

METRUM GENIE™



Less time on QC More time on embryos

Automating validation, calibration, and compliance across the IVF laboratory through one multi-parametric sensor ecosystem



METRUM GENIE at a Glance

The intelligent quality management platform for IVF laboratories.

Metrum Genie brings together clinical-grade sensors, automation, and intelligent software to automate routine quality management and streamline laboratory compliance.



Automated Validation

Schedule and run autonomous validation routines across all equipment



Automated Calibration

Input target setpoints and let the system automatically calculate required offsets



Episodic Measurement

Measure real-time ICSI stage temperature, correlated with procedure timestamps



Automated Equipment Profiling

Verify dynamic incubator recovery times after door openings



Equipment Mapping

Generate instant visual graphs of large heated surfaces



Save Time

Reclaim time by eliminating manual data entry



Stay Compliant

Always audit-ready with automated documentation



Improve Efficiency

Real-time insights for better decisions and performance

Digital Twin of your Laboratory

Metrum Genie creates a digital twin of your laboratory, mapping every sensor to its exact location for complete visibility and control

METRUM GENIE advantage

Automating the modern IVF lab

QC Workflow	Traditional IVF Laboratory	The Metrum Genie Ecosystem
Equipment Validation	Manual spot-checks using thermometers, transcribed onto paper clipboards, and manually entered into Excel.	Place sensors and schedule the routine; the system autonomously captures, analyzes, and logs the data.
Equipment Calibration	Time-consuming, iterative manual checks and trial-and-error setpoint adjustments on incubators and ICSI stages.	Enter your target setpoint, and the system automatically calculates the required calibration offset.
Surface Mapping	Moving a single probe sequentially across heated surfaces, followed by manual plotting in a spreadsheet.	Parallel, simultaneous multi-sensor measurement that instantly generates a comprehensive visual thermal graph.
Dynamic Profiling	Relying on static manufacturer claims; unable to track actual recovery times during events like door openings.	Continuous tracking that maps dynamic profiles and detects actual environmental variances during real-world lab events.
Episodic measurement	Micro-thermal shifts on ICSI stages during active procedures go completely unmonitored.	Measurement correlated with procedure timestamps, linking temperature variances directly to clinical success rates.



Metrum Genie Hardware

Temperature Measurement

- Direct media sensing using dedicated dish probes
- Versatile array of sensors to accurately measure everything from heated stages to cryo-storage environments.
- Accuracy of 0.1°C across critical temperature range
- Droplet measurements and surface measurements

Incubator Measurement

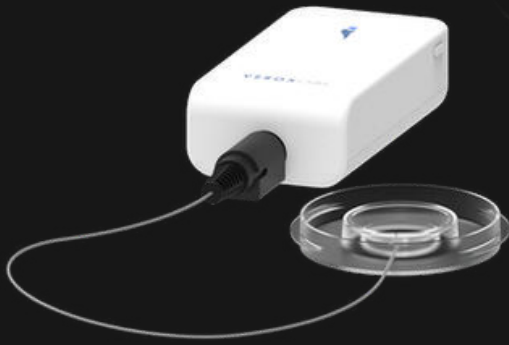
- Passive CO₂ Measurement
- High accuracy within critical range
- Accuracy of 0.1% (4.5% and 7.5%)
- Designed to occupy a single incubator chamber with minimal workflow disruption.
- Simultaneous measurement of CO₂, temperature, humidity, and pressure within the chamber.

Lab Environment Measurement

- Comprehensive, Single-Module Capture of temperature, humidity, pressure, VOCs, particulates, and CO₂
- Dynamic environment profiling
- Precision Micro-Environment Data

Mobile Phone Console

- Real time data measurement
- Equipment and parameter mapping
- Lab layout organization
- Automated QC workflows
- Data logging
- Alarms and Alerts



