

Dansensor® MAP Check 3

REDUCE YOUR GAS CONSUMPTION WITH GasSave



Benefits

- Significant gas savings when paired with the optional GasSave function or Dansensor MAP Mix Provectus gas mixer
- Logs and displays actual gas consumption for easy traceability with GasSave option
- Reduces labor costs and waste compared to manual testing
- Avoids recalls and repacking by automatically stopping production when preset limits are exceeded
- Reduces work area CO₂ levels to protect employees

Features

- 5" color touch screen
- Excellent data logging capabilities with USB and Ethernet
- Fully integratable with Dansensor MAP Mix Provectus gas mixer
- Delivered with PC software
- Option: 3-channel multiplexer
- Extended remote monitoring and control options with Modbus TCP

On-line gas analyzer increases quality assurance on MAP-enabled flow packaging machines

Modified Atmosphere Packaging (MAP) is an effective technology which can be streamlined and made more efficient with simple additions to your process line.

The Dansensor® MAP Check 3 gas analyzer is designed to be precise, so the gas target you set, is the gas dosage you get. It eliminates the all-too-common problem of well-intentioned operators using too much gas, without realising its effect on production costs.

The Dansensor MAP Check 3 lets you combine monitoring of gas content on a vertical or horizontal flow packaging machine, with real-time control of package flushing via an advanced GasSave function. For most manufacturers, this translates into a **20-50% decrease** in gas consumption!

It also improves reliability and efficiency. Unlike random, off-line quality control, on-line quality assurance with the Dansensor MAP Check 3 means that every package is tested – more quickly and efficiently than with manual testing. If there is a problem, production stops automatically, helping to avoid recalls or the need to repack entire batches.



HOW DOES IT WORK?

- 1: Before running the Dansensor MAP Check 3 for the first time, enter individual product programs on the analyzer for each product to be packed on the machine. Thereafter, simply select the correct program to automatically set the correct alarm and target gas levels.
- 2: When the packaging machine is running, Dansensor MAP Check 3 continuously measures the residual oxygen and/or carbon dioxide.
- 3: If the oxygen or carbon dioxide levels near the preset limits, Dansensor MAP Check 3 notifies the operator. If the limits are exceeded, Dansensor MAP Check 3 stops the packaging machine.
- 4: If equipped with GasSave or connected to the Dansensor MAP Mix Provectus, Dansensor MAP Check 3 automatically adjusts the gas flushing of your product, according to the residual oxygen. This prevents incorrect residual oxygen levels and reduces gas costs.

TOP: Shown with optional IP45 accessory kit for improved water protection



Technical Specifications

| Available sensors | O ₂ -Sensor | CO ₂ -Sensor |
|---------------------------|---|---|
| Key features | Our fastest and most accurate oxygen sensor 0 - 100% range | Temperature controlled dual beam infrared carbon dioxide sensor, 0 - 100% range |
| Accuracy | ± 0.01% absolute range below 1% O ₂ ± 1% relative in range above 1% O ₂ | ± 0.5% absolute ± 1.5% relative of reading |
| Heating time | 10 Min. | 8 Min. |
| General standard features | | |
| Models | Available with LCD display or as "Black Box" without display | |
| Connections | 2 x RS232C, LAN 10/100 Mbit (Modbus TCP), USB, current or voltage output, 24 VDC logic for start/stop of machine and alarms | |
| Power supply | 103 -132 / 207-264 VAC (auto ranging), 47- 63 Hz | |
| Dimensions | 192 x 230 x 375 mm (H x W x D) | |
| Weight | 8.5 - 11.5 kg (depending on model) | |
| Compliances |   | |
| GasSave (optional) | | |
| Gas media | Any mix of dry O ₂ , CO ₂ , N ₂ or Ar (0°C to +50°C gas temperature) | |
| Gas inlet pressure | 2 to 10 bar | |
| Pressure drop | Example: 1 bar at 10 bar input pressure | |
| Gas flow | 6 to 500 l/min | |
| Flow measuring | Total and daily consumption | |
| Multiplexer (optional) | | |
| Number of inputs | 3 (Channel priority: Selectable, 1-2-3- or 1-2-1-3-) | |
| Accessories (optional) | | |
| Protection kit | IP45 protection (NEMA 3S) | |
| Bracket, assembly | Can be combined with MAP Mix Provectus and MAP Check 3 Pressure: 2 brackets, 8 screws | |

Specifications subject to change without notice.

