

# Dansensor® MAP Check 3 Vacuum

## A WIN-WIN FOR THERMOFORMING AND TRAY SEALING LINES



### 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 Provectus 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?

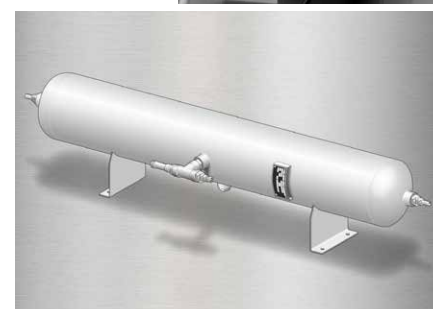
**1:** An individual program can be created on the Dansensor MAP Check 3 Vacuum for each product to be packaged. The first step is to select the correct program to ensure that the correct alarm level presets are activated. If the Dansensor MAP Check 3 Vacuum is connected to the Dansensor MAP Mix Provectus 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 <sub>2</sub> and CO <sub>2</sub>
Resolution	O <sub>2</sub> : ≥10%, 0.1; <10%, 0.01; <1%, 0.001 CO <sub>2</sub> : 0-100%, 0.1
Sensor accuracy O <sub>2</sub> and CO <sub>2</sub> (system accuracy depends on die geometry and machine timing)	O <sub>2</sub> : ≥0.1%, ±1% of reading; <0.1%, ±0.001% absolute CO <sub>2</sub> : 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	
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.