



OX-TRAN[®] 2/12 SERIES OXYGEN PERMEATION ANALYZER

Wide Range OTR Testing for Barrier Films & Packages

VERSATILITY

OTR Barrier Measurements... Done Right.



VERSATILITY

Wide Range Oxygen Permeation Analyzer

The OX-TRAN 2/12 series OTR analyzers offer a wide range of detection for testing low to high-level barriers. These analyzers are a lower cost option for reliable OTR analysis. They feature two independent cells with changeable horizontal test cartridges that allow a wide variety of sample sizes and types to be easily and accurately tested.

Wide Range of Applications

The OX-TRAN 2/12 Series of instruments are available with a variety of test cartridges and accessories that expand the test range and test capabilities. The MOCON exclusive test cartridges provide flexibility to test more sample types including whole packages, paper-based materials and lower barrier films with the reduced area cartridge that increase the maximum range without the need for masks.

MODELS:

R Model

- Low to-high barriers
- MOCONS widest range OTR analyzer
- Detection range from 0.05 to 28,800 cc/(m² • day) (up to 255,300 cc/(m² • day) with reduced area cartridge).
- 2/12 R model has wide range sensor providing reliable, repeatable results

T Model

- High transmitters
- Designed for breathable barriers in a range beyond what traditional OTR instruments operate
- Detection range from 200 to 65,000 cc/(m² • day) (up to 576,200 cc/(m² • day) with reduced area cartridge).
- 2/12 T model has a unique high range Coulox sensor for high transmitter barriers

Removable Cartridges

- Easy sample prep on the benchtop
- One button release and loading
- Pneumatic clamping provides more repeatable results
- Interchangeable cartridge options

TruSeal®

- Gas flush of sample mounting seal protects chamber integrity
- Lowers background level reducing need to run individual zero
- Shortened testing time increases throughput
- More repeatable results

Control Features

- Fully automated flow, temp, & RH control throughout tests
- Automatic test method development and recommendations
- Programmable multi-test sequencing
- Final test report printing and export
- Built-in sensor protection

Simplified Operation at Every Stage

MOCON's exclusive test cell drawer design on the OX-TRAN 2/12 series instruments saves time and improves test repeatability. The two horizontal removable test cartridges are quick and easy to clean and load with test samples. With the touch of one button to open and close the drawers, a pneumatic clamp automatically clamps the test cartridge in place providing consistent force and test repeatability. All test cartridges incorporate MOCON's exclusive TruSeal® design that utilizes two seals and flush gas between them to prevent ingress into the test area. This reduces background levels, improves repeatability, and reduces the need to run individual zero. Other features such as automated gas flow and RH control take the complications out of testing. No more needing to worry about where I should set these setting and monitor them. Save time with less complicated operation, more consistent results, and less potential errors.

Applications

In addition to automatic features the 2/12 series has interchangeable cartridges that work with other Next Generation analyzers. These cartridges are used for applications that can increase accuracy, extend range, or make it possible to test a difficult sample. Please see Permeation Analyzer Accessories brochure for more information. Whether your testing high transmitters, barrier films or packages, the MOCON 2/12 series is a cost-effective solution for you. The 2/12 R model is our wide range option for low to high barriers. The 2/12 T model is for high transmitters with a modified Coulox to handle the increase permeation rate.

Auto-Test mode automatically adjusts the testing parameters to take the guess work out of determining parameters

Advanced-Test mode is the most commonly used, where the user specifies the parameters and conditions to perform the test

Sequential testing allows a series of tests to be performed on the same samples at different test conditions

Various additional cartridge options such as the Edge Effect and Reduced Area to expand your testing capabilities



Sequential Test Parameters			
Parameter Values			
#	Temperature	Test Gas RH	Carrier Gas RH
1	23.0 °C	0.0 %RH	0.0 %RH
2	25.0 °C	5.0 %RH	60.0 %RH
3	33.0 °C	90.0 %RH	80.0 %RH
4	38.0 °C	60.0 %RH	90.0 %RH



Touchscreen Interface

- Intuitive automated operation requires less training
- Built in multi-level user management and data security
- Event log & trouble shooting guide
- Save on valuable lab space by eliminating need for PC

Accurate Sensors

- 2/12 R model has wide range sensor providing reliable, repeatable results
- 2/12 T model has a unique high range Coulox sensor for high transmitter barriers

Warranty

- Full 100% parts and workmanship warranty for 12 months

OX-TRAN 2/12 SERIES SPECIFICATIONS

Industry Standards

- ASTM F2622-08
- ISO CD 15105-2 J
- IS K-7126-B
- DIN 53380-3

Conformance Standards

- CE, UL, CSA Safety Compliance

Performance Specifications

	2/12 R	2/12 T
Test Temperature Range	10° to 40° C ± 0.2° C	10° to 35° C ± 0.2° C
Controlled RH Testing Ranges	0 to 90% ± 3%	0%
Maximum Film Thickness	Up to 120 Mil	
Carrier Gas	Gas Composition	100% Nitrogen
	Supply Pressure, Nominal	29 PSI, (2.0 bar), (200 kPa)
Test Gas	Gas Composition	100% Oxygen (Purity)
	Supply Pressure, Nominal	29 PSI, (2.0 Bar), (200 kPa)

Technical Specifications

Models		Test Ranges			Resolution	Repeatability
		cc/(m ² · day)	cc/(100 in ² · day)	cc/(pkg · day)	cc/(m ² · day)	cc/(m ² · day)
Model 2/12 R	Normal (50cm ²)	0.05 to 28,800	0.003 to 1858	0.00025 to 144	0.05	0.05 or 1.5%*
	Reduced Area Cartridge (5.64cm ²)	0.44 to 255,300	0.027 to 16,470	0.0022 to 1277	-	-
Model 2/12 T	Normal (50cm ²)	200 to 65,000	12.9 to 4200	1.0 to 323	2.0	25 or 1%*
	Reduced Area Cartridge (5.64cm ²)	1770 to 576,200	114 to 37,200	9 to 28,600	-	-

* Whichever is greater

Connectivity

- Ethernet Port
- 2 USB Ports
- PERM-NET Lite™ for remote monitoring

Dimensions & Weight

Interior Dimensions and Weight

Depth: 23" or 58,0 cm

Width: 12" or 30,4 cm

Height: 15.5" or 39,4 cm

Weight: 95 lbs. or 43,1 kg

Accessories

- Reduced area cartridge
- Edge effect cartridge
- Custom Engineered Test Cartridges
- Package testing adapter
- PermWare software for data collection and remote monitoring