

INS

THERMO-HYGROMETER

PRECISION MEASURING FOR HUMIDITY/TEMPERATURE

高精度 温・湿度計 HT-800

INSTRUCTION MANUAL



1. Description

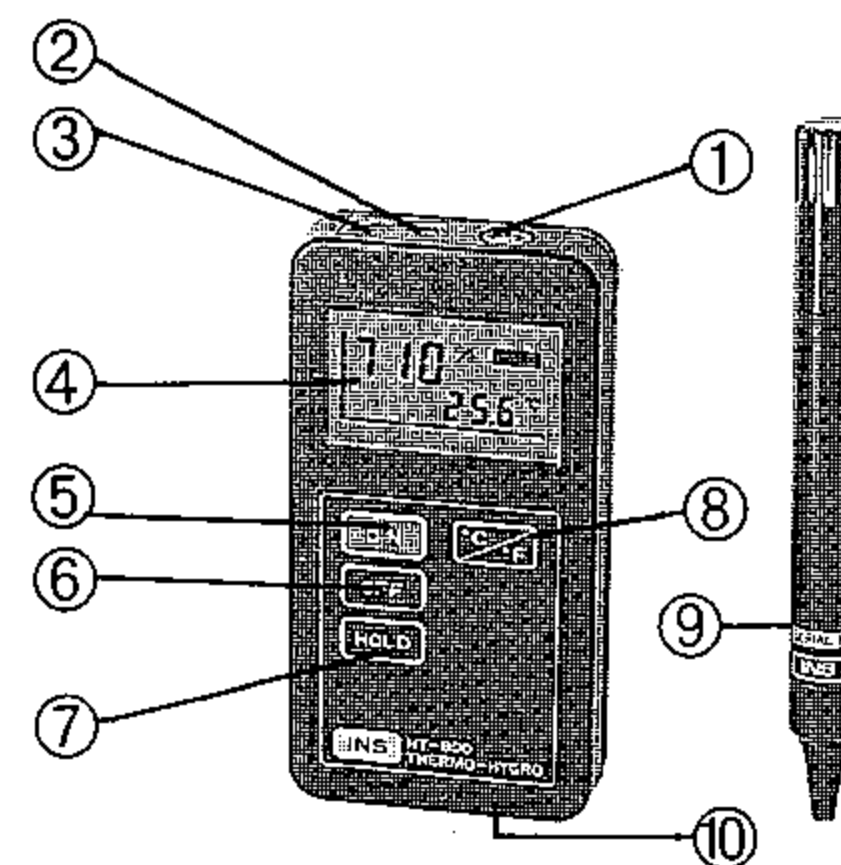
The HT-800 Thermo-Hygrometer has been designed with a highly reliable polymer film humidity sensor. It is equipped unique features as a high stability, good repeatability and fast response in order to keep high accuracy of measurement at bad ambient, platinum resistance element (PT100Ω) is used for temperature measuring and compensation. This unit is own dual display which continuously indicates % RH and Temperature simultaneously in °C or °F, data hold, power exhausted signal and probe connection can be shown on the display, especially dual analog output can be accessed for controller, recorder or P/C system expansion.

Please learn this operating manual carefully before operation.

2. Features

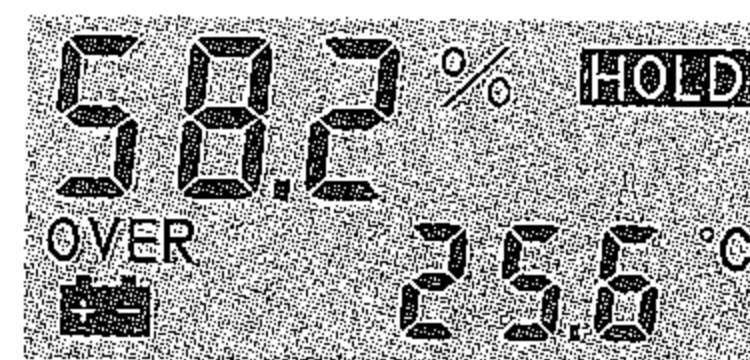
- 2-1 Dual analog output of temperature and humidity for system expansion.
- 2-2 Unique L.C.D. dual display which continuously indicates temperature and humidity simultaneously.
- 2-3 Compact interchangeable combined temperature/humidity probe.
- 2-4 High stability, non-calibration before using.
- 2-5 °C/°F switchable.
- 2-6 High accuracy, Temperature: $\pm 0.2^{\circ}\text{C}$ Humidity: $\pm 2.5\% \text{RH}$
- 2-7 One-touch "Data-Hold" function.
- 2-8 High precision "MACROMOLECULE HUMITIDY SENSOR" with quick response and no hysteresis.
- 2-9 Water resistance disign, easy operation.


