ISOBARIC-401 Oxygen Transmission Rate Tester

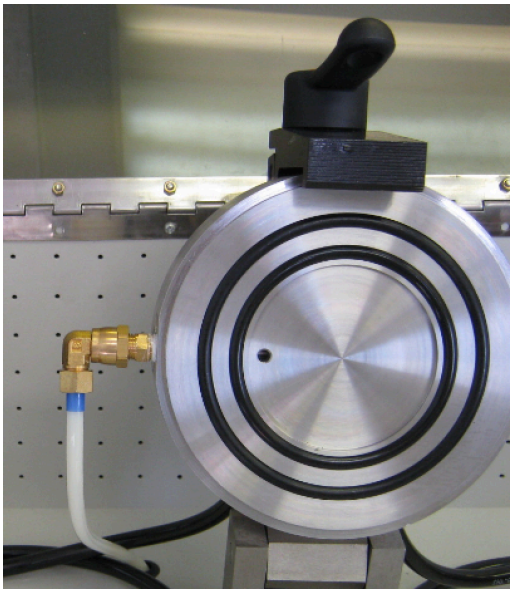
The ISOBARIC-401 Oxygen Transmission Rate Tester is designed and manufactured according to ASTM D3985 and other standards, and is suitable for testing the oxygen transmission rate of high and medium oxygen and air barrier materials. It is suitable for testing the oxygen transmission rate of films, sheets, containers and related materials in the fields of food, pharmaceuticals, medical devices, daily chemicals, photovoltaics, electronics, industrial products, etc.

Characteristics

High precision coulometric oxygen sensor for improved accuracy and stability of the test
7" HD LCD touch screen for more intuitive content and easier operation
Independent single chamber testing, one sample can be tested at a time
Wide range, high accuracy, automated temperature control to meet a wide range of test conditions
Multi-format storage and data output for test results, including Excel and cloud sharing
GMP compliant with multi-level user rights
Single and group statistical analysis of test results
ISP online control, upgrade function and remote change of test functions on request
Specialised computer communication software for real-time test display and data analysis, data storage

Principle

The treated sample is clamped onto the test chamber. Oxygen or air flows on one side of the film and high purity nitrogen flows on the other side of the film. Oxygen molecules diffuse through the film into the high purity nitrogen in the other side and are carried by the flowing nitrogen to the sensor, which analyses the oxygen concentration measured by the sensor and produces oxygen transmission rate test data after reaching permeation equilibrium.



Technical Indexes

Parameters / Model ISOBARIC-401
Measurement range cc/(m2-day) (standard area 50cm2) 0.1 ~ 200
Resolution cc/(m2-day) 0.1
Temperature range °C 20 ~ 50 (optional)
Temperature Resolution °C 0.1
Indicators Parameters
Test chamber 1 pc
Specimen size 97 mm × 97 mm Other sizes available on request
Specimen thickness ≤ 3 mm
Standard test area 50 cm2
Test gas 99.5% oxygen (user supplied)
Carrier gas 99.999% high purity nitrogen
Test pressure 7.2 PSI / 50 kPa
Connection size 1/8" metal tube

Dimensions 400 mm (L) × 475 mm (W) × 450 mm (H)
Power supply AC 220V 50Hz

Standards

ASTM D3985, ASTM F1307, ASTM F1927, GB/T 19789, GB/T 31354, DIN 53380-3, JIS K7126-2-B, YBB 00082003-2015

Configuration

Standard features: mainframe, micro printer, special sampler, vacuum grease

Options: professional software and communication cable, GMP computer system requirements, computer

Note: The gas source inlet of the machine is 1/8 inch metal pipe; the gas source and distilled water are provided by the user