W202 Water Vapor Permeability Analyzer

W202 Water Vapor Permeability Analyzer is using electrolytic method, is a high precision testing equipment with machinery, electronics, software.Used in the water vapor permeability analysis of plastic film, composite film, sheet, metal foil and plastic, rubber, paper, glass, bottle, bags, cans, boxes and other packaging container.

Configuration

Main frame ,one sealing grease,cutter,testing software, communication cable,5meters 1/8 inch copper tube

Users owned

Nitrogen (99.999%), High purity gas,a pressure reducing valve,a computer

Standards

GB/T 21529、ISO15106-3、DIN 53122-1、YBB 00092003、ASTM E 398

LED Screen

A Chamber B Chamber

Features

- Easy to use :can set the parameters,display the testing curve and report.The machine is with operation system ,can operate independently(without computer).
- emperature control :adopt international advanced electromagnetic temperature control technology, and the program step by step system can control temperature elevating freely, without external accessories, temperature control precision accurate to 0.1 ℃.
- RH control :with double gas flow RH method control, with high precision.
- A,B two chambers automatic switch test.
- Sensor automatic protection
- Can monitor test parameter's effect to the result
- Equipped with packaging film test adapter accessories can test the high permeability membrane.
- Test either flat films or finished packages.

Technical Specification

Measurement range	0.001~100 g/（m^2•24h）
Resolution ratio	0.001 g/（m^2•24h）（film and sheet）
Temperature control accuracy	15℃~45℃（5~50℃optional）
Temperature control accuracy	±0.1℃
Humidity control range	dryness= 0％RH，humidity=30~90%RH，100%RH
Humidity control accuracy	±1%RH
Number of testing specimen	2pcs
Specimen dimension	Φ100mm，permeability area 50.24cm^2，
Specimen thickness	≤2mm
Carrier gas	Nitrogen
Carrier gas pressure	≥0.1Mpa

Software Interface

W402 Water Vapor Permeability Analyzer

W402 Water Vapor Permeability Analyzer is using Infrared sensor method, A high precision testing equipment with machinery, electronics, software.Used in the water vapor permeability analysis of plastic film, composite film, sheet, metal foil and plastic, rubber, paper, glass, bottle, bags, cans, boxes and other packaging container.

Configuration

Main frame ,one Sealing grease,cutter,testing software,communication cable,5meters 1/8 inch copper tube

Users owned

Nitrogen (99.999%), High purity gas,a pressure reducing valve,a computer

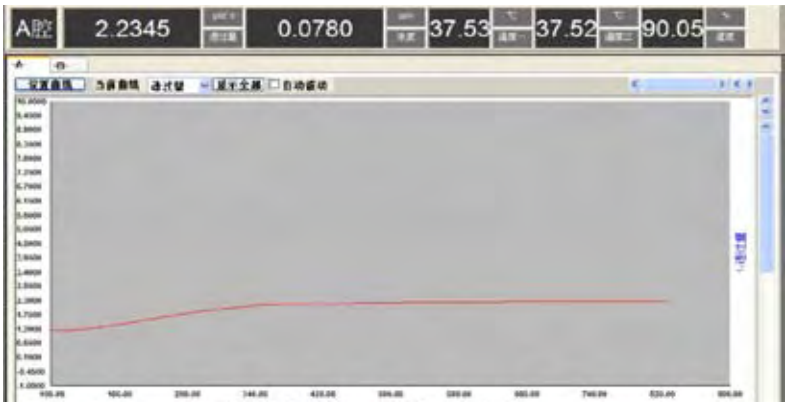
Standards

ISO 15106-2、 ASTM F1249、 TAPPI T557、 JIS K7129、 GB/T26253

Technical Specification

Measurement range	0.001 ~ 100 g/m^2 • 24h (film and sheet，wish mask can be 0.1~1000 g/m^2 • 24h) 0.001 ~ 5 g/ pkg • d (package bag and bottle)
Resolution ratio	0.001 g/m^2 • 24h (film and sheet) 0.00001 g/ pkg • d (package bag and bottle)
Temperature control accuracy	15~45℃ (5~50℃optional)
Temperature control accuracy	±0.1℃
Humidity control range	dryness= 0％RH，humidity=30~90%RH ， 100%RH
Humidity control accuracy	±1%RH
Number of testing specimen	2pcs
Specimen dimension	Φ100mm，permeability area 50.24cm^2，
Specimen thickness	≤2mm
Carrier gas	Nitrogen
Carrier gas pressure	≥0.1Mpa

