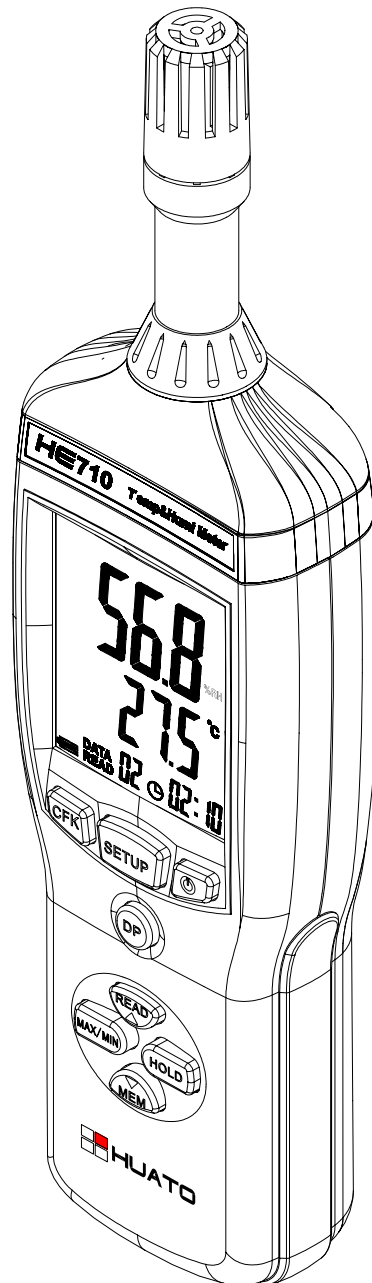# HUATO®

HE71x SERIES

Operation manual for Dew point & Wet bulb thermo-hygrometer

HE71x series (including HE710，HE715）Dew point & Wet bulb thermo-hygrometer,they are Comprehensive temperature and humidity measuring instruments which can measure the RH, air temperature,temperature for DEWP as well as temperature for WBT ,it has the advanced functions which including automatically turn off, backlight,check for MAX and MIN value.

HE71x series thermo-hygrometer designed by HUATO company,and also enjoy the development and production of this model ,it adopts Switzerland digital temperature humidity integration sensor.The ergonomic design,accuracy measurement,convenient operation,suitable for all kinds of professional environmental measurement for air temperature and humidity .

1.1 Production Features

- The fixed value for checking the MAX and MIN recording data.
- LCD display temperature and humidity simultaneously.
- One switching button for ℃/℉/K.
- Adopt Switzerland digital temperature humidity integration sensor.
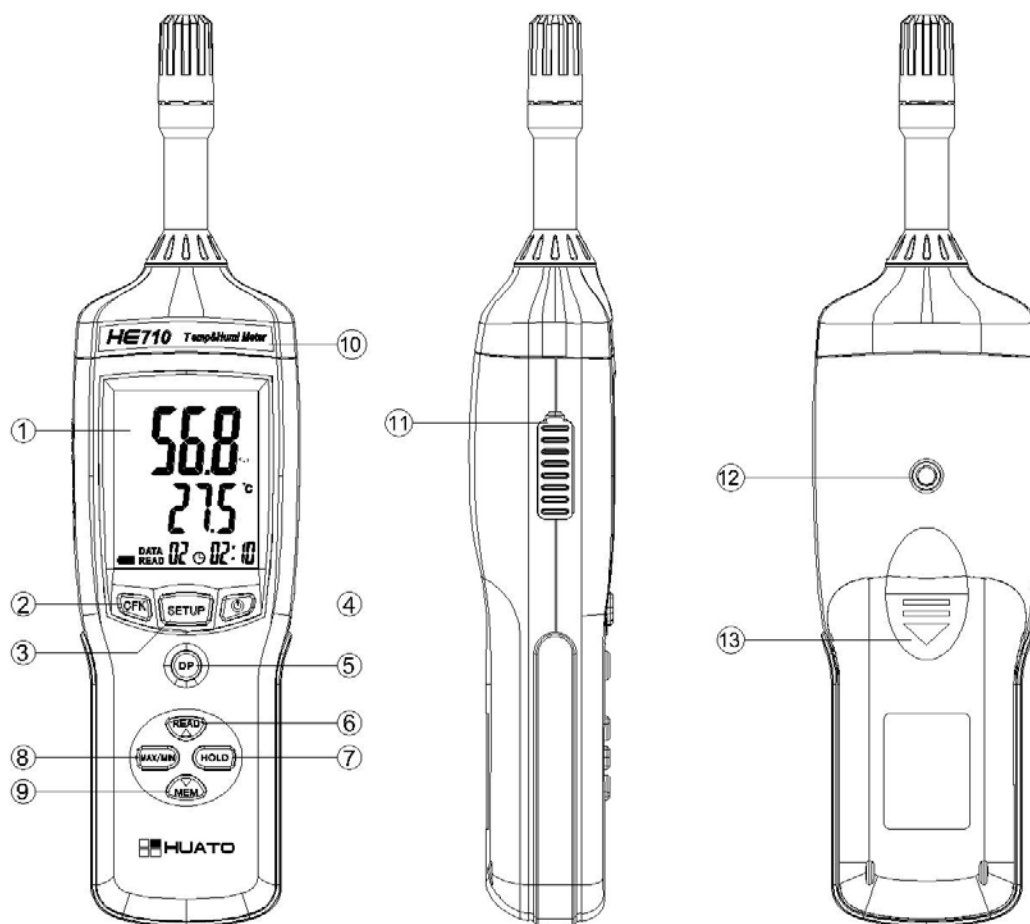- Special design , elegant appearance,and ergonomic design can protect the sensor well.

