

# **PAC CHECK™**

## **Series of Headspace Analyzers**



- **Oxygen**
- **Carbon Dioxide**
- **Combination  
O<sub>2</sub> / CO<sub>2</sub>**

- **Small Sample Size**
- **Fast Response**
- **NIST Traceability**
- **FLO-SMART™ Technology**
- **LIQUI-BLOK™ Filter**
- **ETL Listed, Conforms to UL Std. 3101-1**

**mocon®**

# Oxygen, Carbon Dioxide, and Combination O<sub>2</sub> / CO<sub>2</sub> Headspace Analyzers

The PAC CHECK™ Series Offers Accuracy, Fast Response, Small Sample Requirements, Ease of Use, and System Certification Traceable to NIST\*.

The PAC CHECK incorporates New FLO-SMART™ Technology which alerts the operator in the event of a blockage of gas flow from the package into the analyzer. No other analyzers have this important feature.

## PAC CHECK Package Test System

Headspace analyzers are imperative to accurate shelf-life testing of finished packages, including MAP (modified atmosphere packaging) and vacuum-packed products. Sample testing is necessary as the atmosphere in a package cannot be strictly and indefinitely controlled, only modified. The PAC CHECK Systems are used in production, quality control, and R&D applications. Measure O<sub>2</sub> or CO<sub>2</sub> concentration with small sample amounts, manually or automatically. The same analyzer can be used for both flexible and rigid packaging. This instrument is certified traceable to NIST as an added feature for the quality conscious producer.



With Exclusive

## FLO-SMART™ Technology

A built-in electronic sensor detects any blockage of sample flow into the analyzer.

\* National Institute of Standards and Technology

## How the PAC CHECK Compares...

### Production

Flexible enough for today and tomorrow's testing needs. Rugged and easy to use by all levels of personnel.

### R&D Use

Useful in an R&D setting to assess packaging integrity and production methods.

### QA / QC

These test systems are ideal for quality control environments. The FLO-SMART feature, automatic sampling, LIQUI-BLOK Filter and NIST Traceability offer unmatched options in headspace analysis.

## Full NIST Traceability

Each PAC CHECK System is Certified traceable to NIST and ensures high quality results. All instruments used to test and calibrate the PAC CHECK are traceable to NIST. A certificate of compliance will be issued with each instrument upon request. This is ideal for in-house QC and ISO programs.

## Principle of Operation

Carbon Dioxide - Sensing is performed by passing the gas through an enclosed sensor that utilizes an infrared energy source, an infrared filter and thermopile detector. The thermopile is a voltage generating device that outputs a signal representing the carbon dioxide level present.

Oxygen - The basis of the oxygen measuring subsystem is a solid-state oxygen ion conduction material called zirconium oxide. Due to oxygen vacancies in the ceramic lattice structure of this material, oxygen ions are able to move in the solid material at an elevated temperature. This property enables the measurement of oxygen in a gas of unknown composition.

## LIQUI-BLOK™ Filter

All Models are available with LIQUI-BLOK™ Filter assembly option which prevents liquids (when present in sample), from damaging the sensor.

## Several Sampling Options

### Automatic or Manual Testing

The PAC CHECK 450, 550, & 650 incorporates an internal pump for automatic sample testing. Optional manual injection is available.



### Rigid Package Testing

Optional Rigid Package Piercing Fixture enables testing of rigid packages.



