elcometer 319 Dewpoint Meter with Bluetooth

Can be used in accordance with ISO 8502-4
BS 7079-B4, IMO MSC.215(82), IMO MSC.244(83), US Navy NSI 009-32, US Navy PPI 63101-000

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 (ΔT) before proceeding.

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**
- **TΔ (the difference between surface temperature and dewpoint)**
- **Dry Bulb Temperature**
- **Wet Bulb Temperature[1]**

Built-in statistics:
- **Number of Readings**
- **Mean**
- **Standard Deviation**
- **Coefficient of Variation**
- **Highest Reading**
- **Lowest Reading**

Features

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**
  - o Intuitive, multi-lingual menu structure with large, customer definable illuminated display.

- **Rugged design**
  - o Dustproof and waterproof equivalent to IP66 with fully sealed sensors, suitable for use in the harshest of environments.

- **Integrated high power magnets**
  - o Attach the gauge to any ferrous metal object without the need for additional equipment.

- **Versatile instrument**
  - o A hand-held Dewpoint Meter and remote data logging monitor in a single gauge†.

- **High / Low limits**
  - o Limits can be set against any or all parameters, with visual and audible alarms when limits are exceeded.

- **Memory:**
  - o 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**
  - o 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.

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[1]: Wet Bulb Temperature
  - Temperature trend indicators for all parameters

Flexible

- Can be used as either a hand-held dewpoint meter or as a remote data logging monitor†
- 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 -20ºC and 80ºC
- 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†
- 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

Key :
† Elcometer 319 Top only
[1] Calculated Value
‡ Accuracy ±2ºC when using Elcometer supplied probes

Features

Features	Standard	Top
Reading Parameters - *RH, Ta, Ts, Td, TΔ, Tdb, Twb1*	•	•
Statistics - *Number of readings, standard deviation, mean, coefficient of variation, minimum, maximum*	•	•
Dustproof & Weatherproof Gauge with *Fully Sealed Sensors (Equivalent to IP66)*	•	•
Integral Magnets - *Secures the gauge to any ferrous metal object*	•	•
High/Low Limits - *Audible, visual, Red/Green LED alarms can be set against any or all parameters*	•	•
Multi Language Menus	•	•
Backlight - *User selectable, brightness adjustment and timeout*	•	•
K-Type Connector for External Measurement	•	•
Memory - *With readings and statistics review*	Last 10 records	25,000 records in 999 batches
Manual Logging	•	•
Interval Logging		User defined time intervals between 1 sec. & 24 hrs
USB & Bluetooth® Wireless Data Output		•
ElcoMaster™ and ElcoMaster™ Mobile Software		•
Part Numbers	G319----S	G319----T

Technical Specifications

	Range	*Accuracy*	*Resolution*
Air Temperature (Ta)	-20 to +80ºC	±0.5ºC	0.1ºC
Surface Temperature (Ts)	-20 to +80ºC	±0.5ºC	0.1ºC
External K-Type Thermocouple (Te)	-40 to +200ºC	±0.5ºC‡	0.1ºC
Relative Humidity (RH)	0 to 100%RH	±3%RH	0.10%
Gauge & LCD Operating Temperature		-20 to +80ºC	
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,
- AA batteries (x2)
- wrist strap
- carry case
- calibration certificate
- USB Cable†
- ElcoMaster™ & ElcoMaster™ Mobile Software†
- operating instructions

Part Numbers

Model	Description	Part Number
Elcometer 319	Elcometer 319 Standard	G319----S
	Elcometer 319 Top	G319----T
Accessories / Spares	Magnetic Surface Probe	T31920162
	Liquid Temperature Probe	T9996390-
	Protective Carry Case / Pouch	T31921192
	USB Cable	T31921325
	Wrist Strap	T99916063
	Window Protection Film, Pack of 8	T31921348