

MT6600

Hand held high accuracy temperature
humidity (dew point) meter

User manual

Outlines

MT6600 high accuracy digital humidity dew point meter. It is the latest digital dew point portable device. The digital signal processing and the transmission had guaranteed product with high accuracy, reliable, the transmission line cable's signal attenuation and the disturbance which does not affect the measuring accuracy. The calibration data storage in probe head itself. Therefore, when the measuring environmental variation needs to replace the probe head, the measuring appliance does not need to calibrate, so long as replaces the different type the probe head to be able to satisfy in the different situation, probe in the type multiplicity as well as the nimble combination, must have one section to be able to meet your needs. The product widely uses in the scientific research, the health quarantine, the grain warehousing, the medical instrument, the environment experiment, the ratio to calibrating, production processes and so on papermaking and spinning and weaving.



Characteristic:

- Precise temperature and humidity measurement
- Surface & body fission design of sensor
- Optional on many kinds of interchangeable probes, suits the different situation the humidity measurement

- High accuracy: $\pm 1.5\%RH$, $\pm 0.3^{\circ}C$
- High resolution: $0.01\%RH$, $0.01^{\circ}C$
- Stabilization with small drifts
- Dew point and the wet-bulb temperature convertible
- Singel point zero offset temperature & humidity calibration
- Hold reading function for data recording.
- Standard 7th battery power supply

Specification

MT6600 series are hand held high accuracy temperature and humidity meter which included the following models.

Table 2

Name	Models	Description
MT6100 Hand held digital temperature meter	MT6100	1. Single channel, TC input: : K、E、J、T、N、S、R、B types 2. Display resolution: 0.1° (when $>1000^{\circ}$, resolution will be 1°) 3. Measuring range: $-200^{\circ}\sim 1800^{\circ}$ 4. Accuracy: $\pm 0.2\%FS \pm 1D$
	MT6100/RTD	✧ Measuring range: $-200^{\circ}\sim 850^{\circ}$ ✧ RTD input: 4 wires Pt100 ✧ Accuracy: $\pm 0.1\%FS \pm 1 D$
	MT6100/ALL	✧ TC & RTD input: 4 wires Pt100& K、E、J、T、N、S、R、B ✧ Accuracy : $\pm 0.1\%FS \pm 1 D$ ($\pm 0.2\%FS \pm 1 D$)

MT6200 Hand held digital temperature meter	MT6200	1. Dual channel TC input: K、E、J、T、N、S、R、B 2. Display resolution: 0.1℃ (when >1000℃, resolution will be 1℃) 3. Measuring range: -200℃~1800℃ 4. Accuracy: $\pm 0.2\%FS \pm 1D$
	MT6200/RTD	◇ Measuring range: -200℃~850℃ ◇ RTD input: 4 wires Pt100 ◇ Accuracy: $\pm 0.1\%FS \pm 1D$
MT6300 Hand held digital temperature high accuracy meter	MT6300	1. Singel channel, RTD input: 4 wires Pt100 2. Display resolution: 0.01℃ (when >100℃, res will be 0.1℃) 3. Measuring range: -100℃~400℃ 4. Accuracy: $\pm 0.03\%FS \pm 1D$
MT6600 Hand held digital temperature and humidity high accuracy meter	MT6600	1. Input signa: High accuracy temperature-humidity sensor (Swiss) 2. Display resolution: 0.01℃、0.01%RH or 0.1℃、0.1%RH 3. Measuring range: -40℃~85℃; 0~100%RH 4. Accuracy: $\pm 0.3\%$; $\pm 1.5\%RH$
	MT6600/ALL	◇ Dew point parameter measuring function.
MT6700 Hand held digital PH meter	MT6700	1. Display resolution: 0.01pH; Auto temperature compensation, 3 points calibration 2. accuracy: $\pm 0.01\text{ pH}$; $\pm 0.2\%$

MT6800 Hand held digital temperature high accuracy meter	MT6800	1. Singal channel (CT or 4 wires RTD are selectable) 2. Input: TC: K、E、J、T、N、S、R、B or 4 wires Pt100 3. Display resolution: 0.01℃ or 0.1℃ 4. Measuring range: -200℃~1800℃ 5. Accuracy: $\pm 0.03\%FS \pm 1D$
MT6900 Hand held digital temperature and humidity high accuracy meter	MT6900	1. Singal channel (One is TC input, one is 4 wires signal input) 2. Universal inputs: C.T: K、E、J、T、N、S、R、B, 4 wires Pt100, process DC voltage (0~1V)、DC current (4~20mA), frequency signal 3. Display resolution: 0.1 or 0.01 4. 5~24V Power output is selectable

