

Elcometer 320 Climate Monitoring System

Using readily available, off the shelf components the Elcometer 320 - together with ElcoMonitor™ Software and the Elcometer 319 Dewpoint Meter - is a powerful system which simply and accurately monitors climatic parameters in any number of locations.

The Elcometer 319 is connected to a signal tower and alarm via an embedded PC which is connected to the control and monitoring computers via standard Ethernet TCP/IP or by Bluetooth® for remote monitoring.

Each red, yellow, green signal tower has an integrated alarm which provides both visual and audible warnings for up to two measurement parameters

Remotely monitor and record climatic parameters:

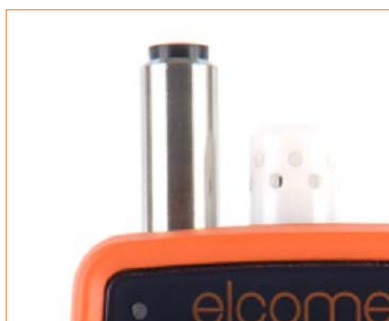
- Relative humidity
- Air temperature
- Surface temperature
- Specific humidity
- $T\Delta$ (the difference between surface temperature and dewpoint)

The Elcometer 320 can also be used as a stand alone environmental warning station - ideal for single zone monitoring

The Elcometer 319 Dewpoint Meter can be disconnected and used for more in depth localised investigation before being reconnected to the network



Each monitoring station can be set up remotely either by Bluetooth® or over an Ethernet TCP/IP connection



Accurate

- Meets ISO 8502-4
- Rapid response time
- Each instrument is supplied with a Calibration Certificate
- Readings are switchable between Celsius and Fahrenheit
- Time and date stamp is recorded for each set of readings

Simple

- Easy to use, purpose designed software allows rapid station setup
- When the alarm sounds, operators can read the clear, illuminated Elcometer 319 which displays*:

RH:	% Relative Humidity
Ts:	Surface Temperature
Ta:	Ambient Air Temperature
SH:	Specific Humidity
TΔ:	the difference between the Td and Ts

- Arrow indicators show temperature trends



Flexible

- Each Elcometer 319 gauge can also be used as a hand-held dewpoint meter and by selecting the "Te" mode transforms the gauge into a simple thermometer - ideal for measuring a coating's temperature prior to application or other external temperatures (Te)
- Integrated K-Type connector allows measurement of surface temperature during remote logging
- Each monitoring station is fully modular - add up to 254 stations, when you need to



Versatile

- Each station can be set up remotely using ElcoMonitor™ Software. Station Setups include:
 - Which two climate parameters to be used for each station
 - User definable red, yellow and green warning limits
 - Flashing red light additional warning parameter
 - Data recording frequency
 - Warning buzzer alarm duration
- Each measurement station's data is automatically transmitted to the computer, either via Ethernet or Bluetooth®, and evaluated using the ElcoMonitor™ Software



* Dewpoint Temperature (Td), Wet Bulb (Twb) and Dry Bulb (Tdb) parameters can also be displayed by the Elcometer 319

ElcoMonitor™ Management Software

ElcoMonitor™ software incorporates setup wizards which guide the User through the initial set up of each Elcometer 320 Monitoring Station. Once a station has been assembled and switched on, at the click of a button, ElcoMonitor™ searches for all the active monitoring stations and allows users to:

Rename each station - to identify their location; assign the two warning parameters for each signal tower; set the warning limits for when the colour change (state change) will occur; set up the alarm buzzer's duration time when a state change occurs; determine the PC monitor refresh rate and download frequency; select the connection method from either Ethernet or Bluetooth®.



- Through the simple use of the internationally recognised red, yellow, green traffic light sequence, ElcoMonitor™ allows the Quality Manager to see, at a glance, the environmental conditions of every monitoring station from the comfort of their office chair.

