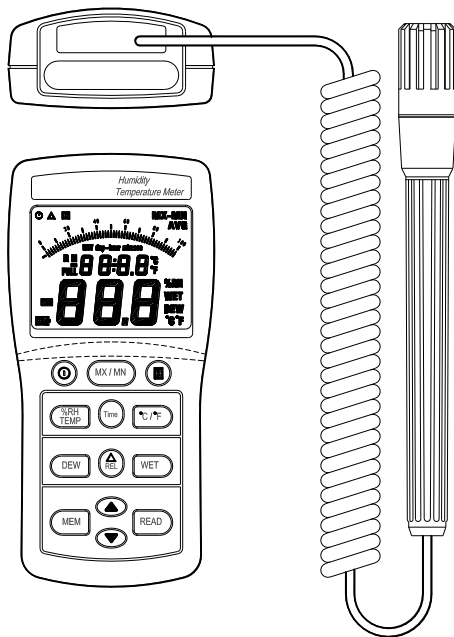


TES Humidity/Temperature Meter

TES-1364

INSTRUCTION MANUAL



TES ELECTRICAL ELECTRONIC CORP.

1. SPECIFICATIONS

U.S. Pat. No. Des. 446,135

Display : LCD Dual display and Analog scale display.

Measurement Range :

Humidity 10% ~ 95% RH

Temperature -20°C ~ +60°C / - 4°F ~ +140°F

Resolution : 0.1% RH , 0.1°C , 0.1°F

Accuracy (after calibration) :

Humidity : ±3%RH (at 25°C , 30 ~ 95% RH).

±5%RH (at 25°C , 10 ~ 30% RH).

Temperature : ±0.5°C , ±0.9°F

Sensor Type :

Humidity : Precision capacitance sensor.

Temperature : Thermistor sensor.

Response Time :

Humidity : 45% RH → 95% RH ≤ 1 min.

95% RH → 45% RH ≤ 3 min.

Temperature : 10°C / 2 sec

Sampling Rate : 2 times per second.

Manual Data Memory Capacity : 99 sets.

Operation Temperature & Humidity :

0°C to 60°C , below 95% RH. (no condensation)

Storage Temperature & Humidity :

-10°C to 60°C , below 70% RH.

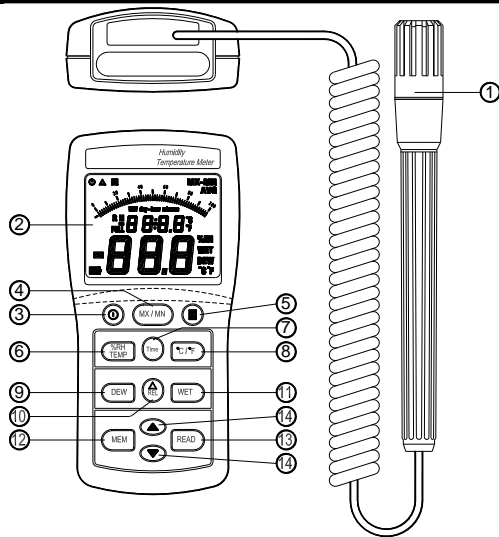
Power Supply : 6 pcs 1.5V size AAA battery.

Battery Life : Approx. 200 hours.

Weight / Dimensions : 235g / 150(L) x 72(W) x 35(H)mm

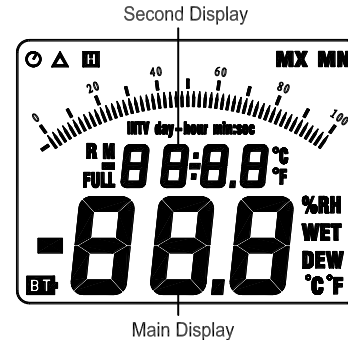
Accessories : Instruction manual, Battery and Case.

2. FRONT PANEL DESCRIPTION



- (1) Humidity & Temp. Sensor probe
- (2) Display
- (3) Power key : Press Power key to turn the meter on or off.
- (4) MX/MN key : Press MX/MN (MAX/MIN) key to cycle through the Maximum and Minimum reading, press MX/MN key 2 seconds to exit MX/MN mode.
- (5) Hold key : Press Hold key to freeze or unfreeze the display readings. In mode, press %RH / TEMP, °C / °F, DEW or WET key to select desired display readings.
- (6) %RH / TEMP key : Press %RH / TEMP key to cycle through from the main display %RH reading to second display °C or °F reading.

- (7) Time key : Enter the MX/MN mode and start the meter timer. Press Time key to cycle through the Maximum or Minimum reading of elapsed time min : sec and day – hour. Time function will be disabled when you exit MX/MN mode.
- (8) °C / °F key : Press °C / °F key to switch between Celsius (°C) and Fahrenheit (°F) units.
- (9) DEW key : Press DEW key to display “Dew point” temperature reading on the main display . Press DEW key again to exit “Dew Point” temperature reading mode.
- (10) Δ REL key : In the %RH and °C or °F display mode, press Δ REL key to enter relative (offset) mode. Press on this key again to exit mode. Relative reading mode (offset) is also possible when in MX/MN function.
- (11) WET key : Press WET key to display “Wet bulb” temperature reading on the main display. Press key again to exit “Wet bulb” temperature reading mode.
- (12) MEM key : Manu data memory control key.
- (13) READ key : Manual memory data reading control key.
- (14) ▲ ▼ keys : In the READ mode press ▲ ▼ keys to select increase or decrease the memory location.