Software Interface



Features

- Easy to use :can set the parameters , display the testing curve and report.The machine is with operation system ,can operate independently (without computer).
- RH control :with double gas flow RH method control, with high precision.
- A,B two chambers automatic switch test.
- Sensor automatic protection.
- Can monitor test parameter's effect to the result.
- Equipped with packaging film test adapter accessories can test the high permeability membrane.
- Test either flat films or finished packages.

W301~303 Water Vapor Permeability Analyzer

Designed with the principle of weighting method , use weight reduction method to test the water transmittance rate (WVTR). Tests the water vapor transmission rate (WVTR) of packaging material.used in food industry, pharmaceutical industry, cosmetics, flexible packaging materials industry,university and quality institution .Computer automatic testing, control temperature, humidity, recording temperature, humidity, weight, transmission rate curve, automatic judge the end of test .

Configuration

Touch screen,one sealing grease,cutter, software,communication cable,balance(200g).

Standards

GB 1037、GB/T 16928、ASTM E96、ASTM D1653、TAPPI T464、ISO 2528、DIN 53122-1、JIS Z0208、YBB00092003

Technical Specification

Item	W301	W302	W303
Chamber	1	2	3
WVTR Test Range	0.01~1000 g/ m^2 • 24h		
Resolution ratio	0.001 g/ m^2 • 24h		
Test Temperature range	15℃~45℃		10℃~50℃
Test Temperature accuracy	±0.1℃		
Controlled RH Testing	0~10%RH dry method 10~90%RH (dual-airflow humidity method, selection)		
Controlled RH accuracy	±2%RH		
Test Sample thickness	≤2mm		
Test Sample Area	Φ90mm ,transmission area 50.24cm^2		
Sample qty	1piece	2 pcs	3pcs
Power supply	AC 220V/50Hz		

Features

- Work independently by touch screen .
- High-precision sensors with over-range protection, continuous data collection, accurate and reliable data.
- Sensor automatic protection .
- Temperature system uses electronic technology intermittence control,high precise .
- Uses the wet and dry gas ratio control humidity.
- Simple operation , with the function of parameter setting error automatic correction function.
- Parameter coded lock.automatically lock the parameter while testing.
- Software real-time display each curve state: temperature, humidity, weight, permeation rate. function of data storage , convenient for analysis the experimental results.
- Through the serial port can be directly connected to computers.Can convenient output special format editing, printing. Computer automatic monitoring process.

Software Interface

Y204D Oxygen & Water Vapor Dual Mode Permeability Analyzer

Y204D can be used to test high-precision oxygen permeability and water vapor permeability o f film or sheet at the same time;

It adopts Coulometry theory for oxygen permeability test, and adopts international advanced electrolytic process theory for water vapor permeability test;

It is applicable for testing the oxygen transmission property and water vapor transmission property of plastic film, sheet and plastic bottles and bags etc. packaging containers in air or pure oxygen.

Configuration

Mainframe, a professional testing software, a sealed grease, sampler, a pair of communication cable, 1/8 inch copper tube 5m.