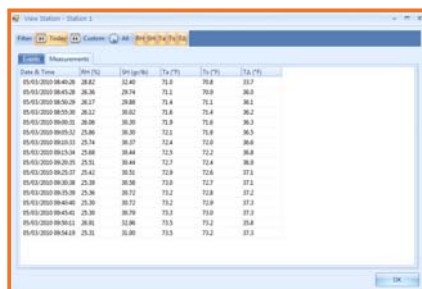
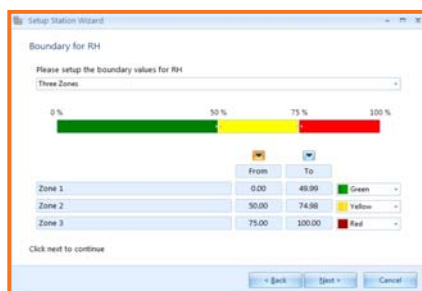
- ElcoMonitor™ displays the worst status of each measurement parameter at the bottom of the page - simply double click the colour to interrogate further.

- Using ElcoMonitor's™ setup wizard, each monitoring station can be assigned with its own warning limits and colour sequence with the click of a mouse.

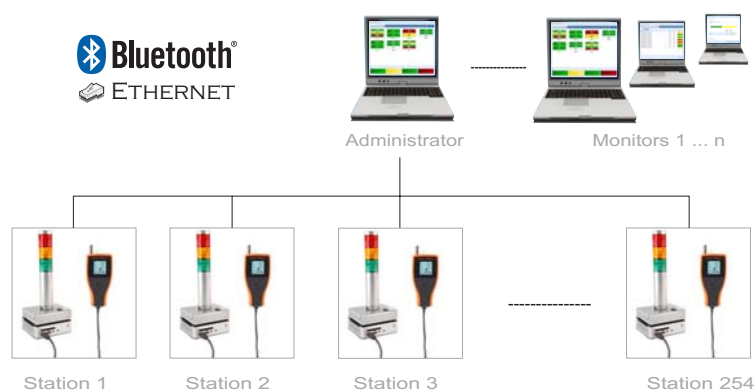
- Operators are assigned a username and password to ensure that only administrators can amend the setup of each station.

- All measurement values (RH, SH, Ta, Ts, TΔ) from each station are transmitted back to ElcoMonitor™ allowing remote investigation of all the environmental conditions.

- Individual reports for each monitoring station can be generated from within ElcoMonitor™ or archived in spreadsheet form for further analysis.



Bluetooth®
ETHERNET



Technical Specification

C certificate available

Elcometer 319 Dewpoint Meter:

Part Number **G319----**T

- Reading Parameters - RH, SH, Ta, Ts, Td, TΔ, Tdb, Twb
- Statistics - number of readings, standard deviation, mean, coefficient of variation, minimum, maximum
- Dustproof & Waterproof Gauge with Fully Sealed Sensors and Integral Magnets - equivalent to IP66
- High/Low Limits
- Multi Language Menus
- Backlight - user selectable
- K-Type Connector for External Measurement
- 40,000 Reading Memory in up to 999 batches - with manual or interval logging and USB & Bluetooth® Data Output

Elcometer ElcoMonitor™ Monitoring System:

Part Number **G320-1**

Measuring Parameters:	RH, SH, Ta, Ts, TΔ
Connectivity:	Ethernet TCP/IP Network or Bluetooth® <i>The embedded PC will automatically connect to a wired TCP/IP network with DHCP, which will allocate it an IP address</i>
Number of Stations:	Maximum of 254 of individual Elcometer 320 stations can be connected
Embedded PC:	eBox 3300-JSK with 2 x RS232 connections - or equivalent
Central PC Requirements:	Minimum Requirement of Windows® XP with 1 GB RAM and 1GB free HD; 1024 x 768 Screen Resolution; Connection to the same Ethernet TCP/IP network as monitoring stations - preferably on the same subnet; Bluetooth® connections can be made via an integrated or USB 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



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