

AL2021SC

CONTINUOUS H_2O_2 MONITOR

FOR AIR AND LIQUID SAMPLES IN PPB RANGE

AL2021SC H_2O_2 ANALYZER

ONE STEP AHEAD IN FILLING OF INJECTABLES

Sterility is the key factor in the filling of pharmaceuticals and vaccines. To separate people from the work area, isolators or RABS (Restricted Access Barrier Systems) are increasingly used for aseptic filling. To ensure the sterility, the isolator is decontaminated with vaporized H_2O_2. The H_2O_2 fog is then removed from the air by air exchange until a predetermined concentration threshold is reached. In general, this process is monitored with electrochemical sensors that are sensitive down to about 1 ppm. For many vaccines or enzymes this concentration is far too high. The maximum possible concentrations are 20 - 50 ppb, otherwise the product will be destroyed.



RABS (symbol picture)

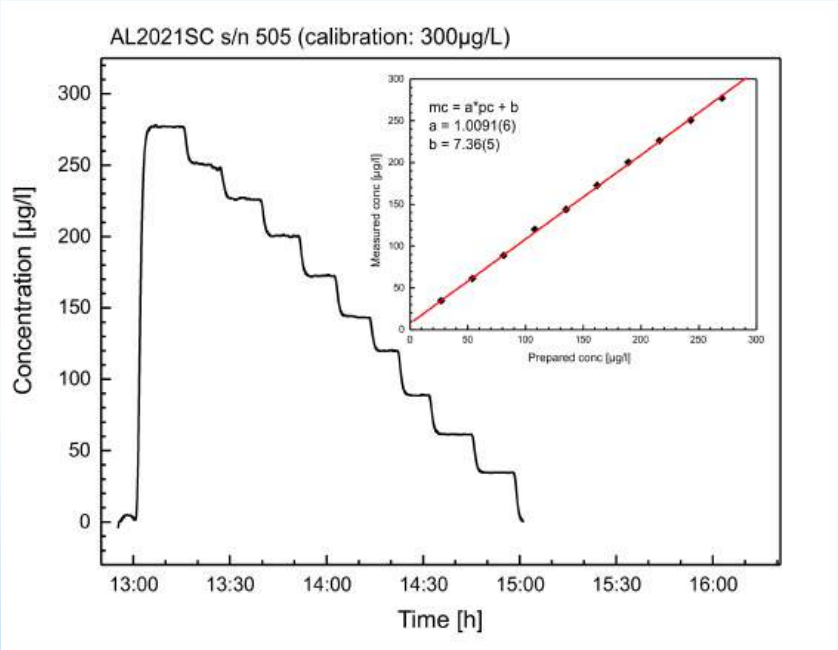
The AL2021SC closes this gap. It measures H_2O_2 using a fluorimetric method with a linear range from < 1ppb to ~2ppm. The measurement is near real-time and provides live data on the H_2O_2 concentration in the isolator or RABS. Unlike other instruments, the AL2021SC can handle both gas and liquid samples. This feature makes it easy to measure the uptake of H_2O_2 from the air inside the isolator into the injectable during filling. It also significantly simplifies calibration, as it can be performed using an easy-to-prepare liquid standard.



MRNA vaccine (symbol picture)

Simplicity is the key

The AL2021SC measures at the outlet gas stream of the isolator and is not connected to its interior. Therefore, it does not need to be sterile itself. Its fully automated operation and intuitive design ensure that the AL2021SC can be easily used by anyone in your team, eliminating the need for specialized training. This ease of use, significantly reduces the workload, allowing your team to focus on what they do best. Low maintenance requirements and automatic calibration, further contribute to your operational efficiency. With the included remote software it is possible to monitor the decontamination process without the time-consuming procedere of entering a clean room.



Linearity of the AL2021SCL H_2O_2 analyzer in the range up to 300µg/L

A catalyst for cost efficient productivity enhancement

The AL2021 is not just another piece of equipment; it is the key to unlocking greater process reliability, significantly reducing production rejects and downtime. Its impact on throughput and productivity is significant, enabling you to achieve more in less time. With traceability features, it ensures that you have a clear record of your processes, further enhancing quality control.

Specifications

Detection techinque:	Continuous, using enzymatic reaction (peroxidase)
Detection limit:	<100ppt (gaseous), <100ng/L eq. <2×10-9 molar (liquid)
Linear range:	0.1ppb to 3000ppb (gaseous), 100ng/L - 3mg/L (liquid)
Noise:	2% full scale
Time resolution:	~90sec (10/90)
Sample:	Liquid and gas
Calibration:	Automatic, using liquid standard
Intergration:	RS232 and LAN interface, data logging software available
Operation data visualization:	Graphic user interface (7" touch panel) and remote via RS232/LAN
Data storage:	USB drive and internal data backup
Weight and dimensions:	15kg, fit for 19" rack (whd: 45cm x 15cm x 56cm)
Power requirements:	110VAC / 220VAC, <30W

AERO-LASER GMBH

Unterfeldstr. 12
D-82467 Garmisch-Partenkirchen
Germany
Tel: +49 8821 94386-0
info@aero-laser.de
www.aero-laser.de

Follow us on LinkedIn