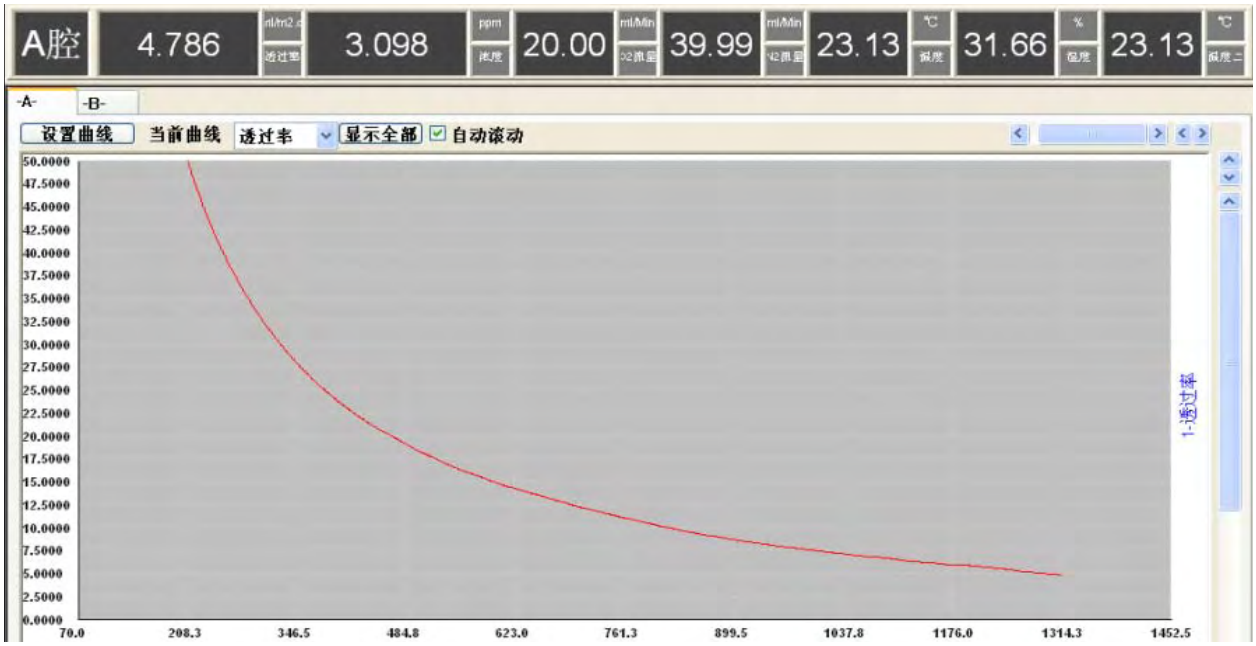
Users owned

Oxygen (99.999%), nitrogen (99.999%), carbon dioxide (99.99%) of high purity gas bottle, one computer,a reducing valve.

Standards

GB/T 19789-2005 、ASTM D 3985、 ASTM F2622 、ASTM F 1927 、ASTM F 1307 、ISO 15105-2 、YBB00082003、DIN 53380-3 、JIS K-7126-B。
GB/T 21529、ISO15106-3、YBB 00092003、DIN 53122-1

Software Interface



Principle

- It adopts Coulometry theory;
- The testing chambers including upper and nether parts, the sample film is fixed between the two chambers, the high pure oxygen (O_2) circulate in the upper chamber of the film, and the high pure nitrogen (N_2) circulate in the nether chamber of film, the oxygen molecules get through the film and spray to nitrogen in the nether chamber, and brought by the blowing nitrogen to the sensor, so, the tester then analyze the oxygen concentration as what the sensor tested and calculate the oxygen transmission value. But for the packing containers, the nitrogen circulate in the bottle and the air or oxygen circulate outside the container

- For water vapor permeability testing;
- It is made according to the electrolytic process theory;
- The testing chambers including upper and nether parts, the sample film is fixed between the two chambers, water vapor circulate in the upper chamber of the film, and dry gas circulate in the nether chamber of film, water molecules get through the film and spray to dry gas in the nether chamber, and brought by the blowing gas to the sensor, so, the tester then analyze the water vapor concentration as what the sensor tested and calculate the water vapor transmission value.

