



OX-TRAN[®] 2/48 SERIES

OXYGEN PERMEATION ANALYZER

Reliable ambient oxygen permeation testing
for finished packages.

A key element to knowing your product's shelf life is to first understand the OTR permeability of your package. Whether in the development process or as a quality control verification, OTR measurement of final packages can now be done with ease and confidence.

Ambient Package Testing Taken to the Next Level

The OX-TRAN® 2/48 Series of permeation analyzers from AMETEK MOCON is designed to take ambient package testing of oxygen transmission rate (OTR) to the next level in efficiency and accuracy. With integrated functions designed for package testing, instruments in this series reduce overall test time while innovative package testing cartridges simplify sample preparation and improve repeatability of test results. 2/48 Series analyzers feature eight cells split into four conditioning cells and four examination cells to increase the testing capacity. The interchangeable test cartridges allow a wide variety of package sizes and types to be easily and accurately tested, many without the use of epoxy.

High Capacity Testing

With eight cells, the OX-TRAN 2/48 can test more packages in less time compared to traditional test methods. The four smart conditioning cells prepare samples by bringing them to equilibrium in less time using high flow purge and integrated sensors to identify when the packages are ready for testing. The four examination cells provide accurate transmission results in less time with the rapid response of the COULOX® sensor. The parallel operation of the conditioning cells and exam cells focuses the utilization of the available sensor exam time to provide results in less time versus a sequential operation.

Ambient Package Testing Made Easy

The removable and interchangeable testing cartridges make sample preparation and testing simple and fast. For increased efficiency, multiple samples can be prepared ahead of time on the cartridges. The cartridges are mounted to the analyzer with the touch of a button.

The simple user interface with automated controls makes testing easy with little training. In certain applications, starting a new test may be a simple button press after the sample is mounted. Common test methods can be stored and recalled for re-use. For new or unknown sample types, the auto-test function will automatically adjust the test parameters to provide optimized test results without having experience with the package.

COULOX® Sensor Technology

Using the patented coulometric sensor, the OX-TRAN 2/48 Permeation Analyzer provides the most precise and repeatable oxygen permeation data available on the market today. It is the basis for the ASTM D3985, requires no calibration and is the only sensor proven to meet its precision and bias requirements through independent third-party testing.



OX-TRAN 2/48



COULOX® Sensor

Real-World Testing Conditions

The 2/48 is equipped to provide a range of controlled relative humidity on the carrier gas to replicate real world conditions. The RH control is available for both the conditioning cells and the exam cells. The instrument monitors the temperature and humidity of its surrounding environment, allowing it to match the carrier gas RH to the environment if desired.

High-Efficiency Package Testing:

- Parallel conditioning and testing cells increase throughput
- Automated conditioning cycle reduces time to prepare samples for testing
- Simple and secure one-button pneumatic cartridge mounting
- Easy-to-use package test cartridges save time on sample preparation
- High-flow purge cycle is up to 20 times faster than traditional methods
- Quick response COULOX sensor reduces testing time



Parallel conditioning and examination capability increase instrument throughput compared to traditional series methods.

Trusted Coulometric Sensor:

- MOCON® Patented COULOX sensor is absolute and never needs calibration
- Long life Coulometric sensor with exclusive four-year warranty
- Intrinsic sensor fully complies with ASTM D3985
- Short exam times reduce overall testing time to increase throughput

Revolutionary Test Cartridges:

- Simple tool-free package mounting saves time and reduces variability
- Interchangeable with other MOCON permeation package testing analyzers and fixtures
- Integrated TruSeal® to minimize background levels for more accurate results

Automated Control Features:

- Flow and RH on carrier gas for both conditioning and test cells
- Auto-test function automatically adjusts parameters to properly test unknown samples
- Test report printing and export
- Sensor protection

OX-TRAN[®] 2/48 SPECIFICATIONS

Industry Standards

- ASTM D3985 (limited to ambient O₂)
- ASTM F2622
- JIS K7126-2
- ASTM F1307
- ASTM F1927
- ISO 15105-2
- DIN 53380-3

Conformance Standards

- CE, UL, CSA Safety Compliance

Test Conditions

| | |
|------------------------|--|
| Test Temperature Range | Ambient room, recommended range 21°C +/- 2 |
| Carrier Gas RH Ranges | 0%, 30 to 90% |

Technical Specifications

| Model | Conditions | Test Ranges | | Resolution | Repeatability | Min Exam Time |
|--------|------------------------------------|----------------|---------------------------|----------------|------------------------|---------------|
| | | cc/(Pkg · day) | cc/(m ² · day) | cc/(Pkg · day) | cc/(Pkg · day) | Minutes |
| 2/48 H | Atmospheric O ₂ | 0.00025 to 1 | 0.05 to 200 | 0.00001 | +/- 0.0001 or +/- 2%* | 15 |
| | Compensated to 100% O ₂ | 0.00125 to 5 | 0.25 to 1,000 | - | - | |
| 2/48 L | Atmospheric O ₂ | 0.000025 to 1 | 0.005 to 200 | 0.00001 | +/- 0.00001 or +/- 2%* | 30 |
| | Compensated to 100% O ₂ | 0.000125 to 5 | 0.025 to 1,000 | | | |

*or reading/degree C change in ambient, whichever is greater

We offer a variety of cartridge options designed to fit a wide range of package types.



Bottles, cups, caps and more.



Whole packages, syringes, tubing and more.



Large trays, cups, flexible pouches, bags and more.

Connectivity

- Ethernet port
- 2 USB ports
- Optional PermWare[®] for remote access and data storage

Dimensions & Weight

Depth: 22.25" or 56.5 cm

Width: 32.5" or 82.5 mm

Height: 16.25" or 41.3 cm

Weight: 110 lbs, or 50 Kg

Accessories

- PermWare software is available to collect and manage test data
- A variety of cartridge options are available to allow repeatable and accurate testing across a wide range of sample types.