

# GASANALYSIS MAT11

## Modified Atmosphere Packaging Control

- **Gas Analyser for fast and reliable O<sub>2</sub>-analysis**
- **Electro chemical sensor**
- **High accuracy**
- **Helpful extra functions**
- **Automatic test routine with display hold and printout**
- **Small sample volume required**
- **Easy to use, plain text display**

### Protective atmosphere in food packages

Major goal of every food manufacturer is to ensure a first-class quality of their products over a long period of time. Depending on the type of food, the packaging under a special protective atmosphere keeps taste, colour and freshness for much longer than under normal circumstances. Another advantage of the oxygen-reducing procedure is the influence on the growth of noxious micro-organism. Additionally, modified atmosphere packaging suppresses oxidation processes inside the food or beverage that could cause negative changes in the ingredients.

### Quality control

The MAT11 gasanalyser is used for quality control both in production and laboratory. Besides automatic spot measurements of single packages the analyser can also be used for permanent (online) detection of oxygen - just right beside the packaging machines.

### Measuring procedure (spot measuring mode)

The package that has to be controlled has to be equipped with a self adhesive septum, which is needed to seal the stitch point during the measuring procedure. The user now stitches the needle through the septum into the packaging and starts the measurement by pressing a single button; the internal pump now sucks the gas into the analyser and its oxygen cell. Within a short time ( $\pm$  10-15 seconds) the O<sub>2</sub>-level is shown on the display and printed out for internal documentation. The device can be adjusted to every kind of product with lots of adjustment possibilities. Once adjusted, the use of the MAT11 analyser is fast and easy - without special training. All menus are plain text, the operation can be realized with only 3 buttons (self measuring procedure with one button only).



MAT11 Modified Atmosphere Packaging Control

## Features

- Stainless steel table housing, compact size
- Oxygen sensor based on electro chemical technique
- Easy calibration
- Fast response, short measuring times
- Automatic test routine with display hold of measuring values
- Integrated flow control
- Integrated flow adjustment
- Lighted-up LC display with 2x16 segments
- Low sample gas consumption
- Status-LED (2 coloured)
- Interface RS-232 (for use with printer or PC)
- Printout: documentation of values, time, date and sample number with every printout
- Min/max detection adjustable (menu)
- Spot (single) detection and online measurement
- Easy operation with only 3 keys
- Multiple additional equipment

## Standard delivery

- MAT11 analyser
- Spot test device for soft packages, consisting of: 2 pcs. needle standard, 1 pc. activated carbon filter unit, 1 pc. protective filter wall, 1 pc. PFA-tubing with 1/16" Swagelok fittings, 40cm
- Cable
- Operating manual
- 30 pcs. Septa

## Physical specifications

### Dimensions

140 x 140 x 270 mm (W x D x H)

### Net Weight

± 3 kg

## Accessories

- Spot test device for soft packages
- Can and bottle piercing station
- Transport box
- Matrix printer
- Septa
- Special PFA tubing
- Needles with central hole
- Needles with lateral hole
- Activated carbon filter units
- Protective filter (sample wand)
- Test gases
- Test gas armatures
- Gas bottle car for laboratory use
- Table fixing for gas bottles

## Applications / Products

Measurement of O<sub>2</sub>-concentrations in food packages of:  
meat, sausages, pizza, pasta, baked goods, snacks, ready-to-eat meals, cheese, coffee, beverages, pastry, etc.

## Performance data

### Sensor O<sub>2</sub>

Electro chemical sensor, alkaline

### Measurement ranges

0 - 20,9 (100) Vol.-% O<sub>2</sub>

### Accuracy

0,2 (1) Vol.-% (with constant surrounding temperature)

### Resolution

0,1 Vol.-% O<sub>2</sub>

### Measuring time

Typical 5-10 seconds

### Measuring principle

Automatic test routine with display hold of measuring values

### Conditions

Operation Temperature 5-50°C

Storage Temperature 0-50°C

Humidity 0-95% rH

### Signal output

4-20mA (option)

### Interface

RS-232 (for printer or PC), 9 pol. Sub-D port (F)

### Display

LCD display, 2x16 segments, lighted-up

### Voltage supply

230 V, 50-60 Hz

### Gas connections

Input 1/16" Swagelok, output ø 3 mm

### Housing

Stainless steel, degree of protection: IP50

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