

Datasheet: CO₂, Temperature and %RH Data Logger



The 1% and 30% Data Loggers by CO₂Meter.com can remotely log carbon dioxide, temperature and relative humidity levels - from seconds to days apart - using its built-in clock. They are battery powered, completely self-contained and smaller than a paperback book. The display units also include an 80 db user-programmable CO₂ level alarm with large mute button that can serve as an OSHA CO₂ level safety device.

FEATURES:

- Measures 1% CO₂ or 30% CO₂ and Temperature, % Relative Humidity
- Display and alarm on 1% CO₂ (CM-0016) and 30% CO₂ (CM-0017) models
- Built-in rechargeable Lithium Ion Battery Pack on non-display models
- Free software for graphing or downloading data to universal .CSV format
- Internal memory stores up to 60,000 data points (date, time, CO₂, Temperature, %RH)

CO₂ Measurement

Measurement Range.....	0 -10,000ppm (1%) or 300,000ppm (30%) CO ₂
Sensing Method.....	Non-dispersive infrared (NDIR) Sensor with automatic background calibration algorithm
Sampling Method.....	Diffusion
Response Time.....	< 25 seconds gas diffusion time
1% CO ₂ Sensor Repeatability.....	± 20 ppm ± 1 % of measured value
1% CO ₂ Sensor Accuracy.....	± 30 ppm ± 3 % of measured value
30% CO ₂ Sensor Repeatability.....	± 0.1% vol. CO ₂ ± 2 % of measured value
30% CO ₂ Sensor Accuracy.....	± 0.2% vol. CO ₂ ± 3 % of measured value
Pressure Dependence.....	± 1.6% reading per kPa deviation from normal pressure, 100 kPa

Temperature & Humidity Measurement

Temperature Measurement Range.....	-40 to 60C
Temperature Accuracy.....	± 0.4C at 25C
Relative Humidity Measurement Range.....	0 – 100% RH non-condensing
Relative Humidity Accuracy.....	± 3% RH

General Performance

Operating Temperature Range.....	0 to +50 °C
Operating Humidity Range.....	0 to 95% RH (non-condensing)
Sensor Life Expectancy.....	> 15 years
Maintenance Interval.....	no maintenance required
Self-Diagnostics	Complete function check of the sensor module
Operating Environment.....	Non-corrosive environment: Laboratory, residential, commercial or industrial. Outdoors optional.

Electrical/Mechanical

Power Input.....	Lithium-Ion Battery Pack (2,200mA or 3,600mA) 4 AA Batteries (CM-0016, CM-0017, CM-0018-AA)
Dimensions.....	5.75 x 5.6 x 1.3 inches (146x91x33mm)

Communication

USB A to USB Mini-B (5-pin cable).....	Single Cable Connection for DAS or Gaslab Software and recharging (included)
Software.....	Requires Windows XP SP2 or later and Microsoft .Net 3.5 Run-time libraries

Models

- **CM-0016:** 1% CO₂ with display, alarm, AA bat.
- **CM-0017:** 30% CO₂ with display, alarm, AA bat.
- **CM-0018AA:** 1% CO₂ with AA batteries
- **CM-0018:** 1% CO₂ with 2,200mA Li-Ion batteries
- **CM-0019:** 30% CO₂ with 2,200mA Li-Ion batteries
- **CM-0213:** 30% CO₂ with 3,600mA Li-Ion batteries
- **CM-0212:** 1% CO₂ with 3,600mA Li-Ion batteries