SENSIDYNE®

Industrial Health & Safety Instrumentation

Globally Hazardous Area Approved Gas Detection for the Chemical Industry

- **Intrinsically Safe**
- **Intuitive User Interface**
- **FM/ATEX/IECEx Approved**
- **Certified SIL-2**
- **50+ Gas Sensors**
- **Hot-swap Gas Sensors**

Plastics • Resins • Fibers • Polystyrenes • Dyes • Pigments • Inks | Polyolefins • Alkalis • Chlorine | Industrial Gases • Air Separation | Ammonia | Soaps • Detergents • Cleaners | Fragrances • Flavorings | Pesticides • Fertilizers | Synthetic Rubber | Pharmaceutical • Cosmetic • Food Intermediates | Explosives | Coatings • Sealants • Adhesives | Gum • Wood Chemicals | Alcohols

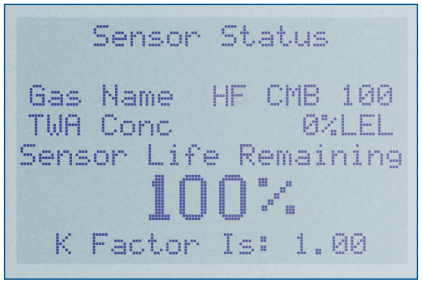
Detection at every point.

Reliability is paramount for gas detection performance. Sensidyne delivers 3rd party certified and performance approved products that meet safety professional's needs of cost, function and peace of mind.

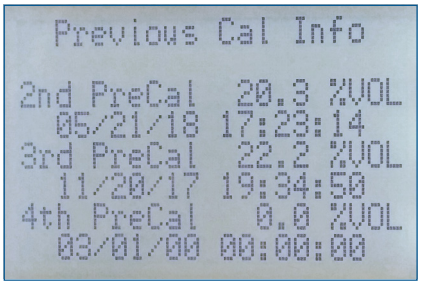
Conveying a wide variety of certifications from Class 1 Div-1, Div-2, ATEX, IECEx, and SIL-2 from a host of independent agencies, Sensidyne's gas detectors also include features and functions at cost effective competitive pricing.

From our premier SensAlert ASI with an intrinsically safe sensor head, hot swappable sensor, and SIL-2 certification, to the cost effective SensAir with robust and fast responding sensors, Sensidyne is a seasoned U.S. manufacturer bringing years of field experience to product development.

SENSALERT® ASI



Predictive Sensor Life



Calibration History

- **Instrinsically Safe Sensor Head**
  Sensidyne pioneered the intelligent gas sensor / universal transmitter and was among the first to seek Intrinsic Safety approvals due to acid gas interference with sintered metal flame arrestors. Gas sensors may be hot-swapped without a hot work permit and sensors easily remote mounted. The gas sensor is directly exposed to ambient air!
- **Intelligent FM Performance Certified Gas Sensors**
  Ensuring the claims of sensor performance, the Plus Series Sensor has been performance certified and approved by FM. Facilities utilizing FM insurance may recognize discounts to policy premiums by utilizing the SensAlert ASI and the Plus Series Sensor. The sensors are transportable, which allows technicians to calibrate in controlled environments and install them in the field.
- **Flexible Installation**
  The ease of remote mounting the gas sensors means keeping the transmitter in accessible locations, while placing the sensor close to the target atmosphere or within an exhaust duct, which ensures the speed of detection response in a technician user friendly installation.

Detection at every point.

Volatile organic compounds (VOC's) are combustible chemicals that have a high vapor pressure in normal atmospheres, which causes evaporation. There are thousands of VOC's and many have TLV's well below combustible levels.

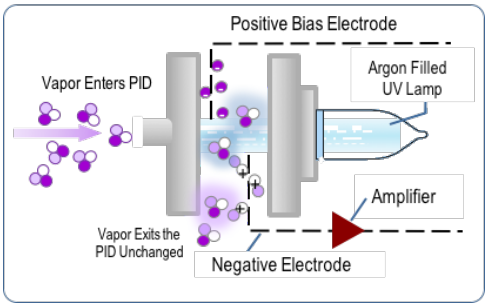
Since many VOC's are hazardous to human health and the environment, the detection method to monitor and quantify VOC target gases is the photoionization detector (PID) paired with the SensFlex.

