

Instruction Manual

CE

315-01 FEB. 2002

Humidity Temperature

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I. Introduction:

This instrument is a digital meter that measures both humidity and temperature.

II. Specifications:

Display: Dual display

Measurement Range:

Humidity: 0%RH ~ 100%RH

Temperature: -20°C ~ 60°C
(-4°F ~ 140°F)

Accuracy: (at 23°C ± 5°C)

Range	Accuracy
5% RH ~ 95% RH	±3% RH
-20°C ~ 60°C	±0.8°C
-4°F ~ -140°F	±1.6°F

Resolution: 0.1%RH , 0.1°C / 0.1°F

Response Time: (@ t90; in slowly moving air)

Humidity: 180 sec

Temperature: 10 sec

Operating Conditions: 0°C ~ 40°C; <80% RH

Storage Conditions: -10°C ~ 60°C; <70% RH

Altitude: Up to 2000 meters.

Sample Rate: 2.5 times per second

Battery: 9 V Battery,
NEDA 1604 or JIS 006P
or IEC6F22

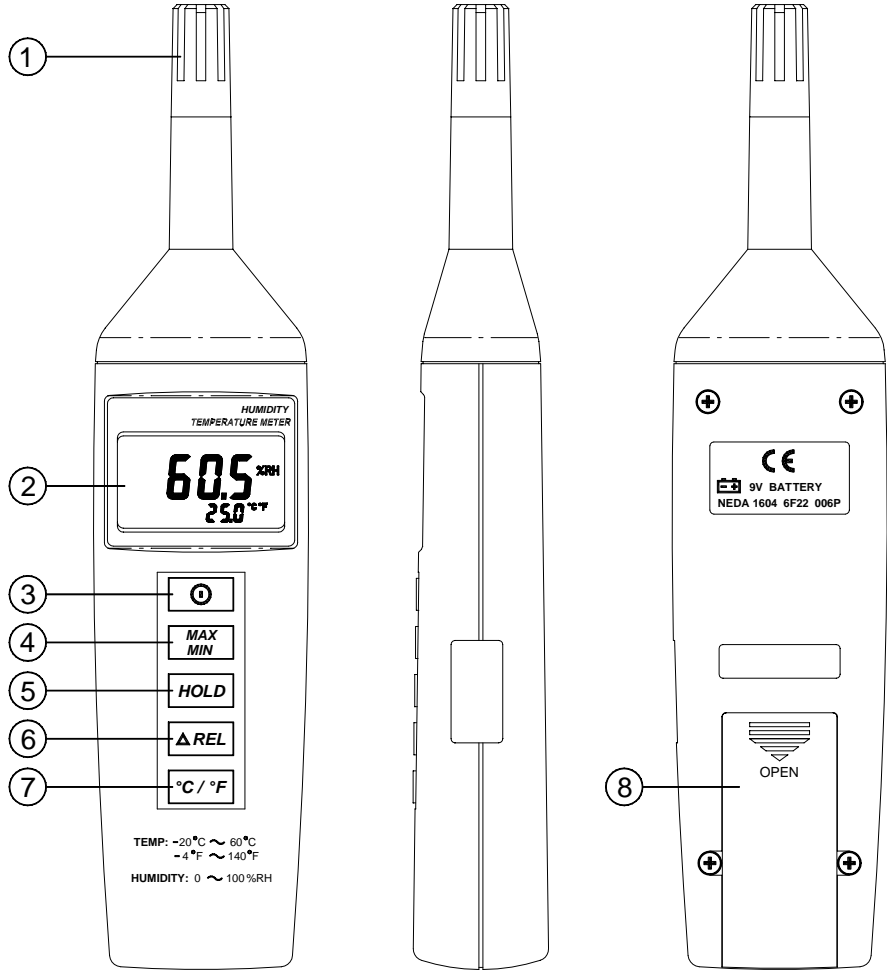
Battery Life: 85-hours continuous;
(with alkaline battery)

Dimension: 240x54x34 mm
9.5x2.1x1.3 inches

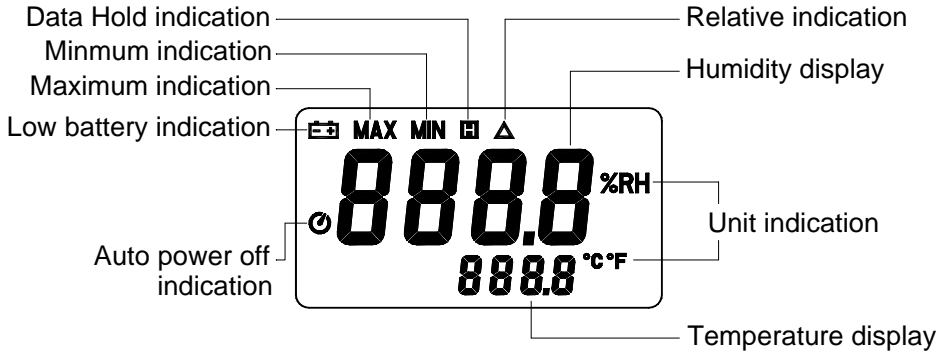
Weight: Approx.180g (6.4 oz.)

