BTY-B3P Gas Permeability Tester is based on the differential pressure method, and is professionally applicable to the determination of gas permeability of battery diaphragms, breathable films and other relative polymer products.

Product Features[Note1]

- The instrument is controlled by computer with automatic test process
- Touch screen, easy to learn and easy to operate
- Imported high precision pressure sensors are used, which guarantees the testing accuracy and repeatability
- Imported pneumatic control system with ultra-low failure rate and extremely long service life, which guarantees the seal performance of the whole system
- Environmental temperature and humidity are monitored and recorded in real time
- 3 equivalent specimens can be tested simultaneously with the average value as test result
- Pressure curves are displayed in real time for observation and analysis of the permeation process
- The system supports unit conversion function to meet user's requirements for special test
- Customizations are available for special testing function, specimen size or test pressure

Test Principle

Under certain temperature and humidity, a constant gas differential pressure is generated between the two sides of specimen. The gas transmission rate and other parameters can be obtained by analyzing and calculating pressure changes in the lower pressure side.

Test Standard[Note1]

ISO 5636, SJT 1071.9, GB/T 36363-2018

Applications[Note1]

Basic Applications	Test the gas permeability of battery diaphragms, breathable films and other relative polymer products.

Technical Specifications[Note2]

Specifications	BTY-B3P
Test Range	10 ~ 10,000 s/in^2·100 mL·1.21KPa

Pressure Range	0 ~ 20 KPa (customization is available for others)
High Pressure Resolution	0.01 KPa
High Pressure Accuracy	±0.05 KPa
Low Pressure Resolution	0.1 Pa
Low Pressure Accuracy	±0.3 Pa
Specimen Size	≥12 mm×12 mm
Test Area	0.019 sq.in. (12.56 mm^2) Customization available for other test areas
Number of Specimens	3, 2 or 1
Test Gas	O_2, N_2, CO_2 and 99.9% dry gas (outside of supply scope)
Gas Supply Pressure	0.6 Mpa (87 psi)
Port Size	Φ4 mm PU Tubing
Power Supply	220VAC±10% 50Hz / 120VAC±10% 60Hz
Instrument Dimension	390 mm (L) × 433 mm (W) × 410 mm (H)
Net Weight	27 kg

Configurations

Standard Configurations	Instrument, Computer, Professional Software, Φ4 mm PU Tubing (2.5m)
Note	1. The gas supply port of the instrument is Φ4 mm PU tubing; 2. Customers need to prepare gas supply.

Note 1: The described product features, applications and test standards should be in line with Technical Specifications.

Note 2: The parameters in the table are measured by professional operators in Labthink laboratory under strictly controlled laboratory conditions.

Please Note: Labthink is always dedicated to the innovation and improvement of product performance and function. Therefore, technical specifications are subject to change without further notice. Please visit our website at www.labthink.com for the latest updates. Labthink reserves the rights of final interpretation and revision.