Parameters

Test Range	0.02 ~ 16,500 cm^3 / m^2/ day (with large the test chamber, the max testing range can reach 260000cm^3 / m^2/ day)
Test Accuracy	0.02 cm^3 / m^2/ day
Humidity Range	0.005 ~ 100 g/m^2 • day
Humidity Accuracy	0.001g/m^2 • day
Temperature Control Range	15℃~45℃
Temperature Accuracy	±0.1℃
Humidity Rang	0%RH, 5~95%RH, 100%RH
Humidity Accuracy	±1%RH
Specimen Size	Φ100mm
Test Area	50.24cm^2
Specimen Thickness	≤2mm
Numbers of Specimen	4 pieces
Inlet Size	1/8 metal pipe
Pressure	0.2~0.3MPa
Testing environment	room temperature (Standard conditions 23℃)

Y210 Oxygen Permeability Analyzer

Y210 is applicable for testing the oxygen transmission property and water vapor transmission property of plastic film, sheet and plastic bottles and bags in air or pure oxygen.

Configuration

Main frame, one set of special testing software, one pair of cable, one sample cutter, 1/8 inch copper tube 5m.

Users owned

Oxygen (99.999%), Nitrogen (99.999%), one bottle of high pure gas, one reducing valve, one computer.

Standards

GB/T 19789-2005 、ASTM D 3985、 ASTM F 1927 、ASTM F 1307 、ISO 15105-2 、YBB00082003、DIN 53380-3 、JIS K-7126-B.

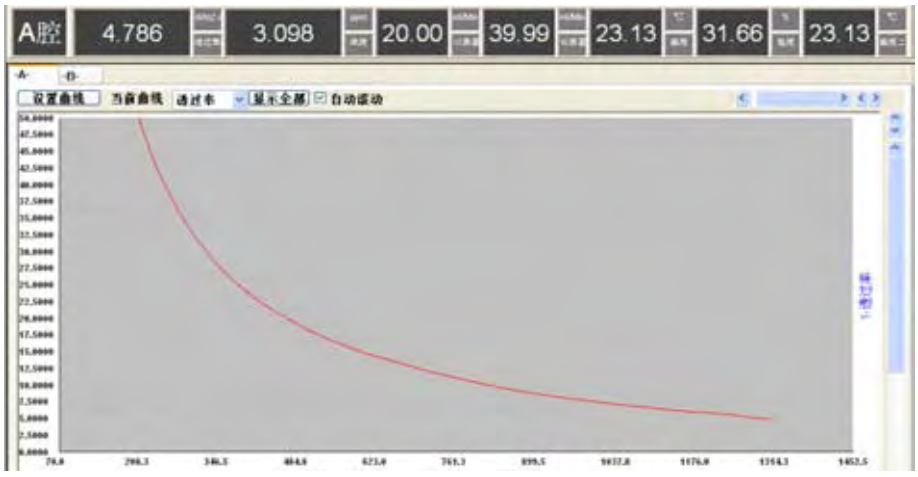
Features

- Adopts international advanced electromagnetic temperature control technology can control temperature rising and lowering without any external accessory. Temperature control accuracy reach 0.01℃
- The humidity control adopts double air humidity control method, humidity control area is large and with high accuracy.
- It has two calibration methods :standard gas calibration and standard film calibration.
- Double cavity pressure control and automatic pressure balance.
- Judge and stop automatically.
- Has leakage auto protection function.
- The software operation is easy, all testing program is automatic. It records the curves automatically of the permeation rate, oxygen concentration, humidity and temperature. Continuous display. Can monitor the mutual influence between the parameters.
- Can test high permeability films (such as contact lenses) with additional testing fixture.
- Can test the oxygen permeability of packaging bags or bottles with special fixture