Temperature Measurement



Incubator Measurement

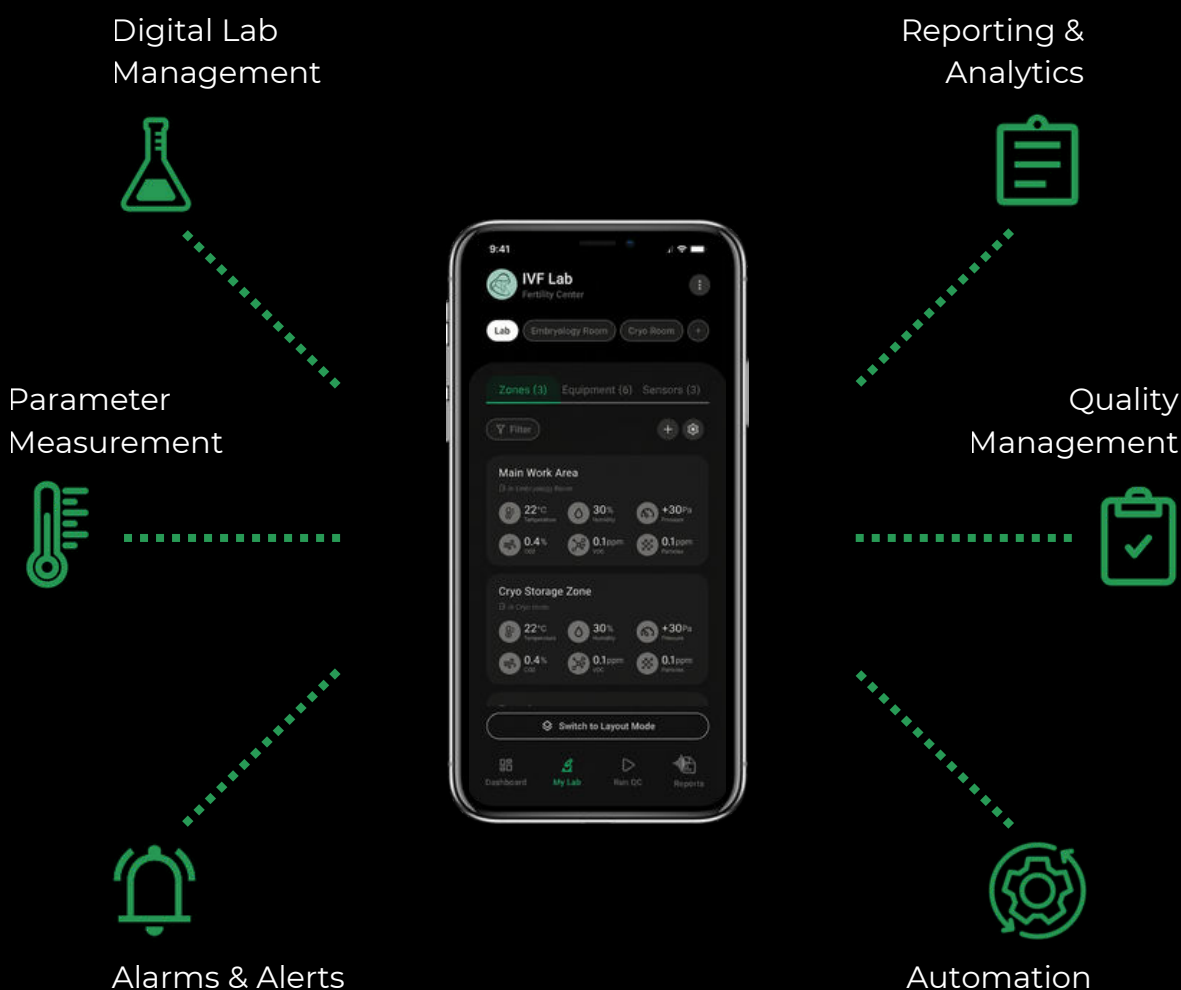


Lab Environment Measurement



Mobile Phone Console

Six Pillars of METRUM GENIE



*Giving embryologists their time back
by automating compliance in one ecosystem*

Traditional compliance is often fragmented and labour-intensive, creating unnecessary risk. When processes are handled in isolation, data is lost, critical steps are missed, and audit reporting becomes slow and burdensome, ultimately increasing the likelihood of product loss and compliance failures.

At VeroxLabs, we believe compliance shouldn't be this difficult. Our solution is designed to simplify, connect, and automate, so nothing is missed, and everything works.

Built Around the Daily Realities of Clinical Embryology

Keep your clinic permanently inspection-ready. Metrum Genie combines purpose-built sensors, intelligent equipment mapping, and automated compliance management to reduce administrative burden, simplify regulatory requirements, and give embryologists more time to focus on what matters most.



Embryology First, Not Clipboards

Focus on embryos, not QC logs. Automate daily quality control checks and reclaim valuable laboratory time.



