



# AL 2021SC

CONTINUOUS H<sub>2</sub>O<sub>2</sub> MONITOR  
FOR AIR AND WATER SAMPLES IN PPB RANGE

# AL2021SC



## CONTINUOUS HYDROGENPEROXIDE MONITOR FOR AIR AND WATER SAMPLES IN PPB RANGE

### Features

- ▶ Continuous online monitoring of H<sub>2</sub>O<sub>2</sub> emissions with unique sensitivity of 100ppt
- ▶ Analysis of gaseous and liquid samples with only one instrument
- ▶ Designed for pharmaceutical industry
- ▶ Ideal for H<sub>2</sub>O<sub>2</sub> monitoring during decontamination of isolators
- ▶ Easy to calibrate
- ▶ Easy to use touch screen control. Stand-alone operation and data storage possible
- ▶ Remote control by PC or Android tablet

### Specifications

Detection technique:	Fluorimetric, using an enzymatic peroxidase reaction
Linear range:	0.1ppb to 2000ppb (gaseous), 150ng/liter - 5mg/liter (liquid)
Detection limit:	<100ppt (gaseous), <150ng/liter eq. <2×10 <sup>-9</sup> molar (liquid)
Time resolution and delay:	90sec (10% - 90%), ~300sec delay
Noise:	2% full scale
Sample gas temperature:	>0° C to +120° C
Calibration & zeroing:	Automatic zeroing and semi-automatic calibration, using liquid standards or automatic calibration, using internal gas generator (optional)
Operation:	Operation via touch screen on front panel and remote via Android tablet or PC
Connectivity:	LAN, RS232 (SQL-based graphic data logging software available)
Data storage:	Internal or USB storage
Data output:	Numeric/Graphic on display
Weight and dimension:	15kg, fit for 19" rack (whd: 45cm × 15cm × 56cm)
Power requirements:	110VAC / 220VAC, 110W, 24VDC on request

## Decontaminaton

Hydrogen Peroxide is an excellent oxidizing agent. Vaporized it can reach every corner and destroy bacteria, viruses, fungi etc. Pharmaceutical production lines are decontaminated this way. After the decontamination process it must be sure that there are no traces of  $H_2O_2$  left inside the isolator, otherwise it could destroy the products. With the AL2021SC the  $H_2O_2$  concentration can be continuously monitored in ranges below 1ppm.



## Fields of Application

- ▶ Online monitoring of  $H_2O_2$  in ppt - ppm range
- ▶ Process control for decontamination with  $H_2O_2$
- ▶ Quality control of isolators in pharmaceutical industry
- ▶ Process control in chemical industry
- ▶ Check of anti viral air cleaners (COVID)

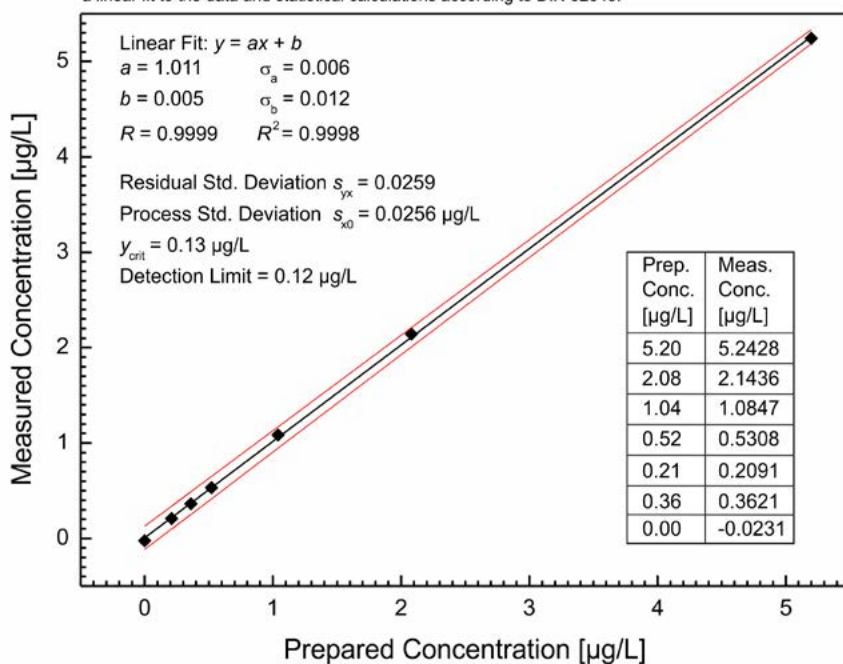


# AL2021SCL

## AL2021SCL

The AL2021SCL is optimized for the requirements of water industry. There is no gas path, which eliminates possible cross interferences from the ambient air. The unique accuracy and sensitivity down to 100ng/L makes it possible to detect even the smallest traces of H<sub>2</sub>O<sub>2</sub>.