Technical Specification

Test Range	0.02 ~ 16,000 cm^3 / m^2/ day (with large the test chamber, the max testing range can reach 260000cm^3/m^2/day);0.01~82 cm^3/pkg • day (Package)
Test Accuracy	0.001 cm^3 / （m^2 • 24h）
Temperature Control Range	15~45℃（5~50℃ is optional ）
Temperature Accuracy	±0.1℃
Humidity Range	0%RH,30~90%RH, 100%RH
Humidity Accuracy	±2%RH
Specimen Size	Φ100mm
Test Area	50.24cm^2
Specimen Thickness	≤2mm
Numbers of Specimen	2 pieces
Inlet Size	1/8 metal pipe
Pressure	0.1~0.2MPa
Testing environment	ambient temperature (Standard conditions 23℃)

Software Interface



Y201D Oxygen Permeability Analyzer

Y201D carries the standard of GB/T 19789-2005.It adopts Coulometry theory,High-precision sensors with over-range protection, continuous data collection, accurate and reliable data

Configuration

Main frame, one set of special testing software, one pair of cable, one sample cutter, 1/8 inch copper tube 5m.

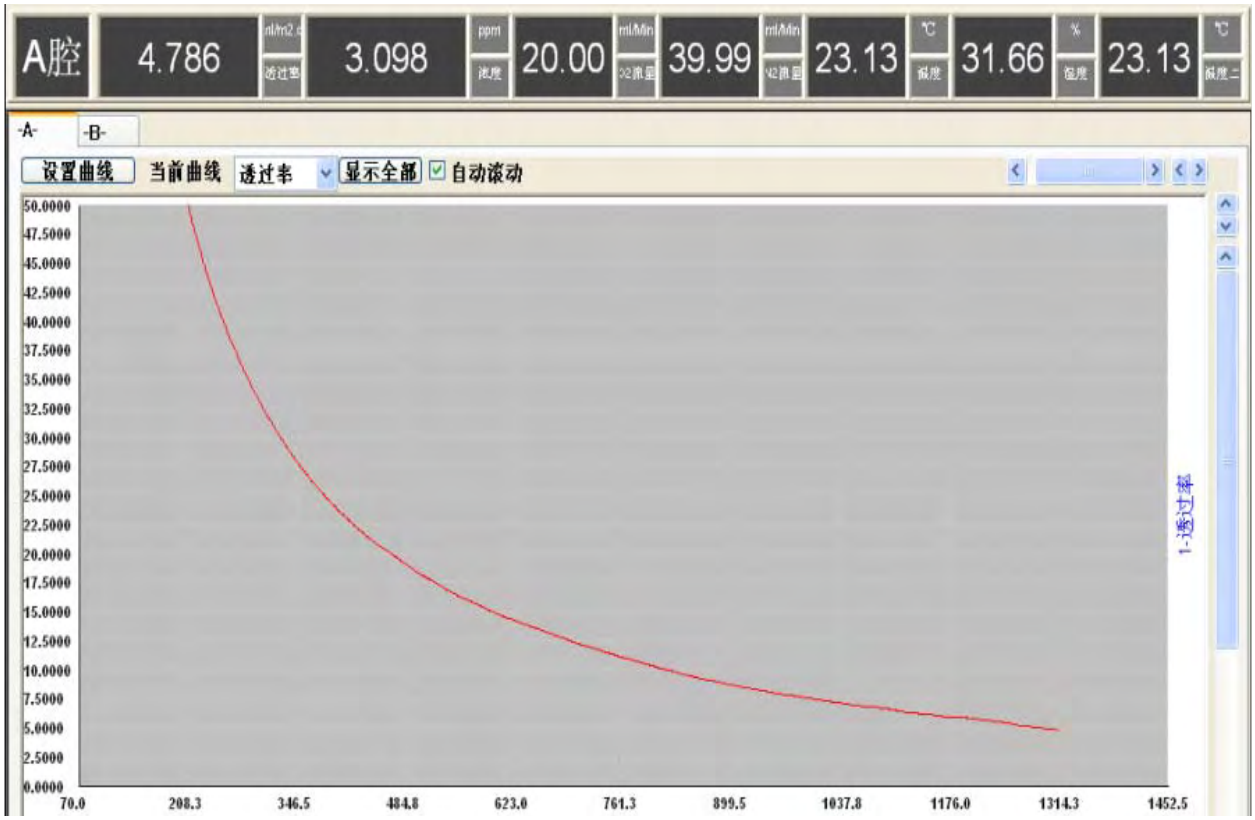
Standards

GB/T 19789-2005 、ASTM D 3985、 ASTM F2622 、ASTM F 1927 、ASTM F 1307 、ISO 15105-2 、YBB00082003、DIN 53380-3 、JIS K-7126-B

Users owned

Oxygen (99.999%), Nitrogen (99.999%), one bottle of high pure gas, one reducing valve, one computer

Software Interface



Features

- Adopts international advanced electromagnetic temperature control technology can control temperature rising and lowering without any external accessory.
- The humidity control adopt double air humidity control method, humidity control area is large and with high accuracy.
- Has two calibration methods : standard gas calibration and standard film calibration.
- Has the functions of double cavity pressure control and automatic pressure balance.
- Can judge and stop automatically.
- Has leakage auto protection function.
- The software operation is easy, all testing program is automatic. It records the curves automatically of the permeation rate, oxygen concentration, humidity and temperature. And continuous display. It can monitor the mutual influence between the parameters.
- Has good ability of data analysis, easy to operate.

Technical Specification

Test Range	0.02 ~ 16,500 cm^3 / m^2/ day (with large the test chamber, the max testing range can reach 260000 cm^3 / m^2/ day) 0.01~82cm^3/pkg • 24h(Package)
