







Environmental

Compliance as a service

A secure and future proof solution for improving

efficiency in environmental compliance with lot enabled

Environmental Compliance as a service

Product Launch - Eupry Validation Software





it.

At Eupry, we increase the level of quality and lower the amount of time spent maintaining

Jakob Konradsen, Co-Founder and Head of Quality at **Eupry**

Environmental Monitoring is not a new invention, and today there are a vast number of options available, from manual handwritten logging and USB-logging to more automated logging systems connected via the Internet.

The uniqueness of **Eupry's business concept** is that it almost completely renders the need for daily involvement from staff members obsolete.

Using our solution, 95% or more, of all logging and maintenance routines will be handled by us.

Dependent on the level of the service agreement, we will manage and schedule the replacement of Eupry data loggers with newly calibrated loggers, without any downtime at all - That is what we call Compliance as a service, says **Jakob Konradsen**, **Head of Quality at Eupry**.



Features

Eupry Services

Get the best introduction to Eupry's concept **03**, learn about monitoring **06**, customer statements **08**, compliance features **11**, and mapping and solution **15**

Features: Eupry Validation Software

See Page 29



Eupry Products Variants

Learn about the features of our Data Logger 17, Our multiple sensors 18, and probes 21

Also: How is Eupry mapping conducted

See Page 14



Eupry Software Variants

Watch real time and historic measurements in a user friendly online environment with Eupry Temperature Monitoring system **27**, Dashboard **28**, Validation Software **29**, Temperature Mapping Software **30**, Software features **31**







The Eupry Concept

Eupry provides a custom solution that is tailored to your exact needs. With Eupry, you get access to all our services.



QualificationsReduce risk and

valuable time during qualifications



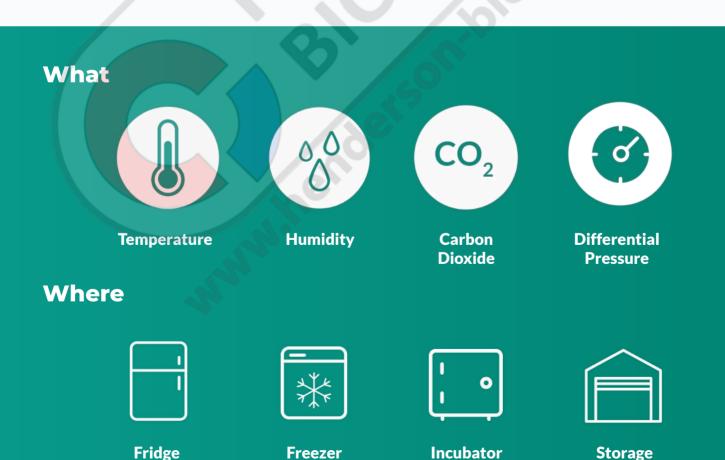
Calibrations

Automated calibrations made to reduce downtime and cost



Monitoring

Free up time with intelligent monitoring and deviation management software





Service is our main product

Eupry's services allow you to stay compliant at all times, and provide ease of mind



Is your process of monitoring and calibrating data loggers Still not automated?



It's a **time-consuming task** monitoring fridges, freezers, and storage rooms. Knowing that authorities will look through paper-based temperature documentation as the first topic on the agenda at a visit, can additionally make it a nerve-breaking and exhausting sum of tasks.

We know you do your best to keep up with the workload and the requirements set forth and do your utmost to live up to the standards.

We are here to present a solution that will enhance the level of quality and free up your time in the current process. With our solution, you can confidently let your laboratory technicians and QC/QA department get back to maintain their other much more business-critical tasks.

Is your time on monitoring-related tasks

Spent efficiently?

