

Elcometer 309 Delta T Hygrometer



Elcometer 309 Delta T
Hygrometer

At a glance:

- **Reliable ΔT and %RH readings in a single, user-friendly gauge without the need for additional equipment.**
- **Rugged design**
Suitable for use in extreme environments the Elcometer 309 is dustproof and waterproof with fully sealed sensors.
- **High / Low Limits**
Displayed on screen graphically as either (✓) or (×) with flashing Red or Green LED's to indicate pass or fail.
 - **Delta T temperature:** ΔT is pre-set at $>3^{\circ}\text{C}$ ($>5^{\circ}\text{F}$), the industry norm.
 - **Relative Humidity:** User definable upper limit can be set for RH.
- **Measurement Hold / Release function**
With a single button press readings are 'frozen' on the screen. These can then be recorded before, simply pressing the button again to 'unfreeze' the screen and then take further readings as necessary.
- **Backlight**
Provides clearly lit information – ideal in dark or confined spaces.

Before painting, the coater must meet the coatings' parameters. These are clearly specified on the paint manufacturer's product data sheet.

Relative Humidity (RH) and Delta T (ΔT) are the two climatic values which are specified on data sheets.

The Elcometer 309 Delta T Hygrometer provides a simple and fast measurement of these two critical characteristics.

- **Delta T (ΔT):** The difference between the surface temperature (T_s) and the dewpoint temperature (T_d).

When ΔT is less than 3°C (5°F) painting should not occur.

- **Relative Humidity (RH):** This is the amount of water vapour taken up by air.

Expressed as a percentage, RH is dependent on the air temperature.

Typical maximum RH values specified by paint manufacturers are between 75% and 85%.

Climatic Testing

The monitoring of climatic conditions such as temperature, relative humidity, dewpoint and moisture when coating is vital to the lifetime performance of the coating.

In the protective coatings industry, moisture can form on the surface when the surface temperature is low enough to cause condensation from the atmosphere. The Dewpoint Temperature (T_d) is the point at which this occurs.

Monitoring air temperature (T_a) and its relative humidity (%RH) allows the dewpoint temperature to be calculated and compared to the surface temperature (T_s). The difference in temperature (ΔT) is the key parameter dictating when it is safe to apply the coating.

Can be used in accordance with:
BS 7079-B4
ISO 8502-4

TECHNICAL SPECIFICATION	
Temperature Range (Air & Surface)	-20 to +80°C (-4 to +176°F)
Relative Humidity (RH) Range	0 to 100%RH (Default upper limit 75%, user adjustable)
Resolution	0.1°C / 0.1%
Power Supply	2 x AA 1.5V Batteries or via USB Cable
Battery Life	Greater than 40 hours (Backlight off)
Dimensions	180 x 75 x 35mm (7 x 3 x 1.4")
Weight	300g (10.6oz)
Part Number	G309---- 1 Elcometer 309 Delta T Hygrometer
Packing List	Elcometer 309 Delta T Hygrometer, wrist strap, 2 x AA batteries, protective pouch with belt clip, RH probe calibration certificate and operating instructions.

SPARES & ACCESSORIES	
Protective Carry Case / Pouch	T99921192
USB Cable	T99921325
Wrist Strap	T99916063
Optional Calibration Certificate	TCAL-309F

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 224

Elcometer 224 Digital Surface Profile Gauge with Bluetooth®

The Elcometer 224 Digital Surface Profile Gauge provides an accurate way to measure surface profiles in microns and mils. The Elcometer 224 Model T has a large built-in memory which can store up to 50,000 readings in 999 batches and offers Bluetooth® wireless technology for cable free data transfer.



Elcometer 138/2

Elcometer 138/2 Surface Contamination Kit:

Supplied with Elcometer 135A Bresle Samplers and various test strips, this kit provides a low cost, simple method of measuring the salt, pH, chloride and iron (ferrous ion) concentration on a test surface in accordance with ISO 8502-6.

ENGLAND

Elcometer Limited
Edge Lane
Manchester M43 6BU

Tel: +44 (0)161 371 6000
Fax: +44 (0)161 371 6010
e-mail: sales@elcometer.com
www.elcometer.com

USA

Elcometer Inc
1893 Rochester Industrial Drive
Rochester Hills Michigan 48309

Tel: +1 248 650 0500
Toll Free: 800 521 0635
Fax: +1 248 650 0501
e-mail: inc@elcometer.com
www.elcometer.com

ASIA & THE FAR EAST

Elcometer (Asia) Pte Ltd
896 Dunearn Rd
Sime Darby Centre #3-09
Singapore 589472,
Republic of Singapore

Tel: +65 6462 2822
Fax: +65 6462 2860
e-mail: asia@elcometer.com
www.elcometer.com

BELGIUM

Elcometer SA
Rue Vallée 13
B-4681 Hermalle /s Argenteau

Tel: +32 (0)4 379 96 10
Fax: +32 (0)4 374 06 03
e-mail: be_info@elcometer.be
www.elcometer.be

NETHERLANDS

Elcometer NL
Newtonlaan 115
3584 BH Utrecht

Tel: +31 (0)30 210 7005
Fax: +31 (0)30 210 6666
e-mail: nl_info@elcometer.com
www.elcometer.com

FRANCE

Elcometer Sarl
97 Route de Chécy
45430 BOU

Tel: +33 (0)2 38 86 33 44
Fax: +33 (0)2 38 91 37 66
e-mail: fr_info@elcometer.fr
www.elcometer.fr

GERMANY

Elcometer Instruments GmbH
Ulmer Strasse 68
D-73431 Aalen

Tel: +49 (0)7361 52806 0
Fax: +49 (0)7361 52806 77
e-mail: de_info@elcometer.de
www.elcometer.de