Test Accuracy	0.05 cm^3 / m^2/ day
Temperature Control Range	15℃-45℃
Temperature Accuracy	±0.1℃
Specimen Size	Φ100mm
Pressure	0.1~0.2MPa
Test Area	50.24cm^2
Numbers of Specimen	2 pieces
Inlet Size	1/8 metal pipe
Testing environment	ambient temperature (Standard conditions 23℃)

N500 Gas Permeability Analyzer

Model N500 Gas permeation tests the gas transmission rate (GTR) of packaging material.This instrument is widely used in food industry, pharmaceutical industry, cosmetics flexible packaging materials industry (plastic film, barrier materials, sheets, metal aluminum, PVC, PVC sheets), college, university and quality institution for gas(O_2,CO_2,N_2, Non-inflammable gas and Non-etchant gases.)permeation test and quality control.

Configuration

Main frame, software, cable, vacuum grease, sampling cutter, valves and pipes for gas flow

Standards

GB/T 1038、ISO 2556、ISO15105-1、、ASTM D1434、YBB00082003、JIS K7126-A

Users owned

Oxygen(99.999%), nitrogen (99.999%), carbon dioxide (99.99%) of high purity gas bottle valve , one computer .

Features

- It is a unique equipment with two test methods, positive pressure and negative pressure in China, leading international level.
- It can test high barrier material, for instance aluminum foil, ceramic and etc.
- Automatic test, user friendly, non-maintenance design;
- Two test mode of high barrier material and low barrier material, width measurement range, high precision ;
- Superior components, accurate test result, high stability;
- Automatically increase and decrease temperature, no special requirements to the environment;
- All parameters display on the real time;
- Multi-level security protection design, excellent performance , and sustainable operation;
- It can calibrate by standard film and pressure

Technical Specification

Measuring range	0.02~50000cm^3/m^2 • day • 0.1Mpa 0.02~600000 cm^3/m^2 • day • 0.1Mpa(by use expansion the mode)
Measuring accuracy	0.01 cm^3/ (m^2 • 24h • 0.1Mpa)
Testing temperature range	15℃~35℃, (5~50℃is optional)
Temperature precision	±0.01℃
Humidity Range	0%RH， (30~90%RH)
Controlled RH accuracy	±2%RH
Resolution ratio	0.1Pa
Vacuum	<10Pa
Gas Pressuer	-0.1~+0.1MPa
test gas	O_2、CO_2、N_2
Sample thickness	≤2mm
Gas Pressuer	0.2～0.8MPa
Sample area	Φ110mm
Power supply	220V AC， 50HZ

