GM10
Industrial Glucose Analyzer

A compact, simple to operate analyzer for the rapid analysis of sugars in food and beverage, pharmaceutical, biotechnology and industrial process control applications

Fast determination of:
Glucose (Dextrose)
Sucrose
Lactose
plus 2 user-defined channels

Measurement of up to 4% w/v glucose without sample pre-dilution

Offers off-line flexibility

Suitable for - cell culture, fermentation and bioprocess monitoring applications

Printed result in 20 seconds from sample injection

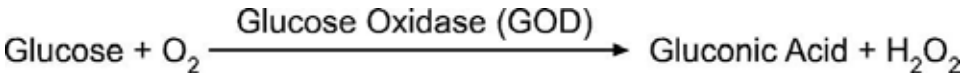
RS232 interface plus software option

Compact and easily transportable facilitating use at different locations

Analox
INSTRUMENTS

Analytical Principle

The GM10 Industrial Glucose Analyzer measures the rate of oxygen uptake when sample glucose reacts with the enzyme glucose oxidase (GOD). Under appropriately controlled conditions, this is directly proportional to glucose concentration.



Analytical Options

The GM10 incorporates programs for glucose, sucrose and lactose. In the sucrose and lactose assays a brief pre-reaction converts sample sucrose or lactose to glucose prior to determination in the analyzer. No change of analyzer enzyme reagent or electrode configuration is required when switching between these assays. The analyzer additionally has two user-defined programs which may be specified at time of order.

Analyser Operation

After single-point calibration with the relevant standard, the injection of sample is all that is needed to obtain a result and prepare the analyser for the next analysis. Injection via a positive displacement pipette (supplied with the analyzer) triggers the complete analytical cycle and a hard-copy result is printed within 20 seconds and exported to a PC database if required. Typical sample volume required is only 10µl and any aqueous sample can be used. Turbidity or opacity does not interfere and carbonated samples are simply degassed before analysis. A simple aqueous dilution step may be appropriate for higher concentrations, e.g. glucose levels greater than 4% w/v.

Performance Specifications

	Glucose	**Sucrose**	**Lactose**
Linearity	40% w/v (4%w/v by direct injection)	15% w/v	15% w/v
Typical Precision	CV < 1% @ 2% w/v	CV < 2% @ 5% w/v	CV < 2% @ 5% w/v
Analysis time	20 seconds	20 seconds	20 seconds
Pre-Reaction time	N/A	ca. 15 minutes	ca. 15 minutes
Calibrant(s)	0.5, 1, 5, 8, 20% w/v	5% w/v sucrose	5% w/v lactose
Reagent stability>	15 months at 0-5°C	12 months at 0-5°C	9 months at 0-5°C

Instrument Specifications

Sensor:	Clark-type amperometric oxygen electrode
Reaction Temperature:	30°C
Display:	32 character backlit LCD
Printer:	16 column dot matrix, 1 line/sec
Power:	100-250V AC, 50-60Hz, 12-15V DC, 60VA
Dimensions:	23cm (width) x 29cm (depth) x 15cm (height)
Weight:	3.8Kg

Analox Instruments USA Inc.
P.O. Box 208
Lunenburg
MA 01462-0208, USA

Tel: (978) 582 9368
Fax: (978) 582 9588
Email: info@analoxusa.com
Online: www.analoxusa.com