C / 400°F	Submersion	Humidity Compliant
TB5009	60mm 2.4"	203mm 8"	389mm 15.3"	3.65kg 8lbs	1.25 hours	no	yes
TB5010	100mm 3.9"	214mm 8"	385mm 15.2"	6kg 13.2lbs	3.75 hours	no	yes
TB5011	40mm 1.6"	193mm 7.6"	376mm 14.8"	2.9kg 6.3lbs	40 mins	no	yes
TB5815	40mm 1.57"	174mm 6.9"	394mm 15.5"	2.75kg 6lbs	45 mins (air) 22 min (liquid)	yes	no
TB5816	65mm 2.6"	238mm 9.4"	380mm 15"	5.3kg 11.7lbs	2.5 hours (air) 1 hour (liquid)	yes	no
TB5817	104mm 4.1"	150mm 5.9"	358mm 14.1"	6.2kg 13.5lbs	4.5 hours (air) 2 hours (liquid)	yes	no

RF Telemetry

Euro	Transmitter (internal)	TX1260A	433.075 to 433.450 MHz	Approval EN300 220-1	
	Receiver	RX1002A			
USA	Transmitter (internal)	TX1250A	464.100 to 465.475 MHz	Approval FCC Part 90: 1996 Clause 90.217	
	Receiver	RX1000A			

Humidity Sensor

Hygromer C-93	Capacitive 200pF ± 40pF
Humidity Range	0 to 100%rh
Operating Temperature range	-50°C to 200°C (damage to the sensor will occur above 200°C)

Food Tray and Thermocouple Jig

Food tray dimensions (H*WD) 51mm x 600mm x 407mm / 2" x 24" x 16" (*or barrier height if greater)
Jig dimensions (HW) 40mm x 1000–2300mm / 1.6" x 39.4" – 90.5"

Suggested Minimum Computer Requirements

- Windows™ 95 or above
- Pentium II processor @300 MHz
- 32Mb RAM
- 1024 × 768 display
- 20Mb free hard disk space
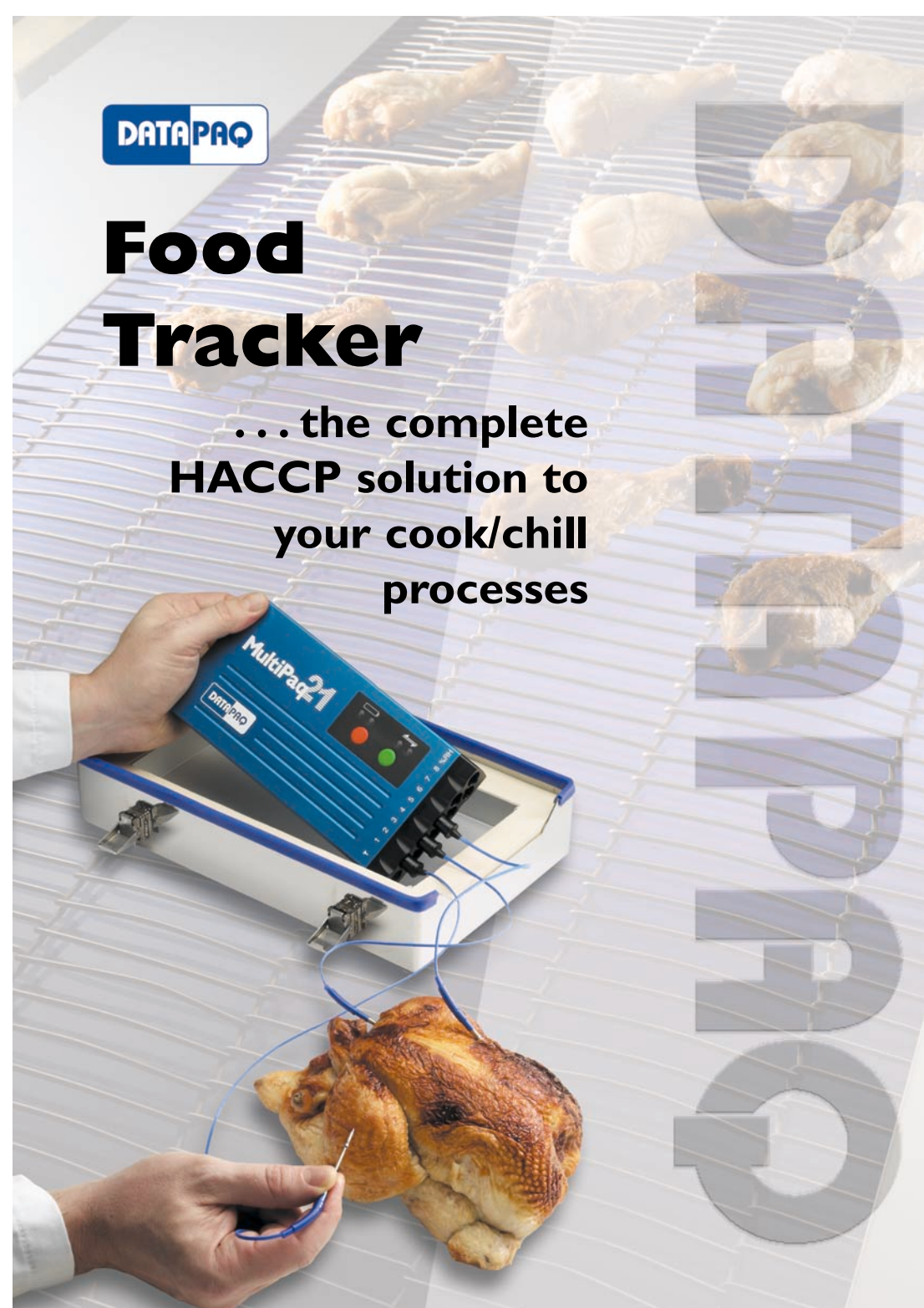- Serial port or USB port for logger communications

