

MOCON AMETEK: nuevo analizador de permeabilidad de dióxido de carbono, el MOCON PERMATRAN-C® 4/30

MOCON AMETEK, representada por ERMEC desde hace 25 años, el proveedor líder mundial de analizadores de permeabilidad, instrumentos de prueba de paquetes y controladores / sensores de gas, ha lanzado un nuevo analizador de permeabilidad de dióxido de carbono, el PERMATRAN-C 4/30.



El nuevo analizador fue diseñado para laboratorios que buscan realizar test de ratio de transmisión de dióxido de carbono rápidas y precisas para aplicaciones de control de calidad (QC) o I + D. Aprovecha las muchas funciones excelentes que ofrecen nuestros analizadores de permeabilidad MOCON de próxima generación, como ciclos de prueba cortos, software fácil de usar y funciones de control automatizado. El analizador también cuenta con nuestro sistema de prueba de cartucho de dos celdas que mide con precisión la tasa de transmisión de dióxido de carbono (CO₂TR) de películas y paquetes de barrera. La operación simplificada de los analizadores permite que tanto los técnicos experimentados como los nuevos usuarios obtengan fácilmente resultados de CO₂TR precisos y repetibles en cada medición.

El sistema de cartucho extraíble permite el uso intercambiable con la amplia gama de cartuchos de prueba de MOCON, ampliando el rango de prueba y las aplicaciones del instrumento. El analizador C 4/30 viene de serie con cartuchos de prueba de área de 50 cm² para películas de barrera. También está disponible nuestro accesorio de prueba de paquete PackRack y los accesorios de volumen de captura, que permiten que las botellas y los cierres de contenedores se prueben fácilmente para detectar CO₂TR con una preparación mínima. Ahora cualquier operador puede realizar mediciones de CO₂TR con facilidad y confianza.

"El nuevo analizador de permeabilidad de dióxido de carbono PERMATRAN-C 4/30 mide la tasa de transmisión de CO₂ a través de películas, paquetes, botellas y sistemas de cierre de paquetes, por lo que los laboratorios de investigación y desarrollo y control de calidad saben exactamente cuánto CO₂ está impregnando sus muestras". dijo Jeff Jackson, director de producto global sénior de AMETEK MOCON. "A diferencia de otros probadores de permeabilidad que miden un sustituto del dióxido de carbono, como la presión del gas, medimos específicamente la concentración de gas CO₂ utilizando tecnología de detección infrarroja patentada para determinar directamente la tasa de transmisión de dióxido de carbono. Como es de esperar de un analizador de permeabilidad MOCON, medimos CO₂TR a los límites de detección más bajos disponibles en el mercado".

El analizador de permeabilidad de dióxido de carbono PERMATRAN-C 4/30 cumple con la norma ASTM F2476. Este analizador proporciona resultados de prueba muy precisos y repetibles dentro de un amplio rango de detección de 0,5 a 8000 cc / (m²tclay).



PERMATRAN-C® MODEL 4/30 CARBON DIOXIDE PERMEATION ANALYZER

High Performance CO₂TR Testing for Barrier Films and Packages

AMETEK®

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CO₂TR Barrier Measurements... Done Right.



Interchangeable cartridge options such as package adapter and reduced area cartridges expand testing capabilities



High Performance Carbon Dioxide Permeation Analyzer

The PERMATRAN-C 4/30 high-performance analyzer is a very trusted Carbon Dioxide Transmission Rate (CO₂TR) instrument for low- to high-level barriers and packages. From mono-layer to multi-layer film types, bottles and closures the PERMATRAN-C 4/30 analyzer offers quick results to help drive research and development programs or to support efficient quality control operations. It features two independent cells with interchangeable horizontal test cartridges that allow a wide variety of sample sizes and types to be easily and accurately tested.

Models	Barrier Level	Detection Range
4/30 H	Low to High	0.5 to 8,000 cc/(m ² ·day)

Modulated IR Sensor

Using a patented modulated infrared (IR) technology, this sensor provides accurate and repeatable results. It has a very long life and is the only modulated sensor system to meet the ASTM F-2476 standard.

Versatility and Efficiency

The PERMATRAN-C 4/30 analyzer can test the Carbon Dioxide Transmission Rate (CO₂TR) from low to high barriers on films, packages and bottles. Unlike manometric or Zahm-Nagel methods that require long periods of time to provide results, AMETEK MOCON's patented modulated IR sensor system allowing the C 4/30 to provide accurate results in much less time.

With the optional adapter cartridge it can also test additional applications such as complete or partial packages, flexible or rigid containers, bottles and/or closures, seals in the form of O-rings or gaskets

The interchangeable cartridges also work with other Next Generation AMETEK MOCON permeation analyzers. These purpose-built cartridges increase accuracy, extend the range, or make it possible to test unique or difficult samples.