1.2 Applications

Agricultural research fields,food industry,medical industry,chemical industry,weather station, environmental protection as well as laboratory fields etc.
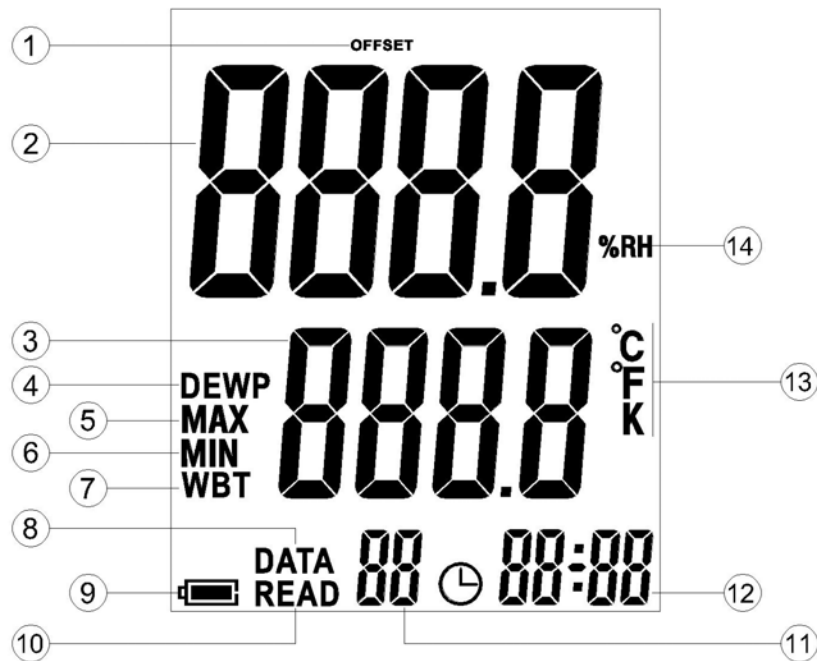
1.3 Performance Parameter

Measurement Range	Temperature：-20~+70℃(- 4~+158℉) Humidity：0~100%RH Temperature for Dew Point DEWP：-21.6~70.0℃(-6.9~158℉) Temperature for Wet Bulb WBT： -78.7~70.0℃(-99.9~158℉)
Resolution	RT：0.1℃/℉ RH：0.1%RH Temperature for DEWP：0.1℃/℉ Temperature for WBT：0.1℃/℉
Accuracy	Temperature：±0.5℃（HE710）/ ±0.3℃（HE715） humidity：±3%RH（HE710）/ ±2%RH（HE715）
Record Volume	99 Groups
Display	LCD double display,display temperature and humidity simultaneously.
Response Interval	1.5s
Operation Environment	0-80%RH, 0-50℃
LCD Display	54 x44 mm
Size	275(L) x 96(W) x 44mm(T)
Weight	290g
Power Supply	9V square battery
Power Consumption Index	2.5mA（Backlight on）/ 1mA（Backlight off）
Accessories	Battery,operation manual,tool box
Optional Accessories	Tripod, spare battery

