

CALIBRATION CERTIFICATE

Instrument GMP343 Carbon dioxide probe
Serial number N2210009
Manufacturer Vaisala Oyj, Finland
Calibration date 28th May 2024

Received 2024-06-18

The carbon dioxide probe was calibrated against accurate bottled nitrogen and carbon dioxide gas concentrations. High purity nitrogen gas was used for calibrating the zero value of the probe. For the CO₂ calibration, an accurate mixture of nitrogen and carbon dioxide traceable to VSL (Dutch Metrology Institute) was used.

Pressure and temperature compensation was made by using the compensation algorithm of the probe. The ambient pressure value was obtained from a Vaisala pressure transmitter, and the gas temperature was measured by the built-in temperature sensor of the probe. The temperature sensor of the probe was calibrated against the gas temperature sensor of the calibration system. At the time of shipment, the probe met its operating specifications.

The pressure transmitter and the gas temperature sensors have been calibrated at ISO/IEC 17025 accredited calibration laboratory (FINAS), MSL by using working standards traceable to the National Institute of Standards and Technology (NIST).

Calibration results (for measurement range 0...1000 ppm)

Reference ppm CO ₂	Observed* ppm CO ₂	Difference ppm CO ₂	Permissible difference ppm CO ₂	Calibration gas temperature °C	Ambient pressure hPa
0	1	1	± 3	26.4	1017.7
201	202	1	± 5	26.4	1017.8
370	372	2	± 6	26.4	1017.8
600	602	2	± 9	26.4	1017.9
996	1001	5	± 13	26.4	1017.9

*Reading after pressure and temperature compensation.

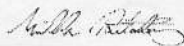
Ambient conditions / Humidity 30 ± 5 %RH, Temperature 25.1 ± 1 °C.

Equipment used in calibration

Type	Serial number	Calibration date	Certificate number
34970A Pt-100 Sensor	MY41028202 TP12077	2024-02-01 2023-06-01	4174420-1 G03402

Gas cylinders used in calibration

Type	CO ₂ concentration (ppm)	Cylinder number	Reference number
Scientific nitrogen (N6.0)	0	7523112219902	100662045
Carbon dioxide mixture (± 0.5 %)	201	7523112099456	100698446
Carbon dioxide mixture (± 0.5 %)	370	7523112503252	100717047
Carbon dioxide mixture (± 0.5 %)	600	7523112520254	100697354
Carbon dioxide mixture (± 0.5 %)	996	7523112120163	100707309



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