SensFlex PID

SENSFLEX

■ Photoionization Sensors to Detect VOC Target Gases

The SensFlex with PID provides a highly flexible platform with color display, specially configured to the target VOC. The SensFlex is certified for Class 1 Div-1 and Div-2 environments, and includes Modbus TCP communication with an embedded webpage. A dual sensor configuration is also available for other toxic target gases if needed. The SensFlex with PID sensor is an elegant and highly flexible product for harsh environments.



SENSALARM® PLUS

■ Self Configuration

SensAlarm PLUS All-In-One self configures on sensor plug-in complete with default alarms. Available with battery back-up, the sensor can be local or remote in the hazardous area.

■ Fully Featured

The large display is readable up to 20 feet away and a local strobe and sounder provides annunciation. The SensAlarm PLUS is the perfect solution to satisfy complete detection needs quickly and easily.

SensAlarm PLUS All-In-One Gas Detector

SENSALERT® POINT IR

■ High Reliability and Durability

The Point Infrared Hydrocarbon Detector is ideally suited for use in very harsh and hazardous environments requiring low-maintenance gas detectors. The 316ss explosion proof housing has no mirrors or beam splitters and the detectors and source are sealed from dirt and water ingress.

■ Dual Wavelength NDIR Technology

The sensing and reference elements are self-compensating for optical integrity and other signal inhibitors. Changes in temperature, humidity or air pressure have no effect since NDIR technology is self-compensating.

■ Virtually Maintenance Free

Scheduled calibration is not required for the instrument and suggested maintenance is limited to an annual zeroing. Bump testing may be performed at user desired PM intervals.

■ Operates Without Oxygen

The self-contained NDIR sensor operates in applications where there is no oxygen or hydrocarbons regularly present. Silicones and other inhibitors have no effect. NDIR technology always fails Safe.

■ Intelligent 3-Wire 4-20mA Linear Output

The 4-20mA output signal contains valuable information. The gas sensor communicates faults and functions using signals between 2.2mA and 0.2mA.

Controllers and Receivers

Controllers provide the option of localized actions in hazardous situations while reporting to a central monitor on gas detection status. Alarm contacts can be fail-safe, voting and/or latching. Inputs can be either analog or digital with alarm contacts for local functions.

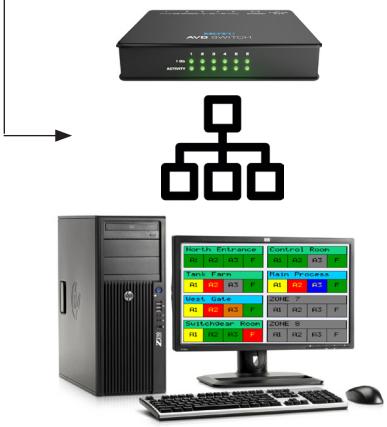
Sensidyne offers general purpose, Division 2 and explosion-proof receivers and controllers to mitigate and annunciate serious gas and fire hazards that can occur in a chemical processing unit. Various protocols for communications are available to report events and alarm contacts enable localized actions without long wiring runs.

4, 16 and 64 Channel Controllers are the work horses of gas detection as they accept open path and flame detector inputs as well as gas detectors. Alarm contacts can be used for function, shutdown, or other mitigation measures.

7200 Controller:
Receives up to 64 Inputs, Analog or Digital

Connect To:

- **TCP or RS 485 Modbus**
- **Discrete Alarms**
- **Supervisory Alarms**
- **Wireless Available**



