



## Steri-Trac<sup>®</sup> Toxic Gas Monitoring System



**Ethylene Oxide    Hydrogen Peroxide    Ozone**

ChemDAQ's Steri-Trac gas monitoring system provides the optimal solution for workplace safety assurance, protecting personnel from serious health effects associated with exposure to toxic gases. Area monitors work in conjunction with the Data Acquisition Computer (DAQ) to continuously track and analyze exposure values in areas where toxic gases are used or stored. DAQ analysis is based on maximum exposure limits as defined by OSHA, CSA and other government agencies and professional organizations.

Its modular design makes it easy to custom configure an installation to meet each facility's specific needs. For single, multi-point or multi-gas installations with data acquisition, Steri-Trac supports a variety of applications:

- Sterilization of Medical Devices
- Pharmaceutical Processing/Packaging
- Aseptic Food Processing/Packaging
- Stack Monitoring
- Hemodialysis Tube Disinfection
- Bio-Decontamination
- Water/Wastewater treatment

Providing a safe working environment is an important part of any business. Steri-Trac is the ideal solution for Medical Device Manufacturers, Contract Sterilization facilities, Pharmaceutical Manufacturers, Hospitals, Surgery Centers Hemodialysis Clinics, Veterinary Hospitals, Food Processing/Packing plants, Wineries, Breweries and Beverage plants, Municipal Water facilities and others that use toxic gases as part of their business process.

### Intrinsically Safe Applications

We continue to adapt our proven technology to meet a wide array of customer needs, our most recent is certification for intrinsically safe environments registered as Class 1, Division 1, Zone 0.

Specially designed to help organizations provide an optimal

**SAFE WORK ENVIRONMENT**

while assuring complete

**REGULATORY COMPLIANCE**

with all government regulations (OSHA, CSA and ACGIH) and standards recommended by AAMI and The Joint Commission.

Organizations recognize

**OPERATIONAL COST SAVINGS**

through ChemDAQ's unique capabilities:

- **Manage multiple toxic gases from a single platform**
- **Impending Alerts**
- **Sensor Exchange Calibration Program**

## FEATURES AND BENEFITS

### Modular design offers flexibility and investment protection

- Each Steri-Trac area monitor is a fully functioning, micro-processor controlled gas detection instrument with tri-color LED display and digital communications, reporting gas concentration in parts per million (ppm). Unlike systems that utilize a central console, Steri-Trac displays gas concentrations in each area where employees work.
- Custom-configured for each facility, any combination of ethylene oxide, hydrogen peroxide and ozone monitors can be deployed. All monitors can be managed from a single DAQ platform.
- Steri-Trac Remote Display Repeaters offer an additional level of protection. Mounted at entranceways into areas where toxic gases are used or stored, they duplicate gas readings and alarms from its companion area monitor, letting personnel know if it is safe “before” they enter.
- For facilities that sterilize, should you change to a different toxic, low-temperature sterilant gases, Steri-Trac can easily be converted to monitor your new sterilization process.



### Reliable means of protecting employees

- Enhanced specificity for Ethylene Oxide Monitoring - ChemDAQ has solved the long-standing problem of cross sensitivity in ethylene oxide gas sensors. In environments where low levels of common background interferences such as alcohols and carbon monoxide can cause false alarms, ChemDAQ's patented chemical filter technology can eliminate nuisance alarms in most cases.
- Unlike sequential monitoring systems which have delayed readings, the DAQ continuously and simultaneously tracks gas concentration in each area where Steri-Trac is employed.
- The DAQ centrally calculates OSHA Exposure Limits for the specific gas or gases being monitored. “Impending alerts” warn employees **before** hazardous levels are reached, allowing you to take pro-active steps to correct the problem and avert potential employee exposure.



### User friendly interfaces

- Steri-Trac area monitors have large, tri-colored digital displays and 2 user-adjustable alarm limits. Simultaneous audible and visual alarms help personnel understand the severity of any situation that arises.
- With DAQ's color-coded graphic display, it's easy to interpret gas exposure in each individual area. DAQ's touch screen makes it easy to recall data, send to the printer or export to a local file.
- DAQ's touch screen makes it easy to configure the system, recall exposure data and generate reports.

### Reduced Operating Costs

- ChemDAQ manages calibrations for you. Our exclusive Sensor Calibration/Exchange program (SXP<sup>®</sup>) provides you with factory calibrated sensors on a regularly scheduled basis to assure the integrity of your system.
- Eliminate the cost, inconvenience and chance for error associated with on-site calibrations or contracts with third-party providers.

