

# Elcometer 319 Dewpoint Meter with *Bluetooth*®†



Elcometer 319 Dewpoint Meter  
with Bluetooth®†

## At a glance:

Bluetooth®† wireless technology for fast data transfer, ideal for easy report generation and archiving of readings

Measure and record climatic parameters:

- Relative Humidity
- Ambient Air Temperature
- Surface Temperature
- Dewpoint Temperature
- Difference between surface temperature and dewpoint
- Dry Bulb Temperature
- Wet Bulb Temperature<sup>1</sup>
- Specific Humidity<sup>1</sup>

Built-in statistics:

- Number of Readings
- Mean
- Standard Deviation
- Coefficient of Variation
- Highest Reading
- Lowest Reading

The Elcometer 319 Dewpoint Meter has been designed to measure and record all the relevant climatic parameters required to determine whether conditions are suitable for painting.

- **User friendly**  
Intuitive, multi-lingual menu structure with large, customer definable illuminated display.
- **Rugged design**  
Dustproof and waterproof equivalent to IP66 with fully sealed sensors, suitable for use in the harshest of environments.
- **Integrated high power magnets**  
Attach the gauge to any ferrous metal object without the need for additional equipment.
- **Versatile instrument**  
A hand-held Dewpoint Meter and remote data logging monitor in a single gauge†.
- **High / Low limits**  
Limits can be set against any or all parameters, with visual and audible alarms when limits are exceeded.
- **Memory:**  
The Standard gauge has a 10 reading rolling memory. The Top gauge has the added advantage of a large inbuilt memory to accurately record each measurement, storing up to 25,000 sets of readings in 999 batches.
- **Bluetooth®† data output**  
Wireless connectivity from the gauge to a PC. Data can be downloaded to a PC and, using ElcoMaster™ Software, supplied free of charge, detailed reports can be created in seconds. Using ElcoMaster™ Mobile Software, data can be e-mailed directly to the office from the field using a PDA.

## Climatic Testing

The monitoring of climatic conditions such as temperature, relative humidity, dewpoint and moisture in industry is often vital to the success of the application of the coating. These parameters determine both the conditions for application of a coating, and the resulting quality and performance of the coated product.

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 (Td) is the point at which this occurs.

Monitoring air temperature (Ta) and its relative humidity (%RH) allows the dewpoint temperature to be calculated and compared to the surface temperature (Ts). 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  
IMO MSC.215(82)  
IMO MSC.244(83)  
ISO 8502-4  
US Navy NSI 009-32  
US Navy PPI 63101-000

† Elcometer 319 Top only

<sup>1</sup> Calculated Value



## Accurate

- Rapid response time
- User switchable between Celsius and Fahrenheit
- Date and time stamping of all readings data

## Simple

- Easy menu-driven user interface in multiple languages
- Clear, illuminated display showing up to five parameters from:
  - RH: % Relative Humidity
  - Ts: Surface Temperature
  - Ta: Ambient Air Temperature
  - Td: Dewpoint Temperature
  - TΔ: The difference between Td and Ts
  - Tdb: Dry Bulb Temperature
  - Twb<sup>1</sup>: Wet Bulb Temperature
  - SH<sup>1</sup>: Specific Humidity
- Temperature trend indicators for all parameters

## Flexible

- Can be used as either a hand-held dewpoint meter or as a remote data logging monitor<sup>†</sup>
- Integrated thermocouple socket for a magnetic surface probe or liquid probe
- The gauge can be transformed into a simple thermometer by selecting the "Te" mode – ideal for measuring a coating's temperature prior to application or other external temperatures
- Hold/Freeze function allows manual readings to be taken and reviewed before being logged into the memory

## Durable

- Manufactured from temperature resistant materials ensuring safe use in climates ranging between -20°C and 80°C (-4 °F to 176°F)
- Waterproof and dustproof equivalent to IP66
- Rugged and ergonomic design including fully sealed, durable sensors