Function operating refer to below:

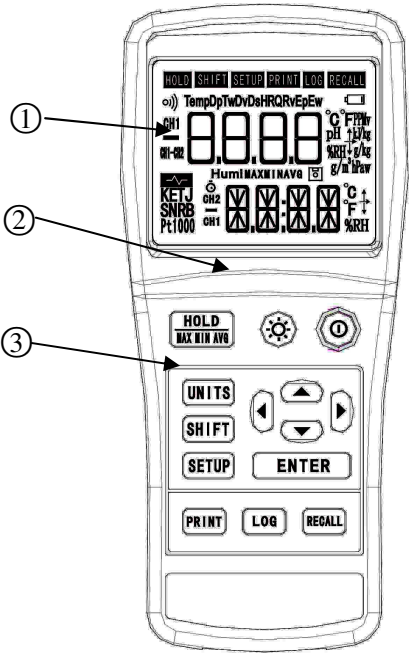


Table 3

①	Display screen
②	Body
③	Key

Figure - 1

● Figure 2 and table 4: display screen description.

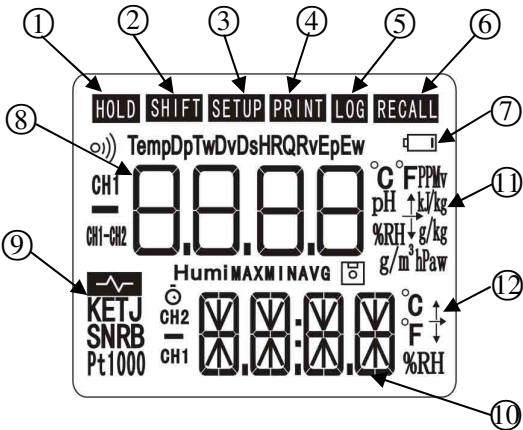


Figure - 2

Table - 4

①	Hold the diplay reading
②	Shift function
③	Parameter setting
④	Printing status
⑤	Recording reading
⑥	Recall the reacoded reading
⑦	Battery low
⑧	Main display
⑨	Input type
⑩	Second display
⑪	Main display unit
⑫	Second display unit

Button function description

Table - 5

	Press  Turn on/off device.
	Press  to turn on/off the background light. It will automatically off within 1 minute if no key operation.
	Press  to check ready step by step. Display ready from max reading to min reading, then follow by average reading, and disable the display. Press  over 2 seconds to clear the memoery which included all max, min and average reading.
	Press  to select temperature US and IS unit ☐ or ☐ .
	Press  to star and escape parameter setting mode. Refer to “change parameter setting”.
	Press  to increase setting value.
	Press  to decrease setting value

	Press  shift to left to select parameter setting item. Press  to shift left until the parameter setting that you selected.
	Press  shift to right to select parameter setting item. Press  to shift right until the parameter setting that you selected.
	 +  switch to first display if the password is correct..  +  switch to second display if the password is correct..  +  Select the first display resolution.  +  Select second display resolution
	Press  to accept the setting item. Press  again to save the parameter setting value.

Parameter setting and description:

Parameter	Name	Range(digit)	description
LOCK	Parameter setting lock	LOCK≠132	Do not allow to modify any parameter
		LOCK=132	Go to parameter setting
POWE	Power supply control	POWE=0	Do not allow auto timer action
		1-240	Auto timer setting (minutes)
1dIP	First display	1dIP=0	Temperature display
		1dIP=1	Humidity display
		1dIP=3	Dew point value display
		1dIP=4	wet bulb temperature value display
			
1dOT	Decimal of first display	1dOT=0	****
		1dOT=1	***.*
		1dOT=2	**.**
1UNI	Unit of first display	1UNI=0	□
		1UNI=1	□

