

# ValProbe<sup>®</sup> RT CO<sub>2</sub> Logger

## MULTIFUNCTIONAL DATA LOGGER FOR CO<sub>2</sub>, HUMIDITY AND TEMPERATURE



The 3-in-1 data logger from the Kaye ValProbe RT product line offers the capability to measure critical parameters such as CO<sub>2</sub> (carbon dioxide), relative humidity (RH), and temperature with a single device. For applications where these measurements are quality-critical, the Kaye ValProbe RT CO<sub>2</sub> Logger provides economical, accurate, and GxP-compliant recording and documentation of these parameters.

The ValProbe RT CO<sub>2</sub> Logger, combined with Kaye Software, also provides the capability to automatically verify the temperature and humidity sensors on a regular basis, ensuring the unit consistently delivers accurate measurements.

The measurement and validation of CO<sub>2</sub> play an important role in various applications during the qualification and commissioning of equipment. The latest innovation in the Kaye ValProbe RT product line extends the measurement capabilities for users. It achieves this without compromising on accuracy, reliability, and GxP compliance.

This extension broadens the range of applications for the Kaye ValProbe product line by providing an additional multifunctional measurement tool, especially relevant for applications where simultaneous measurement of CO<sub>2</sub>, RH, and temperature is critical for product quality.

The CO<sub>2</sub> sensor is based on the proven non-dispersive infrared (NDIR) technology, providing high measurement accuracy, long-term stability, and low power consumption—particularly important for battery-operated data loggers.

With additional features such as a storage capacity of up to 100,000 data points per channel and on-site replaceable CO<sub>2</sub> and RH sensors, the Kaye ValProbe RT CO<sub>2</sub> Logger rounds out the complete technical package. Thus, it offers a state-of-the-art solution for reliable and precise monitoring of critical process conditions.

## FEATURES

- CO<sub>2</sub>, RH, and temperature sensors in one measurement unit
- Very high accuracy and long-term stability
- Enhanced electronics with extended battery life
- 100,000 data points per sensor type
- Data recording intervals: 10 seconds to 10 minutes
- On-site replaceable battery
- On-site replaceable CO<sub>2</sub>, temperature, and RH sensors
- Supported from ValProbe RT software version 1.3

## APPLICATIONS

The measurement of CO<sub>2</sub> is important in several areas of the pharmaceutical industry, including:

- CO<sub>2</sub> incubators and stability chambers: Ensuring optimal conditions for cell growth and stability
- Cell culture: In biotechnology and cell therapy research, controlling the CO<sub>2</sub> concentration is crucial for the growth and vitality of cells
- Warehouses and storage rooms: Maintaining the quality of stored food or pharmaceuticals with controlled temperature and CO<sub>2</sub> concentration
- Fermentation: Monitoring CO<sub>2</sub> is essential in the fermentation process during pharmaceutical production

## TECHNICAL SPECIFICATIONS

CO <sub>2</sub> Measurement Range	0 – 20%
CO <sub>2</sub> Accuracy	0 to 7.5% – ±0.4%
	7.5 to 9% – ±0.6%
	9 to 12.5% – ±1%
	12.5 to 20% – ±1.5%
CO <sub>2</sub> Resolution	0.01%
Measuring Principle	NDIR (Non-Dispersive Infrared Sensor)
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Temp. Measurement Range	0°C – 50°C
Temperature Accuracy	± 0.15°C
Temperature Resolution	0.01°C
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RH Measurement Range	15 – 95 % non-condensing
RH Accuracy	±2.0% (up to 95%)
RH Resolution	0.1%

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