3. Explanation of HT-800



- ① Input socket of probe
- ② Signal output of humidity
- ③ Signal output of Temperature
- ④ LCD display
- ⑤ Power on switch
- ⑥ Power off switch
- ⑦ Data hold key
- ⑧ °C & °F key
- ⑨ Combined Temp./Humidity sensor
- ⑩ Battery chamber

Display Mode




- HOLD Data hold during measuring
- OVER Over range alarm
-  Low power alarm
- % Read out of RH
- °C Read out of Temperature in Centigrade or fahrenheit
- OVER 1 Probe defection alarm

4. Preparation for operating

4-1 Check

Thermo-Hygrometer model HT-800	1 set
Combined Humi/temp. probe model: HTS-8001	1 pc
9V battery (Option)	1 pc
Signal output connector (option)	2 pcs
Carrying case	1 pc
Instruction manual	1 volume

4-2 Remove the cover of battery chamber then insert a battery to the battery clip.

4-3 Turn on the instrument. If the display shows a sign , please replace a new battery as soon as possible.

While the probe is not inserted or the probe is disconnected the instrument about 10 seconds, the display will appear "OVER 1"

4-4 Turn off power and insert the probe, it is ready for measuring.

5. Measuring Procedure

5-1 Place the humi./temp. probe to proper point, turn on the power, you can get correct readout of humidity and temperature.

5-2 If you want to change temperature unit from °C to °F, or °F to °C just depressed **°C/°F** key.

When you performed "HOLD" function, **°C/°F** key can't be switched, so depressed **HOLD** key to release this function.

5-3 If you want to keep the measuring data temporary, press **HOLD** key, then depress **HOLD** key again, such function will be released.

In order to keep data memory, when you turn off power or take out the battery at instant this function is still existed unless you depressed **HOLD** key.

5-4 When you finish measurement, press **OFF** key to turn off power, meanwhile, disconnected the probe and put into carrying case to avoid strike.

Please take out the battery, if you do not use instrument for a long time.

6. Safety Precautions.

- 6-1 Keep hand away the cap of probe to avoid wrong readout of temp./Humi. during measuring.
- 6-2 Please don't use at out of temperature range.
- 6-3 When you measure at big different temperature environment. the sensor will be dewed on the tip, so it has to take long time for response.
- 6-4 Please don't shake the probe to avoid damage.
- 6-5 Please don't use at corrosion gas to avoid the probe & instrument damage.
- 6-6 Please contact to our service department before you do adjustment, dismantle or modification of instrument.

7. Signal output

You can connect individual output of temperature or humidity to other accessories for applications such as recorder, controller, transmitter...etc.

Signal output of humidity: DC 0-1V, 1mV/%RH, 3.5ø phone jack.

Signal output of temperature: DC-0-1V, 1mV/°C, 3.5ø phone jack.

SPECIFICATIONS

MEASUREMENT RANGE	Humidity 5 to 98.0% RH Temperature -15.0 to +60.0°C 5.0 to +150.0°F
ACCURACY (TAMB = 25°C)	Humidity ±2.5%RH Temperature ±0.2°C, ±0.4°F
RESOLUTION	Humidity 0.1%RH Temperature 0.1°C, 0.1°F
SENSORS	Combined humidity/temperature probe Humidity: High precision MACROMOLECULE HUMIDITY SENSOR Temperature: PT100Ω platinum thermo-resistance.
SIGNAL OUTPUT	Humidity: DC 0~1V, 10mV/%RH, impedance 600Ω Temperature: DC 0~1V, 10mV/°C, 10mV/°F, impedance 600Ω
DISPLAY	TWIN digital LCD display for temperature and humidity reading in the mean-time without switching
OVER RANGE ALARM	Automatic, when humidity value out of the measurement range.
MEASURING RATE	2.5 per second.
DATA MEMORY	Last value memory by "HOLD" switch.
POWER SUPPLY	One 9V 006P or IEC 6F22 battery.
BATTERY LIFE	Approx. 120 hours. (continuous operation)
LOW POWER ALARM	Automatic. " + " lights up on alarm.
STORAGE AMBIENT RANGE (METER)	-20 to +60°C (-5 to 150°F) Below 85% RH.
DIMENSIONS	Meter: 15 x 7.8 x 2.7cm (5.9 x 3.1 x 1.1 inch) Probe: 18ø x 150mm, cable length 1.0 meter.
WEIGHT	280gms, (9.8 OZS) including probe.

*All specifications are subject to change without prior notice.

ARCHITECTURE

- Thermo-hygrometer
 - Combined humi/temp probe
 - Leather carrying case
 - 9V Battery
 - Signal output connector
 - Instruction manual
- MODEL: HT-800
MODEL: HTS-8001
MODEL: HTC-8002
(OPTION)
(OPTION)