Main Display

3. MEASURING PROCEDURE

3-1 Humidity Measurement :

- ① Press the “ \odot ” key to power on the meter.
- ② The display will show the humidity reading value (% RH) directly on the main display.
- ③ When testing humidity value of a different environment, please wait a few minutes in order to obtain a stable (%RH) reading.

3-2 Temperature Measurement :

- ① Press the “ \odot ” key to power on the meter.
- ② Press $^{\circ}\text{C}$ / $^{\circ}\text{F}$ button for select “ $^{\circ}\text{C}$ ” or “ $^{\circ}\text{F}$ ” units.
- ③ The display will show the Temperature reading ($^{\circ}\text{C}$ or $^{\circ}\text{F}$) directly on the second display.

3-3 Dew Point Temperature Measurement :

- ① Press the “ \odot ” key to power on the meter.
- ② Press DEW key to display dew point temperature reading on the main display. Press WET key again to exit dew point temperature reading.

3-4 Wet Bulb Temperature Measurement :

- ① Press the “ \odot ” key to power on the meter.
- ② Press WET key to display wet bulb temperature reading on the main display. Press WET key to exit wet bulb temperature reading.

3-5 Maximum and Minimum Recorder Measurement:

- ① Press “MX/MN” key to enter the recorder mode and start elapsed timer. The auto power off function must be cancelled before this operation.
- ② The “MX/MN” key is cycled through to display the maximum (MAX) and minimum (MIN) readings.
- ③ Press “Time” key to show maximum value or minimum value of elapsed time. Minute:second and day-hour.
- ④ The recorded reading has 4 sets, Main reading with secondary reading.
Max. humidity reading with its temperature reading.
Min. humidity reading with its temperature reading.
Max. temperature reading with its humidity reading.
Min. temperature reading with its humidity reading.
- ⑤ Under this mode, you can also get the Dew point or Wet Bulb Temperature by pressing the DEW or WET key.
- ⑥ Press “MX/MN” button and hold down for 2 seconds to exit MX/MN and Time mode.

3-6 Setting Auto Power Off Mode :

The meter will be Auto power off if there is no key pressed in 30 minutes. Auto power off function is on each time you turn on the meter and is automatically disabled when in MX/MN mode.

Select different time frame of auto power off function via the following selection :

- 001 : To disable auto power off function
- 002 : In 1 minutes to be auto power off.
- 003 : In 3 minutes to be auto power off.
- 004 : In 5 minutes to be auto power off.
- 005 : In 10 minutes to be auto power off.
- 006 : In 15 minutes to be auto power off.
- 007 : In 30 minutes to be auto power off.
- 008: In 59 minutes to be auto power off.

- ① Press **[ON]** key to turn off the meter.
- ② Press and hold down Time key then press **[ON]** key to turn on the meter. Wait until main display shows 001. (or any other time frame you wish.)
- ③ Press Time key to display the desired auto power off time.
- ④ Press **[H]** key to select.

3-7 Manual Data Memory and Read Mode :

A. Clear the manual memorized data

- ① Press “ **[ON]** ” key to turn off the meter.
- ② Press and hold down "MEM" key, then press “ **[ON]** ” key to turn on the meter. When LCD shows "CLr" which means the manual memorized data is erased.

B. Manual data memory

- ① Press "MEM" key each time, one set of reading to will be stored to the memory. At this moment, LCD will show the "M" mark and the memory address number. Total memory size is 99 sets.
- ② When memory is full, LCD will show "Full" mark.

C. Manual memory data READ

- ① Press "READ" key to enter READ mode, the LCD will show "R" mark and the memory address number.
- ② Press " **[▲]** " or " **[▼]** " key to select the desired memory address number data for display.
- ③ Press "DEW" or "WET" key to display or not display DEW point or DEW point or WET bulb temperature reading on the main display.
- ④ Press " READ " key to exit this mode.

4. MAINTENANCE

4-1 Cleaning :

Periodically wipe the case with a damp cloth and mild detergent.
Do not use abrasives or solvents. Clean and dry as required.

4-2 Battery Replacement :

LCD display will show “ **[BT]** ” symbol when the battery power is not sufficient for accurate testing. Replace with new batteries of same value.



TES ELECTRICAL ELECTRONIC CORP.

7F, No. 31, Lane 513, Rui Guang Road, NeiHu Dist. Taipei.
Taiwan, R. O. C.

Tel : (02) 2799-3660

Fax : 886-2-2799-5099

E-Mail : tes@ms9.hinet.net

<http://www.tes.com.tw>