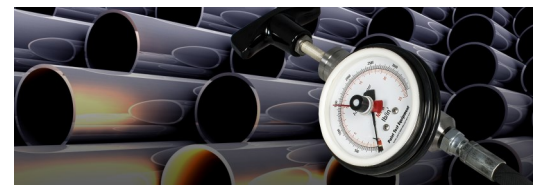# Data Sheet / Instructions

Dewpoint Meter

Paint Test Equipment

Coating Thickness   Porosity   Adhesion   Inspection Kit   Surface Roughness   SURFACE CLEANLINESS   Gloss

Dewpoint Meter

ISO 8502-4: Preparation of steel substrates before application of paints and related products.
Tests for the assessment of surface cleanliness.
Part 4: Guidance on the estimation of the probability of condensation prior to paint application.

The Dewpoint Meter enables testing for the estimation of the probability of condensation on a surface to be painted and establishing whether conditions at the job site are suitable for painting or not.

Relative humidity of the air and the steel surface temperature are the basis for the estimation of the probability of condensation.

The steel surface temperature generally should be at least 3°C above the dew point when paints are applied.

Measurements of relative humidity, dew point and ambient temperature are shown on a split display at the touch of a button. Surface temperature and surface temperature proximity to dew point are shown when using the surface temperature sensor.

Interchangeable Humidity Sensor and Surface Temperature Probe allow the user to replace damaged or out-of-calibration-date Sensor and Probe.

The filter on the Sensor provides Sensor protection against dust and high air velocity.

The Calibration Certificates with traceability to UKAS are an optional extra.
The Certificates are supplied as hard copy and are available online through the Calibration Portal (under Browse Categories) on our website.
The Calibration Portal lists all your equipment calibrated by Paint Test Equipment, showing the renewal dates and enabling Calibration Certificates to be viewed at any time.

Supplied in an industrial foam-filled Carrying Case with a Humidity Sensor and Surface Temperature Probe.

International Standard
ISO 8502-4

Dewpoint Meter Specifications								
Part No	Range %rh	Range Temperature	Resolution %rh	Resolution Temp	Accuracy %rh/Temp	Accuracy Temp	Humidity Sensor Cal Cert Part No	Surface Temp Probe Cert Part No
H3001	1–100%	Air -10–70°C (14–160°F) Surface -20–80°C (-4–176°F)	0.1%	0.1°C 0.2°F	10–90% ±2% 0–10/90–100% ±3%	±1%	NH101	NH102
HS301	Spare Humidity Sensor 0–100%rh/-10 to 70°C (14 to 160°F)						NH101	
HS302	Spare Surface Temperature Probe -20 to 80°C (-4 to 176°F)							NH102

Coating Thickness   Porosity   Adhesion   Inspection Kit   Surface Roughness   SURFACE CLEANLINESS   Gloss

Operation

Functions

The following picture shows the display symbols and button functions on the Dewpoint Meter.

Engineers mode symbol

Surface temperature symbol

Pause symbol

On button

Engineers arrow (deg°F)

Single arrow (top display)

Double arrow (lower display)

On Button

Switch the Dewpoint Meter on by pressing the On button briefly.
To switch off, press and hold the button until the display shows OFF.
Alternatively, the instrument will switch itself off after two minutes from the last button press.

To hold the reading, quickly press and release the On button – the Pause symbol indicator will be shown on the display.
To remove the hold reading, quickly press and release the On button again – the Pause symbol indicator will then disappear.

Single Arrow ▶

Press the single arrow ▶ successively to display relative humidity (%rh), dew point (TD), or mixing ratio/absolute humidity (ppmw/gpp) on the top display.

Double Arrow ▶▶

Press the double arrow ▶▶ successively to display air temperature (TA), surface temperature (TS), surface to dew point difference (△T), Probe serial number and time and date.
(Probe serial number and time and date are functions for Paint Test Equipment use only.)

TS and △T will only be displayed if the auxiliary Surface Temperature Probe is connected to the socket on the right side of the instrument and is set to ON.
Otherwise the display will show OFF changing to - - - after three seconds.

To set the Surface Temperature Probe to ON press the On button and the double arrow ▶▶ button simultaneously and the lower display will show ON and the surface temperature symbol indicator will disappear from the display.
The surface temperature function reverts back to the default OFF mode when the instrument is switched off.

Engineers Arrow ↵

This will allow you to scroll through engineers mode to set the instrument to read in °F.

To enter engineers mode press the On button and the single arrow ▶ button simultaneously for two seconds – the engineers mode symbol indicator will be shown on the display.
You then scroll through the menu using the engineers arrow ↵ to find the deg°C function.
Use the single arrow ▶ to select °F and then carry on scrolling through the menu until the display shows normal measurement mode with no engineers symbol indicator.

Practical Advice

When using the Dewpoint Meter it is good practice to monitor the display for temperature stability.
The Humidity Sensor should be given sufficient time to equilibrate with the environment to be measured.
The larger the initial temperature difference between the Sensor and the environment to be measured, the more time temperature equilibration requires to provide a valid measurement.

Replacing Batteries

The battery status will be shown for three seconds each time the instrument settings are changed.
Replace the batteries immediately when one bar is shown.
To replace, remove the cover located on the rear of the instrument.
Replace with two alkaline AA batteries, ensuring correct polarity.

Paint Test Equipment is a global leader in the manufacture of specialist test equipment specifically for the industrial painting and coating industries for the protection of steel assets from corrosion, mainly in the oil, renewables and steel construction sectors. With over 30 years experience and extensive knowledge in delivering practical and cost effective solutions in supporting our customers with world class products for corrosion prevention.

Prevention of corrosion on steel is essential to extend the asset lifetime, optimise performance and minimise downtime for expensive maintenance work. Using Paint Test Equipments technologies and innovations in our unrivalled portfolio of products ensures that industrial coatings are applied to the highest achievable quality standards of ISO compliance.

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