Removable Cartridges

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

TruSeal®

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

Control Features

- Fully automated flow and temp control throughout tests
- Automatic test method development and recommendations
- Programmable multi-test sequencing
- Built-in sensor protection

Advanced Control System

The user friendly WinPerm 2 control system features fully automated testing including temperature, gas flow and sensor sample time. Final test reports are automatically saved and can be set to automatically print and export to permanent storage directories. The analyzer is compatible with PermWare™, your complete permeation laboratory data management system. The test mode options make testing known or unknown samples easy and repeatable. A single button push initiates a fully automated test following pre-set stored parameters, reducing operator variability. The intuitive color touch screen is easy to learn and use while the automated testing provides consistent results and fewer potential errors.

Industry Standard in Permeation Testing

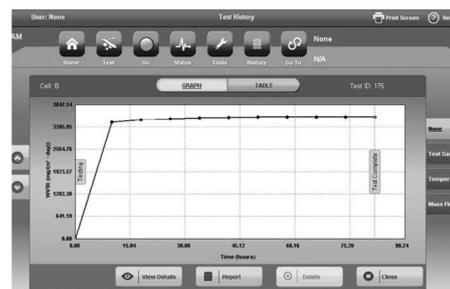
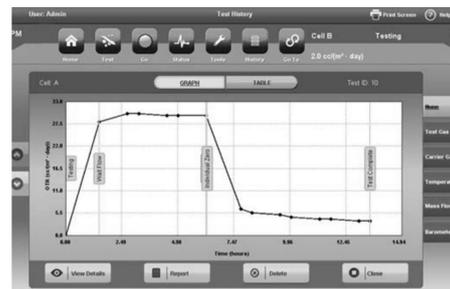
The PERMATRAN-C 4/30 features our exclusive test cell drawer design with two horizontal removable easy-to-load cartridges improve test repeatability. A single button opens and closes the drawers, and the cartridge is automatically clamped in place with consistent and even force on any sample thickness. This approach provides greater test repeatability than manual or cam clamping methods. All test cartridges incorporate AMETEK MOCON's exclusive TruSeal® design that utilizes two seals and flushes gas between them to prevent ambient ingress into the test area. This reduces background levels, improves repeatability, and reduces the need to run individual zero.

Auto-Test mode automatically adjusts the testing parameters to provide results for unknown samples

Advanced-Test mode is the most commonly used and is for specific parameters and conditions

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

Removable cartridge utilizes central pneumatic clamp and TruSeal to provide repeatable results

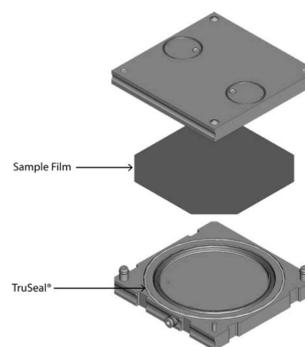


Sequential Test Parameters

Parameter Values

#	Temperature
3	40.0 °C
4	35.0 °C
5	31.0 °C
6	15.0 °C

Buttons: +, -, Cancel, Save



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

Modulated IR Sensor

- Short exam times reduce overall test time to increase throughput
- Long life modulated IR sensor
- Accurate and repeatable results
- Most trusted IR sensor that fully complies with ASTM F-2476

Warranty

- Full 100% parts and workmanship warranty for 12 months
- Exclusive 4-year warranty on the modulated IR sensor

PERMATRAN-C 4/30 SPECIFICATIONS

Industry Standards

- ASTM F- 2476
- DIN 53380-4
- ISO 15105-2

Conformance Standards

- CE, UL, CSA Safety Compliance

Performance Specifications

Test Temperature Range	10°C to 40°C ± 0.2°C
Controlled RH Testing Ranges	0%
Maximum Film Thickness	Up to 120 mil, 3 mm
Carrier Gas	Nitrogen (99.7% N ₂ or better)
Test Gas	Carbon Dioxide (99.7% CO ₂ or better)

Connectivity

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

Dimensions & Weight

Depth: 23" or 58,0 cm
Width: 12" or 30,4 cm
Height: 15.5" or 39,4 cm
Weight: 95 lbs. or 42,1 kg

Accessories

- Reduced area cartridge
- Edge effect cartridge
- Blister testing cartridge
- Package testing adapter
- Custom engineered test cartridges
- PermWare™ software for data collection and remote monitoring

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)
4/30 H	Normal (50cm ²)	0.5 to 8000	0.03 to 516	0.0025 to 40	0.0001	0.25 or 2%*
	Reduced Area Cartridge (5.64cm ²)	4.5 to 71,000	0.29 to 4,600	-	-	-

*Whichever is greater

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