



Rapidox 1100 MAP IP54 SS Analyser

The Rapidox 1100 MAP IP54 SS is a range of reliable, cost-effective analysers designed for pre-packaging tests in the food packaging industry.



PCB only version
without sensor block

MAP (Modified Atmosphere Packaging) is a process used to extend the shelf life of a food product without the need to freeze; typically, a suitable mixture of O₂, CO₂ and N₂ is used as a protective atmosphere and there is a need to monitor the gas both pre-packaging (as it enters the pack with the product) and post packaging (Quality Control).

The Rapidox 1100 MAP IP54 SS range is ideal for pre-packaging and use with a gas flushing system in a packaging plant; gas flushing and packaging in food plants is often done in a wet, cold environment and gas analysers used here need to be in a suitably rated enclosure with necessary gaskets (or be pre-installed as part of a packaging machine). The analyser:

1. is available as O₂ only, CO₂ only or O₂ and CO₂ sensor options with rear panel gas fittings,
2. is supplied in an IP54 rated 316 stainless steel enclosure and
3. can be connected directly to a PLC.

A product with an IP54 rating means that it:

1. is protected limited dust ingress that could interfere with its normal operation and
2. is protected against water spray splashing from any direction.

The Rapidox 1100 MAP IP54 SS range incorporates an internal sampling pump with pressure correction and includes programmable alarm and analogue outputs with datalogging software. Finally, the Rapidox 1100 complies with EMC Directive 2004 / 108 / EC. UL/ETL Certification Number: UL-61010-1.



Aluminium encased version (INS)
with display and sensor block

Scope of supply



5 Rapidox OEM with DIN rail attachment enclosure, display and keypad



2 Rapidox 3100

Other Rapidox analysers for pre-packaging applications

Rapidox analysers can be supplied either

- as an OEM component for incorporation into packaging machines and gas flush systems or
- as a free-standing unit as part of a packaging machine or gas flush system by enclosure in a cabinet or
- as a free-standing unit if gas from the packing machine can be collected in bags which are then sampled with a sampling probe attached to the analyser.

Specification

O2 Sensor Range	10 ⁻²⁰ ppm to 100% zirconia version. 10 ⁻²⁶ ppm extended range available on request
O2 Sensor Accuracy	±1% of the actual measured oxygen content OR 0.5ppm (whichever is the greater for measurements >0.5ppm)
O2 Sensor Response	4 seconds for a T90 step change @1L per min flow
O2 Sensor Life Expectancy	>17,000 hours
Calibration	N2/Ar/He/mixtures – pre-calibrated Sensors Available / inhouse calibrations supported
Versions	Board only / +DIN Rail / encased/ encased incl. OLED display / pumped incl. OLED display
Ambient Operating Temperature (electronics)	5-35°C 0-95% RH non-condensing
Ambient Operating Pressure (electronics)	800 to 1200mbar absolute (automatic pressure correction included)
Max Sample Gas Pressure (sensor)	Up to 10 bar gauge (200bar burst pressure)
Max Sample Gas Temperature (sensor)	650°C
Warm-up Time	~45 seconds at 20°C
Sensor Cable:	2m high temp as standard. Any length up to 25m available on request
Sample connections	Nipple / Swagelok (via sample block) / direct (via thread or vacuum flanges)
Outputs:	Analogue: 0-5V (0-10V on request) or 4-20mA / Digital: RS232 RS485 & Modbus RTU
Alarm	2 alarm relay circuits, fully user-configurable
Supply Voltage	24V VDC +/-0.1V
Power	~20W
Circuit Board Dimensions	114mm x 76mm (4.5" x 3")
Weight	OEM board 120g