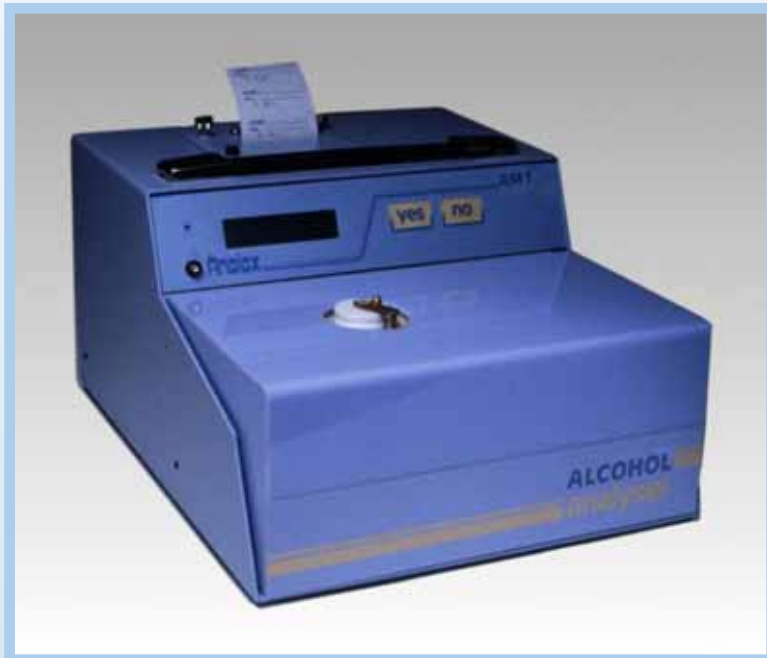


# ANALOX AM1

the Fast Alcohol Analyzer



- Result printed in 20 seconds
- Micro-sample (2.5 - 5 $\mu$ l)
- No sample pre-treatment required
- No sample turbidity errors
- Simple YES/NO operation
- Display for user guidance and self-test functions
- Printer for ID, time and date
- Fully sterilizable fluid pathways
- RS232 interface

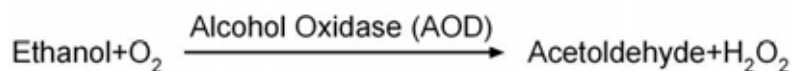


Fully portable battery/mains model also available

**A compact, simple-to-operate analyzer for the ultra-rapid analysis of alcohol in research applications**

## Analytical Principle

Oxygen consumption is measured in the reaction between sample alcohol and alcohol oxidase (AOD) using a Clark-type amperometric oxygen electrode.



## Analyzer Operation

Sample injection via a positive displacement pipette supplied with the instrument initiates the analyzer cycle. A displayed and printed result is obtained within 20 seconds of sample injection. The analyzer then automatically prepares itself for the introduction of a new sample within a further 40 seconds. The 32-character word display guides the user through all operating procedures using just 2 buttons, (YES and NO), for the simplest possible control.

## Samples

Heparinized plasma or serum can be injected directly without pre-treatment or pre-dilution for levels up to 400mg/dl (86mmol/L). A typical sample volume of 2.5-5 $\mu$ l is used for clinical or research purposes. Whole blood samples can be collected in Analox heparinized capillary tubes, spun down in a microcentrifuge, and the resultant plasma pipetted directly from the capillary into the analyzer. This procedure gives researchers the option of an ultra-fast alcohol result during a particular experiment.

## Reagent Kits

Simple-to-use alcohol reagent kits are available in 70, 560 and 1000 cycle packs. A range of ethanol standards and quality control serum is also available.

## Performance Specifications

|                                     |  |
|-------------------------------------|--|
| <b>Accuracy - Method Comparison</b> | Whole-blood v Gas Chromatography (GC)<br>$y(\text{Analox}) = 1.04 (\text{GC}) + 1.3\text{mg/dl}$ ; $r = 0.9905$ , $n = 27$ |
| <b>Accuracy - Recovery Data</b>     | $\text{Serum } y(\text{Analox}) = 0.973 (\text{true value}) + 2.1\text{mg/dl}$ ;<br>$r = 0.9929$ , $n = 89$ ;              |
| <b>Precision</b>                    | CV 1-2% @ 100mg/dl (plasma)<br>CV 2-3% @ 85mg/dl (whole-blood)   |
| <b>Linearity</b>                    | 0-400mg/dl (86mmol/L) using 2.5 $\mu$ l sample<br>0-200mg/dl (43mmol/L) using 5 $\mu$ l sample.                            |
| <b>Sensitivity (analyzer)</b>       | 0.1mg/dl ; 0.001% ; 0.01mmol/L (selectable)  |

## Instrument Specifications

|                             |   |                         |  |
|-----------------------------|---|-------------------------|--|
| <b>Sensor</b>               | Clark-type amperometric oxygen electrode  | <b>Interface</b>        | RS232 Serial data port, 25D conn optional software for data transfer to PC |
| <b>Fluid Pumps</b>          | Peristaltic   | <b>Standby facility</b> | Selectable or automatic after period of non-use                            |
| <b>Reaction temperature</b> | 30°C  | <b>Self-test</b>        | Electrode malfunction indications and fluid monitoring                     |
| <b>Reaction monitoring</b>  | Rate  | <b>Power (AM1)</b>      | 85-264V AC, 50-60Hz, 12-15V DC 60VA  |
| <b>Sample Injection</b>     | Sample volume 2.5 - 5 $\mu$ l positive displacement pipette adjustable 2-10 $\mu$ l supplied. | <b>Portable (P-AM1)</b> | As above plus 5Ah integral rechargeable battery and charger unit           |
| <b>Display</b>              | 32-Character LC   | <b>Dimensions</b>       | 23cm (width), 29cm (depth), 15cm (height)                                  |
| <b>Printer</b>              | 16 Column dot matrix, 1 line/sec  | <b>Weight</b>           | AM1 3.8kg; P-AM1 6.0kg   |
| <b>Processor</b>            | 8085CPU, 32K RAM, 2K non-volatile RAM   |                         |  |

## Analyzer Options

|                      |   |
|----------------------|---|
| <b>P-AM1</b>         | Fully portable alcohol analyzer, battery/mains powered version  |
| <b>GM7 MicroStat</b> | Programmable multiassay analyzer for fast analysis of glucose, cholesterol, urate, urea, alcohol, lactate, pyruvate, 3-OH butyrate, acetoacetate, creatinine, ammonia and glutamine. P-GM7 is portable version. |
| <b>GL5</b>           | Analyzer for determination of glucose, lactate, cholesterol, urate and alcohol. P-GL5 is portable version.  |
| <b>MBC</b>           | Fast microcentrifuge for plasma preparation. 1 minute separation, 16,000rpm, acceleration 7 seconds, braking 20 seconds, adapted for Analox capillary tubes.  |

## ANALOX INSTRUMENTS USA

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In line with a policy of continuous product development the company reserves the right to change specifications without notice

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