

**SE**  
**SENSOR**  
ELECTRONICS



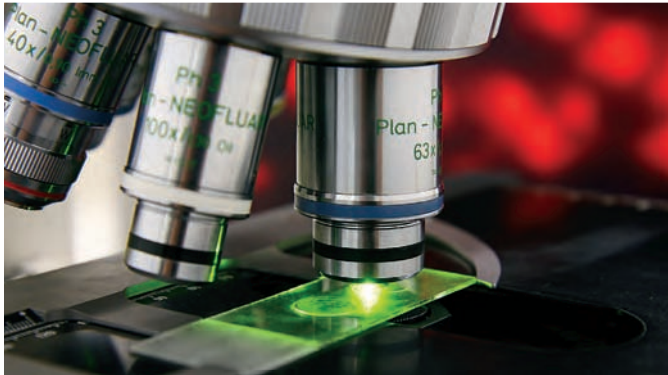
Keeping you safe. Worldwide.

**YOUR EXPERTS IN  
GAS DETECTION**



### MILLENNIUM INFRARED GAS DETECTOR

- Detects hydrocarbon gases or carbon dioxide
- Multi-beam (patented) design is virtually maintenance free and reliable
- Compact and explosion proof stainless steel housing
- No mirrors or beam splitters
- Barometric pressure compensation provides accurate measurement at any altitude and pressure
- Standalone 4-20mA operation or can be coupled with SEC 3100 Universal Transmitter



We don't just  
claim to be gas  
detection experts...  
**WE PROVE IT.**



### SIGNATURE DUAL GAS ANALYZER

- Continuous monitoring for 2 different gas vapors; (EtO/H<sub>2</sub>O, Hydrocarbon/H<sub>2</sub>O, or CO<sub>2</sub>/Hydrocarbon)
- Infrared Sensing Technology—no mirrors or reflecting surfaces
- CO<sub>2</sub>/Hydrocarbon; injection monitors
- Pressure/Temperature compensated



### SIGNATURE PROCESS GAS ANALYZER

- Continuous monitoring of EtO, hydrocarbon or carbon dioxide
- Designed for non-extractive sampling
- Infrared self-compensating optical bench (Patented)
- Explosion proof



### SEC 3000 GAS DETECTOR

- Detects toxic gases and oxygen concentrations
- "Hot Swap" sensor with "Gas Free" calibration
- Intrinsically safe / explosion proof
- 316 Stainless steel construction
- Sensors for over 100 gases
- Standalone 4-20mA operation or can be coupled with SEC 3100 Universal Transmitter



### SEC 3100 UNIVERSAL TRANSMITTER

- Memory Card data logging
- Communication I/O, RS-485, Relays, 4-20mA
- Non-intrusive programming and calibration
- Explosion proof
- Compatible with SEC 3000 & SEC Millennium series gas detectors



### SEC 3100 DIN UNIVERSAL TRANSMITTER

- DIN rail mount or surface mount
- Compatible with SEC 3000 and SEC Millennium series gas detectors
- Optional relays and memory card data logging



### SEC 3500 OPERATOR INTERFACE

- RS-485 Modbus® RTU communication with SEC 3100 Universal Transmitter
- Intuitive graphical interface of entire gas detection system
- IO-Base-T/100 Base – TX Ethernet Port
- Remote web access, secure monitoring and control
- Actuates alarm and control devices



### SEC 3500 RELAY CONTROLLER

- Connect to SEC 3500 OI via Modbus® RS-485 network
- 8 and 16 point addressable modules
- Individual 8 AMP dry relay contacts SPDT

### INDUSTRIES SERVED



- |                    |                      |                      |
|--------------------|----------------------|----------------------|
| • Petrochemical    | • Water & Wastewater | • Landfill           |
| • Compost          | • Parking Garages    | • Ethanol            |
| • Semiconductor    | • Chemical           | • Aviation           |
| • Mining           | • Nuclear            | • Beverage           |
| • Pulp & Paper     | • Fertilizer         | • Methane Mitigation |
| • Oil & Gas        | • Tunnel             | • Sterilization      |
| • Buildings        | • Medical            | • Biodiesel          |
| • Automotive       | • Refrigeration      | • Offshore           |
| • Engine Test Cell | • Pharmaceutical     |                      |
| • LNG & LPG        |                      |                      |



### MEMORY CARD READER

- Transfers SEC 3100 memory card information to a computer
- Memory card data is converted to useable format via Memory Card Reader software
- Memory Card Reader software is downloadable from SEC website



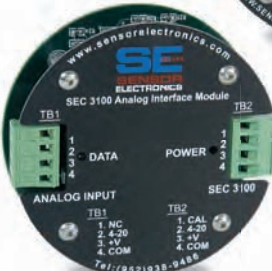
### SEC 3100 LIM (LOGIC INTERFACE MODULE)

- Logic Interface Module "LIM" interfaces non-SEC devices to Modbus® network
- Accepts low and high alarm input contact closures
- Programmable device names displayed on SEC 3100 LCD



### SEC 3100 ISO REPEATER

- Extends distance and increases number of devices to RS-485 network
- Isolated (1500 Volt) bidirectional data flow
- Transient suppression on RS-485 data lines



### SEC 3100 AIM (ANALOG INPUT MODULE)

- Analog Input Module "AIM" interfaces non-SEC 4-20mA devices to Modbus® network
- Accepts one analog 4-20mA input signal
- Programmable device names displayed on SEC 3100 LCD



### GASES DETECTED

- |                        |                     |                          |
|------------------------|---------------------|--------------------------|
| • Acetylene            | • Ethylene          | • Nitrogen Dioxide       |
| • Ammonia              | • Ethylene Oxide    | • Oxygen                 |
| • Alcohol              | • Fluorine          | • Ozone                  |
| • Arsine               | • Gasoline          | • Pentane                |
| • Boron Trichloride    | • Germane           | • Phosphine              |
| • Boron Trifluoride    | • Green Earth       | • Propane                |
| • Carbon Dioxide       | • Hydrogen          | • Propylene              |
| • Carbon Monoxide      | • Hydrogen Bromide  | • Silane                 |
| • Chlorine             | • Hydrogen Chloride | • Silicon Tetrachloride  |
| • Chlorine Trifluoride | • Hydrogen Fluoride | • Silicon Tetrafluoride  |
| • Cyclopentane         | • Hydrogen Peroxide | • Sulfur Dioxide         |
| • Deuterium            | • Hydrogen Sulfide  | • Sulfur Hexafluoride    |
| • DF 2000              | • Isopropyl Alcohol | • Titanium Tetrachloride |
| • Diborane             | • Jet Fuel          | • Tungsten Hexafluoride  |
| • Dichlorosilane       | • Methane           |                          |
| • Diesel               | • Methanol          |                          |
| • Disilane             | • n-Butane          |                          |
| • Ethanol              | • Nitric Oxide      |                          |

Note: This list is not all-inclusive. Sensor Electronics' gas detectors can be calibrated for most hydrocarbons, provided a calibration gas is available. For more information, please contact Sensor Electronics.

5500 Lincoln Drive • Minneapolis, MN 55436  
**Phone: 952-938-9486** • Fax: 952-938-9617  
 Toll Free: 800-285-3651 • [www.sensorelectronics.com](http://www.sensorelectronics.com)

