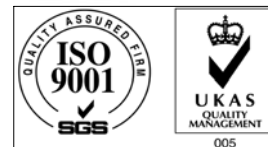


*pocket type*

# HUMIDITY METER

Model : HT-305



Your purchase of this HUMIDITY METER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure developed. Please read the following instructions carefully and always keep this manual within easy reach.

**OPERATION MANUAL**

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# 1. FEATURES

- \* Humidity + Temperature + Dew point are combined into one meter, intelligent and professional.
- \* 0.1 %RH resolution for the humidity reading, 0.1 degree resolution for the Temp. reading.
- \* Wide humidity & temp. measuring range.
- \* Pocket size with Separate humidity & temp. probe, easy operation. & remote measurement.
- \* Fast humidity measuring response time.
- \* High accuracy and high precision.
- \* Dew point measurement.
- \* Just few panel buttons, easy operation.
- \* Microprocessor circuit assures maximum possible accuracy, provides special functions and features.
- \* LCD with two display, easy readout.
- \* Show the humidity & temperature values on the LCD display at same time.
- \* Heavy duty & compact housing case, designed for easy carry out & operation.
- \* Records Maximum and Minimum readings with Recall.
- \* Auto shut off saves battery life.
- \* Data hold function for freezing the desired value on display.
- \* Built-in low battery indicator.

## 2. SPECIFICATIONS

### *2-1 General Specifications*

Circuit	Custom one-chip of microprocessor LSI circuit.
Display	LCD size : 44 mm x 29 mm dual function LCD display.
Measurement Unit	Humidity : %RH ( Relative Humidity )
	Temperature : °C or °F.
	Dew point : °C or °F.
Response Time	5 to 30 seconds typically. <i>@ Reach the 85% reading value</i>
Temperature Compensation	Automatic temp. compensation for the humidity function.
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time	Approx. 0.8 second.
Power off	Auto shut off saves battery life.
Operating Temperature	0 to 50 °C.
Operating Humidity	Main instrument : Less than 85% R.H. Probe : 0 to 95 %RH.
Power Supply	006P DC 9V battery ( Alkaline or Heavy duty type ).
Power Current	Approx. DC 4.6 mA.
Weight	264 g/0.67 LB. <i>@ Battery is included.</i>
Dimension	<i>Main instrument :</i> 135x60x33 mm, ( 5.3x2.4x1.3 inch ). <i>Humidity Sensor Probe :</i> 197 mm ( 7.8 inch ) in length.
Accessories Included	Instruction manual.....1 PC Humidity probe.....1 PC

## ***2-2 Electrical Specifications (23± 5 °C)***

### **Humidity/ Temperature**

Humidity	Range	10 % to 95 % R.H.
	Resolution	0.1 % R.H.
	Accuracy	≥ 70% RH ± (3% reading + 1% RH). < 70% RH ± 3% RH.
Temperature	Range	0 °C to 50 °C ,32 °F to 122 °F.
	Resolution	0.1 degree
	Accuracy	°C - 0.8 °C . °F - 1.5 °F.

### **Dew Point**

°C	Range	-25.3 °C to 48.9 °C
	Resolution	0.1 °C
°F	Range	-13.5 °F to 120.1 °F.
	Resolution	0.1 °F.
<i>Remark :</i> * Dew Point display value is calculated from the Humidity/Temp. measurement automatically. * The Dew Point accuracy is sum accuracy value of Humidity & Temperature measurement..		

*@ Above specification tests under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.*

### 3. FRONT PANEL DESCRIPTION

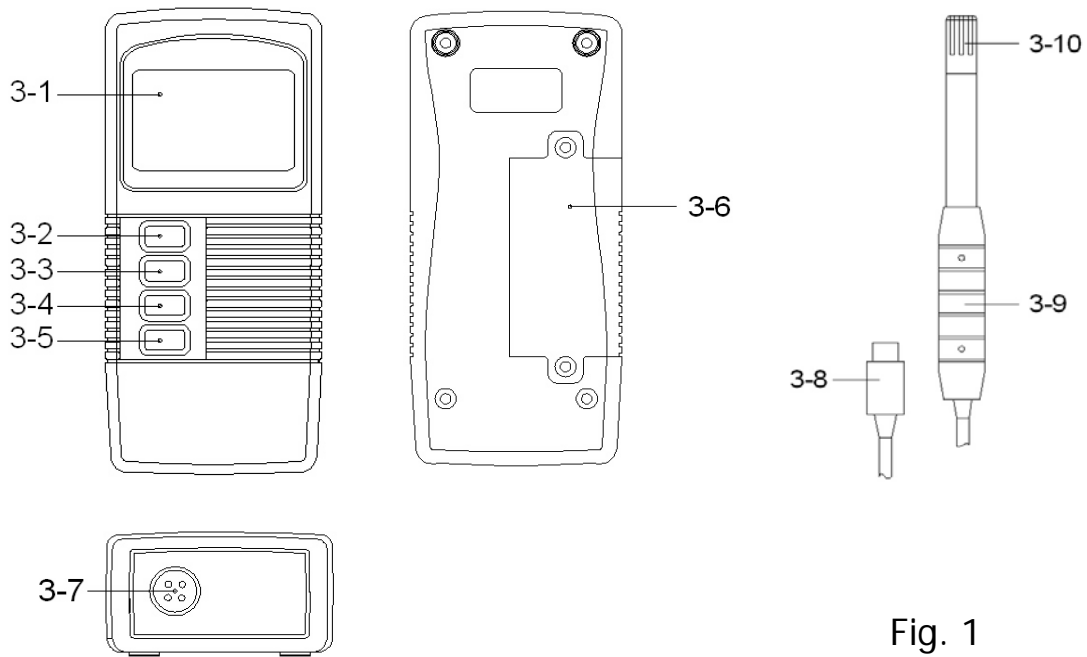


Fig. 1

- 3-1 Display
- 3-2 Power Button
- 3-3 Hold Button ( ESC Button )
- 3-4 REC Button ( Enter Button )
- 3-5 Function Button
- 3-6 Battery Compartment/Cover
- 3-7 Probe Input Socket
- 3-8 Probe Plug
- 3-9 Probe handle
- 3-10 Probe head  
( Humidity & Temperature )
- 3-11 Set Button

## 4. GENERAL MEASURING PROCEDURE

The meter default value are :

- \* The temperature reading unit is °C .
- \* The power management is set to auto power off.

