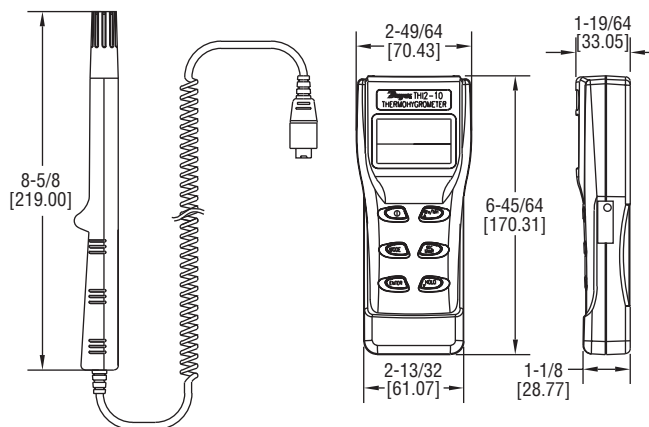# Model THI2-10 Digital Remote Sensing Thermohygrometer
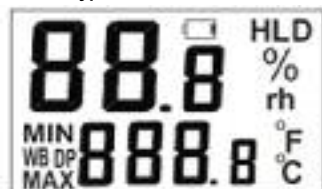
Specifications - Installation and Operating Instructions

The **THI2-10 Digital Remote Sensing Thermohygrometer** accurately takes humidity, temperature, dew point and wet bulb temperatures inside of ducts and hard to reach areas. English and metric engineering units as well as the type of measurement displayed can be easily selected using the push buttons. The push buttons also allow the user to freeze the current reading or retrieve the minimum and maximum readings. A large backlit LCD digital dual display allows the user to see both the temperature and humidity simultaneously and a low battery indicator shows the user when to change batteries. For hands free operation, the thermohygrometer can be mounted on a tripod. All units include 4 AAA batteries and a hard carrying case for safe

OPERATING INSTRUCTIONS
LCD & Keypad:

SPECIFICATIONS
Service: Humidity and temperature detection in air.
Range:
 Relative humidity measurement range: 0 to 100%;
 Temperature range: 14 to 140°F (-10 to 60°C);
 Dew point temperature range: -100 to 139.8°F (-73.4 to 59.9°C);
 Wet bulb temperature range: 7.88 to 139.8°F (-13.4 to 59.9°C).
Accuracy:
 Relative humidity accuracy: ±3% from 10 to 90% (at calibration temperature); ±5% for others;
 Temperature accuracy: ±1°F (±.6°C).
Display: Dual LCD display for temperature and humidity.
Temperature Limits:
 Ambient: 32 to 122°F (0 to 50 C);
 Storage: 68 to 140°F (-20 to 60°C).
Resolution:
 Temperature resolution: 0.1°C/°F;
 Humidity resolution: 0.1% RH.
Power Requirements: 4 AAA batteries included.
Weight: 5.3 oz (150 g).
Agency Approval: CE.

Power ON/OFF:
1. Press the ⬤ button to turn on the meter and enter normal mode. Unit will automatically turn off after 20 minutes without any buttons being pressed.
2. Press the same button to turn off the meter in any mode.

Back Light:
Press the key to turn on the back light of the LCD for 10 seconds.

Unit Selection:
In normal mode, press to switch the units between °C and °F.

Hold Reading:
1. Only in normal mode, press to freeze the current reading.
2. Press again to return to normal display.

Air/Dew Point/Wet Bulb:
Press and hold [icon] to switch between air temperature, dew point (DP) and wet bulb temperature (WBT) in normal mode.

Current/Min./Max Values:
1. Press [icon] to cycle the display between the current value, minimum value, and maximum value.
2. Press and hold [icon] more than one second to reset the minimum and maximum values.

Disable Automatic Shut Off:
While the meter is off, press [icon] + [icon] to turn on the meter for continuous use.

Calibration:
1. To turn off the meter, plug the meter probe into a 32.8% salt bottle and hold the [icon] + [icon] key for more than one second to turn on the meter and enter calibration mode.
2. You will see 3x.x% is flashing on the LCD.

32.8 % rh

After 30 minutes, the "3x.x%" will stop flashing, meaning that the calibration is finished and saved. You can also manually end and save the calibration by holding the [icon] key for more than one second.

3. Move the meter probe into a 75.3% salt bottle and hold "MN/MX/RST" for more than one second to enter the 7x.x% calibration. "7x.x%" will flash on the LCD.
4. "7x.x%" will stop flashing after 30 min. The calibration has been completed. You can manually end and save the calibration by holding the [icon] key for more than one second.

NOTICE a) Auto power off is automatically disabled during calibration procedure.
b) In order to get a high accuracy, you must do the calibration at 23 ± 2°C (69.8 ± 3.6°F) and in a steady airflow room.
c) Once the calibration is finished, if the value differs from 7x.x% or 3x.x% for more than .3%, it means the calibration has failed (see troubleshooting 3.)

Troubleshooting:

Symptom	Action
Power On But No Display	Make sure the time of pressing the [icon] key is more than 100 ms. Check that the batteries are in place, good contact and correct polarity. Replace new batteries and try again. Move the batteries away for one minute and install again.
Display Disappeared	Check whether the low battery indicator is on before the display disappeared. If yes, replace with new batteries. Turn on the meter by pressing the [icon] + [icon] key to disable auto power off function for long time usage.
Calibration Failure	Check whether the low battery indicator is on before the display disappeared. If yes, replace with new batteries. Make sure that the sealing is good when plugging the meter probe into the salt bottle. Make sure the free air temperature is within 23 ±2°C (73.4 ±35.6°F) and the airflow is stable.
Display Message E11	RH calibration error, re-calibrate.
Display Message E33	Circuit error in RH measurement, return the meter to its dealer.
Display Message E34	Circuit error in temperature measurement channel, return the meter to its dealer.

NOTICE When the meter is on, pluging the probe into the calibration solution will also result in "E 33" or "E 34" in max. and min. mode.

MAINTENANCE/REPAIR
Upon final installation of the Model THI2-10, no routine maintenance is required. The Model THI2-10 is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN
Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.