



Environmental Sensors Co.

Glutaraldehyde Meter

Model Z-200XP

FEATURES

- Portable
- Internal Pump
- Rechargeable Battery
- Remote Sampling
- Simple to Use
- TWA, STEL and Peak
- Audible Adjustable Alarm
- Data Logging



INTRODUCTION

Z-200XP Glutaraldehyde Meter

Environmental Sensors Co.'s Glutaraldehyde Meter is a portable desktop instrument that measures glutaraldehyde concentration in a range of 0-20 ppm and a resolution of 0.01 ppm.

The instrument makes it possible to monitor glutaraldehyde vapor in air. The instrument has a LCD display giving concentrations in ppm every 10 seconds, a low battery indicator, and an audible alarm that can be set at any level from 0-20 ppm.

With the touch of a button, the meter displays STEL (average of every 15 min.), TWA (average of every hour) and Peak.

The internal pump makes it possible to sample from hard-to-reach areas or confined spaces by attaching a flexible tube to the meter.

Data Logging

The meter stores all of the exposure points for up to 14,400 at 10 sec. interval in 5 logs (a log is created in the instrument's internal memory each time it is used). A log contains: date, time, number of exposure points. All of the log files can be easily uploaded to PC using components available within the Microsoft Windows Operating System or the terminal software included with the instrument.

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SPECIFICATIONS

Sensor Type	Electrochemical
Measuring Range	0-20 ppm
Maximum Overload	20 ppm
Resolution	0.01 ppm
Sensor Life	>2 years
Response Time	< 60 sec.
Operating Temp.	-20 C° to +40 C°
Relative Humidity Range	15-90% non-condensing
Alarm	Audible, 80 db
Dimensions: HxDxW	7.5"x5.75"x2.75"
Weight	900 gms
Power Source	Internal Rechargeable Battery or AC Adaptor
Warranty	1 year

THEORY OF OPERATION

The sensing element of the instrument is an electrochemical cell. The cell is a four-electrode type, which contains a working and an active auxiliary electrode. The signal from the auxiliary electrode is used for temperature compensation and to improve the selectivity of the entire sensor. The sensor response is linear with the concentration of glutaraldehyde in air.

INTERFERENCES

The Z-200XP Glutaraldehyde meter uses two filters to eliminate many of the common interferences. Measurements are first made with a filter that permits determination of the background or baseline. Insertion of a second filter then permits the measurement of glutaraldehyde. The instrument prompts the user for all required actions.

The procedure is simple. Insert one filter, remove it, and insert another. With the use of the filter system, interferences are virtually completely removed. Only certain aldehydes and ketones need to be considered. The filters do not permit separations of these classes of compounds

Cross-Sensitivity Data

The actual concentration of interfering gases and the corresponding signals they give are shown below.

Gas	Concentration	Meter Output
Acetone	2 ppm	2 ppm
Methylethyl Ketone	2 ppm	0 ppm
Diethyl Ketone	2 ppm	2 ppm
Acetaldehyde	12 ppm	0 ppm
Acetic Acid	0 ppm	0 ppm
Ethylene	67 ppm	0 ppm
Methanol	125 ppm	0 ppm
Ethanol	55 ppm	0 ppm
I-propanol	44 ppm	0 ppm
Carbon Monoxide	40 ppm	0 ppm