



ACCURATE INCUBATOR VERIFICATION TOOL

G100

New CO₂ analyser specifically designed to monitor CO₂ for the verification of incubators in research and pharmaceutical markets. This unit has been developed to incorporate the latest technology and specification requirements, that provide the user with a fast, simple to use and accurate piece of laboratory kit.

Benefits

- Improved accuracy on CO₂ readings
- Quick verification of CO₂ incubator levels
- Time saving with dual temperature probes
- Large data storage and user friendly software and download
- Easy to read large well lit display
- Built in gas moisture removal

Features

- CO₂ 0 - 20%
- Options for:
 - O₂ 0-100%
 - Dual temperature probes 0 - 50°C
 - Data storage and download
 - Humidity Sensor 0-100%

Applications

- IVF
- Research
- Laboratories
- Medical



Product Specifications

G100		
GAS RANGES		
Gases Measured	CO ₂	By custom dual wavelength infra-red cell reference channel
	O ₂ (Optional)	By internal electrochemical cell
Oxygen cell lifetime	Approximately 3 years in air	
Range	CO ₂ O ₂	0-20% 0-100%
Measurement Accuracy	Gas	
	CO ₂	Accuracy ± (1% range +2% of reading) at reference conditions Temperature dependence ± 0.2% reading °C (typical at 5% CO ₂) Pressure dependence ± 0.02% of reading/hPa (typical at 5% CO ₂)
	O ₂	±1.0% Full Scale @ constant temperature and pressure ± 2.0% Full Scale over operating temperature range
Response time T ⁹⁰	CO ₂ O ₂	≤20 seconds ≤60 seconds
FACILITIES		
Temperature (Optional)	x2 using optional probes 0 °C to +50 °C	
Temperature accuracy, typical	± 0.2 °C over the range (± 0.1 °C between 32-44 °C)	
Barometric pressure	800-1200 mbar	
RH measurement (Optional)	RH Probe 0-100% RH non condensing	
RH accuracy	+/- 1.5% RH across the range	
Visual and audible alarm	User selectable CO ₂ and O ₂ alarm levels	
Communications	USB type B mini-connector, HID device class	
Data Storage	1000 readings	
ENVIRONMENTAL CONDITIONS		
Operating temperature range	5 °C - 40 °C	
Relative humidity	0-95% non condensing (RH Probe 0-100% non condensing)	
Barometric pressure	± 200 mbar from calibration pressure	
PHYSICAL		
Weight	495 grams	
Size	L 165mm, W 100mm, D 55 mm	

G100

TECHNICAL SPECIFICATION

POWER SUPPLY

Battery type	Li Ion
Battery life	10 Hours (8 hours with pump)
Battery lifetime	>300 Cycles
Battery charger	5v DC external power supply and internal charging circuit
Charge time	3 Hours
Alternative power	USB connector DC power supply

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Range	CO ₂	0-20%
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Measurement Accuracy	Gas	
	CO ₂	Accuracy: $\pm(1\% \text{ of range} + 2\% \text{ of reading})$ at reference conditions ¹ Temperature dependence: $\pm 0.2\% \text{ reading } / ^\circ\text{C}$ (typical at 5% CO ₂) Pressure dependence, $\pm 0.02\% \text{ of reading/hPa}$ (typical at 5% CO ₂)
	O ₂	$\pm 1.0\% \text{ Full Scale @ constant temperature and pressure}$ $\pm 2.0\% \text{ Full Scale over operating temperature range}$
Response time, T ⁹⁰	CO ₂	$\leq 20 \text{ seconds}$
	O ₂	$\leq 80 \text{ seconds}$

¹ Conditions during factory calibration, typically 20°C, 1000mBar

FACILITIES

Temperature (Optional)	x2 using optional probes, range 0°C to +50.0°C
Temperature accuracy, typical	$\pm 0.5^\circ\text{C}$ from 32 to 44 °C, $\pm 0.7^\circ\text{C}$ over the rest of the range
Barometric pressure	800-1200 mbar
RH measurement (Optional)	RH Probe 0-100% RH non condensing
RH accuracy	$\pm 1.5\% \text{ RH across the range}$
Visual and audible alarm	User selectable CO ₂ and O ₂ alarm levels
Communications	USB type B mini-connector, HID device class
Data Storage	1000 reading sets

PUMP

Flow	100cc/min typically
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ENVIRONMENTAL CONDITIONS

Operating temperature range	5°C – 40°C
Relative humidity	0 - 95% non condensing (RH Probe 0-100% non condensing)
Barometric pressure	$\pm 200 \text{ mbar from calibration pressure}$

**G100
TECHNICAL SPECIFICATION**

PHYSICAL

Weight	495 grams
Size	L 165mm, W100mm, D55mm
Case Material	ABS \ Polypropylene with Silicone Rubber Inserts
Keys	17 Resin capped Silicone rubber keys
Display	Liquid crystal display, 128 x 64 pixel With RGB LED back-light
Gas sample filters	Built-in gas dryer tube to remove moisture User replaceable PTFE water trap filter

CERTIFICATION RATING