After calibration with 5µg/L H<sub>2</sub>O<sub>2</sub> standard solution, the linearity and other statistic values were tested by preparing dilutions with well known concentrations from the standard. This plot shows a linear fit to the data and statistical calculations according to DIN 32645.

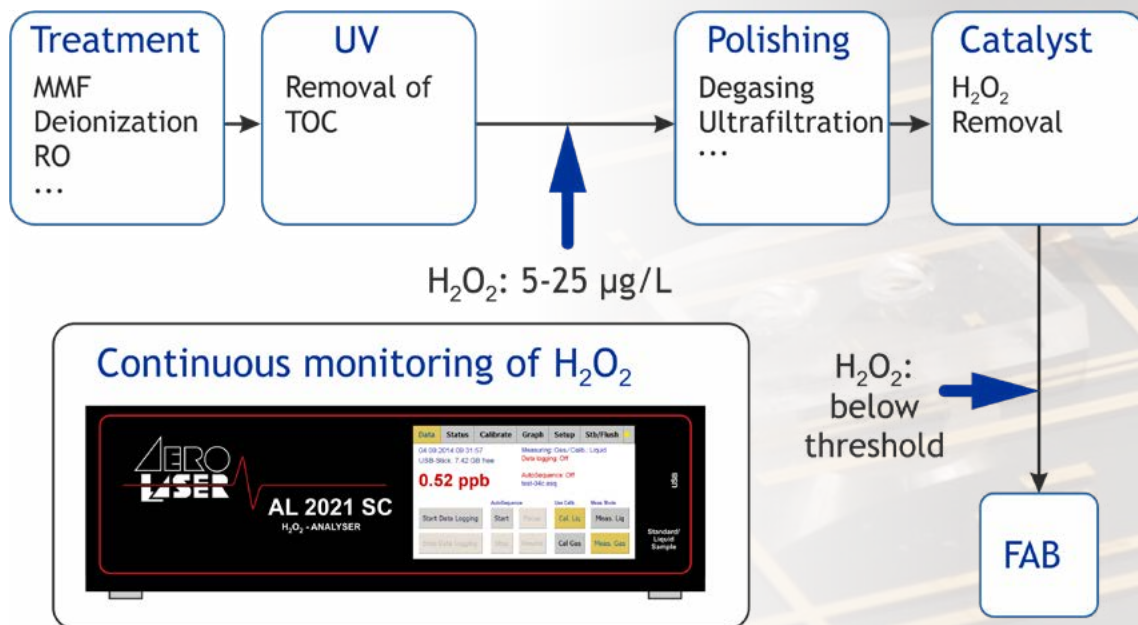


## Features

- ▶ Continuous online monitoring of H<sub>2</sub>O<sub>2</sub> emissions with unique sensitivity of 100ng/L
- ▶ Designed for water industry
- ▶ Ideal for H<sub>2</sub>O<sub>2</sub> monitoring of ultra pure water (UPW)
- ▶ Easy to use touch screen control. Stand-alone operation and data storage possible
- ▶ Remote control by PC or Android tablet

## Ultra pure water

The modern production of semiconductors with structures down to 3nm, opens up fantastic possibilities. But it also brings new problems. The thin structures are extremely susceptible to corrosion.  $H_2O_2$  is a strong oxidizer and it is produced during the UV treatment of ultra pure water. To avoid massive quality problems, the  $H_2O_2$  needs to be removed and the quality of the water has to be monitored. The AL2021SCL can be connected behind the catalyst and the UV treatment for the online monitoring of the ultra pure water.



## Fields of Application

- ▶ Online monitoring of  $H_2O_2$  in liquid samples down to 100ng/L
- ▶ Quality control of ultra pure water (UPW) in semiconductor industry
- ▶ Process control in chemical industry
- ▶ Quality control of drinking water
- ▶ Quality control of waste water



AERO-LASER GmbH  
Limited Liability Corporation for Gas Analysis  
Unterfeldstr. 12  
82467 Garmisch-Partenkirchen  
Germany

Tel: +49-8821-94386-0  
Fax: +49-8821-94386-18  
info@aero-laser.de  
www.aero-laser.de

Ust. IDNr. DE128353722  
AG München HRB 86788  
CEO: Dr. Matz Haaks

Follow us on

