C-CIT MeMo System

Glucose & Lactate Sensor featuring Bluetooth Communication

Obtain continuous, in-line data, without disturbing your culture



Our C-CIT Sens glucose & lactate sensors allow for the continuous in-situ monitoring of glucose and lactate within a defined cell culture media. This sensor system is unique, delivering real time information on the culture's growth behavior and metabolic state throughout the process. Data is generated at a 20 second frequency and is continuously sent to the database via Bluetooth communication. Process control based on the online measured kinetics of glucose consumption and lactate accumulation has become reality.

The single-use sensor comes as a standard product. Available as a reactor probe containing a PG13.5 thread or as a flow cell sensor, it can also be custom manufactured as a cap sensor fitting capable of being integrated into the majority of brands. The sensors are delivered double packaged and gamma-sterilized and stored at 4° C. Our system includes a handheld computer with pre-installed CITSens software, Bluetooth beamers, and a battery charger.

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Features & Benefits

- Available for low (<3 g/l) and high (<8 g/l) glucose media
- Available without or with feed pump for complete process control
- Measure 2 parameters with one single sensor
- Continuous in-situ measurement of glucose and lactate
- Wireless Bluetooth communication
- Easy and fast process development at lowest investment and running cost
- Dimensions:

 - Tip diameter: 8 mm
 - Thickness: 0.15 mm
- Glucose Analytes:
 - Glucose Measuring range 0 48 mmol/L 0 8.0 g/L
 - Precision +/- 0.5 mmol/L
 - Resolution 0.1 mmol/L
- Lactate Analytes:
 - Measuring range 0 15 mmol/L 0 1.35 g/L
 - Precision +/- 0.5 mmol/L
 - Resolution 0.1 mmol/L
- Low risk of contamination
- Real time information and automation
- Eliminate the need for manual sampling
- Allows for full control over a completely closed environment

Applications & Uses Include

- Bio-production using mammalian cells
- Vaccine production
- 2D tissue cultures
- 3D tissue cultures
- Organoids
- Organ perfusion (full blood)
- Cell & gene therapy
- T-cell expansion
- Glucose and lactate monitoring in:
 - T-flasks
 - Shake flasks
 - Perfusion bioreactors