Comparing ethylene oxide (EtO) monitoring solutions

The Thermo Scientific™ MAX-iR™ OE-FTIR Gas Analyzers provide the only total solution that fully meets your needs and helps ease compliance with the ethylene oxide NESHAP* for commercial sterilizers and PID** for workplace exposure.

Optically-enhanced Fourier transform infrared (OE-FTIR) spectroscopy vs. cavity ring-down spectroscopy (CRDS) system comparison

	Thermo Scientific OE-FTIR spectroscopy systems	Cavity ring-down systems
Performance criteria for EtO monitoring systems	Meets new EPA updates to ethylene oxide NESHAP and PID ✓	Meets new EPA updates to ethylene oxide NESHAP and PID ✓
Ease of deployment	Turnkey with fully automated compliance reporting Real time custom alerts ✓	Integrated system ✗
Measurement range	Dynamic calibration range Quantification of inlet and outlet concentrations without dilution ✓	Upper calibration range is limited by path length Requires dilutions to measure inlet concentrations, increasing measurement error ✗
System design and field experience	In-house design and manufacture of full system hardware and software Proven field history since 2019 ✓	Minimal field experience Newly released systems in 2023 ✗
Service and support	Team of experienced field service and applications specialists ✓	Limited installation, service and support capabilities ✗
Robustness	Proven reliability regardless of sample contamination ✓	High finesse mirrors susceptible to signal loss, especially in hot/wet applications ✗
Operational costs	Minimal system preventative maintenance ✓	High cost to upkeep mirrors in CRDS analyzer in addition to system preventative maintenance ✗

* National Emission Standards for Hazardous Air Pollutants
** Proposed Interim Decision

Learn more at **thermofisher.com/etomonitoring**

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