

elcometer® 215 Oven Temperature Logger

Oven Temperature Data Recorders

During the powder coating process the product must pass through an oven. During this baking (or stoving) process the powder melts, flows, gels and finally chemically reacts and cures. It is critical to the coating's final performance and appearance that the parameters for both temperature and time at temperature are controlled.

Failure to maintain the correct temperature profile can cause problems in the final performance and durability of the coating. It is imperative to ensure there are no hot or cold spots within the oven, and also that the temperature of the product being coated is sufficient to meet the technical specifications of the powder coating.

Variation of the oven temperature profile from batch to batch will lead to changes in the coating's life-time performance. Controlling the cure process will ensure a high quality product time after time.



At a glance:

- **Oven temperature recorder for either batch ovens, static ovens or in line conveyor ovens**
- **Suitable for wet coating or powder coating process**
- **Immediate results displayed on LCD**

The Elcometer 215 is an easy to use oven temperature data recorder, ideal for measuring the temperature profiles of both the sample and the oven during the curing process.

Logging both the product's surface temperature and the air temperature in the oven, the Elcometer 215 identifies the achieved "Temperature Profile" and provides the User with information to ensure consistent quality.

Suitable for powder coating, wet coating, batch and conveyor ovens, the Elcometer 215's measurements, analysis capabilities and tailor-made reporting options generate comprehensive details of the curing processes.

The data logger is fitted with a large display for easy menu-driven operation and an immediate display of the measurement results.

- **Maximize productivity:**
 - Reduce rejects and reworks due to poor oven performance.
- **Minimize energy costs:**
 - Avoid running the ovens at unnecessarily high temperatures or with long through-put times.
- **Optimise finishing quality:**
 - Logging temperature profiles provides the information required to ensure consistent quality.
- **Datalogger software:**
 - Comprehensive calculations and fully customised reports are easily produced with the Elcometer 215 Software supplied as standard with each gauge.
- **Choice of kits available:**
 - Standard and Top models available



Technical Specifications

	Elcometer 215 Standard	Elcometer 215 Top
Number of Channels		6 K-Type
Temperature Range		-200°C to 1300°C
Operating Temperature		-30°C to 65°C
Accuracy		5°C to 500°C: $\pm 0.5^\circ\text{C}$; >500°C: $\pm 1.0^\circ\text{C}$
Resolution		0.1°C
Measuring Intervals		Adjustable from 8 per second to 1 per hour
Memory		260,000 readings or 8 production runs
Power Supply		2 x AA Batteries
Data Output		USB / PLC3
Thermal Characteristics	Thermal Barrier without Heat Sink	Thermal Barrier with Heat Sink
	100°C for 140 minutes	100°C for 340 minutes
	150°C for 80 minutes	150°C for 195 minutes
	200°C for 60 minutes	200°C for 130 minutes
	250°C for 50 minutes	250°C for 100 minutes
Dimensions (Logger only)		153 x 101 x 23mm
Dimensions (Logger & Thermal Barrier)		245 x 245 x 115mm
Weight (Logger only)		450g
Weight (Logger & Thermal Barrier)	4kg	6kg
Part Number	G215----2S	G215----2T
Packing List	Elcometer 215 Oven Data Logger, thermal barrier, Elcometer 215 software, USB Cable, carry case, 2 x AA batteries and operating instructions.	Elcometer 215 Oven Data Logger, thermal barrier with heat sink block, Elcometer 215 software, USB Cable, carry case, 2 x AA batteries and operating instructions.

Elcometer 215 probes are supplied separately. Please order using the part numbers below.

Part Numbers

Model	Description	Part Number
Elcometer 215	Elcometer 215 Standard Kit	G215----2S
	Elcometer 215 Top Kit	G215---2T
Spares / Accessories	Probe Identification Tags - <i>Set of brass tags numbered 1-6, 27mm in diameter with 100mm nickel plated steel chain - ideal for identifying the probes attached to the logger</i>	T21521241
	Thermal Barrier for Elcometer 215 Standard Kit	T21521222
	Thermal Barrier for Elcometer 215 Top Kit (Heat Sink Block not included)	T21521217
	Heat Sink Block for Elcometer 215 Top Kit	T21521219
	Data Logger to PC USB Cable	T21521220
	Data Logger to HP Printer Cable - <i>The Elcometer 215 Oven Data Logger can be used with HP Printers which have USB connection and support PCL3 protocol</i>	T21521221

Elcometer 215 Probes

A wide range of K-Type temperature probes is available with a choice of 1.5m, 3m or 6m cable lengths. The Elcometer 215 can be used with a combination of up to 6 probes simultaneously.

- Perfect contact between probe and surface
- Low mass and optimised shape to avoid influence on temperature of the sample
- Extremely strong, highly flexible and easy to clean Teflon® coated cables

All probes have a continuous maximum temperature of 260°C with a short time maximum of 300°C.



Description

Part Number / Cable Length

1.5m 3m 6m



Clamp Air Probe

T21521275

T21521276

T21521277



Magnetic Air Probe

T21521287

T21521288

T21521569



Clamp Surface Probe

T21521278

T21521279

T21521280



Magnetic Surface Probe

T21521281

T21521282

T21521283



Combined Probe - *Can be used as a Magnetic Air, Magnetic Surface, Clamp Air or Clamp Surface Probe*

T21521284

T21521285

T21521286

Elcometer 215 Oven Data Logger Software

The Elcometer 215 is supplied with software which has been designed specifically for the powder & paint cure processes.

Features include:

- Informs you immediately after the process whether the paint is sufficiently cured.
- Choice of five languages; English, French, German, Spanish and Italian.
- Cure specifications from the powder supplier can be applied with upper and lower limits
- Important information such as thermostat settings, track speed, type of paint, client data etc can be added to print a complete quality report
- Can be connected to a HP Printer† for immediate results

A "User Settings Wizard" is incorporated making it easy to add fields such as sample rate, paint type, temperature units, cure specification, probe names, date and time.

It is easy to create your own paint library, complete with cure specifications.

The "Download Logger Wizard" makes downloading data easy.

The Outgoing Mail configuration enables any report to be quickly e-mailed. All reports produced can be personalised to show your name, address, logo and website automatically.

Advance calculation functions combined with enhanced process files make it possible to evaluate every part of the cure process and quickly judge the oven performance. Adjustments such as line speed or oven temperature can then be made.

Each batch of data can be viewed and analysed in various formats.