Eliminate Audit Anxiety

Stay permanently inspection-ready. Metrum Genie automatically maintains a continuous, immutable record of laboratory performance and generates audit-ready reports in seconds for CAP, CLIA, and HFEA inspections.



Catch the Invisible Threats

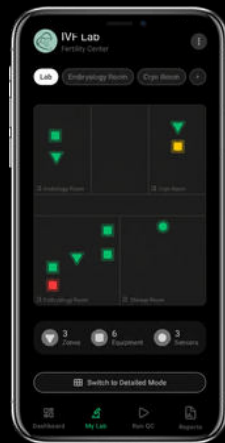
Micro-temperature fluctuations and VOC spikes often go unnoticed until it's too late. Metrum Genie creates a live digital twin of your IVF laboratory, pinpointing environmental changes, documenting them automatically, and enabling corrective action before embryo development is impacted.

Built for Embryology Automated for Compliance



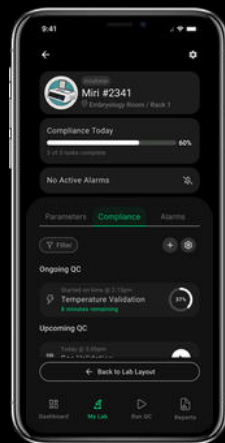
Purpose-Built Hardware

Purpose-built for human embryology, our high-precision, multi-parametric sensors deliver continuous clinical-grade environmental data while preserving the sterility and integrity of your incubators and workstations.



Digital Lab Twin

Environmental data requires spatial context. Metrum Genie creates a real-time digital twin of your laboratory, linking telemetry to specific incubators, workstations, and equipment to deliver complete operational visibility and faster decision-making.