From experience a client with 30 data loggers spends **900 hours** yearly maintaining compliance



... on time-consuming task such as

- Documenting temperatures
- Understanding deviations
- Fixing technical issues
- IQ OQ PQ
- Repairs
- Guarantees
- Training
- Disposal
- Updates
- Requirement Analysis
- Sourcing
- Instrument Administration
- Compliance to calibration standards
- Calibration
- Instrument Deviations



Eupry offers the

Complete Solution



Wi-Fi Data Logger



Online Access



Quality Reporting



Automated Calibration

Imagine always being compliant

without having any concerns

Using a USB-temperature data logger to manually monitor the temperature in fridges, freezers, and incubators is an extremely time-consuming task. And having to do it twice daily, generates a series of additional compliance tasks while exposing the process to errors. For every freezer, fridge, or incubator our service will save you up to 30 hours a year in compliance work. For a company with 100 units, this amounts to 3,000 man-hours every year. What could you imagine doing with this time?

Eupry allows you to measure environmental parameters such as **Temperature**, **Humidity**, **CO2**, **and Differential pressure** while having integrated a full-service package around it. Thereby, additional time can be saved on compliance tasks such as deviation management, data logging, alarms, etc. **This is what we call Compliance as a Service**.

Using Eupry all you have to do is



Handle potential alarms



Switch sensors yearly

and recalibration now only takes



...Yes, you read that right!







Biotech Industry

Novozymes: the world leader in biosolutions

"The calibration of the Eupry temperature loggers is both easy and quickly done. I received a box by mail with the new probes and batteries. Everything worked and fitted as it should and the reliability of the loggers was proved.

It took me under an hour to calibrate about 40 loggers – including the time it took to find the refrigerators. The Eupry loggers are important for each of our departments in keeping a high quality of all freezers and refrigerators. I can **recommend** Eupry to anyone."

Kasper H. Christophersen

Research Associate at **Novozymes**





Logistics Industry

DSV Sweden: Global Transport and Logistics

"The response times and availability from Eupry were very impressive. We have continuously been in contact with each other every step of the way.

They helped us carry out various tests and assisted in the interpretation of the data – coming up with suggestions or feedback on whether the results were compatible with our requirements. It was undoubtedly a well-put partnership"

Joakim Sund

Qualitative Assurance Specialist at **DSV Sweden**







Logistics Industry

GENERA RESEARCH

Genera Research: Setting new pathways for the innovation in spinal surgery

"First, Eupry is a time saver! In comparison with manual temperature monitoring, Eupry saves us more than 500 working hours yearly, allowing us to use that time for other important tasks, increasing the productivity of lab personnel.

Second, automated temperature monitoring and recording allow us to relax during the weekend or out of working hours, knowing that the temperature is automatically recorded and easily monitored via the Eupry app, giving us reliable alarm notifications if temperature deviation occurs.

Dora Adanic,

Chief Operating Officer at Genera Research



Accredited by DANAK ISO 17025

Our highly rated ISO 17025 accredited laboratory might be the world's most automatic and digital ISO 17025 accredited laboratory. This grants us the **advantage** of making **reliable calibrations** at lightning speed.



Hardware Validation

Following the process of the V-model, our hardware components are validated, developed, and maintained accordingly. Our rental model ensures that all data loggers are thoroughly checked and serviced each time they are calibrated, which allows for a high rate of reliability.



IT Validation

IT and software are validated based according to the V-model. Change management procedures are enforced by Eupry.



Data storage and ownership

Data is owned by the client. Eupry host the data for +10 years (or longer if needed). Data can be regularly downloaded by the client and it is possible to completely remove data if desired.



21 CFR Part 11

Live up to FDA requirements by using Eupry's 21 CFR Part 11 enabled software solution! You get password/ pin code protected changes, audit log solutions, and a user/ role hierarchy so you can keep track of every action in the system.



IQ, OQ, Qualification

Use our handy IQ and OQ qualification document-package, while implementing Eupry.



Questions and Audit

We are open to discuss all quality-related matters, and we will gladly open our doors for an on-site audit.



Data Security

All data transmitted between services is encrypted using AES. Hosting partners hold ISO 9001, ISO 27001, ISO 27018, Cyber Essentials Plus, and G-Cloud certifications. Databases are ongoingly backed up.