## Versatile

- Data can be downloaded to a PC via USB or Bluetooth® and evaluated using ElcoMaster™ Software<sup>†</sup>
- Each gauge can be powered by either 2 AA batteries or directly via the USB cable
- Adjustable limits can be set for each measurement parameter which trigger visual and audible alarms whenever a limit is exceeded – even if it is not displayed on screen

<sup>†</sup> Elcometer 319 Top only

<sup>1</sup> Calculated Value

FEATURES	STANDARD	TOP
<b>Reading Parameters</b> - RH, Ta, Ts, Td, TΔ, Tdb, Twb <sup>†</sup> , SH <sup>†</sup>	•	•
<b>Statistics</b> - Number of readings, standard deviation, mean, coefficient of variation, minimum, maximum	•	•
<b>Dustproof &amp; Weatherproof Gauge with Fully Sealed Sensors (Equivalent to IP66)</b>	•	•
<b>Integral Magnets</b> - Secures the gauge to any ferrous metal object	•	•
<b>High/Low Limits</b> - Audible, visual, Red/Green LED alarms can be set against any or all parameters	•	•
<b>Multi Language Menus</b>	•	•
<b>Backlight</b> - User selectable, brightness adjustment and timeout	•	•
<b>K-Type Connector for External Measurement</b>	•	•
<b>Memory</b> - With readings and statistics review	Last 10 records	25,000 records in 999 batches
<b>Manual Logging</b>	•	•
<b>Interval Logging</b>		User defined time intervals between 1 second and 24 hours
<b>USB &amp; Bluetooth® Wireless Data Output</b>		•
<b>ElcoMaster™ and ElcoMaster™ Mobile Software</b>		•
<b>Part Numbers</b>	G319----S	G319----T
<b>Packing List</b>	Elcometer 319 Dewpoint Meter, AA batteries (x2), wrist strap, carry case, calibration certificate, USB Cable <sup>†</sup> , ElcoMaster™ & ElcoMaster™ Mobile Software <sup>†</sup> and operating instructions	

<sup>†</sup> Elcometer 319 Top only<sup>†</sup> Calculated Value

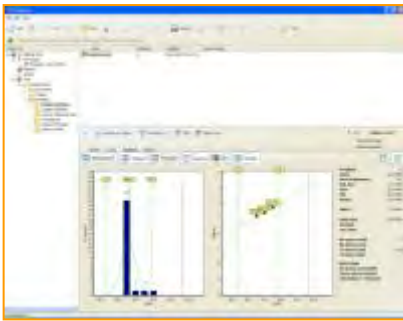
TECHNICAL SPECIFICATION			
	Temperature Range	Accuracy	Resolution
<b>Gauge<sup>#</sup></b>	-40 to +200°C (-40 to +392°F)	±0.5°C (±1°F)	0.1°C (0.1°F)
<b>Air Temperature (Ta)</b>	-20 to +80°C (-4 to +176°F)	±0.5°C (±1°F)	0.1°C (0.1°F)
<b>Surface Temperature (Ts)</b>	-20 to +80°C (-4 to +176°F)	±0.5°C (±1°F)	0.1°C (0.1°F)
<b>External K-Type Thermocouple (Te)<sup>#</sup></b>	-20 to +80°C (-4 to +176°F)	±0.5°C (±1°F) <sup>‡</sup>	0.1°C (0.1°F)
<b>Relative Humidity (RH)</b>	0 to 100%RH	±3%RH	0.1%
<b>Specific Humidity</b>	0 g/kg to 325 g/kg (0 gr/lb to 2275 gr/lb)	±8%	0.1 g/kg (0.1gr/lb)
<b>Gauge &amp; LCD Operating Temperature</b>	-20 to +80°C (-4 to +176°F)		
<b>Power Supply</b>	2 x AA 1.5V Batteries or via USB Cable		
<b>Battery Life</b>	Manual Mode: Greater than 40 hours (Backlight off) Interval Logging <sup>†</sup> : Up to 400 hours (1 reading every 10 minutes)		
<b>Dimensions</b>	180 x 75 x 35mm (7 x 3 x 1.4")		
<b>Weight</b>	300g (10.6oz)		