Probro-PTPS-Dansensor MAP Check 3-EN-6

Dansensor® MAP Check 3 Vacuum

A WIN-WIN FOR THERMOFORMING AND TRAY SEALING LINES



MAP Check 3 Vacuum -
Measuring O₂/CO₂ content
without package damage

Benefits

- Measures every packaging cycle
- Continuous process monitoring of gas content
- Reduces labor and waste costs compared to manual testing
- Avoids recalls and repacking by stopping the packaging machine if gas limits exceed presets

Features

- Oxygen or combined oxygen and carbon dioxide measurement
- Alarms for low or high gas concentrations
- Excellent data logging capabilities via USB or Ethernet
- Ability to control the Dansensor MAP Mix Provector gas mixer
- Delivered with PC software for LAN based data collection
- Optional measurement of buffer tank gas composition and pressure with user configured alarms
- Extended remote monitoring and control options with Modbus TCP

In-line gas analyzer for quality assurance of Modified Atmosphere Packages (MAP)

Food processing companies want higher quality assurance levels. Management wants higher production rates. Now you can achieve both!

The Dansensor® MAP Check 3 Vacuum gas analyzer enables on-line quality assurance, instead of using random quality control checks. At the same time, it increases production speed. By measuring gas composition on a continuous basis, it ensures that each and every package is flushed to specifications, benefitting the end user. As testing is carried out automatically, process lines can be run at high speeds, without compromising quality.

Automatic testing with the Dansensor MAP Check 3 Vacuum is not just faster and more reliable than manual testing, it is also more efficient. If there is a problem with the gas combination, the system notifies the operator immediately, saving time. If preset limits are exceeded, the analyzer simply stops the process, which means no wasted products or packaging.

HOW DOES IT WORK?

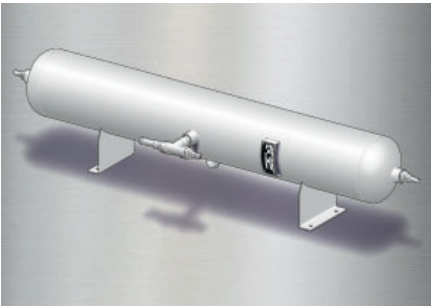
1: An individual program can be created on the Dansensor MAP Check 3 Vacuum for each product to be packaged. The first step is to select the correct program to ensure that the correct alarm level presets are activated. If the Dansensor MAP Check 3 Vacuum is connected to the Dansensor MAP Mix Provectus gas mixer, the correct gas mix will also be set.

2: When the packaging machine is running, the residual oxygen level (and optionally, the carbon dioxide level) is measured for every cycle. The Dansensor MAP Check 3 Vacuum takes the gas sample directly from the sealing die and gives an average measurement of the gas content in the die.

3: If the oxygen or carbon dioxide level is close to the preset limits, the operator will be notified immediately. If the limits are exceeded, the packaging machine will be stopped.

4: With the optional buffer tank measurement, gas composition in the buffer tank can be checked before packages are flushed, providing even greater control.

TOP: Shown with optional IP45 accessory kit for improved water protection



Technical Specifications

| Available configurations | Dansensor MAP Check 3 Vacuum |
|---|---|
| Oxygen measurement (zirconia sensor) | Standard in all models |
| Carbon dioxide measurement (dual beam infrared) | Model dependent |
| Control of MAP Mix Provectus | Yes |
| Number of test programs (devices with LCD display) | Up to 1,000 |
| Measuring range | 0-100%, both O ₂ and CO ₂ |
| Resolution | O ₂ : ≥10%, 0.1; <10%, 0.01; <1%, 0.001 CO ₂ : 0-100%, 0.1 |
| Sensor accuracy O ₂ and CO ₂ (system accuracy depends on die geometry and machine timing) | O ₂ : ≥0.1%, ±1% of reading; <0.1%, ±0.001% absolute CO ₂ : 0-100%, ±1.5% of reading + 0.5% absolute |
| Heating time | 10 min |
| General standard features | |
| Models | Available with LCD display or as "Black Box" without display |
| Connections | 2 x RS232C, LAN 10/100 Mbit (Modbus TCP), USB, host for import/export, 24 VDC logic for machine control signals and alarms |
| Dimensions & weight | 192 x 230 x 375 mm (HxWxD), 8.5 - 11.5 kg (depending on model) |
| Power supply | 103-132 / 207-264 VAC (auto ranging), 47-63 Hz |
| Compliances | CE |
| Accessories (optional) | |
| Protection kit | IP45 protection (NEMA 3S) |
| Bracket, assembly | Can be combined with MAP Mix Provectus and MAP Check 3: 2 brackets, 8 screws |
| Buffer tank measurement | Model dependent |

Specifications subject to change without notice - further specifications are available in the User Guide.

PB-PTFS-Dansensor MAP Check 3 Vacuum-EN-5