

# Gaspace Advance Micro



Fast accurate MAP analysis for small volumes of headspace in gas flushed food and pharmaceutical products



## Applications

Pharmaceutical Vials	Ampoules	Pharmaceutical Packaging	Fish
Fresh Meat	Cooked Meat	Vegetables	Salads
Snack Foods	Ready Meals	Coffee Pods	Wine

## Features & Benefits

- Measurement of less than 1cc
- Easy to use touch screen
- 5 different test methods
- Easy to set up and use
- Intuitive menu
- Auto calibrate and auto diagnosis
- Set tests for pass or fail
- Built in Printer
- Computer software option with easy keyboard entry of data
- Waterproof option
- Documentation for Quality Management Systems (IQ, OQ, PQ)
- 21CFR II Compliant

# GS1M/W Oxygen

# GS3M/W Oxygen & Carbon Dioxide

## GS1M & GS3M



Bench Mount  
Weight: 4.5 kg  
140H x 390W x 270D (mm)  
Stainless steel and stove enameled aluminium

Fast, accurate and simple to use the Gaspace Advance Micro is full of the most advanced features available in headspace analysis.

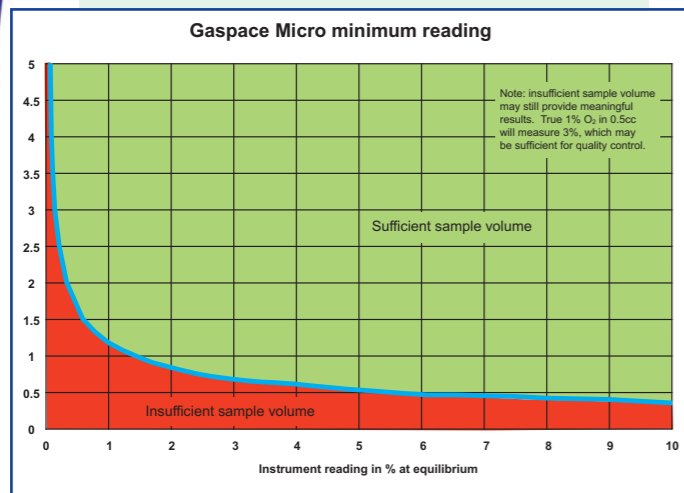
All Gaspace Advance Micro headspace analysers offer automatic calibration, diagnostics and control.

The Gaspace Advance Micro offers consistently reliable results and simplicity in operation allowing you to maximise your production efficiency.

### Test small headspaces

The Micro is specifically designed to allow analysis of small headspaces as low as 0.2cc.

### Test small headspaces



### Test Easily

Using the large buttons and big clear display; testing is simple, errors are eliminated and no special operator training is required.

### Test Quickly

Using AutoSense allows many packs to be tested with just one button press. Saving you time and making your QA department more efficient.

### Test how you want to

With Timed tests, AutoSense, Peak / Valley, Syringe Direct Injection or Continuous testing. Fast configuration and fast selection, provides the test method that is best for you.

### Simple configuration

Simple configuration for all test types and methods – no special training required to use all the highly advanced features.

### Auto-Cal & Auto diagnosis

Ensures the instrument is always performing to it's highest degree of accuracy - essential for HACCP compliance.



Vial Autosampler Option

The Gaspace Advance Micro is also available in a waterproof carrying case (all models).



## GS1MW & GS3MW

Waterproof Carrying Case  
Weight: 6.5 kg  
170H x 410W x 330D (mm)  
Impact resistant ABS

### Easy to see Pass/Fail messages

Speeds up the analysis process and removes any uncertainty with interpreting measurements.

### Built-in printer option

Makes the documentation process a whole lot simpler. No cables and more space on the bench top.

### Software

The GS Data Manager Software allows you to download results stored on your analyser and upload new settings. You can also search through your stored data by time, date, user, production line or any of the product information.

Pass/Fail	Date/Time	User Code	Line Code	Prod Code
Pass	15/04/2009 11:28:37	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:28:44	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:28:52	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:00	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:07	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:15	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:23	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:30	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:38	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:46	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:29:54	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:04	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:13	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:21	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:29	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:37	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:45	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:30:53	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:01	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:09	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:17	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:25	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:33	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:41	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:49	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:31:57	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:32:05	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:32:13	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:32:21	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:32:29	USER CODE 9	LINE CODE 1	500 550G 400 600
Fail	15/04/2009 11:32:37	USER CODE 9	LINE CODE 1	NOISE
Fail	15/04/2009 11:32:45	USER CODE 9	LINE CODE 1	NOISE
Pass	15/04/2009 11:32:53	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:33:01	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:33:09	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:33:17	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:33:25	USER CODE 9	LINE CODE 1	500 550G 400 600
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Pass	15/04/2009 11:34:21	USER CODE 9	LINE CODE 1	500 550G 400 600
Pass	15/04/2009 11:34:29	USER CODE 9	LINE CODE 1	500 550G 400 600