### Assure compliance with all applicable regulations and industry standards

- Meets OSHA regulations for monitoring toxic gases: CFR 1910.1047, CFR 1910.1000
- Meets OSHA record-keeping requirements for 30 years of exposure data: CFR 1910.1020
- Meets The Joint Commission Standard EC 02.02.01 and AAMI ST:41/2005 recommendations

## Professional Support Services When You Need It

- Sales & sales support specialists knowledgeable in government regulations and customizing toxic gas monitoring systems to meet individual facility needs
- Factory Trained Steri-Trac specialists provide best-in-class installation and in-service training
- Warranty support provided via toll-free number or email to answer your questions if you need help configuring your system
- Extended hardware warranty, software support and Sensor Calibration/Exchange Services help to assure the performance of your system

## TECHNICAL SPECIFICATIONS

|                               |   |  |  |
|-------------------------------|---|--|--|
| CERTIFICATIONS                | Safety: UL 61010-1/CSA C22.2<br>Intrinsically Safe: Certified for Class 1, Division 1, Group C and D, Class 1, Zone 0                             |  |  |
| OSHA COMPLIANCE               | TWA tracked: Permissible Exposure Limit (PEL), Excursion Limit (EL), Action Level (AL)<br>Meets 30-year record keeping required for exposure data |  |  |
| SENSOR PRINCIPLE              | Electrochemical (ppm), Infra-red (LEL)  |  |  |
|                               | <b>Ethylene Oxide</b>   | <b>Hydrogen Peroxide</b>                 | <b>Ozone</b>                               |
| RESOLUTION (ppm)              | 0.1 ppm   | 0.1 ppm                                  | 0.02 ppm                                   |
| SENSOR RANGE                  | 0 – 50 ppm  | 0 – 10 ppm                               | 0 – 5 ppm                                  |
| RESPONSE TIME                 | < 140 sec (T <sub>90</sub> )  | < 150 sec (T <sub>90</sub> )             | < 150 sec (T <sub>90</sub> )               |
| TEMPERATURE/HUMIDITY          | -20 to +50° C<br>15 to 95% non-condensing   | 0 to + 50° C<br>15 to 95% non-condensing | -20 to + 50° C<br>15 to 95% non-condensing |
| DISPLAY                       | Tri-color, 4 digit, 1.25", 5 x 8 Matrix LED   |  |  |
| ALARMS                        | 2 - User Adjustable alarm levels, HIGH and LOW  |  |  |
| OUTPUT                        | Linear  |  |  |
| COMMUNICATIONS                | Digital RS485   |  |  |
| CALIBRATION INTERVALS         | 4 months (factory calibrated)   |  |  |
| PHYSICAL DIMENSIONS (Monitor) | 10" width x 6" height x 5" depth, 2.5 pounds  |  |  |
| INSTALLATION REQUIREMENTS     | Wall mounted, 110 VAC, 1 amp  |  |  |
| EXTERNAL CONTACT RELAYS       | 2 Relays, Open/Closed Available   |  |  |
| DAQ OPERATING SYSTEM          | Windows XP, ChemDAQ proprietary software  |  |  |
| DAQ FEATURES                  | Automatic data back-up in removable storage, Reporting capabilities, Export to csv  |  |  |
| DAQ VISUAL ALARM INDICATOR    | Color coded – Green: OK conditions, Yellow: Impending alarm, Red: Alarm   |  |  |
| # MONITORS SUPPORTED          | 8 per DAQ   |  |  |

## SYSTEM ORDERING INFORMATION

| CODE        | PRODUCT DESCRIPTION  |
|-------------|--|
| ST1-EMON    | Steri-Trac® Area Monitor Ethylene Oxide                        |
| ST2-HMON    | Steri-Trac® Area Monitor Hydrogen Peroxide                     |
| ST2-OMON    | Steri-Trac® Area Monitor Ozone                                 |
| ST2-ISEMON  | Steri-Trac® Intrinsically Safe Area Monitor Ethylene Oxide     |
| ST2-ISEHMON | Steri-Trac® Intrinsically Safe Area Monitor Hydrogen Peroxide  |
| ST2-ISEOMON | Steri-Trac® Intrinsically Safe Area Monitor Ozone              |
| ST1-ERD     | Steri-Trac® Remote Display Ethylene Oxide                      |
| ST1-HRD     | Steri-Trac® Remote Display Hydrogen Peroxide                   |
| ST1-ORD     | Steri-Trac® Remote Display Ozone                               |
| ST1-ISBU    | Steri-Trac® Barrier Unit for Intrinsically Safe                |
| ST1-RSM     | Steri-Trac® Remote Sensor Module                               |
| ST1-DAQ-1   | Data Acquisition Module (1 Monitor)                            |
| ST1-DAQ-2   | Data Acquisition Module (2 Monitors)                           |
| ST1-DAQ-3/4 | Data Acquisition Module (3-4 Monitors)                         |
| ST1-DAQ-5+  | Data Acquisition Module (5+ Monitors)                          |
| ST1-RVD     | Steri-Trac® Remote Video Display                               |
| ST1-ESXP1   | One Year SXP® per Ethylene Oxide monitor                       |
| ST1-HSXP1   | One Year SXP® per Hydrogen Peroxide monitor                    |
| ST1-OSXP1   | One Year SXP® per Ozone monitor                                |
| ST1-ISESXP1 | One Year SXP® per intrinsically safe Ethylene Oxide monitor    |
| ST1-ISHSXP1 | One Year SXP® per intrinsically safe Hydrogen Peroxide monitor |
| ST1-ISOSXP1 | One Year SXP® per intrinsically safe Ozone monitor             |

### FOR MORE INFORMATION

Contact a ChemDAQ  
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1-800-245-3310 or visit  
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