

# Elcometer 319 Dewpoint Meter with Bluetooth

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**

The Elcometer 319 Dewpoint Meter with a robust temperature sensor is designed to measure and record all relevant climatic parameters required to determine whether the conditions are suitable for painting.

During the application of a coating, the presence of moisture in the environment, or on the work surface, often results in a poor-quality finish. Problems such as poor adhesion of the coating or premature corrosion of the substrate can occur. To determine the presence of moisture that could affect the quality of the finish, it is essential that the surface temperature, air temperature and relative humidity (RH) are all measured to calculate the dewpoint ( $\Delta T$ ) before proceeding.

## At a glance:

- A hand-held dewpoint meter with both manual and automatic data logging in one gauge
- Integrated magnets allow the dew point gauge to be attached to the substrate during remote logging
- Stores 25,000 records in up to 999 batches
- Dustproof and waterproof gauge with fully sealed sensors (equivalent to IP66)
- Gauges can be recertified at Elcometer Authorised Service Centres
- Robust temperature sensors
- Easy to use, intuitive menu structure
- Measure and record climatic parameters:
- Relative humidity
- Air temperature
- Surface temperature
- Dewpoint temperature
- $T\Delta$  (the difference between surface temperature and dewpoint)
- Dry Bulb temperature
- Wet Bulb temperature
- External temperature correction (K-type)
- Specific Humidity
- Visual and audible indication of user defined limits for any or all parameters
- USB and Bluetooth® data output to ElcoMaster® software



Large easy to read measurements in degrees °C or °F



View up to 5 user selectable statistics on screen



Review individual readings

## Features:

### Accurate

- Meets ISO 8502-4
- Each instrument is supplied with a Calibration Certificate
- Readings are switchable between Celsius and Fahrenheit
- All readings are time & date stamped

### Simple

- Easy menu-driven user interface in multiple languages
- Clear, illuminated display showing up to five user-defined parameters
- Arrow indicators show temperature trends

### Flexible

- The gauge can be used as either a hand-held dewpoint meter or as a remote data logging monitor†
- Integrated K-Type connector allows measurement of surface temperature during remote logging using a remote probe
- Using an external probe, the “Te” mode transforms the gauge into a thermometer - ideal for measuring temperature of a paint prior to application
- Hold/freeze function allows manual readings to be reviewed before being added into the memory

### Durable

- Safe use in climates ranging between
- -20°C (-4°F) and +80°C (+176°F)
- Waterproof and dust proof rating equivalent to IP66
- Rugged and ergonomic design, re-engineered sensors have greater durability for an extended life

### Versatile

- Rapid response time
- Data can be downloaded to a PC via USB or Bluetooth® and evaluated using ElcoMaster® Software†
- Dew Point Meter for Mobile Devices
- Each gauge can be powered by either 2 AA batteries (for up to 400 hours# use) 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
- Intelligent memory calculates total available logging time when using batches
- Gauges can be recertified at Elcometer Authorised Service Centres

## Accessories:

- T31920162 Magnetic Surface Temperature Probe; -40 to +80°C  
 T9996390- Liquid Temperature Probe; -200 to +1100°C  
 T99921325 USB Cable  
 T99916063 Wrist Strap  
 T99923480 Protective Carry Case/Pouch



## Technical Specifications

Model	Model S	Model T
Part Number	G319----S	G319----T
Reading Parameters - RH, Ta, Ts, Td, TΔ, Tdb, Twb <sup>1</sup> , SH <sup>1</sup>	■	■
Statistics - number of readings, standard deviation, mean, coefficient of variation, minimum, maximum	■	■
Dustproof & Waterproof Gauge with Fully Sealed Sensors - equivalent to IP66	■	■
Integral Magnets - secure the gauge during logging	■	■
High/Low Limits - audible, visual, red/green LED alarms can be set against any or all parameters	■	■
Multilingual Menus	■	■
Backlight- user selectable	■	■
K-Type Connector for External Measurement	■	■
Memory - with reading and statistic review	Last 10 records	25,000 records in 999 batches
Manual Logging	■	■
Interval Logging <sup>2</sup>	Adjustable between 1 second and 1 hour	
Data Output		
USB		■
Bluetooth® to computer, Android™ & iOS+ devices		■
ElcoMaster® software & USB cable		■
Certificate	■	■

	Temperature Range	Accuracy	Resolution
Gauge#	-20 to +80°C	±0.5°C	0.1°C
Air Temperature (Ta)	-20 to +80°	±0.5°C	0.1°C
Surface Temperature (Ts)	-20 to +80°C	±0.5°C	0.1°C
External K-Type Thermocouple (Te)	-40 to +200°C	±0.5°C	0.1°C
Relative Humidity (RH)	0 to 100%RH	±3%RH5	0.1%
Gauge & LCD Operating Range	-20°C to +80°C		
Power Supply	2 x AA 1.5V Batteries or via USB Cable		
Battery Life	Manual Mode: Greater than 40 hours (Backlight Off) Interval Logging: up to 400 hours (1 reading every 10 minutes)		
Dimensions	180 x 75 x 35mm		
Weight	300g		

## Packing List

- Elcometer 319 Dewpoint Meter
- 2 x AA batteries
- wrist strap
- carry case
- calibration certificate
- USB cable+
- ElcoMaster®+ and operating instructions
- Elcometer 319 Dewpoint Meter

1 Calculated Value

2 With Part Number T31920162

3 Accuracy ±0.75°C below 10°C

4 Accuracy ±2°C with K Type probes supplied by Elcometer. Gauge tested with voltage input

5 At 1m/s

‡ Visit [www.elcometer.com/sdk](http://www.elcometer.com/sdk) to find out how to integrate Elcometer's MFi certified products to your App

# Do not expose the gauge to temperatures outside the gauge and LCD operating range

+ Model T only

• Certificate supplied as standard

