

# Elcometer 309 Delta T Hygrometer

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



The Elcometer 309 digital Delta T Hygrometer provides a simple and fast measurement of Delta T temperature and relative humidity.

Delta T ( $T\Delta$ ) is the difference between the surface temperature ( $T_s$ ) and the dewpoint temperature ( $T_d$ ). When  $T\Delta$  is less than  $3^\circ\text{C}$  painting should not occur.

Relative Humidity (RH) - expressed as a percentage, RH is the ratio of the amount of water vapour actually held by the air, compared to the maximum amount of water vapour the air could hold at a given temperature. Typical maximum RH values specified by paint manufacturers are between 75% and 85%.

## Features

- 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 a tick or x with flashing Red or Green LEDs to indicate pass or fail.
  - Delta T temperature: Delta T 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.

\* Standards not in bold have been superseded but are still recognised in some industries

## Technical Specifications

Part Number	Description	Certificate
G309----1	Elcometer 309 Delta T Hygrometer	●
Operating Range	-20°C to +80°C	
Air Temperature (T <sub>A</sub> )	-20°C to +80°C	
Surface Temperature (T <sub>S</sub> )	-20°C to +80°C	
Relative Humidity (RH) & Accuracy*	0% to 100% RH (±3%) (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	
Weight	300g	

\* At 1m/s

● Basic Calibration Certificate supplied as standard.

## Accessories

Part Number	Description
T99921192	Protective Carry Case / Pouch
T99921325	USB Cable
T99916063	Wrist Strap
TCAL-309F	Optional Full Calibration Certificate



## Packing List

Elcometer 309 Dewpoint Meter
AA Batteries (x2)
Wrist Strap
Protective Pouch with Belt Clip
RH Probe Calibration Certificate
Operating Instructions

## Video



### YouTube Video - An Introduction to Climatic Testing (Click on the image to the left to view)

When it comes to applying a coating; whether in a shipyard, in a construction yard, or even in a warehouse; even if you have successfully controlled and monitored the surface cleanliness, surface profile, and both the wet and dry film thickness, if the climatic conditions are wrong at the time of application, this could cause the coating to fail – regardless of the success of the other parameters.