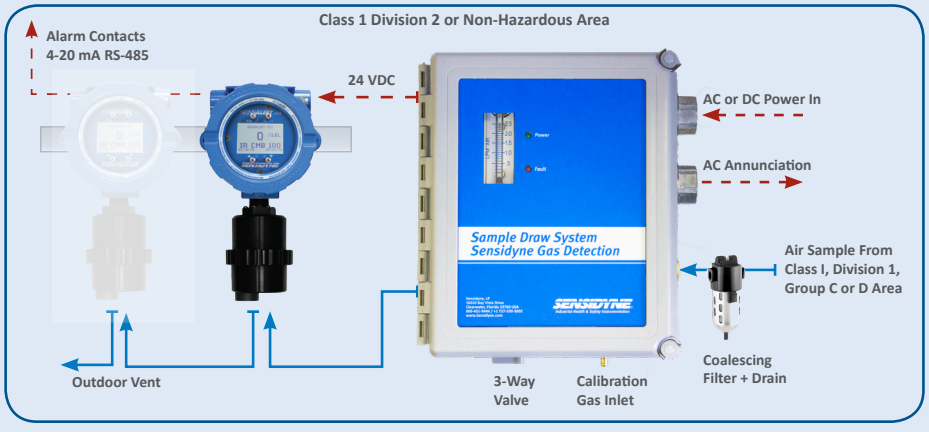
Listed Gas Detection Sample Draw System

The Sample Draw System pulls air from remote locations with a diaphragm pump or an air venturi pump. It is FM approved for placement in Class I, Division 2 Hazardous (classified) Areas to sample from Class I, Division 1 Hazardous (classified) Areas, Groups C and D. The Division 2 approval eliminates the need for flame arrestors and eliminates troublesome maintenance.

Flow rate is easily adjusted and a fail-safe flow switch provides a signal on loss of flow or power. A two-way valve permits the application of calibration standards to the gas sensor(s) for routine maintenance. Accessories are available to mitigate concerns for moisture and/or condensation.

The system power supply can operate the pump and up to four gas transmitters placed downstream of the system for monitoring.

TYPICAL GAS DETECTION SYSTEM WITH SAMPLE DRAW



This integral power source enhances capabilities for remote applications such as protecting thermal oxidizers, large laboratories, gas hoods and inaccessible areas while significantly reducing installation costs. *FM Listing means that the system is approved for hazardous areas and has been tested and deemed fit for the intended purpose.*

SDChemRevD111218-500

MADE IN U.S.A.

1000 112th Circle North, Suite 100 • St. Petersburg, Florida 33716 • U.S.A.
N. America 800-451-9444 / Intl: +1 727-530-3602 • Fax: +1 727-539-0550
info@Sensidyne.com • www.SensidyneGasDetection.com