Do mapping sessions cause you

great uncertainty?



The final part of validating a storage area-refrigerated or -ambient - is the thermal mapping study. This is where it is tested and verified that it can store contents as it is specified to. It is crucial that this study is conducted as reliable as possible, as it can require several runs before all equipment is adjusted.

Have you ever experienced

Delays during or after?





Unexpected delays

If temperatures are not regulated correctly or if a door is opened accidentally, the test is unsuccessful. You will first notice this when the data has been exported. This can cause delays in the validation process as yet another test needs to be conducted.

From $OQ \rightarrow PQ$

When the first test is completed, you need to collect each data logger at their position - plug it into the USB-port, export documentation, collect and add all data to the same spreadsheet and start calculating. Next, data loggers have to be reprogrammed and placed in the same positions as to where they were taken from. On average, this takes 4 minutes per data logger. With 100 data loggers, this amounts to 7 hours.

Data analysis

Having exported all data, you need to create a report containing the calculations and results of the study. The work is extremely time consuming and there is a great risk of mistyping information, potentially causing quality deviations.

Matching documents

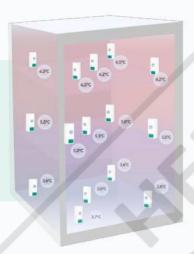
In the final stages, all documents need to be matched and referenced. All data loggers are shipped to perform exit calibrations and in return, you receive calibration certificates. The process requires waiting 7 days for calibrations to be processed. There is a great risk of misplacing certificates and references during this process.





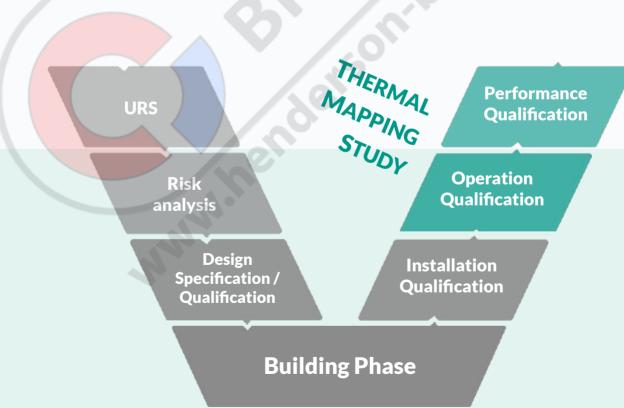
For most people, a fridge is 5 degrees cold.

However, the final part of the validation process - the thermal mapping study - will reveal much more than first anticipated.



With Eupry's mapping solutions,

We will zoom in on your fridge and show that it is a world of temperatures.







GxP Mapping Equipment as a Service

Receive a mapping kit within few days from ordering, worlds best mapping software and remote support from experienced quality staff.

This includes:

- From 1 to 500 Data Loggers
- Automated Accredited Yearly Calibration
- Premium Mapping Software Package



Full Remote Validation Service

Let us deliver high quality protocols, analysis' and reports. The secret is a state of the art software where you can monitor the entire process. **This includes:**

- Everything from GxP Mapping Kit
- Online Consulting
- Protocols, Analysis & Reports
- Global validation service is performed in fastest possible time



Full Onsite Validation Service

Use our team of experienced validation experts. We perform and execute validations globally for you to get the full experience of a well and timely performed validation process without errors. **This includes:**

- Everything from GxP Mapping Kit
- Online Consulting
- Protocols, Analysis & Reports
- Performance/Execution



IQ/OQ Protocols

Our specialists will help you to generate IQ/OQ protocols



Training

We offer online and onsite professional training packages



IQ/OQ Performance

Professional staff executing a performance validation



GxP Consultancy

Our quality experts are always there to help you



We simplify the mapping process below is illustrated the four steps of performing mappings with our kit.



Step 1. Receive the kit consisting of 15 calibrated data loggers and a ug-renter (SIM-card included).



Step 2. Place the loggers inside your -20 freezer/fridge/incubator and plug the router to power.



