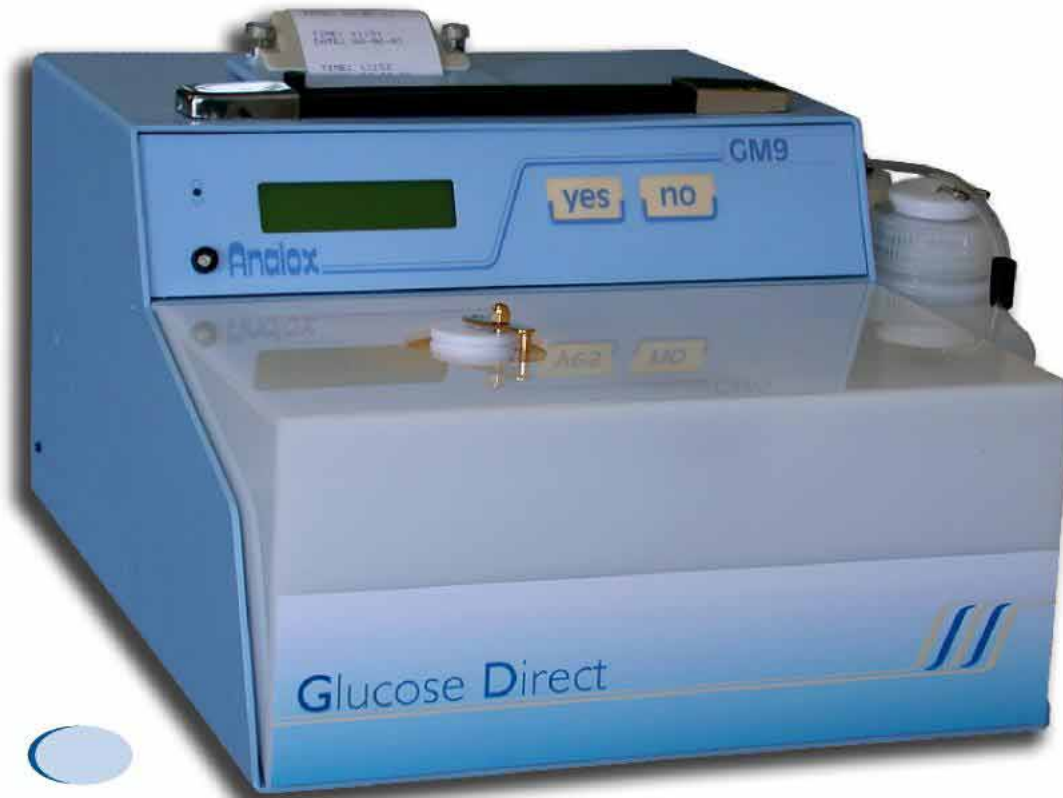


Analox GM9D Glucose Direct

For immediate whole blood glucose analysis



- **2 μ l, 5 μ l, or 10 μ l samples**
- **Printed result from just 35 seconds**
- **No collection tube needed**
- **Full user control over calibration**
- **Simple YES/NO operation**
- **RS232 interface + software option**
- **Fully sterilizable pathways**
- **Whole blood or plasma samples**

A compact, simple-to-operate analyzer for the ultra-rapid direct analysis of glucose in clamping studies and diabetes clinics.

Analytical Principle

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



Hemoglobin is converted to the met-form to prevent interference with oxygen uptake. Under the assay conditions, the rate of oxygen consumption is directly proportional to glucose concentration.

Operation

Sample injection starts the analysis. The sample mixes with anticoagulated buffer in the reaction cuvette for 15 seconds (optionally 35 seconds) during which the red cells are lysed and the released hemoglobin is converted to met-hemoglobin. Glucose oxidase is then automatically injected into the cuvette to initiate the reaction. A displayed and printed whole blood result is obtained 20 seconds later.

The contents of the reaction cuvette are then automatically transferred to waste and the cuvette is refilled with buffer solution in readiness for the next sample. The 32-character word display guides the user through all operating procedures using just two buttons (YES and NO) for the simplest possible control.

Samples

The Glucose Direct is ideal for rapid whole blood glucose analysis but other samples such as plasma, serum or other biological fluids can be used. Turbidity or opacity does not interfere.

Samples are injected directly via the positive displacement pipette or may be transferred from anticoagulated collection tubes or capillaries.

Reagent Kits

The standard reagent pack, sufficient for 250 analyzer cycles, contains 7.5ml of enzyme concentrate plus two 250ml bottles of aqueous buffer and a glucose standard. Cat.No. GMRD-020.

Analytical Performance

Linearity	0-30mmol/L for (10µl sample) 0-50mmol/L for (5µl sample)
Precision	SD's range from 0.07-0.26mmol/L for human whole blood < 30mmol/L
Comparison with Plasma	Mean difference whole blood < plasma 0.105mmol/L (human , <30mmol/L) Mean difference whole blood < plasma 0.74mmol/L (rat , <30mmol/L)
Sensitivity (Analyzer)	0.01mmol/L, 0.1mg/dl

Instrument Specifications

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
Interface:	Serial data port, optional Windows software available
Power:	100-250V AC, 50-60Hz, 12-15V DC, 60VA
Dimensions:	23cm (width) x 29cm (depth) x 15cm (height)
Weight:	3.8Kg

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