

**Elcometer 213**

**Digital Thermometer**

**Operating Instructions**



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A copy of this Instruction Manual is available for download on our Website via [www.elcometer.com/downloads](http://www.elcometer.com/downloads).

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**WARNING:** This instrument uses a Liquid Crystal Display. If the crystal is heated above +50°C (+ 120°F) it may be damaged. For instance, this can happen if it is left inside a parked car in strong sunlight.

Thank you for your purchase of this Elcometer 213 Digital Thermometer. Welcome to Elcometer.

Elcometer are world leaders in the design, manufacture and supply of inspection equipment for coatings and concrete. Our products cover all aspects of coating inspection, from development through application to post application inspection.

Your Elcometer 213 Digital Thermometer is a world beating product. With the purchase of this product you now have access to the worldwide service and support network of Elcometer. For more information visit our website at [www.elcometer.com](http://www.elcometer.com)

## **1 ABOUT THIS INSTRUMENT**

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The Elcometer 213 Digital Thermometer uses a Type K thermocouple probe to measure temperature. Four types of probe are available; surface probe, liquid probe, needle probe and magnetic surface probe. Any of these can be connected without the need to make adjustment to the 213. The instrument is powered by a 9 volt battery.

## 2 WHAT THE BOX CONTAINS

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- Elcometer 213 Digital Thermometer
- PP3 9V Battery
- Operating instructions

Note: A probe is not supplied with the thermometer. Probes must be ordered separately - see 'Probes' on page 6.

The Elcometer 213 Digital Thermometer is packed in a cardboard and foam package. Please ensure that this packaging is disposed of in an environmentally sensitive manner. Please consult your local Environmental Authority for further guidance.

To maximise the benefits of your new Elcometer 213 Digital Thermometer please take some time to read these Operating Instructions. Do not hesitate to contact Elcometer or your Elcometer supplier if you have any questions.

## 3 OPERATING INSTRUCTIONS

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3.1 Slide off the battery compartment cover at the back of the instrument. Connect a 9 volt battery and replace the cover.

3.2 Plug the probe into the socket at the top of the instrument. It will go in only one way.

3.3 Move the (**ON/OFF**) switch at the side of the unit and readings can now be taken. A '**LO BAT**' indication in the display means the battery should be replaced with a new one.

3.4 Place the probe onto or into the test surface and wait for the display to stabilise.

3.5 Switch the instrument **off** after use.

## **4 CALIBRATION**

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The response of the Elcometer 213 Digital Thermometer can be checked with a calibrated and certified thermocouple simulator for Type K probes.

Where Calibration Certificates are required it is recommended that the instrument and probes are recertified annually.

## **5 SERVICE**

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All probes for the Elcometer 213 Digital Thermometer are inter-changeable so any fault on a probe can be corrected by replacing with one of the other types, or a new example of the faulty probe.

The instrument does not contain any user-serviceable components. In the unlikely event of a fault, the instrument should be returned to your local Elcometer supplier or direct to Elcometer. The warranty will be invalidated if the instrument has been opened.

## 6 TECHNICAL SPECIFICATION

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Accuracy :	$\pm 1\%$ of the reading $\pm 1$ digit
Resolution :	1°C across the range
Power Supply :	1 x MN1604/PP3 (9V) Battery
Battery Life :	Approximately 200 hours
Operating Range :	-50°C to 1370°C <sup>a</sup>
Display :	12.7mm LCD Display
Dimensions :	36 x 80 x 147 mm (1.4" x 3.2" x 5.8")
Weight :	210g (0.46lb)

a. Operating range is dependent on probe used

## 7 PROBES

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### Description

Magnetic Surface Probe (13mm diameter)

Maximum Operating Temperature 150°C

Part Number : T21311728



Surface Probe (130 x 4.2mm diameter)

Maximum Operating Temperature 600°C

Part Number : T2136069-



Liquid Probe (130 x 3mm diameter)

Maximum Operating Temperature 850°C

Part Number : T2136390-





## Description

Needle Probe (130 x 3mm diameter)

Maximum Operating Temperature 400°C

Part Number :T2136391-



Other probes are available on request. Contact Elcometer for further information.

## 8 RELATED PRODUCTS

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In addition to the Elcometer 213 Digital Thermometer, Elcometer produces a wide range of environmental measuring equipment and other equipment for measuring the characteristics of surface coatings.

Users of the Elcometer 213/2 Digital Thermometer may also benefit from the following Elcometer products:

- Elcometer 214 Infrared Digital Thermometer
- Elcometer 214L Infrared Digital Thermometer with Laser alignment
- Elcometer 212 Digital Pocket Thermometer
- Elcometer 113 Magnetic Thermometer
- Elcometer Moisture Meters
- Elcometer 319/2 Dewmeter

For further information contact Elcometer, your local Elcometer supplier, or visit [www.elcometer.com](http://www.elcometer.com)