Software Interface

N530 Gas Permeability Analyzer

N530 for the detection of gas permeability of various films, infusion bags and other packaging materials for O_2, CO_2, N_2 and other Non-inflammable gas and Non-etchant gases through the barrier properties.
It has three independent testing chambers and independent temperature control system. The core is connected with computer through the USB. It can automatically judge and stop testing . The testing result is stable, curves of permeability rate ,temperature, pressure and different pressure will be shown at the same time. The test report will generate automatically while the data automatically stored. It also support TCP/IP protocol. There are three measuring range that can be enlarged.

Users owned

Oxygen(99.999%), nitrogen (99.999%), carbon dioxide (99.99%) of high purity gas bottle valve , one computer .

Standards

GB/T 1038、ISO 2556、ISO15105-1、、ASTM D1434、YBB00082003、JIS K7126-A

Configuration

Main frame, software, cable, vacuum grease, sampling cutter, valves and pipes for gas flow

Features

- It can test high barrier material, for instance aluminum foil, ceramic and etc.
- Computer automatically control three cells of testing ,can test different samples, Configuration three independent sensors, each cell can be set different temperatures. First creating positive and negative pressure dual-mode testing, leading international standard.
- The sample can be tested by single cell, or double cells or three cells .
- High or low levels of barrier test, repeat excellent performance. two kinds of test mode.
- The international advanced electromagnetic process step temperature control technology, ease lifting the temperature, variable temperature adjustable-rate, temperature control accuracy of ± 0.01 ℃ range.
- Real-time display of each point transmission, through the transmittance curve, can understand the testing process.
- The curves of each cell's temperature, humidity, weight, and transmission display independently, continuous to display four- groups-curve, can monitor the interaction of parameters at the same time.
- Overpressure protection.9. Software interface is simple and easy to operate, automatically save the test report can be printed and other parameters and the transmittance curve of the report.
- It can calibrated by standard film and pressure.

Technical Specification

Measuring range	0.008~50000 cm^3/m^2 • day • 0.1Mpa 0.02~600000 cm^3/m^2 • day • 0.1Mpa(by use expansion the mode)
Measuring accuracy	0.01 cm^3/ (m^2 • 24h • 0.1Mpa)
Testing temperature range	5℃~50℃
Temperature precision	±0.01℃
Controlled RH accuracy	±2%RH
Resolution ratio	0.1pa
Vacuum	＜10pa
Test Number	3pcs
Sample thickness	≤2mm
test gas	O_2、CO_2、N_2 etc
Gas Pressuer	0.2-0.8Mpa
Sample area	Φ110mm,
transmission area	50.24cm^2,(no stipulate for area in international)
Dimension	800×560×400
Power supply	220V AC， 50HZ

N700 Gas Permeability Analyzer

Function

N700 is high precision laboratory test equipment collects mechanical and electronic. It is applicable for the gas transmission rate test of various textiles including industrial fabrics, non-woven cloth, paper, sponge etc.

Configuration

In the regulation differential pressure conditions, measurement rate of air flow and calculate permeation rate at fixed time vertical through the sample given area.

Features

- The pressure can arbitrarily regulate, and automatic measurement and calculation. According to GB/T 5453 design and manufacturing.
- Measurement area :5 cm^2、20 cm^2、50cm^2、100 cm^2.

Standards

GB/T 5453、ISO 9237、ASTM D 737、BS 5636

Specifications

Measuring range	0 ~ 20000mm/s
Measuring resolution	1mm/s
Pressure range	0~500Pa
Test area	5 cm^2、20 cm^2、50cm^2、100 cm^2
Sample thickness	≤10mm
Power	AC 220V /50HZ
Configuration	Main frame, software, cable, sample cutter
Sample thickness	≤5mm
Sample area	Φ90mm