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## Precision Thermo-Hygrometer



# **Operating** Instructions

## Precision Thermo-Hygrometer

Congratulations on your purchase of the Precision Thermo-Hygrometer. This device measures Humidity, Air Temperature, Dew Point temperature and Wet Bulb temperature. Advanced features include Data Hold. Auto Power Off and MAX/MIN reading. Careful use of this meter wil provide years of reliable service.

#### **Specifications**

Function	Range and Resolution	Accuracy
Humidity	0.0 to 100.0%RH	±2%RH (40 to 60%) ±3%RH (20 to 40% and 60 to 80%) ±4%RH (0 to 20% and 80 to 100%)
Temperature	-20.0 to 60.0°C -4.0 to 140°F	±1.0°C ±1.8°F
	-30.0 to -19.9°C and 60.1 to 100.0°C -22.0 to -3.9°F and 140.1 to 212.0°F	±1.5°C ±2.7°F

Display Response Time	Dual LCD <15 seconds (90% of final value in moving air)
Sensor Type	Humidity: Precision capacitance sensor
Absolute Humidity	Temperature: Thermistor 0 to 500g/m³, 0 to 218gr/ft³ (calculated from RH and air
Wet Bulb	temperature measurements) 0 to 80°C (32 to 176°F) (calculated from RH and air temperature
Dew Point	measurements) -30 to 100°C (-22 to 212°F) (calculated from RH and air
Operating Conditions	temperature measurements) 0 to 50°C (32 to 122°F); <80%RH non-condensing
Storage Conditions	-40 to 85°C (-40 to 185°F) <99%RH non-condensing
Power Supply Battery Life Dimensions/Weight	9V battery Approx. 48 hours 300 x 75 x 50mm; 400g

### Meter Description

- 1. Humidity & Temperature Sensor
- 2. LCD Display
- 3. Backlight button
- 4. °C/°F/Wet Bulb/Dew Point button
- 5. MIN/MAX button
- 6. Power ON/OFF button
- 7. Relative Humidity/Absolute
- Humidity button
- 8. HOLD button

Note: The battery compartment is located on the rear of the instrument.



#### 1. Relative Humidity %

2. Absolute Humidity. Grams per Cubic Metres. 3. Absolute Humidity. Grams per Cubic Feet. 4. Humidity Display

5°C 6. °F 7. Dew Point 8. Wet Bulb 9. Hold 10. Minimum 11. Maximum 12. Low Battery 13. Auto Off 14. Temp/WB/DP Display 15. Absolute Humidity

### Operation

Power Press the power button to turn power on or off.

#### Taking measurements

- 1. Hold the probe in the area to be tested.
- 2. Allow adequate time for readings to stabilise.
- 3. Pressing the MODE button toggles the top display between RH%, g/m<sup>3</sup> and gr/ft3
- 4. Pressing the °C/°F button toggles the lower display between Temperature
- (°F), Temperature (°C), Dew Point (°C), Dew Point (°F), Wet Bulb (°C) and Wet Bulb (°F).

#### Absolute Humidity measurements

- 1. To select the Absolute Humidity measurement, press the MODE
- button until "g/m3" (or "gr/ft3") and "abs" appears in the LCD.
- 2. Absolute Humidity is now displayed.

#### **Dew Point measurements**

Wet Bulb measurements

measurement, press the °C/°F

2. Wet Bulb temperature is now

**Temperature measurements** 

measurement, press the °C/°F

2. Temperature is now displayed.

button until °C or °F appears in the

1. To select the temperature

button until WB (°F or °C) appears

1. To select the Wet Bulb

in the lower right.

displayed.

lower right.

displayed.

1. To select the Dew Point measurement. press the °C/°F button until DP (°F or °C) appears in the lower right. 2. Dew Point temperature is now



O

%RH

Q

%RH

10 minutes (indicated by the O symbol

powering on. The O symbol will not

appear when auto power off has been disabled. The meter will revert to the default auto-off mode when powered off.

#### Maintenance

#### **Cleaning and Storage**

- 1. The meter should be cleaned with a damp cloth and mild detergent when necessary. Do not use solvents or abrasives.
- 2. Store the meter in an area with moderate temperature and humidity (refer to the operating and storage range in the specifications chart earlier in this manual).

#### **Battery Replacement**

When the battery power falls low, the battery symbol will appear on the LCD. Replace the 9V battery by removing the Philips head screw holding the rear battery compartment cover to access the battery compartment. Ensure that the compartment cover is securely fastened when finished.



#### Minimum (MIN) Maximum (MAX) %RH Function

the display. Press the HOLD button

The MIN/MAX mode allows the user to view only the lowest (MIN) or highest (MAX) readings.

Press the MIN/MAX button once and "MIN" appears on the display. The LCD is now displaying the minimum reading of the selected parameter in the display. The display will not change until a lower reading is registered.

Press the MIN/MAX button again and "MAX" appears on the display. The LCD is now displaying the maximum reading of the selected parameter in the display. The display will not change until a higher reading is registered. Press the MIN/MAX button again to exit the MIN/MAX mode, and the "MAX" and "MIN" icons will disappear.

C



Note: While powering on the meter per time, it restarts recording Minimum and Maximum and the recordings don't stop until the meter is turned off.

#### Backlight

Press 🕷 to turn on the backlight. To turn the backlight off, press 🗮 again.

#### Automatic Power OFF

The meter has a default setting that automatically shuts the meter off after

on the display). This battery saving feature can be disabled. To disable the auto power off function, simply press and hold the HOLD button whilst



8888

-188883

2



**%RH** 

O

again to return to normal operation.

#### Data Hold Press the HOLD button momentarily to freeze the displayed readings. "HOLD" will appear on the lower right side of