Due to continuing product improvements, specifications are subject to change without notice.

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DATAPAQ

Food Tracker

. . . the complete HACCP solution to your cook/chill processes

System Enhancements

Humidity Sensor

Measure the humidity as well as the temperature in processes up to 200°C. This is ideal for baking applications such as proving, and will also be of interest in general food processing where the humidity measurements can be used to help validate oven control, and optimise yields and product quality.

Real-time Monitoring

Watch on your PC and observe the exact moment when your product reaches the required safe cook temperature by monitoring the temperature of the product while it is still in the oven via radio telemetry. For static and even rotational batch ovens with such information you can reduce cycle times significantly and so maximise productivity levels with confidence.

Food Tray and Thermocouple Jig

Datapaq offers a comprehensive range of thermocouples designed to suit a variety of different food products. The food tray and thermocouple jig compliment the thermocouples guaranteeing the accuracy and repeatability of profile runs in conveyorised processes. The food tray can be used without any need to stop the conveyor line and disturb production. Food Trays are designed for small products (such as chicken nuggets). The Thermocouple Jig is designed for wide conveyorised processes such as larger, bakery products.

Food Tracker System

Food Tracker temperature profiling systems comprise a data logger, a protective thermal barrier and Insight software. Using a Datapaq system you can guarantee the quality and safety of your cooked meats, poultry, bakery products and ready-meals.

Datapaq systems travel through the oven or freezer with the food product, making a complete record of the temperatures reached by the product throughout the process. Datapaq systems offer the only reliable means of measuring the true product and environmental temperature in process, an essential requirement for HACCP regulations and process validation.

Datapaq systems are designed to withstand the harshest environments, including steam cooking, deep fat fryers and blast freezers. You can monitor the product temperature for the entire cook/freeze cycle in either static or conveyorised ovens.

Benefits:

- Guarantee and prove food safety.
- Meet all HACCP requirements for monitoring, control and corrective action of cook/chill processes.
- Obtain consistent food quality, taste, texture and colour.
- Maximise product throughput and yield.
- Obtain information to correct any hot or cold spots in your oven.
- Provide full process validation documentation to satisfy customer requirements.