Step 3. Data will automatically be uploaded to our software. The software will provide various tools for you to analyze data as efficiently as possible.



Step 4. Once you've analyzed the data and conducted your report, simply ship the equipment back to Eupry.



Eupry's Products

The variants at Eupry that facilitate a custom-tailored solution

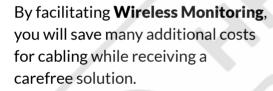


Eupry Data Logger

Eupry's Wifi Data Logger

All of Eupry's monitoring solutions center around the **Eupry Data Logger**. Used together with one of the **Eupry Sensors**, the data logger uploads the data and sends alarms. The data logger is easily set up and connected to the Wifi using the free **Eupry Connect App**.

The Eupry data logger is secure, has high uptime, and there are no hidden operating costs.



Different mounting options are available for the data logger. **Call us** today to hear what we can do for you.





Technical Specifications	
Measurement Frequency	from 10 sec to 1 hour
Memory	10,000 Measurements
Data Connection	Wifi 2.4GHz 802.11 b/g/n - End-to-End Encrypted
Casing Certifications	CE & ROHS
Power	2 x AA batteries (Lithium recommended)
Identification	Unique GS1 GRAI Code
Display	Wi-Fi Status & Measurement Status
Unit Dimensions	91.5mm x 37mm x 33mm
Casing Material	ABS Polymer
Alarm Types	SMS, Email, Phone
Hardware Guarantee	Yes

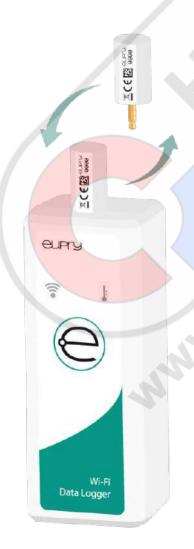


Eupry Sensors

Eupry's Aliio Temperature Sensor

The Eupry Allio Temperature Sensor is an External Sensor that measure Temperature. The External Sensor can be connected to a **Data Logger**.





Technical Specifications		
Opera	iting Range	-50°C to +50°C (-58°F to 122°F)
Temp	erature Resolution	0.01°C (0.018°F)
Temp	erature Accuracy	Dependent on Calibration
Drift/	Year	±0.03°C (0.054°F)
Senso	r Туре	Digital / Silicon bandgap sensor
Thern (τ)	nal Response Time	60s
Heigh	t (w. Logger)	33 mm (113 mm)
Cap M	laterial	РОМ
Unit V	Veight	7g

'Swappable' Sensors

Aliio compatible sensor is put into the Eupry data logger and will be swapped yearly when calibration is due.

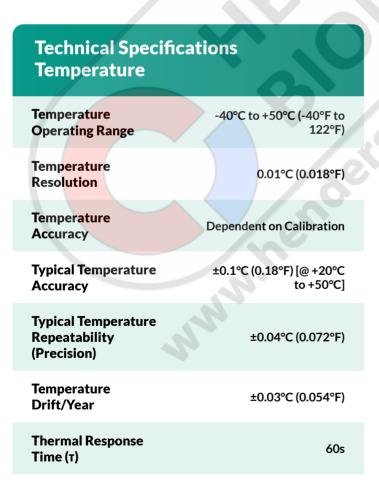


Eupry Sensors

Eupry's External Temperature & Humidity Sensor

Eupry's Humidity Sensor is an External Sensor that measure temperature and humidity. The External Sensor can be connected to a **Data Logger**.

The sensor has a simple plug & play installation process.



Technical Specifications Humidity	
Humidity Operating Range	0-99% RH (Non-condensing)
Humidity Resolution	0.01% RH
Humidity Accuracy	Dependent on Calibration
Typical Humidity Accuracy	± 1.5% RH [0-80 %RH] ± 2% RH [80-99% RH]
Humidity Drift/Year	<0.25 %RH (@ 0-80% RH)
Sensor Type	Digital
Diameter	11 mm
Length (Installed) Length (Total)	22 mm 33 mm

Eupry Sensors

Eupry's External CO2 Temperature & Humidity Sensor

Eupry's Humidity sensor is an External Sensor that measure CO2, temperature and humidity. The External Sensor can be connected to a **Data Logger**. The sensor is e.g. used in CO2 Incubators.

