

Operation Manual

Moisture Analyzer

MT100MW



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1. Brief Introduction

1.1 Safety Notice

For safe and reliable use of moisture analyzer, please pay attention to following notice.

The instrument is suitable for the determination of moisture content in the sample. Any improper operation may result in personal danger or damage to the instrument or other equipment during the use of a rapid measuring instrument.

Please make sure the input voltage and plug type match your AC power supply.

-Please make sure that the power cord is plugged in and does not cause any obstacle or danger of tripping.

Please do not operate under dangerous, humidity or unstable conditions. Please disconnect the instrument when cleaning.

During operation, please do not change the voltage or frequency of the input power supply voltage (e.g, do not switch between 220V and 110V)

Please make sure there is enough space around the instrument, keep at least 1 meter above the top.

The instrument must be operated only by well trained staff who is familiar with the performance and equipment of the objective samples.

Please do not make any changes to the components and other parts of the moisture analyzer.

The aftersales service shall be provided only by the professional personnel authorized by the manufacturer.

Do not place any combustible material above, below or around the moisture analyzer. Carefully move the samples when the instrument in working condition.

Samples, heating elements and the surrounding can be very hot which will easily lead to burn. Some samples need to be handled with special care

Please evaluate possible risks when handling risky samples

Fire/explosion: Flammable or explosive gases or vapors which can be produced when heated in the form of solvent, flammable or explosive. In the use of such samples, please work in a dry and low temperature environment so as to avoid fire or explosion.

Corrosion: Once the sample containing the solvent is heated will evaporate, and the corrosive gas is released at the same time, so it is recommended to take a small account of sample

2.Installation




2.1 Location selection

The surface of the operating table should be kept stable and the level should be maintained.

Select a safe and adequate ventilation. Samples with corrosive or toxic or other hazardous materials need to be specially prepared.

Please try to avoid placing moisture analyzer in temperature fluctuations, excessive humidity, unreasonable air flow, vibration, electromagnetic field, heating or direct sunlight.

2.2 Installation of components

		
1.Place wind proof cover	2. Place the sample tray support, rotate.	3. Place sample plate flat on the bracket

2.3 Connecting power

Insert the power line in place

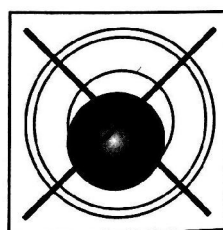
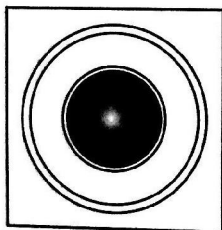


Note: It is suggested to warm up minimum 30 minutes before operation

2.4 Level adjustment

The moisture analyzer is equipped with a bubble level, adjust the bubble in the center.

Note: Readjustment is required with each position change.



3.Parameter

Environment

Temperature: in 5 to 40℃

Humidity: 80% - 15%

Warm-up: It is suggested to warm up for minimum 30 minutes before operation.

Power

Input AC voltage: 200VAC - 240VAC, 50Hz±1Hz

Power: the maximum power is 350W in the heating process. Protection:

protection from dust and moisture, pollution levels: Class II.

Specifications

Model No	MT100MW
Capacity	110g
Readability	0.001g
Moisture readability	0.02-0.1%(≥3g)
Suggested sample	3-10g
Display	Touch Screen
Heating time	0-99min
Pan size	100mmØ
Dimensions(L*W*H)	330 x 180 x 140mm
Gross weight	4500g
Heating	Halogen
Environment	10-40℃
Heating Temp.	50-180℃
Moisture	0-100%
Temperature setting	40-180℃
Interface	RS232
Package	Inner carton 460 x 310 x 330mm/4.5Kg Export Carton 630*490*370mm/10Kg

3. How to use

4.1.1 Moisture analyzer is a precision analysis instruments, users should be careful in operation, samples should be evenly spread in the pan.