For twenty years Datapaq has been setting the industry standard for ease of use and reliability in thermal profiling, assuring the most consistent analysis to guarantee food safety and quality.

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1 Data Logger
Reset the data logger and connect the thermocouples to your product.

Data logger features:

- 8 channel logger (accuracy +/- 0.2°C).
- Can record product & environmental temperature measurements simultaneously up to 400°C.
- IP67 waterproof rating.
- Serial or USB compatible.
- Rechargeable NiMH battery which lasts for up to 250 hours between charges.
- Stores up to eight separate runs before you need to download the data.
- Interchangeable thermocouples to suit your product.
- Programmable sample interval and start options to suit your process.

The new MultiPaq21 data logger has eight channels allowing you to collect, in one run, product and environmental temperatures from up to eight locations at once. Using flexible thermocouple cables, the temperature sensors can be positioned precisely within the product, on the surface, or in the air where they can record temperatures without hindrance from the data logger or its mass influencing the response characteristics of the sensors.

The data logger is designed to withstand the most hostile of food processing applications and is even rated to IP67 with special waterproof thermocouple connections protecting against steam, water showers and routine cleaning procedures.

The logger will store up to eight profiles before needing to be downloaded.

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2 Thermal Barriers
Place the data logger inside the thermal barrier. Then send the logger with your product through the oven to record an accurate temperature history.

Employing the same insulation technology as used in an aircraft's 'black box', Datapaq thermal barriers are constructed from microporous insulation housed in a rugged stainless steel casing. Datapaq thermal barriers can withstand the harshest industrial cooking environments including steam cooking, long duration high temperature bakery, or even flash frying where the whole system is submersed in oil.

Unlike other commercial systems there is no need to protect the data logger from the process environmental temperatures by placing the logger inside the product. Since the barrier can be located away from the product the heating characteristics of the product will not be affected by the monitoring equipment itself.

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3 Insight Software
Convert raw data into meaningful information about your process
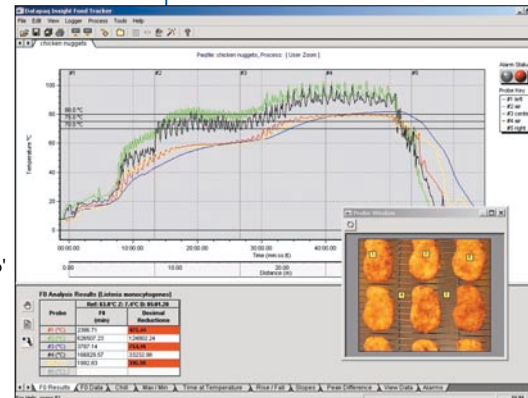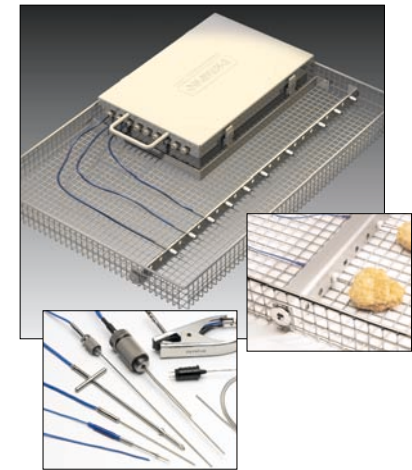
Process Analysis

Set up the software to calculate all of the important HACCP criteria you need including the maximum & minimum temperature reached by the product, the time above a specific target temperature, and process lethality calculations such as F_0 values. Alarms within the software let you know immediately whether your process has passed or failed HACCP requirements.

Wizards

Wizards are a feature common to many software packages with which you will be familiar. They are designed to guide you step by step through a particular process, while at each step giving you the opportunity to 'back up' to the previous step if you realise you have made a mistake. Wizards make the software easy to use and also cut down on training requirements.

Reporting

Generate traceable and certified profile reports with ease, showing graphically the oven trace and analysis results. The report provides all you need to verify critical control points or the data to rectify the cook process if target values are not achieved.