<sup>†</sup> Elcometer 319 Top only<sup>‡</sup> Accuracy ±2°C (±4°F) with K Type probes supplied by Elcometer. Probes supplied by other manufacturers may vary<sup>#</sup> Do not expose the gauge to temperatures outside the gauge and LCD operating range

SPARES & ACCESSORIES	
Magnetic Surface Probe; -20 to +80°C (-4 to +176°F)	T31920162
Liquid Temperature Probe; -200 to +1100°C (-328 to +2012°F)	T9996390-
Protective Carry Case / Pouch	T99921192
USB Cable	T99921325
Wrist Strap	T99916063

## ElcoMaster™ Data Management Software†

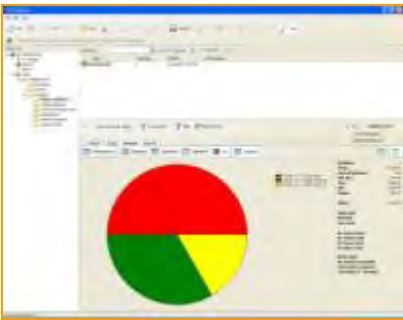
ElcoMaster™ makes it easy to collate and use recorded data and is provided free of charge with the Elcometer 319 Top model. Inbuilt report templates and easy access to all data, images and other associated files, simplify data management.



The software has been designed to be familiar and intuitive to any PC user. When the gauge is connected to the PC, individual readings can be sent directly into the software for real time analysis or simply 'drag and drop' a batch from the gauge to the software.

Other associated, health and safety reports etc, can be stored within ElcoMaster™ - providing one programme that holds all the inspection information in one location.

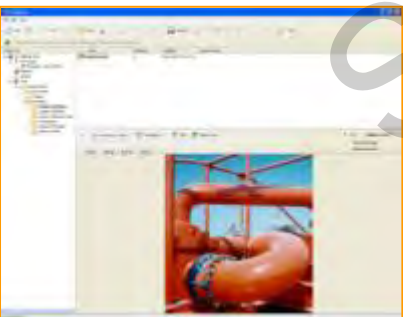
Viewing data and producing standard reports is achievable in just a few clicks. Fully customised reports can be produced quickly by using the ElcoMaster™ report designer. Existing forms can be scanned into ElcoMaster™ for the software to auto fill the relevant data.



Digital photographs can be assigned to an individual batch of data, allowing visual display of the inspection area in reports. Batches can be combined for immediate comparison of data from various areas of the job site.

ElcoMaster™ features include:

- Create professional reports in seconds.
- Export reports to spreadsheets, text files or save as PDF or JPEG files.
- Copy and paste reports into other documents.
- Reports can be combined in order to clearly compare different batches.
- E-mail reports directly from ElcoMaster™.
- Assign batch identification tags.
- Batches can be renamed to clearly identify the inspection batch.
- Wide range of standard reports include;
  - Individual measurements
  - Statistics
  - Histograms
  - Individual line or bar charts
  - Log normal
  - Pie charts
- Fully customise reports using the ElcoMaster™ report designer tool.
- Include company graphics and logos on every report.
- Combine batches to compare readings or link batches together from different gauges into one comprehensive inspection file.
- Find feature to quickly locate a specific file or batch.



† Elcometer 319 Top only

## Related Products



Elcometer 224

### Elcometer 224 Digital Surface Profile Gauge with Bluetooth®

The Elcometer 224 provides the very latest in surface profile measuring technology. Accurate, fast and very user friendly, the Elcometer 224 Model B displays statistical values as readings are taken. The Model T has the advantage of a large built-in memory to accurately record up to 150,000 readings in 2,500 batches.



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 Inspection Kits

### Elcometer Inspection Kits

Site inspection requires a range of portable testing equipment. In order to make these products easily available and transportable, Elcometer have developed a range of inspection kits. All the gauges are conveniently stored in a hard plastic protective carrying case and are supplied with full operating instructions.

Local Distributors: Syntech Surface Finishing Specialists

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