I、Product Introduction

MDZY-KLKHF Karl Fischer moisture meter adopts a unique needle design, which can realize carrier gas input and water vapor output in one operation. At the same time, due to the new gas circuit design, the instrument can realize the transmission of water vapor with a very small flow rate. Moreover, only the sample bottle needs to be replaced each time the sample is injected, and the operation is simple and convenient.

II、Application Field

- ✧ Trace moisture detection, detection accuracy can reach ppm level. It is very suitable for industries that have high requirements for moisture detection, such as lithium batteries, plastics, and petrochemicals.
- ✧ For product moisture detection with limited sample size, the minimum 20mg can be tested (the sampling weight is determined according to the moisture content of the sample). It is suitable for industries with expensive samples and limited product quantities, such as medicine.
- ✧ The products that produces various volatiles upon heating. These products are mainly concentrated in the chemical industry.

III、Product Features

- ➢ The combination of high-precision coulometric moisture analyzer and karl heating furnace can detect water at a minimum of 3μg, and the accuracy can reach ppm level;
- ➢ The maximum temperature is 300℃, which can meet the detection of most samples. Air flow 0-100ml, can be adjusted freely, suitable for products with various moisture release rates.
- ➢ Hollow core gas needle injection technology and gas delivery management design with heating function, so that the water with zero dead volume will not condense. While simplifying the operation steps, it also improves the accuracy and repeatability of the instrument.
- ➢ Headspace sampling technology. During the test, a new round of measurement can be started just by replacing the sample bottle, without transferring the sample, the operation is simple, and the measurement efficiency is greatly improved. At the same time, the sample bottle is always kept sealed, and the sample will not be disturbed by moisture in the air, which ensures the accuracy of the measurement results. In addition, because a new vial is used for each measurement, cross-contamination between samples does not occur.
- ➢ Headspace sampling technology. Only the gas enters the reaction cup and does not contaminate the reaction cup and electrolysis electrodes.
- ➢ High-definition capacitive touch screen, the menu is concise and clear, the operation is convenient and fast, and the measurement parameters can be displayed in real time.
- ➢ 5 kinds of measurement methods and 8 kinds of calculation formulas are available for selection, which is convenient for the detection of various samples. Custom units are: %, ppm, mg/kg, etc.;
- ➢ The system detects the moisture in the environment in real time, and will accurately deduct the drift. At the same time, the real-time dynamic impedance method is used to determine the end point of the titration to ensure more accurate measurement results.

- The test operation is simple and convenient. Just set the parameters such as temperature and flow, put the sample into the prepared sample bottle, put the sample bottle in the heater, then stick the transfer needle into the silicone pad of the sample bottle, and click on the instrument to start the measurement.

IV、Product Details

- 5.7-inch capacitive high-definition touch screen.
- Automatic thermal printer, with internal storage, can save test data in a variety of ways.
- 10ml vials. Sample vial gasket: PTFE and silica gel composite gasket, which will not release substances that can cause side reactions under high temperature conditions.
- Double drying bottle design reduces the interference of moisture in the carrier gas.
- Heating and insulating pipelines prevent water vapor from condensing during transportation and improve test accuracy.

V、Technical Parameters

Model	MDZY-KLKHF
Test Principle	Karl Fischer Coulomb method (electrolysis method)
Measuring speed	2.8mg H_2O /min（Max.）
Measuring range	1μg-300mg
Measurement Accuracy	3μg (10μg--100μg H_2O); ≤0.3% (water content> 100μg H_2O); (Excluding injection errors)
Measurement Resolution	0.1μg H_2O
Relative Water Content Range	1ppm-100%
Electrolytic Current	0-500mA, adjustablle
Moisture Concentration Resolution	0.001ppm
Concentration Unit	%、ppm、mg/kg
Stirring Speed	Stepless touch adjustment
Drift value， blank value deducted	Deducted automatically
Special function	Automatic drift compensation, environment and background water automatic deduction, fault self-detection prompt

Display and operation	Color touch screen
Sample Number	Users can set sample number freely
Storing data	500pcs
Print Function	Built-in thermal printer, paper width 58mm
Print Content	Display different contents according to the user's measurement formula and measurement results
Calendar/Time	Display and print out the current time, date, detection time
End Point Indication	Screen prompt; Print out; Sound warning; Terminal light indication;
Environmental Conditions	Temperature 2℃-50℃, humidity＜90%
Power	≤50W
Size	350*300*170mm
Voltage	220V,50Hz，150w
Weight	4kg

