Ultra-high sensitivity coulometric oxygen transmission rate test system

OX-TRAN® Model 2/21 10x Module

Ten times the sensitivity of the OX-TRAN Model 2/21 L Module. Only MOCONs instruments comply with ASTM D-3985

An ultra-high barrier oxygen transmission rate (OTR) test instrument incorporating MOCON's newest proprietary Coulox® sensor. An industry exclusive sensor for ultimate accuracy.

Features and Benefits

• Absolute measurement
• O₂TR Test Range 1 Coulox sensor
• No calibration required
• Long sensor life
• Measures to 0.0005 cc/(m² • d)
• Two test cells per module
• Master connects to all other 2/21 satellites
• Satellite connects to all OX-TRAN masters
• WinPerm™ Software
• TruSeal™
• Available as Master or Satellite

For high barrier films and packages where accuracy and extreme sensitivity are required.

The OX-TRAN Model 2/21 10x module is ideal for applications which require increasingly better oxygen barriers. Film and resin manufacturers, converters and packagers in industries such as food, pharmaceutical, medical device and electronics will benefit from the 10x modules greater sensitivity for measuring ultra-oxygen barrier characteristics for films and packages.

In order to achieve ten times greater sensitivity with the new OX-TRAN Model 2/21 10x modules, MOCON’s engineers incorporated four major improvements to the system:

• Development of the new O₂TR Test Range 1 level Coulox sensor
• Improved electronics throughout to reduce system “noise” level
• New TruSeal film cell design to eliminate any edge-leakage and assure a perfect seal everytime
• Improve temperature stability

For over 40 years, the OX-TRAN line of OTR transmission rate test systems has been the standard for OTR testing. Using a patented coulometric sensor, the OX-TRAN family is the basis for ASTM standard D-3985. The proprietary Coulox brand coulometric sensor is an intrinsic or absolute sensor which follows Faraday's law, therefore requiring no calibration. N.I.S.T films are available to ensure the entire system is performing to the highest MOCON standards in precision and accuracy.
Specifications

Modules
Master M10x
Satellite S10x

Sensor:
O2TR Test Range 1 Coul ox Sensor

Temperature Range:
10 C to 40 C

Standard Testing:
Films - Dry or Ambient
Packages - Dry or Ambient

Controlled RH Testing:
Films - 0% and 35% to 90% RH ± 3%
Packages - 0% and 35% to 90% RH ± 3%

Test Sample Size:
Films 4.25 in x 4.25 in (10.8 cm x 10.8 cm)
Packages - Up to 3 liters per package

Additional Features
Controlled RH - Up to 2 liters per package
RH Plus easy RH Control
Test Cells per Module - 50 cm² Test Cells
Expandable up to 10 modules (20 test cells)
Computer, Monitor, Printer and WinPerm™ Software
Automatic Temperature Monitor & Control
Barometric Pressure Compensator (optional)

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\begin{array}{ccc}
\text{O}_2\text{TR Test Range 1:} & & \\
\text{cc/(m}^2\text{• d)} & \text{cc/(100 in}^2\text{• d)} & \text{cc/(pkg • d)} \\
\text{Unmasked:} & 0.0005 to 200 & 0.00003 to 13 & 0.0000025 to 10 \\
\text{Masked:} & 0.005 to 2,000 & 0.0003 to 130 & \text{N/A} \\
\end{array}
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Standards

Standards:
ASTM D-3985 Films
ASTM F-1927 Films
DIN 53380 Films
JIS K-7126 Films
ASTM F-1307 packages
ISO CD 15105-2
CFR21 Part 11 compliant
Validation service available

TruSeal™ Cell

TrueSeal ensures a perfect seal between the film and instrument every time by incorporating a nitrogen flush ring at the perimeter of the seal.