

MULTI-FUNCTIONAL ANALYZER MAPY 4.0

for O₂, CO₂, He or O₂/CO₂



reddot design award
winner 2009

Analyzing System for the monitoring of protective atmospheres in food packaging (MAP). For continuous analysis (inline) and also intermittent sampling via a needle e.g. from food packs. A flexible analyzer to guarantee quality and productivity of production processes. Available as a single or double analyzer for carbon dioxide, oxygen and helium.

Benefits

- minimum sample gas required for analysis of smallest volumes (e.g. food packaging) fast response time
- fast measuring results of sampling
- simple to operate via touch-screen
- reliable steady measuring results and high accuracy through pressure compensation
- simple calibration of sensor
- permanent monitoring of set limit values
- alarm signals are given if the set limits are exceeded and a potential free contact operates to e.g. auto-stop your machine to avoid quality problems
- easy to clean stainless steel housing for maximum hygiene, splash-proof
- USB connection for file transfer by USB memory stick
- Ethernet connection for network integration
- internal audible alarm
- measured data storage
- administration of product names
- user management for measurement personalization

Options

- fully automatic calibration
- software GASCONTROL CENTER for recording of results (see separate data sheet)
- plug set for external connection of signals
- model for higher inlet pressures
- bar code scanner for product names or user selection

Equipment selection

Applications	Analysis	Gases				Type of equipment
Food	Sampling Continuous Analysis	O ₂	CO ₂	O ₂ /CO ₂	He	
•	•	•	•	•		MAPY 4.0 S ³⁾
•		•	•	•	•	MAPY 4.0 L ³⁾
•	•	•	•	•		MAPY 4.0 S+L ²⁾³⁾
•		•	•	•	•	MAPY 4.0 P ¹⁾³⁾

¹⁾ without pump, with inlet pressure regulation

²⁾ with 2 chemical sensors for oxygen

³⁾ gases to be specified

All versions also available with zirconia measuring cell for O₂. Please add Zr to the model type.

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Measuring systems

Gases		Measuring system	Measuring range	Repeatability	Response time	Service life
	O ₂ for sampling	chemical measuring cell	0-100%	± 0.2%	6 sec.	approx. 2 years in air
	O ₂ for continuous analysis	chemical measuring cell	0-100%	± 0.2%	10 sec.	approx. 3 years in air
optional	O ₂ for sampling and for continuous analysis	zirconia measuring cell	0-100%	± 0.1%	4 sec.	long lifetime
	O ₂ for sampling and for continuous analysis	paramagnetic measuring cell	adaptable please indicate	dependent on measuring range	5 sec.	long lifetime
	CO ₂	infrared measuring cell	0-30% 0-100% please indicate	± 0.5%	6 sec.	long lifetime
	He	thermal conductivity	0-30% 0-100% please indicate	± 0.2% ± 0.5%	20 sec.	long lifetime

Type	MAPY 4.0
Gases	O ₂ , CO ₂ , He or O ₂ /CO ₂ not for flammable, corrosive or toxic gases!
Temperature range (gas/environment)	+32°F to +104°F
Gas connections	
Permanent measuring	lance, hose connection for PK 6/4 (exhaust) integrated measuring gas pump
Sample measuring	needle (exhaust) integrated measuring gas pump
Calibration (full automatic)	hose connection for PK 6/4
Inlet pressure	
S-version	max. 4.35 PSIG
P-version	21.76 PSIG – 145 PSIG
Calibration	
Gas consumption	approx. 2.12 SCFH
Calibration time	the real gas consumption for calibration is depending on installation. optimal: 240 sec/calibration
Alarm signals	2 potential free contacts for min. and max. settings (adjustable for each gas)
Interfaces	RS 232 with ASCII-output of date, time, measured value USB by memory stick for profiles, product and user data RJ45 Ethernet FTP-Server for profiles, product and user data, software Update analog output 4-20 mA or 0-10 V
Housing	stainless steel, splash-proof
Weight	approx. 15.87 lb
Dimensions (HxWxD)	approx. 4.33 x 11.81 x 10.24 inches
Voltage	230 V AC 50 / 60 Hz 110 V AC 50 / 60 Hz
Power consumption	230 V AC / 0.12 A
Approvals	Company certified according to ISO 9001 and ISO 22000 CE-marked according to: - EMC 2004/108/EC - Low Voltage Directive 2006/95/EC for food-grade gases according to: - Regulation (EC) No 1935/2004 Cleaned for Oxygen Service according to: - EIGA IGC Doc 13/12/E: Oxygen Pipeline and Piping Systems