1.4 Dew point/wet bulb/temperature and humidity quick start

① LCD Display	⑧ MAX/MIN： Maximum and minimum checking buttons
② CFK：Switching button for ℃/℉/K temperature	⑨ MEM：Manual recording data checking button
③ SETUP：Enter into the model of setup ,and set temperature and humidity value.	⑩ Model label
④ ON/OFF	⑪ USB port
⑤ DEWP：Switching button for Backlight /temperature for DEWP/temperature for	⑫ Hole for fixed frame
⑥ READ：Button for checking the recording data during normal working status	⑬ Battery cover
⑦ HOLD：Holding the fixed measuring data Status during normal working status.	

1.5 LCD display instructions

① This symbol shows it enters into the setup status for temperature and humidity offset.

② Humidity value display area.

③ Temperature value display area.

④ This symbol shows being the status of temperature measuring for DEWP.

⑤ This symbol shows being the maximum temperature and humidity data checking status.

⑥ This symbol shows being the minimum temperature and humidity data checking status.

⑦ This symbol shows being the status of temperature measuring for WBT.

⑧ This symbol shows beginning to enter into the manual-recording data status.

⑨ Battery status indication,if it is full,it indicates the power is enough,and if it is empty,it indicates the power is not enough,please replace it with new batteries.

⑩ Capacity display area for auto-recording and manual-recording data.

⑪ Capacity display area for auto-recording and manual-recording data.

⑫ Year/month-date/clock alternate display area.

⑬ Temperature symbol display area.

⑭ Humidity symbol display area.

1.6 Instructions for buttons function

Buttons	Introduction for buttons operation
	ON/OFF : in the status of off ,click to turn on the instrument,and in the status of on,click to turn off the instrument.
	℃/℉/K switching button: click it to switch the ℃/℉/K temperature.
	Button for setup mode:click SETUP to set calibration for temperature deviation ,click again to set calibration for temperature deviation,finally click to save the settings and exit the current mode. Under setup mode,it has the setting functions as follows: 1）calibration for temperature deviation: click up READM down MEM to change the values,when click up READ once,it indicates the temperature will decrease 0.1, when click down MEM once,it indicates the temperature will increase 0.1. 2）calibration for humidity deviation: click SETUP again and then click up READ down MEM to change the values,when click up READ once,it indicates the humidity will decrease 0.1, when click down MEM once,it indicates the humidity will increase 0.1. Click again SETUP to save the settings and exit the current mode. 3）SETUP DEL MEM: click SETUP again ,it will show "DEL　DATA XX"in the left corner of LCD,click up READ ,it will show "DEL　DATA　00",it indicates to delete the log data,click down MEM ,it will show"DEL　DATA　XX",it indicates don't delete the log data.Click again SETUP to save the settings and exit the current mode.
	Switching button for air temperature/backlight/temperature for DEWP/temperature for WBT: （1）　The backlight is closed during normal air temperature status. （2）　Click to open the backlight, after 15 seconds the backlight will close automatically. （3）　Click again to show DEWP, it shows the measurement temperature value for DEWP. （4）　Click again to show WBT,it shows the measurement temperature value for WBT. （5）　Finally click to switch to the normal status for air temperature.

READA ▲	1）Direction button during the setup mode. 2）Manual data checking button during the normal working mode :click to check the log data,it shows READ DATA and data groups,click up and down to change the data groups, and press long for 3 seconds to the disappearance of READ DATA and data groups ,exit the current mode for checking the log data.
MAX/MIN	MAX/MIN :click to show MAX ,it enters into the MAX measurnent fixed status,and click again to show MIN ,it enters into MIN measurement fixed status. When it neither shows MAX nor MIN,it shows the current measurement value.
HOLD	Button for clock symbol ：the clock symbol doesn't flicker in normal status,and click it once,the clock symbol will flicker and click again it will get back to the normal status.
▼ MEM	1) Direction button during the setup mode. 2）Button for manual-recording data during normal working status: click it once,it will store the current measuring data,total in 99(capacity).The manual recording data and data number will disappear automatically after 5 seconds.