The Data Logger and the External Sensor can be placed in the CO2 Incubator. The sensor has the same technical temperature specifications as the sensor without Co2 besides an operating range of -20 to +50 °C.



Humidity Operating Range	0-99% RH (Non-condensing)
Humidity Resolution	0.01% RH
Humidity Accuracy	Dependent on Calibration
Typical Humidity Accuracy	± 1.5% RH [0-80 %RH] ± 2% RH [80-99% RH]
Humidity Drift/Year	<0.25 %RH (@ 0-80% RH)

Sensor Type	Digital
Diameter	11 mm
Length (Installed) Length (Total)	22 mm 33 mm

Technical Specifications Co2

•	
CO2 Operating Range	0-25 % - 0-250,000 ppm
CO2 Resolution	15 PPM (16 bit)
CO2 Accuracy	Dependent on Calibration
Typical CO2 Accuracy	± 0.7 % [5 % - 50'000 ppm] >±1.75 % (1 vol % + 3 % m.v) ± 0.8 % [8 % - 80'000 ppm]
CO2 Repeatability (Precision)	0.2 vol %



Eupry's External Temperature Probe

Eupry's temperature probe is an External Sensor that measure temperature. The External Sensor can be connected to a **Data Logger**.

They are mainly used in freezers. The probe has a unique flat silicone cable which can pass uninterrupted inside fridges & freezers, protecting door seals.



Technical Specifications

Operating Range	-90 °C to +50 °C (-130 °F to 122 °F)
Temperature Resolution	0.03 °C (0.054 °F)
Temperature Accuracy	Dependent on Calibration
Typical Temperature Accuracy	±0.5 °C (±0.9 °F) [@-90 °C to +50 ° C]
Sensor Type	Digital / PT100
Thermal Response Time (τ)	9s
Flat Cable Thickness	1 mm
Flat Cable Bending Radius	6 mm
Total Cable Length	2.5 m



Eupry's External High Precision Temperature Probe

Eupry's High Precision Probe is an External Sensor that measure temperature. The External Sensor can be connected to a **Data Logger**. It is mainly used in freezers with requirements of higher precision than our temperature probe can provide. It has the same thin silicone cable, but a shorter black jack cable.



Technical Specifications

Operating Range	-55°C to +150°C (-67°F to 302°F)
Temperature Resolution	0.01 °C (0.018 °F)
Temperature Accuracy	Dependent on Calibration
Typical Temperature Accuracy	±0.1 °C (0.018 °F) [@ -20 °C to +50 °C]
	±0.3 °C (0.54 °F) [@ -55 °C to +150 °C]
Temperature Repeatability (Precision)	±0.01 °C (0.018 °F)
Temperature Drift/Year	±0.03 °C (0.054 °F)
Thermal Response Time (τ)	9 s
Sensor Type	Digital
Cable Length	1.8 m



Temperature Teflon Probe

Eupry's Temperature Teflon Probe is an External Sensor that measure Temperature. The External Sensor can be connected to a **Data Logger**.

The Teflon cable is very robust, which is good for ultra low freezers or nitrogen tanks.







Technical Specifications

Temperature Operating Range	-200 °C to +200 °C (-320.8 °F to 392 °F)
Temperature Resolution	0.03 °C (0.054 °F)
Temperature Accuracy	Dependent on Calibration
Typical Temperature Accuracy	±1.0 °C (±1.8 °F) [@-90 °C to +200 ° C]
Thermal Response Time (τ)	9s
Sensor Type	Digital
Teflon Cable Thickness	3 mm
Total Cable Length	2.5 m
Cable Length	1.5 m
Certifications	RoHS
Identification	Unique GS1 GRAI Code



Eupry's

Temperature & Humidity Probe

Eupry's Temperature & Humidity Probe is an External Sensor that measure Temperature and Humidity. The External Sensor can be connected to a **Data Logger**.