4.1.2 Typical sample volume 3-5g. tare before weighing.

4.1.3 Set the heating parameters (heating temperature, ending) before weighing the sample

4.1.4 For better accuracy purpose, samples are suggested to be in power state In order to ensure the accuracy of the test, large particles of the sample should be used to crush

4.1.5 It is suggested to wait till the temperature drops to 50°C to handle a new measurement.

4.2 Turn on/Off

4.2.1 In power off state, touch the screen to start moisture analyzer, the instrument will perform self-inspection before it enters the main menu.

4.3 Operation

4.3.1 Weighing Calibration

In order to improve and ensure the accuracy of the weighing data, weight calibration should be carried out before the first weighing.

How to calibrate

A. Clean the sample tray, the sample tray should be placed stable, touch the weight calibration key in the main display.

B. Touch the calibration key and start the weighing calibration.

- C. Place the weights according to the value show up in the display, close the cover.
- D. After calibration, remove the weight (if the instrument does not return to zero, perform the calibration again).

4.3.2 Time setting

- A. Touch the CLOCK CAL.
- B. Set the current date and time, return to the timing interface, the setting is saved.

4.3.3 Timer drying

Timer drying means to end when the set time is reached.

- A. Load the sample tray and tare it, put samples in 3-5 grams, when the reading of weight stables.
- B. Touch timer drying in the main menu.
- C. Set the temperature and timer, press START to enter the work.
- D. The instrument displays changes of temperature, sample weight, heating rate. Touch review key, which can view the circulating water loss rate, drying rate, moisture regain, wet weight rate. Touch STOP, stop to dry.

E. When the drying time is reached, the instrument will stop drying and revert to review menu, 9 groups of water measuring parameter will be displayed.

- a. Sample weight
- b. Dry weight
- c. Heating time (min,sec)
- d. Dry temperature
- e. Ending mode
- f. moisture loss rate= $(G-g)/G$
- g. drying rate= g/G
- h. Regain= $(G-g)/G$
- i. Wet weight ratio= G/g

4.3.4 Automatic drying

Automatic drying means the drying stops when the sample weight stops decrease, the operations are same with timed drying except no need of time&temperature set.

4.3.5 Current record

The current record indicates the most recent sample drying parameter.

- A. In the main menu, touch the RECORD button to enter the current record page.
- B. Review, save or delete drying parameters at the current record page. If the instrument does not dry after the start, the touch screen shows no current record, revert to the main menu.

4.3.6 Save record

Press Save button to save the test results, this instrument saves up to six groups of record.
touch save record key to enter the record page

- A. In the main menu, touch save button to enter the record page.
- B. Touch sample numbers in the record page to review, print or delete the sample drying parameters.

4. Print setting

5.1 The moisture analyzer can be used to print the test data or parameters of sample with an micro printer.

A. Select the preset parameters or tested and preserved samples ,touch the "print" button to print.

B. Output with RS232 interface

C. Up to 9 kinds of parameters can be printed

5.2 Review test data

A. Select preset parameter or tested and reserved sample.

B. Return to main menu

C. Touch restored record to review parameters.

5.3 Data interface

9600 baud

rate,no polarity

5. Faults and Solutions

Failure	Reason	Solutions
No light	No power or No connect with power	Check the adaptor and power
No weight	1. Pan not installed 2. Internal calibration data failure	1. Install the pan. 2. Re-calibration
overload	1. There is load on the platter 2. Over load. 3. Internal calibration procedure failure	1. Remove the object 2. Remove the load 3. Re-calibration
Calibration when ultra light and over load	1. Improper calibration weight 2. Before calibration, there is other object.	1. Remove the object, tare and calibration. 2. Re-calibration
Weighing unstable	1. Air flow 2. Working table is not stable	1. Air flow should be avoided as far as possible. 2. Operation on a stable table.
The weighing result is not correct	1. No tare before weight 2. No calibration or calibration failure	1. Touch TARE 2. Re-calibration
Touch one of the function keys does not respond	1. Instantaneous dry 2. Improver power supply	1. Reset the instrument, or reinsert the power supply. 2. Use the correct power supply or connect the power cable.

6. Standard Attachments

1. Main instrument
2. Bracket
3. Power cord
4. Weighing plate
5. Calibration weights
6. Tweezers
7. Operation manual