

CERTIFICATION OF CALIBRATION



Date Of Calibration: 11-Jan-2023

Certificate Number: IN14113_15/31965

Issued by: QED Environmental Systems Ltd.

Customer: Gem Scientific Ltd

Unit 301 Batley Enterprise Centre 513 Bradford Road
Batley West Yorkshire WF17 8LL UNITED KINGDOM

Description: Gas Analyser

Model: G100

Serial Number: IN14113

Results after adjustment:

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
0.00	0.0	0.064
2.545	2.5	0.064
4.993	4.9	0.080
9.92	9.9	0.12

All concentrations are molar.

CO₂ readings recorded at : 28.3 °C ± 1.5 °C

Barometric Pressure : 0993 mbar ± 3 mbar

Method of Test : The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP018.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The results relate only to the item calibrated

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 114 IGC Instance:114

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QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

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The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

As received gas readings, as recorded on 11-Jan-2023 :

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
0.00	0.0	0.064
2.545	2.5	0.064
4.993	4.9	0.080
9.92	9.6	0.12

All concentrations are molar.

As received gas readings recorded at : 19.5 °C ± 1.5 °C

As received barometric pressure recorded at : 0995 mbar ± 3 mbar

Date of Issue : 12-Jan-2023

Approved by Signatory

Keeley Knight

Laboratory Inspection

End of Certificate

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