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Elcometer 213/2

Digital Waterproof Thermometer

Operating Instructions

Declaration of Conformity:

This product complies with the requirements of the following EU Directives:

2014/30/EU EMC Directive
2011/65/EU Low Voltage Directive
2011/65/EU Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) - Directive

A CE Declaration of Conformity is available to download via:
https://downloads.elcometer.com/Declaration_of_Conformity/English/DoC_213_2.pdf

This product complies with the requirements of the following UK Standards

S.I. 2016 No. 1091	Electromagnetic Compatibility Regulations 2016
S.I. 2016 No. 1101	Electrical Equipment (Safety) Regulations 2016
S.I. 2012 No. 3032	Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Regulations 2012

A UKCA Declaration of Conformity is available to download via:
https://downloads.elcometer.com/Declaration_of_Conformity/English/DoC_213_2_UKCA.pdf

This product is Class B, Group 1 ISM equipment according to CISPR 11.
Class B product: Suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.
Group 1 ISM product: A product in which there is intentionally generated and/or used conductively coupled radio frequency energy which is necessary for the internal functioning of the equipment itself.

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Thank you for your purchase of this Elcometer 213/2 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 213/2 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

1 ABOUT YOUR GAUGE

The Elcometer 213/2 Digital Thermometer is a simple, easy-to-use, battery powered digital thermometer which allows quick and easy measurements of surface, air and liquid temperature as well as the temperature of soft materials.

1.1 GAUGE FEATURES

- Waterproof case offering IP66/67 protection
- Range -49°C to +1372°C (the maximum temperature is dependant on probe type)
- Extruded aluminium case for superior durability
- Rubber bumper seals for impact resistance
- Easy to read LCD display
- High accuracy

1.2 WHAT THE BOX CONTAINS

- Elcometer 213/2 Digital Thermometer with batteries fitted
- Operating instructions

Note: *A probe is not supplied with the thermometer. Probes must be ordered separately - see “Spare parts and accessories” on page 8.*

The Elcometer 213/2 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.

2 FITTING A BATTERY

When the battery voltage becomes low, ‘LO BAT’ is shown on the display. The instrument will continue to measure accurately while ‘LO BAT’ is shown, but changing the battery at the earliest convenience is recommended.

When the battery voltage becomes too low for the gauge to measure accurately, 'Flat' and then 'Bat' is shown on the display and the gauge will then switch off. The battery must be replaced at this time to continue using the gauge.

To change the battery:

1. Using a Posidrive (crosshead) screwdriver, remove the two battery compartment cover retaining screws on the base of the gauge and release the battery pack.
2. Fit the new batteries into the battery clips taking care to observe the correct polarity.
3. Replace the battery compartment cover ensuring that the seals are not damaged and are correctly positioned.
4. Tighten the retaining screws firmly to ensure that the seals are compressed and will provide a water-resistant seal.

Note: *Batteries must be disposed of carefully to avoid environmental contamination. Please consult your local Environmental Authority for information on disposal in your region.*

Do not dispose of any batteries in fire.

3 FITTING A PROBE

Your Elcometer 213/2 Digital Thermometer should only be used with a 'K Type' thermocouple probe made to BS EN 60584:1996 which is fitted with a suitable miniature thermocouple plug. A range of suitable probes is available from your Elcometer supplier or direct from Elcometer - see “Spare parts and accessories” on page 8.

Probes are fitted to the socket at the top of the gauge. When fitting a probe, never force the probe connector into the socket if the connector and socket do not easily join. Make sure the connector matches the socket and that it is properly aligned and undamaged before fitting.

4 TAKING A READING

1. To switch on the gauge, press 
2. Apply the tip of the probe to the substance, medium or surface to be measured.
   The reading on the display may take a number of seconds to stabilise depending on the nature of the measurement and the sensitivity of the probe.
3. If required, to freeze the reading on the display, press  . ‘HOLD’ is shown on the display.
4. Press  again to return the gauge to normal measurement.
5. To switch off[a] the gauge, press 

a. The gauge will switch off automatically after 20 minutes of inactivity.

5 CHANGING MEASUREMENT UNITS

To change the instrument units from °C to °F or vice versa:

1. Switch off the gauge.
2. Press  but do not release the button.
3. While continuing to press  , press  to switch on the gauge.
4. Continue to press  for seven seconds until the units change in the display.
5. Release 

6 ERROR MESSAGES

The following error messages may be shown on the display:

‘LO’: You are attempting to measure below the specified temperature range of the gauge

‘HI’: You are attempting to measure above the specified temperature range of the gauge

‘Err’: No probe is fitted or there is a fault with the probe

7 MAINTENANCE/STORAGE

You own one of the finest digital thermometers in the world. If looked after, it will last a lifetime.

- Be careful not to scratch the LCD screen or break the glass screen.
- Do not subject the gauge to a strong impact.
- Clean the gauge with a soft, dry cloth such as those made to clean eyeglasses. Do not use solvents!

This gauge incorporates a Liquid Crystal Display. If the display is heated above 50°C (120°F) it may be damaged. This can happen if the gauge is left in a car parked in strong sunlight.

Regular calibration checks over the life of the gauge are a requirement of quality management procedures, e.g. ISO 9000, and other similar standards. For checks and certification contact Elcometer or your Elcometer supplier. Your gauge does not contain any user-serviceable components .In the unlikely event of a fault, the gauge should be returned to your Elcometer supplier or directly to Elcometer. The warranty will be invalidated if the instrument has been opened

Contact details can be found on the outside cover of these operating instructions and at www.elcometer.com

8 SPARE PARTS AND ACCESSORIES

The following spare parts and accessories are available direct from Elcometer or your local supplier:

Beschrijving	Reeks	Artikelnummer
Magnetic Surface Probe, 13mm (0.51”) Diameter	-50°C to 150°C (-58°F to 302°F)	T99911728
Surface Probe, 130 x 4.2mm (5.11 x 0.17”) Diameter	-50°C to 600°C (-58°F to 1112°F)	T2136069-
Liquid Probe,130 x 3mm (5.11 x 0.12”) Diameter	-200°C to 1100°C (-328°F to 2012°F)	T9996390-
Needle Probe, 130 x 3mm (5.11 x 0.12”) Diameter	-50°C to 400°C (-58°F to 725°F)	T2136391-

9 TECHNICAL SPECIFICATIONS

Measurement Range:	-49°C to +1372°C (-56°F to +2500°F)
Resolution:	0.1°C (0.1°F) up to +299.9°C (+ 599.9°F)
	1°C (1°F) above +299.9°C (+ 599.9°F)
Accuracy:	±1% of the reading ±1 digit
Probe:	'K type' Thermocouple
Ambient Temperature:	0°C to +50°C (0°F to +122°F)
Case Dimensions:	35 mm x 60 mm x 115 mm (1.4" x 2.4" x 4.5")
Weight:	194 g (6.9 oz)
Display:	12 mm LCD
Battery:	3 x AAA (LR03) 1.5V
Battery Life:	Approximately 5000 hours