

PICARRO

Workplace Monitoring System

for Ethylene Oxide (EO)

Picarro's Workplace Monitoring System leverages 25 years of experience in continuous monitoring and emissions quantification. The system provides accurate, reliable and defensible data, helping you minimize workforce exposure and meet vital compliance requirements.

The Picarro solution is designed to provide:

- Industry leading response time and accuracy.
- Facility wide coverage with up to 25 sampling locations.
- Seamless integration with facility alarm and notification systems.
- Real-time workplace exposure monitoring and notification.
- User-friendly interfaces for automated reporting, alarming, and notification.
- Ongoing support, maintenance, and system updates to maximize system longevity and performance.



COMPREHENSIVE SOLUTION

Picarro's advanced, real-time monitoring solutions establish a new standard in delivering reliable and defensible data. In addition, our commitment to your success goes beyond the sale of a system. We provide ongoing technical support and guidance through the evolving regulatory landscape. With access to the latest monitoring platforms and a complete service offering, you can have confidence in meeting regulatory compliance and a clear path to operational success.

KEY FEATURES



Response

Fast measurement rates at sub-ppb precision, high gas-flow rates, non-reactive materials deliver response in seconds.



Data Quality

A robust technology platform, immune to negative concentration readings and false spikes. An EO limit of detection (LOD: <1 ppb) compliant with current and future regulatory requirements.



Multipoint

Comprehensive facility and workforce exposure monitoring with up to 25 sampling points, for complete coverage in minutes.



Scheduling

Custom sequence scheduling and point dwelling, automated system zeroing, and span calibrations enable true turn-key operation.



Alarms

Seamless integration with facility alarm systems. Automated Data Quality tracking reduces false positive alarming.



User Interface

User-friendly, touch-screen interface with automated alarm notification, and user acknowledgement. Custom dashboards for reporting and data analysis.



TECHNICAL DATA

Measurement (Ethylene Oxide)	
Measurement Technique	Cavity Ring-Down Spectroscopy (CRDS)
Compliance	EPA FIFRA ID Compliant
Electrical Compliance	CE for 110V*
Sampling points	25 (down selectable)
Sample Flow Rate	5-10 LPM
System Response	< 5 seconds
Time per channel	17-30 seconds depending on sensitivity requirements.
Complete channel coverage	7-15 minutes depending on sensitivity requirements.
Process Monitoring Abilities:	Real-time In-Out Destruction Removal Efficiency (DRE) tracking for select scrubbing technologies.**
Limit of Detection (LOD)	0.25 ppb
Span	0.25 ppb – 100 ppm
Calibration and Zero	Automated
Data Quality	Automated
Other compounds measured	CO ₂ , CH ₄ and H ₂ O

Installation	
Power Requirements	110 VAC; 50/60HzA; 10 Amp circuit. Steady State Operation: 500 watts*
Certification	CE
Material	Chemical and abrasion resistant steel
Dimensions	600 x 800 x 1800 mm (23.6 x 31.5 x 70.9 in)
Weight	< 225 kg (500 lbs)
Protection	IPx0 for standard build
Operating Temperature	10 to 35°C (50 to 95 F)
Storage Temperature	-10 to 50°C (14 to 122 F)

*If user does not have facilities for 110V then an appropriate transformer that outputs 110V can be used.

** Discuss your scrubbing technology with a Picarro technical representative before setting up In-Out measurements.

Inputs and Outputs	
Zero Gas (if required)	UHP Nitrogen or Zero-Air, 3-5 psi
Reference Gas (if required)	100 ppb – 10 ppm (± 2-5%) Ethylene Oxide in a Nitrogen Matrix, 3-5 psi
Protocol Support	Modbus TCP/IP Serial 4-20mA Digital I/O (Modbus and OPC)