



Precision environmental control for embryonic development

Passive, continuous in-chamber telemetry to safeguard culture media pH, without disrupting workflow

MG-GASCO2 Incubator CO₂ Sensor



Master Your Media

When CO₂ Changes, pH Changes

Culture media rely on a precise CO₂ environment to maintain physiological pH. Even small fluctuations in incubator CO₂ can rapidly alter media pH, creating an unstable environment that may compromise embryo development. Continuous CO₂ monitoring helps embryologists detect changes before they become a clinical concern.

The Passive Advantage

Traditional CO₂ monitors actively draw gas from the incubator, potentially disturbing the very microenvironment they are designed to measure.

Metrum Genie uses passive CO₂ measurement with advanced Mid-Infrared (IR) technology, measuring directly inside the incubator without extracting gas.

No gas extraction. No disruption. Just continuous, stable monitoring of the culture environment.



Passive CO₂ Measurement

Measures CO₂ directly inside the incubator environment without active gas extraction



High accuracy within critical range

Accuracy of 0.1% between 4.5% and 7.5%



Compact in-chamber Design

Designed to occupy a single incubator chamber with minimal workflow disruption



Multi-Parameter Monitoring

Simultaneous monitoring of CO₂, temperature, humidity, and pressure within the chamber

Measured Parameters



CO₂



Temperature



Relative Humidity



Atmospheric Pressure

Compact In-Chamber Design

The entire sensor unit is engineered to fit seamlessly inside a single 66mm incubator well, occupying minimal space and ensuring minimal workflow disruption.



Seamless Integration

Zero Disruption

Designed specifically for benchtop incubators, the module supports continuous long-term monitoring of critical parameters while maintaining normal incubator operation and sealing.



Chamber Profiling & Validation

Engineered for comprehensive incubator validation. Accurately verify CO₂ concentrations across individual chambers and dynamically profile environmental events, including lid openings and precise gas recovery times.

Unified Multi-Parameter Sensor

Eliminate the need for multiple independent probes. Continuously monitor ambient CO₂, temperature, relative humidity, and atmospheric pressure simultaneously using a single, highly calibrated sensor unit.



Clinical-Grade Precision for the Micro-Environment

Engineered for the high-humidity, demanding conditions of IVF laboratories. The unit features a wipe-clean, medical-grade ABS casing and a PTFE mesh to protect the sensor from moisture ingress. The system is supplied pre-calibrated for simplified setup.

Parameter	Measurement Range	Accuracy	Resolution
CO ₂ Concentration	0-10%	0.1% (over 4.5%-7.5%)	0.1%
Temperature	0°C to 65°C	±1.0°C	0.1°C
Relative Humidity	Up to 100% RH (non-condensing)	±3% RH	0.1% RH
Atmospheric Pressure	300 to 1115hPa	±2hPa	1 hPa