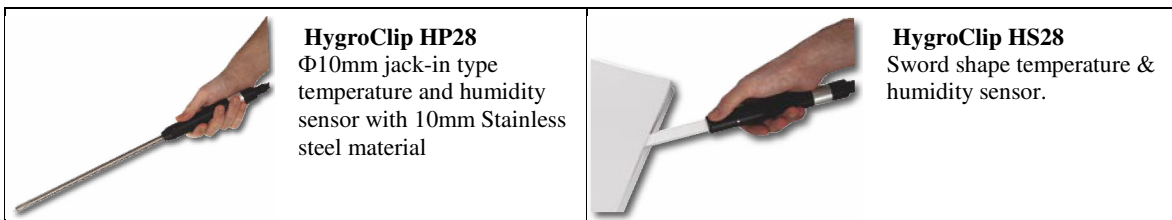
2dIP	Second display	2dIP=0	Humidity value display
		2dIP=1	Temperature value display
		2dIP=2	Dew point display
		2dIP=3	First channel average value display. "Hold" key to switch the current value, maximum, minimum and average value. For the single channel meter, it is default setting.
		2dIP=4	First channel maximum value display. "Hold" key to switch the current value, maximum, minimum and average value.
		2dIP=5	First channel minimum value display. "Hold" key to switch the current value, maximum, minimum and average value.
2dOT	Decimal of second display	2dOT=0	****
		2dOT=1	***.*
		2dOT=2	**. **
2UNI	Unit of second display	2UNI=0	☐
		2UNI=1	☐
T0	Temperature value zero offset	T0=0.00	Calibrated value = before value + T0
Tk	Temperature proportional gain	Tk=1.0000	Calibrated value = before value * Tk + T0

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H0	Humidity value zero offset (Single point calibration mode)	H0=0.00	Calibrated measuring value = previous value + H0 It will be single point cal mode if H0 ≠ 0 It could be 3 points cal mode if H0 = 0.00
H1	Humidity calibration point	H1d=40	3 points cal mode: 1. rh% range: 0 - 40%, zero offset is H1 2. rh% range: 40–60%, zero offset will be linear value between H1 & H2 3. rh% range: 60–80%, zero offset will be linear value between H2 & H3 4. rh% range: 80–100%, zero offset will be linear value between H3 to 100.
	First range cal offset	H1=0.00	
H2	Humidity cal point	H2d=60	
	Second range cal offset	H2=0.00	
H3	Humidity cal point	H3d=80	
	Third range cal offset	H3=0.00	
DP0	Dew point temperature zero offset	DP0=0.00	Calibrated value = before value + DP0
Dpk	Dew point proportional gain	Dpk=1.0000	Calibrated value = before valu * Dpk + DP0
oth0	Others value cal zero offset	oth0=0.00	Calibrated value = before value + oth0
othk	Others value cal proportional gain	othk=1.0000	Calibrated value = before value * othk + oth0

Sensor option

 HygroClip S/S1 Standard temperature and humidity sensor with metal grid filter to protect $\leq 20\text{M/S}$ dust. Dimension: $\Phi 15 \times 100\text{mm}$ Protect level: IP65 HygroClip S1 accuracy: $\pm 1\% \text{RH}$	 HygroClip SC04/SC05 4mm or 5mm mini temperature & humidity sensor with 2M cable
 HygroClip HK25/HK40 Hight temperature humidity sensor with 250mm or 400mm detector length.	 HygroClip SP05 $\Phi 5\text{mm}$ jack-in type temperature and humidity sensor with fast respond time. It is not suitable for powder material measuring.

**Appendix: Measuring parameter code:**

Parameter	Code	Range	Unit
Temperature	Temp	-50.00 ~ +200.00	□
Humidity	Humi	0.00 ~ 100.00%RH	%RH
Dew Point	Dp	-59.99 ~ 99.99	□
Wet-bulb temperature	Tw	-49.99 ~ 99.99	□
Water-vapor density (absolute humidity)	Dv	0.00 ~ 9999	g / m^3
Saturated water vapor density	Ds	0.00 ~ 9999	g / m^3
Heat content	H	-99.9 ~ 9999	kJ / kg

Mixture ratio	R	0.000 ~ 9999	g/kg
Humidity ratio	Q	0.000 ~ 9999	g/kg
Volume mixture ratio	R _v	0.000 ~ 9999	PPM _v
Water vapor differential pressure	Ep	0.000 ~ 9999	<i>hPa</i>
Saturation water vapor pressure	Ew	0.000 ~ 9999	<i>hPa</i>