Data Download View

### Analyser Configuration View

Users	Lines	Products
1 USER CODE 1	1 LINE CODE 1	1 PROD CODE 1
2 USER CODE 2	2 LINE CODE 2	2 PROD CODE 2
3 USER CODE 3	3 LINE CODE 3	3 PROD CODE 3
4 USER CODE 4	4 LINE CODE 4	4 PROD CODE 4
5 USER CODE 5	5 LINE CODE 5	5 PROD CODE 5
6 USER CODE 6	6 LINE CODE 6	6 PROD CODE 6
7 USER CODE 7	7 LINE CODE 7	7 PROD CODE 7
8 USER CODE 8	8 LINE CODE 8	8 PROD CODE 8
9 USER CODE 9	9 LINE CODE 9	9 PROD CODE 9
10 USER CODE 10	10 LINE CODE 10	10 PROD CODE 10
11 USER CODE 11	11 LINE CODE 11	11 PROD CODE 11
12 USER CODE 12	12 LINE CODE 12	12 PROD CODE 12
13 USER CODE 13	13 LINE CODE 13	13 PROD CODE 13
14 USER CODE 14	14 LINE CODE 14	14 PROD CODE 14
15 USER CODE 15	15 LINE CODE 15	15 PROD CODE 15
16 USER CODE 16	16 LINE CODE 16	16 PROD CODE 16
17 USER CODE 17	17 LINE CODE 17	17 PROD CODE 17
18 USER CODE 18	18 LINE CODE 18	18 PROD CODE 18
19 USER CODE 19	19 LINE CODE 19	19 PROD CODE 19
20 USER CODE 20	20 LINE CODE 20	20 PROD CODE 20
21 USER CODE 21	21 LINE CODE 21	21 PROD CODE 21
22 USER CODE 22	22 LINE CODE 22	22 PROD CODE 22
23 USER CODE 23	23 LINE CODE 23	23 PROD CODE 23
24 USER CODE 24	24 LINE CODE 24	24 PROD CODE 24
25 USER CODE 25	25 LINE CODE 25	25 PROD CODE 25
26 USER CODE 26	26 LINE CODE 26	26 PROD CODE 26
27 USER CODE 27	27 LINE CODE 27	27 PROD CODE 27
28 USER CODE 28	28 LINE CODE 28	28 PROD CODE 28
29 USER CODE 29	29 LINE CODE 29	29 PROD CODE 29
30 USER CODE 30	30 LINE CODE 30	30 PROD CODE 30
31 USER CODE 31	31 LINE CODE 31	31 PROD CODE 31

Select Product	Alarm Settings	Alarms View
1 Oxygen	Use Gas Level % High/Low	O <sub>2</sub> [Bar Chart]
2 Oxygen	22 High	CO <sub>2</sub> [Bar Chart]
3 Carbon Dioxide	0.6 High	N <sub>2</sub> [Bar Chart]
4 Carbon Dioxide	0 Low	
5 Nitrogen	0 Low	



## Technical Specifications

### Sensor Type

GS1M and GS1MW	Oxygen 0 to 100%, Zirconia, solid state, ultra low volume
GS3M and GS3MW	Oxygen 0 to 100%, Zirconia, solid state, ultra low volume Carbon Dioxide 0 to 100%, dual wavelength, Infra-red Balance Gas 0 to 100%, Arithmetic
Response time	3 seconds
Minimum volume of sample gas	See graph on page 2, consult factory.
Accuracy:	Oxygen 10 to 100% 0.2% absolute (max 2% of reading) and $\pm 1$ on the last digit. 1 to 9.99% 0.02% absolute (max 2% of reading) and $\pm 1$ on the last digit. 0 to 0.999% 0.005 % absolute and $\pm 1$ on the last digit.
	Carbon Dioxide $\pm 0.5\%$ absolute and $\pm 1.5\%$ of reading
Range selection	Automatic to 3 decimal places Oxygen: 0.001% to 99.9% CO2: 0.1% to 99.9%
Display type	Wide angle 95mm x 55mm 4.5" High Resolution Touchscreen LCD

### Operating conditions

Sample connections	Needle probe, can piercing station or direct syringe injection
Alarms	Programmable high/low limits for each measured gas, individual setting for up to 99 product, user and production line codes. Screen and printed display of high/low alarm conditions
Internal datalog	Stores over 1000 measurement results and alarm conditions
Communications interfaces	Serial computer interface for reports and data logging
Auto diagnostic routine	Initiated upon power up
Auto-cal	Auto calibration routine standard
Auto pass/fail	User programmable. Screen and printed display of alarm conditions
Auto test sequencing	Initiated by sample probe insertion into pack
Printer	Prints the results and alarms for each test

### Options

Flexible package kit	Everything required for analysis from standard packets and pouches
Can Piercing Station	For analysis from rigid cans and jars
Vial Autosampler	Automatic laboratory vial analysis
Carry Case	Aluminium framed flight case
Data Transfer Software	For configuration and downloading of reports and internal datalog

### Power Requirements

Mains power	90-260 Vac, $\pm 10\%$ , 50/60Hz – Automatically sensed
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Systech Illinois have over 25 years experience of providing analysis solutions for a wide range of industries. From our manufacturing plants in the UK and U.S we produce gas analysers for industrial process industries, headspace analysers for monitoring gas flushing of food products, and our range of permeation analysers.

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