 $\begin{array}{ll} \textbf{Temperature} & -40^{\circ}\text{C to } +100^{\circ}\text{C } (-40^{\circ}\text{F to} \\ \textbf{Operating Range} & 212^{\circ}\text{F}) \end{array}$

Temperature 0.01°C (0.018°F)

Temperature
Accuracy
Dependent on Calibration

Typical Temperature ±0.1°C (0.18°F) [@ +20°C Accuracy to +50°C]

Typical Temperature
Repeatability ±0.04°C (0.072°F)
(Precision)

Temperature ±0.03°C (0.054°F)

Thermal Response 60s

Technical Specifications Humidity

Humidity Operating Range	0-99% RH (Non-condensing)
Humidity Resolution	0.01% RH
Humidity Accuracy	Dependent on Calibration
Typical Humidity Accuracy	± 1.5% RH [0-80 %RH] ± 2% RH [80-99% RH]
Humidity Drift/Year	<0.25 %RH (@ 0-80% RH)
Sensor Type	Digital
Max Diameter	16 mm
Total Cable Length	2.5 m



Time (T)

Eupry Products

External Temperature Thermocouple Probe

Eupry's Temperature Thermocouple Probe is an External Sensor that measure Temperature. The External Sensor can be connected to a **Data Logger**.

The Thermocouple sensor can measure very high temperature, up to 1100°C.



Technical Specifications		
Temperature Operating Range	-40 °C to +1100 °C	
Temperature Resolution	0.25 °C	
Temperature Accuracy	Dependent on Calibration	
Typical Temperature Accuracy	±10°C	
Thermal Response Time (τ)	9s	
Sensor Type	Thermocouple	
Teflon cable thickness	1.5 mm	
Stainless steel cap thickness	1.5 mm	
Stainless steel cap length	0.5 m	
Teflon cable length	1.5 m	
Certifications	RoHS	



Eupry's Softwares

Watch real time and historic measurements in a user friendly online environment.



Eupry's Temperature Monitoring

Eupry Temperature Monitoring system is the software used to view the data from **Eupry Data Logger**.



External Sensor

An External Sensor can be connected to the Data Logger to measure different parameters.

WiFi Data Loggers

WiFi Data Loggers connect to either the Eupry provided WiFi access point or the users local WiFi access point and send the encrypted data via WiFi.



WiFi

If connected to the internet, the data is then transferred securely via the internet to Eupry's cloud database.

Mobile and web applications

Via the mobile or web application, the data stored in the database can be viewed and exported.



Cloud Database

The data is stored anonymously in the Eupry Cloud Database.





Eupry's Dashboard

Eupry Dashboard is an overview of all the alarms specific to a Profile or Location, within a selected period.

1. Download as CSV

By pushing this button, it is possible to download the information in the Dashboard as a CSV file.

2. Location

Shows the location name of the alarm that has been registered in the Dashboard

3. Profile

Shows the Profile name of the alarm that has been registered in the Dashboard.



4. Alarm Type

The name of the alarm type, that has been created for the Profile in Eupry Monitoring

5. Data Logger

The name of the alarm type, that has been created for the Profile in Eupry Monitoring

6. Start & 7. End

The time of when the alarm started and when the alarm ended.

8. Peak Time

The time of when the alarm was peaking.

9. NC Type

NC type is a specially made alarm that can only be viewed in the Dashboard.

10. Last alarm entry

The last entry that has been written to the alarm inside Eupry Monitoring.

11. Link to alarm

The last entry that has been written to the alarm inside Eupry Monitoring.



Eupry's Validation software

Start a Thermal Validation process quickly and easy with the **Eupry validation software**. The validation software has Step-by-step guides that limits user errors, worries and saves you a lot of time!

