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Elcometer 215 Oven Data Logger

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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.

- **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

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.

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TECHNICAL SPECIFICATION		
Description	**Elcometer 215 Standard**	**Elcometer 215 Top**
Number of Channels	6 K-Type	
Temperature Range	-200ºC to 1300ºC (-328ºF to 2372ºF)	
Operating Temperature	-30ºC to 65ºC (-22ºF to 149ºF)	
Accuracy	5ºC to 500ºC: ±0.5ºC; >500ºC: ±1.0ºC (41ºF to 932ºF: ±1.0ºF; >932ºF: ±2.0ºF)	
Resolution	0.1ºC (0.2ºF)	
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 100ºC (212ºF) for 140 minutes 150ºC (302ºF) for 80 minutes 200ºC (392ºF) for 60 minutes 250ºC (482ºF) for 50 minutes	Thermal Barrier with Heat Sink 100ºC (212ºF) for 340 minutes 150ºC (302ºF) for 195 minutes 200ºC (392ºF) for 130 minutes 250ºC (482ºF) for 100 minutes
Dimensions (Logger only)	153 x 101 x 23mm (6 x 4 x 0.9”)	
Dimensions (Logger & Thermal Barrier)	245 x 245 x 115mm (9.65 x 9.65 x 4.5”)	
Weight (Logger only)	450g (15.8oz)	
Weight (Logger & Thermal Barrier)	4kg (8.8lb)	6kg (13.2lb)
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 on page 3.

MISCELLANEOUS SPARES & ACCESSORIES	
Description	**Part Number**
Probe Identification Tags - *Set of brass tags numbered 1-6, 27mm (1”) in diameter with 100mm (3.94”) nickel plated steel chain – ideal for identifying the probes attached to the logger*	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 - *The Elcometer 215 Oven Data Logger can be used with HP Printers which have USB connection and support PCL3 protocol*	T21521221

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Elcometer 215 Probes

A wide range of K-Type temperature probes is available with a choice of 1.5m (4'9"), 3m (9'8") or 6m (19'7") 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 250ºC (482ºF).

ELCOMETER 215 PROBES				
Description		**Part Number / Cable Length**		
		1.5m (4'9")	**3m (9'8")**	**6m (19'7")**
	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

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Elcometer 215 Software

The Elcometer 215 is supplied with software which has been designed specifically for the powder and 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.
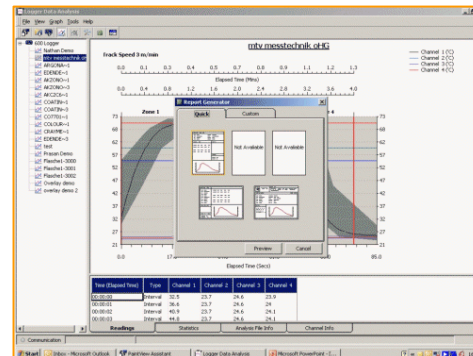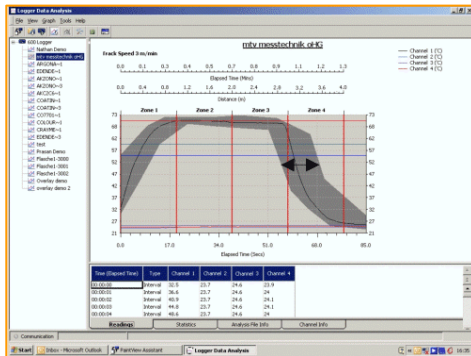
[†]   *Printing the results requires the use of a suitable printer and logger-to-printer USB connection cable. The logger requires a printer with PCL3 emulation capability and a USB connection. A number of HP Deskjet and Officejet printers support this function. Please contact your HP Reseller for possible choices.*

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Related Products

Elcometer 319

Elcometer 319 Digital Dewpoint Meter
Available in two models; Standard and Top, the Elcometer 319 has been designed to measure and record all the relevant climatic parameters required to determine whether conditions are suitable for painting.

Elcometer 456

Elcometer 456 Digital Coating Thickness Gauge with Bluetooth®
The new version of the Elcometer 456 now benefits from a larger display for easy data viewing and a simple calibration feature to make testing even quicker. The Elcometer 456 also features Bluetooth® wireless technology for fast data transfer to ElcoMaster™ Software, ideal for easy report generation and archiving of readings.

Elcometer 1506

Elcometer 1506 Cylindrical Mandrel Bend Tester
Mechanical tester used to determine the effects of bending on the elasticity, adhesion and elongation properties of cured coatings on sheet metal – similar to the Elcometer 1510.

Elcometer 407

Elcometer 407 Statistical Glossmeter
A handheld gauge for measuring gloss at 20°, 60° and 85° and can be connected to the Elcometer Novo-Soft™ Software for further analysis and archiving.

Elcometer 214

Elcometer 214 Infra-red Thermometer
A compact, lightweight and easy to use non-contact infrared thermometer, with a temperature range of –32°C to 420°C (-20°F to 788°F). The narrow beam ensures accurate readings of objects as small as 13mm.

www.elcometer.com

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