



Accurate Analysis of Gas Flushed Packaging



Features

- Large LCD Display with backlight
- Measurement range of 0.1% - 100% with accuracy of $\pm 1\%$
- Measurement results achieved within seconds
- Integrated data logging of up to 5,000 measurements
- Adjustable alarm feature with pass/fail indicator
- Safety holster for needle/probe
- Operator I.D. available
- Product I.D. selectable
- Available in multiple languages
- MP Downloader Software is included

About the new Map-Pak Combi

Designed specifically for the Food Industry, the Map-Pak Combi measures the Oxygen, Carbon Dioxide and Nitrogen content in gas flushed food packages (the latter being as a balance gas). It can be used for all food applications, as well as some applications in the pharmaceutical industry.

This lightweight portable analyser has a range of features, making it easier to use in quality control functions. Sample measurements and results are achieved within 10 seconds and the operator can modify the various features of the analyser to best suit their requirements.

Results can be stored on the Map-Pak device or can be downloaded to a computer using the MP Downloader Software provided. Furthermore, a small portable printer is available for the Map-Pak range to print results on receipt-size paper or labels.

The Map-Pak Combi is time and cost efficient. It offers all round quality with top of the range features as well as functional features which are designed to make the Map-Pak Combi user-friendly.

What does the Map-Pak Combi Offer ?

- Lightweight & Portable
- Fast and Accurate O_2 & CO_2 & N_2 readings
- Easy to use interface
- Minimal gas sample required
- Easy to calibrate
- 7 hours of Battery Life
- Needle blockage alarm

Typical Applications

- Meat and Poultry
- Seafood
- Precooked Meats
- Dairy Produce
- Convenience Foods
- Baked Goods
- Salads
- Pasta
- Coffee
- Pharmaceuticals
- Glove Box Analysis



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Principle Of Operation

The Map-Pak Combi, using a small gas sample from the gas flushed pack, measures and records levels of Oxygen and Carbon Dioxide. The levels of gas are measured using specially customised sensors; Oxygen levels are measured by an electrochemical sensor and the Carbon Dioxide levels are measured by a nondispersive infrared sensor (NDIR). An electric pump provides a small amount of gas into the sensor. The O₂ and CO₂ particles are detected by the respective sensors and the measurements are displayed on the screen within seconds. The N₂ level is then displayed as a balance gas reading.

Specification	
Sensor Accuracy at 1% O ₂ and 20% CO ₂	Better than ± 0.25% O ₂ and Better than ± 1% CO ₂
Resolution	0.1%
Repeatability	1% relative to gas reading
Measuring Method	Electro Chemical Sensor (O ₂), Nondispersive infrared Sensor(CO ₂)
Measuring Range	0% to 100%
Ambient Temperature	0 to +40 degrees Celsius
Response Time	<10 seconds
Sensor Lifetime	O ₂ Sensor -2 years CO ₂ Sensor-Indefinitely
Sample Gas Volume Options	Low: 6 ml Medium: 30 ml High: 50 ml
Sample Probe	Probe with flexible sampling connection to internal pump
Alarms	Alarms feature thresholds: can be defined separately for every product by the customer
Calibration	Simple 2 point Calibration (O ₂ Sensor Only)
User Interface	Graphic Display with backlight 30 x 60 [mm]
Data Output	Serial Interface-USB
Data Storage	Up to 5,000 measurements can be stored internally
Power Supply	
Rechargeable Batteries Unit	9V wall adapter (Universal AC supply)
Battery Pack	4 NiMH rechargeable cells
Operation Time	7 hours normal use from full charge
Power Saver	Automatic Shutdown after 2 minutes of non-use/idle time
Enclosure	Strengthened & Wipe-clean ABS Plastic with integrated probe holder and needle cover
Weight	450 grams
Dimensions	L =228, W=72/117, H=47 [mm]
Approvals	CE - marked according to: - EMC 2004/108/EC - Low Voltage Directive 2006/95/EC
MP Downloader Software	Windows Compatible
	Download results to CSV file, Clear Records, Edit Operators/Products

After-sales Care

AGC Instruments are committed to providing and maintaining a quality product from the point of sale. We pride ourselves on our dedicated after sales service in order to give our customers value for their purchase.

Additional Accessories Included

The Map-Pak Combi comes complete with Needles (5 off), Septa (100 off), Particle Filters (2 off), Needle Probe (1 off), Carry Case (1 off), User Manual (1 off), Rechargeable Batteries (4 off), Mains Adapter (1 off), Calibration Certificate (1 off) and MP Downloader Software (1 off). An optional Thermal Printer is also available for printing results on the go.

Spare parts or further accessories for the Map-Pak can be ordered by contacting:



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