Accessories: Battery, instruction
manual

III. Symbols and Buttons:



- 1 Dust cover
- 2 LCD display
- 3 ON/OFF button
- 4 MAX/MIN button
- 5 HOLD button
- 6 RELATIVE button
- 7 °C/°F select button
- 8 Battery cover



IV. Operation Instructions:

4.1 Power-Up:

Press the **ON/OFF** key to turn the Humidity/Temperature meter ON or OFF.

4.2 Selecting Temperature Units:

When the meter is first powered on, the default scale setting is set to the Celsius ($^{\circ}\text{C}$) scale. To change to Fahrenheit ($^{\circ}\text{F}$) press the "C/ $^{\circ}\text{F}$ " button. Press again to revert to Celsius. The next time the meter is turned on, the scale setting will be the same as it was when you powered off last time.

4.3 Data-Hold Operation:

The present reading may be held on the display by pressing the "HOLD" button. When the held data is no longer needed, release the data-hold operation by pressing the "HOLD" button again.

When the meter is in the Data Hold mode, the "REL", "MAX/MIN", and "C/ $^{\circ}\text{F}$ " buttons are disabled.

4.4 Relative Operation:

Pressing the "REL" button causes the meter to memorize the present reading. The difference between the new reading and the memorized data will be displayed. Press the "REL" button again to exit the Relative mode.

4.5 MAX/MIN Operation:

Pressing the "MAX/MIN" button places the meter in the MAX/MIN mode. Under this mode the maximum value and minimum value is kept in the memory simultaneously and updated with every new data reading.

Pressing the MAX/MIN button will display the MAX indicator and the Maximum value on the display. Pressing **MAX/MIN** again will display the MIN indicator and the Minimum value on the display. Pressing **MAX/MIN** again causes the MAX and MIN indicators to blink together. This means that these


data have been updated in the memory and the reading is the present temperature and humidity.

When the meter is in the **MAX/MIN** mode, the “REL” and “°C/°F” buttons are disabled. To exit the MAX/MIN mode, one may press and hold **MAX/MIN** for two seconds.

4.6 Auto Power Off:

By default, when the meter is powered on, it is in the auto power off mode. The meter will power itself off after 30 minutes if no key operation is performed. To disable the auto power off feature, press and hold the “HOLD” button and then power on the meter, The auto power off symbol will disappear to indicate that auto power off is disabled.

4.7 Low Battery Condition:

When the battery voltage is under proper operation requirement, the  symbol will show on the LCD and the battery needs to be replaced with new one.

4.8 Calibration Point:

Room temperature: $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Temperature calibration point: 0°C to 40°C

Humidity calibration point: $32.8\% \text{ RH}@25^{\circ}\text{C}$
 $75.3\% \text{ RH}@25^{\circ}\text{C}$

4.9 Calibration Procedure:

We recommend that temperature be calibrated first, followed by humidity.

4.9.1 Temperature calibration:

1. Turn the meter off.
2. Press the “HOLD” and “°C/°F” keys, then press “POWER” to turn on the meter. The LCD will blink. Within 3 seconds press the “°C/°F” button to enter the temperature calibration mode.
3. When the meter enters the calibration mode, the meter will show “CAL 1” in the LCD window.

4. Place the probe in a stable 0°C environment for 10 minutes then press the “MAX/MIN” key to start the calibration process. Calibration completion is indicated by a long beep. This calibration point can be skipped by pressing the “POWER” key.
5. After “CAL 1” the meter will display “CAL 2” to calibrate the second calibration point.
6. Place the probe in a stable environment at 40°C for 10 minutes, then press the “MAX/MIN” key to start the calibration process. Calibration completion is indicated by a long beep. This calibration point can also be skipped by pressing the “POWER” key. After the calibration process is completed, the meter will go back to its normal operating mode.

4.9.2 Humidity Calibration:

1. Turn the meter off.
2. Press and hold both the “HOLD” and “°C/°F” keys then push on the “POWER” to turn on the meter. The LCD will blink. Within 3 seconds press the “REL” button to enter the humidity calibration mode.
3. When the meter enters the calibration mode, the meter will show “CAL 1” in the LCD window.
4. Put the meter in a stable environment of 32.8%RH@25°C for 30 minutes, then press the “MAX/MIN” key to start the calibration process. Calibration completion is indicated by a long beep. This calibration point can be skipped by pressing the “POWER” key.
5. After “CAL 1” the meter will display “CAL 2” to calibrate the second calibration point.
6. Put the meter in a stable environment of 75.3%RH@25°C for 30 minutes, then press the “MAX/MIN” key to start the calibration process. Calibration completion is indicated by a long

beep. This calibration point can also be skipped by pressing the “POWER” key. After calibration the meter will go back to normal mode.

4.9.3 Recall factory calibration data:

1. Turn the meter off.
2. Press and hold the “HOLD” and “°C/°F” keys then turn on the meter. The LCD will blink. Within 3 seconds press the “MAX/MIN” key to recall the factory calibration data.
3. After a long beep, the calibration data has been reset to the factory settings.

Optional Accessories:

33%RH Humidity standard

75%RH Humidity standard