

AM2 and AM3 Alcohol Analysers



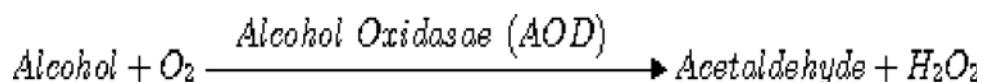
Analox Alcohol (Ethanol) Analysers (**from ANALOX ltd**) give a printed result in 20-25 seconds from injection into the analyser using a precision positive displacement pipette, typically a Microman M10. Thus checks can be made both on manufacturing processes and determination of final product.

Applications include:

- Beers and lagers, low-level beers, ciders
- Wines and spirits
- Alcoholic soft drinks ("Alcopops")
- Waste-line monitoring in distilleries and industrial ethanol plants
- Yeast production
- Quality control of alcohol-containing consumer products (e.g. cough mixtures, tonics, shampoos)

Analytical Principle:

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



Under the assay conditions, the rate of oxygen consumption is directly proportional to alcohol concentration.

Operation:

Sample injection via a positive displacement pipette supplied with the instrument initiates the complete analyser cycle. A displayed and printed result is obtained approximately 20 seconds after sample injection. The analyser then automatically prepares itself for the next sample. The 32-character word display guides the user

through all operating procedures using just 2 buttons, (YES and NO), for the simplest possible control.

Almost any aqueous material can be used. Turbidity or opacity does not present a problem. Carbonated samples are simply degassed before analysis. A brief aqueous pre-dilution (typically 10:1) may be required for concentrations above 0.5% V/V (1.5% V/V on the AM2). All accessories for accurate dilutions are provided where appropriate.

Simple-to-use alcohol reagent kits are available in various pack sizes.

Analytical Performance	
Accuracy - Method Comparison vs Reference Distillation Method	$y(\text{Analox}) = 1.006x + 0.005\%V/V$, $r = 0.9998$ SEP95 = 0.103(range 2-11%V/V)
Units	%V/V, mg/dl, % (Unspecified)
Precision	S.D. = 0.030%V/V @ 5.0%V/V, $r = 0.085$, CV = 0.60%
Analytical Range	0-10%V/V (AM3) 0-40%V/V (AM2) Higher ranges on the AM2 with increased dilutions
Sensitivity (analyser)	0.01%V/V, 0.001% (selectable for very low levels)

Instrument Specification:

Method	Enzymatic oxygen-rate
Sensor	Clark-type amperometric oxygen electrode
Reaction Temperature	30°C
Display	32 character backlit LCD
Printer	16 column dot matrix, 1 line/sec.
Statistics	Sequential, giving mean, S.D and C.V.
Interface	Serial data port, optional Windows software available
Power	100-250VAC, 50-60Hz, 12-15VDC, 60VA
Dimensions	23cm(width) x 29cm(depth) x 15cm(height)
Weight	3.8Kg (Portable, 6Kg)

Ordering Information:

AM3	Industrial Alcohol analyser, 0-10%V/V
AM2	Industrial Alcohol analyser, 0-40%V/V
GMRD-110(I)	Alcohol reagent kit, 50ml (70 analyser cycles)
GMRD-110(IJ)	Alcohol reagent kit, 8 x 50ml (8 x 70 analyser cycles)
GMRD-112	Alcohol reagent kit, 4 x 175ml (4 x 250 analyser cycles)
GMRD-110(X)	A range of alcohol standards at specified (x%V/V) concentrations