### ***4-1 Humidity and Temperature measurement***

- 1) Plug the " Probe Plug " ( 3-8, Fig. 1 ) into the " Probe Input Socket " ( 3-7, Fig. 1 ).
- 2) Power on the meter by pressing the " Power Button " ( 3-2, Fig. 1 ), the LCD shows the unit " %RH " & " °C " at the same time and measured value will show on the display ( upper display is Humidity value, the lower display is the temperature value ) .
- 3) The meter Temp. display unit is defaulted to " °C ". If intend to let the meter's temperature unit default to " °F " , then please refer section 5-1 ( page 9 ).

### ***4-2 Dew point measurement***

The procedures of " Dew point measurement " are same as the above " 4-1 Humidity and Temperature measurement " except select the " Dew point " function by pressing the " Function Button " ( 3-5, Fig. 1 ) once, the LCD will show the unit " DEW " & " °C ( or °F ). The upper display show the Dew point value, the lower display show the temperature value.

### ***4-3 Data Hold***

During the measurement, press the " Hold Button " ( 3-3, Fig. 1 ) once will hold the measured value & the LCD will display a " HOLD " symbol.

- \* Press the " Hold Button " once again will release the data hold function.

### ***4-4 Data Record ( Max., Min. reading )***

- \* The data record function records the maximum and minimum readings. Press the " REC Button " ( 3-4, Fig. 1 ) once to start the Data Record function and there will be a " REC. " symbol on the display.

- \* With the " REC. " symbol on the display :

- a) Press the " REC Button " ( 3-4, Fig. 1 ) once, the " REC. MAX. " symbol along with the maximum value will appear on the display.

If intend to delete the maximum value, just press the " Hold Button " ( 3-3, Fig. 1 ) once, then the display will show the " REC. " symbol only & execute the memory function continuously.

- b) Press the " REC Button " ( 3-4, Fig. 1 ) again, the " REC. MIN. " symbol along with the minimum value will appear on the display.

If intend to delete the minimum value, just press the " Hold Button " ( 3-3, Fig. 1 ) once, then the display will show the " REC. " symbol only & execute the memory function continuously.

- c) To exit the memory record function, just press the " REC " button for 2 seconds at least. The display will revert to the current reading.



## 5. ADVANCED MEASURING PROCEDURE

When execute the following Advanced Measuring Procedure should cancel the " Hold function " and the " Record function " first. The display will not show the " HOLD " and the " REC " marker.

- a. Hold the " Set Button " ( 3-11, Fig. 1 ) at least two seconds until the lower display show " COde ", then release the " Set Button ", the upper display will show " 1000 ".

\* 1000 is the password code that allow to execute the Advanced Measuring Procedure following.

After display show " COde 1000 ", push the " Enter Button " ( 3-4, Fig. 1 ) once will go to the following b. procedures.

\* If push the " ESC Button " ( 3-3, Fig. 1 ) will escape the selecting function and return to the normal measuring display.

- b. One by one to press the " Set Button " ( 3-11, Fig. 1 ) once a while to select the two main function that show on the lower display as :

°F ..... Change the Temp °C, °F unit

**OFF**.....Auto power ON/OFF management

### ***5-1 Change the Temp °C, °F unit***

Use the " Set Button " ( 3-11, Fig. 1 ) to select the main function to " °F ", then one by one to press the " Function Button " ( 3-5, Fig. 1 ) a while will determine the default Temp. unit to °C or °F

@ Press the " Function Button ", if the upper display value show " 0 ", the default Temp. unit is °C

@ Press the " Function Button ", if the upper display value show " 1 ", the default Temp. unit is °F.

After the function is determined, press the " Enter Button " ( 3-4, Fig. 1 ) to confirm and save the selection data into memory IC permanently. Press the " Esc Button " ( 3-3, Fig. 1 ) will revert to normal display screen.

### ***5-2 Auto power ON/OFF***


Use the " Set Button " ( 3-11, Fig. 1 ) to select the main function to " OFF ", then one by one to press the " Function Button " ( 3-5, Fig. 1 ) a while will determine the default the power management system is Auto Power Off enable or disable.

@ Press the " Function Button " once, if the upper display value show " 0 ", it is not Auto Power Off management ( disable ).

@ Press the " Function Button " once, if the upper display value show " 1 ", it is the Auto Power Off management ( enable ).

After the function is determined, press the " Enter Button " ( 3-4, Fig. 1 ) to save the selection function into memory IC permanently. Press the " Esc Button " ( 3-3. Fig. 1 ) will revert to normal display screen.

## **7. BATTERY REPLACEMENT**

- 1) When the left corner of LCD display show "  ", it is necessary to replace the battery. However, in-spec. measurement may still be made for several hours after low battery indicator appears before the instrument become inaccurate.
- 2) Slide the " Battery Cover " ( 3-6, Fig. 1 ) away from the instrument and remove the battery.
- 3) Replace with 9V battery ( Alkaline or Heavy duty type ) and reinstate the cover.
- 4) Make sure the battery cover is secured after changing the battery.