It allows you to make sure all thermal validations are done the exact same way even on all your remote locations. With Eupry's data loggers and Temperature Mapping software you are powered for all situations.

The user friendly online platform is globally accessible, possible to use from a number of browsers, from all over the world.





IT Validated

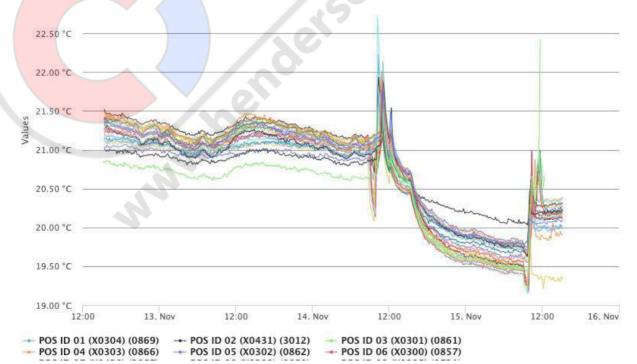
Eupry's Temperature Mapping Software

Eupry's Temperature Mapping software is a platform that is used to analyse the data made during a temperature mapping.

The software is IT validated and used with Eupry ISO 17025 accredited **data loggers**.

The software is a data viewing and export tool designed for use in temperature mapping exercises, and other applications where data exploration and viewing is desired.

The Software shows data measured by **Eupry Data Loggers**, viewing a large amount of data loggers at the same time is easy. Data analysis and calculations are done live and it is also fully synchronized with Eupry's other software products.







10 essential software features included with Eupry



SMS, Email, and phone alarms



From 3 years to unlimited data storage



Greyzones (Alarm delay etc, Ongoing alarms)



FDA 21 CFR Part 11 compliance



Access on smartphone



Unlimited users and User level Permission Control



Advanced PDF and Data reports



Backup and uptime guarantee



Integrations via Secure REST API



Deviation handling -Online Log book



Online calibration certificate



Alarm Dashboard





A Turnkey Monitoring Solution

User-friendly software

Ease of use and security are fundamental to Eupry's online documentation system, the Eupry Monitoring Software. The system is IT validated and compliant to FDA 21CFR PART 11. Temperature data logging is illustrated in graphs and data can be exported in the approved PDF-format.

Find documentation for recent ISO17025 calibrations and manage data logs in multiple locations.

No need to install any software as it's running online.



Designed to be used by anyone with a critical need to monitor ambient conditions right from your preferred browser.



Eupry Monitoring

The Eupry Monitoring website is optimized for use on mobile platforms, and compatible with all browsers.



Eupry Logger



Eupry Connect





Frederikssund

EUPTY



contact@eupry.com

Hejrevej 28 2400 Copenhagen Denmark

eupry.com

Our customers are

- Pharmaceutical Companies
- Biotech
- Pharma distribution
- Food production Labs
- Molecular Research Labs
- Hospital Labs
- Research Laboratories
- Forensic & Crime Labs
- Pharmacies



+44 (0)20 8663 4610

info@henderson-biomedical.co.uk

Unit 3
Swan Close
Croydon
CR0 2DZ
United Kingdom

www.henderson-biomedical.co.uk

OFFICIAL UK PARTNER



LABORATORY EQUIPMENT MAINTENANCE, REPAIR, CALIBRATION AND SALES

Established in 1987, Henderson Biomedical is the UK's leading laboratory equipment sales and service provider. Our knowledgeable team can provide you with excellent sales advice on a range of different types of laboratory equipment including centrifuges, refrigerators, freezers and heat sealers.

Henderson Biomedical is also able to provide you with first class after-sales service and calibration of your laboratory equipment. We are an **ISO 17025 (UKAS) accredited calibration test laboratory** and our team of Field Service Engineers cover the whole of the United Kingdom.

Please contact us for more information on the types of equipment we supply and the different after-sales services we can offer.

Henderson Biomedical

Unit 3, Swan Close Croydon CRO 2DZ United Kingdom

Tel: 020 8663 4610