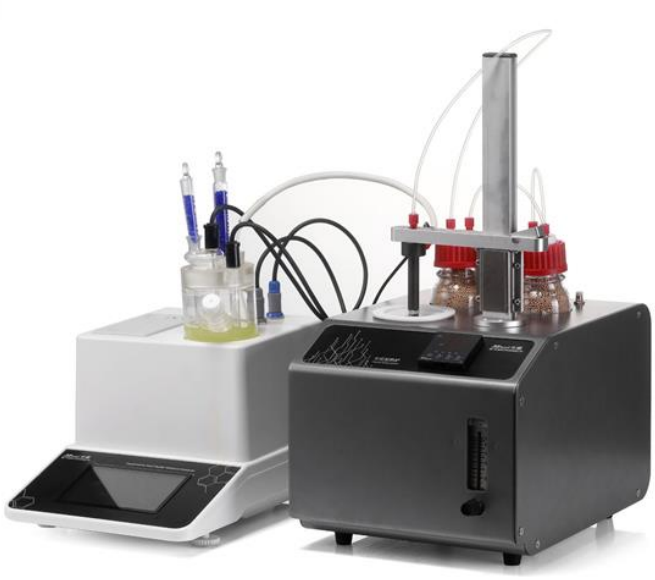
Product Name	Karl heating furnace
Analysis of temperature control	1℃
Temperature range	40-300℃
Heating rate	30℃/min(40-200℃)； 10℃/min(200-300℃)
Cooling rate	10℃/min
Flow range	0-100ml/min (0.1Mpa),（0-300ml/min can also be selected）
Flow accuracy	1ml/min
Vial size	10ml(5ml、20ml optional)
Thermostatic pipeline	12V,5W
Carrier gas input interface	3.2mm corrosion-resistant pipeline
Carrier gas system	External high-purity air generator (can be connected to nitrogen, oxygen and other gas sources)
Ambient Temperature	5-40℃
Environment Humidity	<65%, the drier the humidity, the more stable the instrument

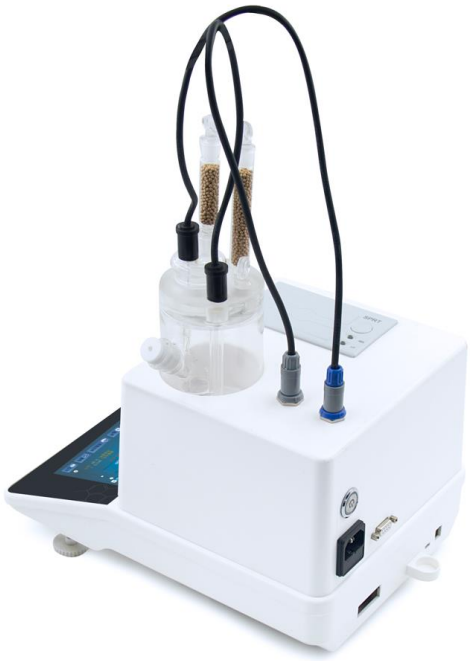
Size	350*250*220mm
Voltage	220V,50Hz,150W

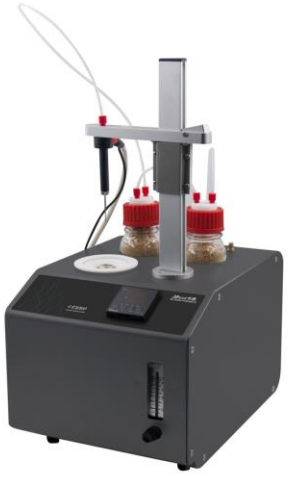
VI、Equipment that needs to be prepared by oneself for coordination

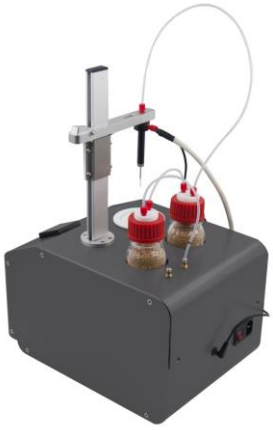
Analytical balance (0.0001g accuracy), high-purity nitrogen (99.999% purity), standard nitrogen pressure reducing valve.

VII、Product Picture









VIII、Packing List

No	Name	QTN	Unit
1	Karl Fischer moisture analyzer host	1	set
2	Karl Fischer Furnace Host	1	set
3	Electrolytic cell bottle	1	pcs
4	Electrode	1	pcs
5	Measuring electrode	1	pcs
6	Drying tube	2	pcs
7	Gasket	2	pcs
8	Vacuum silicone grease	1	pcs
9	Magnetic stir bar	1	pcs
10	0.5ul sampler	1	pcs
11	100ul sampler	1	pcs
12	1ml sampler	1	pcs
13	Printer paper	2	pcs
14	Fuse tube	1	pcs
15	Heated sample tube	1	pcs
16	Gas line with connector	3	pcs
17	Gas line	5	pcs
18	Syringe cover	1	pcs
19	10ml vial	100	pcs
20	Vial Caps + Septa	100	pcs
21	Dry bottle (with cap)	2	pcs
22	Pressure reducing valve adapter	1	pcs
23	Power cable	2	pcs
24	Manual	1	Copy
25	Certificate / Warranty Card	1	Copy