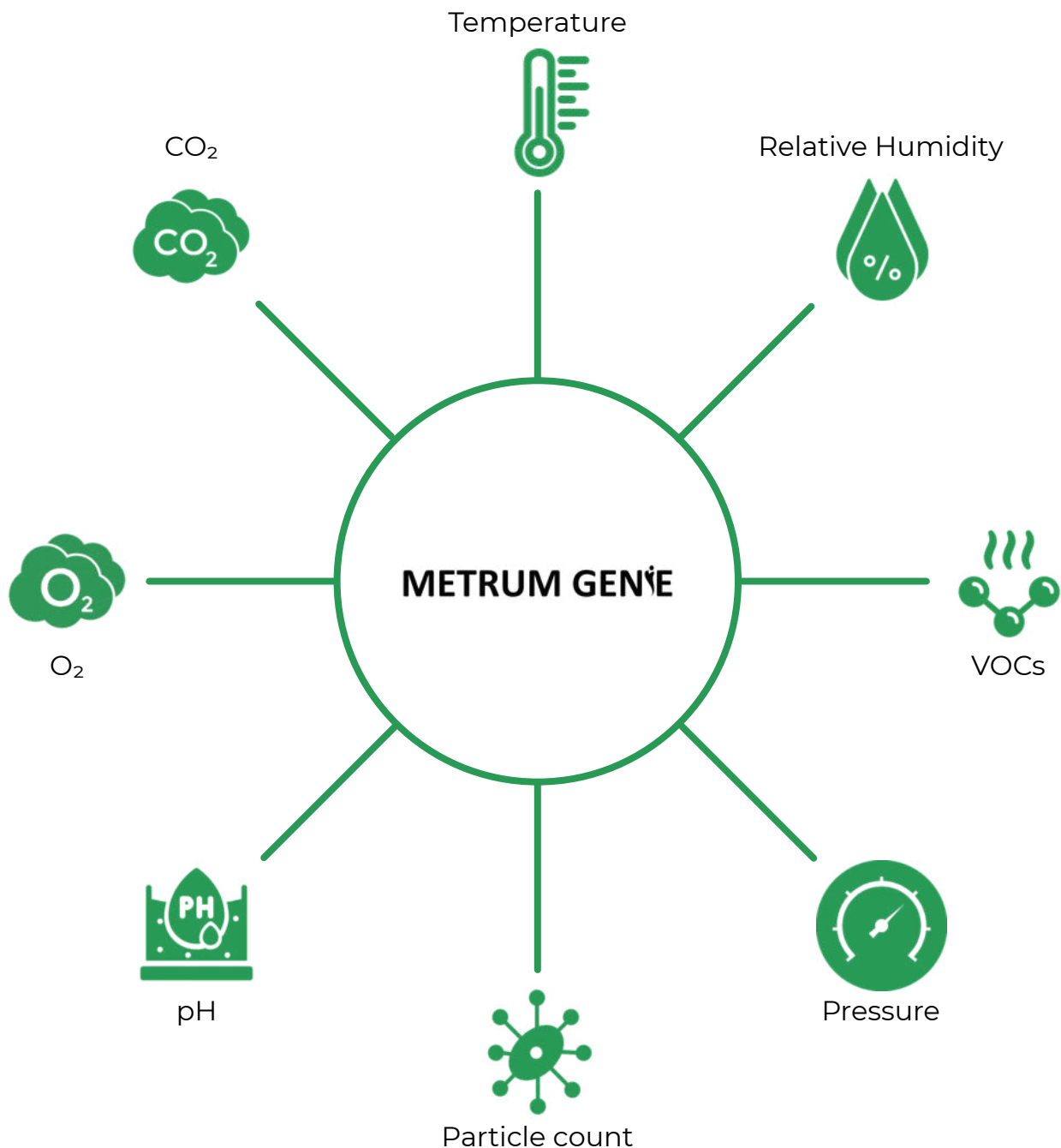


The Compliance Engine

From compliance monitoring to audit reporting, everything runs automatically. Metrum Genie cross-references laboratory data against regulatory standards, orchestrating validations, calibrations, and inspection-ready documentation in real time.

One Platform Every Critical Parameter

Metrum Genie provides a unified platform for measuring the critical parameters that matter in your IVF laboratory.



Why choose METRUM GENIE

Bringing everything into one digital ecosystem ensures nothing is overlooked, creates a single source of truth, and streamlines compliance through automation.



Measure multiple parameters

Seamlessly integrate all critical IVF metrics into a single ecosystem using purpose-built sensors for temperature, CO₂, O₂, pH, VOCs, humidity, pressure, and particle count.



Go paperless

Automate data entry to your preferred QC data management tool (Currently compatible with Reflections App).



Minimised time spent

Automate previously manual labour-intensive and error-prone compliance tasks.



Easy audits

Eliminate audit stress with continuous monitoring, real-time alerts, seamless processes, automated data capture, and comprehensive digital audit reports across all parameters.



No hunting for data

A single source of truth for all your compliance data; records, certificates, protocols, and everything else in one ecosystem.



Complete compliance certainty

With ISO 17025-accredited calibration, you can rest easy knowing you are fully compliant.

And much more

What you can do with METRUM GENIE

 1 User Management	 2 Digital Lab Mapping	 3 Room & Area Management	 4 Equipment Registration
 5 Equipment Location Mapping	 6 Monitoring Parameters	 7 Sensor Assignment	 8 Automated Data Capture
 9 Guided Calibration	 10 Calibration Records	 11 Equipment Validation	 12 Validation Records
 13 Real-Time Alerts	 14 Monitoring Zones	 15 QC Plans & Protocols	 16 QC Scheduling
 17 Automated QC Reporting	 18 Continuous Lab Monitoring	 19 Spot Checks & Observations	 20 Clinical Grade Accuracy

One Platform | Total Visibility | Always Compliant

Where can you use METRUM GENIE

The solution is specifically designed to meet the compliance and regulatory requirements of IVF clinics and research laboratories, where maintaining strict quality standards is essential.



Benchtop Incubators



Time Lapsed Incubators



Big Box Incubators



Heated Glass Stages



ICSI Stations



Heated Worksurfaces



Cryo Tanks



Laminar Flow Cabinets



Tube Warmers



Fridges



Freezer



Laboratory Environment

Use the solution to Validate, Calibrate, and Monitor for instance:



Temperature



CO₂



O₂



pH



VOCs



Pressure



Particle count



Relative Humidity



The key components of METRUM GENIE

Every system is built from essential modules; these are the components that power our solution.

- **MG-Console** : Metrum Genie console.
- **MG-TM** : Temperature sensors.
- **MG-GASCO2** : Incubator module with CO₂, temperature, humidity, and pressure.
- **MG-LAB1** : Laboratory environment module with temperature, humidity, and pressure.
- **MG-LAB2** : Laboratory environment module with temperature, CO₂, Humidity, VOCs, Particle Count, Pressure.