SCHAUENBURG
A Member of the Schauenburg Group

Plus Series Sensor Data

SENSIDYNE®
Industrial Health & Safety Instrumentation

Part Number	Target Gas or Vapor	Range	Formula	TLV-TWA	IDLH
823-0249-51	Acetylene IR	50% LEL	C2H2	Asphyxiate	- -
823-0201-22	Ammonia	50 ppm	NH3	25 ppm	300 ppm
823-0201-21	Ammonia	100 ppm	NH3	25 ppm	300 ppm
823-0201-43	Ammonia	250 ppm	NH3	25 ppm	300 ppm
823-0201-41	Ammonia	300 ppm	NH3	25 ppm	300 ppm
823-0201-42	Ammonia	500 ppm	NH3	25 ppm	300 ppm
823-0212-21	Arsine	1.00 ppm	AsH3	0.05 ppm	3 ppm
823-0222-21	Bromine	10 ppm	Br2	3.0 ppm	3 ppm
823-0222-22	Bromine	1.00 ppm	Br2	3.0 ppm	3 ppm
823-0205-53	Carbon Dioxide IR	5.00% Vol.	CO2	0.50%	3.00%
823-0219-23	Carbon Monoxide	100 ppm	CO	25 ppm	1,200 ppm
823-0219-22	Carbon Monoxide	500 ppm	CO	25 ppm	1,200 ppm
823-0219-43	Carbon Monoxide	1000 ppm	CO	25 ppm	1,200 ppm
823-0219-41	Carbon Monoxide	100 ppm	CO	25 ppm	1,200 ppm
823-0219-42	Carbon Monoxide	500 ppm	CO	25 ppm	1,200 ppm
823-0202-22	Chlorine	5.00 ppm	Cl2	0.5 ppm	10 ppm
823-0202-42	Chlorine (H2S Resistant)	5.00 ppm	Cl2	0.5 ppm	10 ppm
823-0202-21	Chlorine	10.0 ppm	Cl2	0.5 ppm	10 ppm
823-0202-41	Chlorine (H2S Resistant)	10.0 ppm	Cl2	0.5 ppm	10 ppm
823-0202-23	Chlorine	20.0 ppm	Cl2	0.5 ppm	10 ppm
823-0202-43	Chlorine (H2S Resistant)	100 ppm	Cl2	0.5 ppm	10 ppm
823-0239-41	Chlorine Dioxide	1.00 ppm	ClO2	0.1 ppm	5 ppm
823-0239-42	Chlorine Dioxide	5.00 ppm	ClO2	0.1 ppm	5 ppm
823-0211-31	Combustibles, General	100% LEL	- -	Asphyxiate	- -
823-0211-33	Comb. H2, ETO, Acetylene	100% LEL	- -	Asphyxiate	- -
823-0210-41	Hydrogen Specific LEL	100% LEL	H2	Asphyxiate	- -
823-0211-51	Combustibles IR	100% LEL	Hydrocarbons	Asphyxiate	- -
823-0249-51	Combustibles IR Acetylene	50% LEL	C2H2	2,500 ppm	- -
823-0229-21	Diborane	1.00 ppm	B2H6	0.1 ppm	15 ppm
823-0245-21	Ethylene Oxide (ETO)	10.0 ppm	C2H4O	1 ppm	800 ppm
823-0245-22	Ethylene Oxide (ETO)	500 ppm	C2H4O	1 ppm	800 ppm
823-0215-21	Fluorine	10.0 ppm	F2	0.1 ppm	25 ppm
823-0215-22	Fluorine	25.0 ppm	F2	0.1 ppm	25 ppm
823-0230-21	Germane	1.00 ppm	GeH4	0.2 ppm	- -
823-0210-21	Hydrogen Specific PPM	1000 ppm	H2	Asphyxiate	- -
823-0210-41	Hydrogen Specific LEL	100% LEL	H2	Asphyxiate	- -
Use HCl	Hydrogen Bromide	10.0 ppm	HBr	3 ppm	30 ppm
823-0208-21	Hydrogen Chloride	10.0 ppm	HCl	2 ppm	50 ppm
823-0208-22	Hydrogen Chloride	20.0 ppm	HCl	2 ppm	50 ppm
823-0208-41	Hydrogen Chloride	100 ppm	HCl	2 ppm	50 ppm
823-0203-21	Hydrogen Cyanide	20.0 ppm	HCN	4.7 ppm	50 ppm
823-0207-21	Hydrogen Fluoride	10.0 ppm	HF	0.5 ppm	30 ppm
823-0207-22	Hydrogen Fluoride	20.0 ppm	HF	0.5 ppm	30 ppm
823-0206-22	Hydrogen Sulfide	50 ppm	H2S	1 ppm	100 ppm
823-0206-21	Hydrogen Sulfide	100 ppm	H2S	1 ppm	100 ppm
823-0206-23	Hydrogen Sulfide	10 ppm	H2S	1 ppm	100 ppm
823-0253-21	Methanol	500ppm	CH4O	200ppm	6000ppm
823-0242-21	Nitric Oxide	100 ppm	NO	25 ppm	100 ppm
823-0221-21	Nitrogen Dioxide	10.0 ppm	NO2	1 ppm	20 ppm
823-0240-22	Oxygen	25.0%Vol	O2	<19.5%	<18%
823-0243-21	Ozone	1 ppm	O3	<19.5%	<18%
823-0243-22	Ozone	2.00 ppm	O3	0.1 ppm	5 ppm
823-0247-21	Phosgene	1.00 ppm	COCl2	0.1 ppm	2 ppm
823-0213-21	Phosphine	1.00 ppm	PH3	0.3 ppm	50 ppm
823-0214-21	Silane	10.0 ppm	SiH4	5 ppm	- -
823-0218-22	Sulfur Dioxide, H2S Filtered	10.0 ppm	SO2	2 ppm	100 ppm
823-0218-21	Sulfur Dioxide, H2S Filtered	20.0 ppm	SO2	2 ppm	100 ppm
823-0218-23	Sulfur Dioxide, H2S Filtered	100 ppm	SO2	2 ppm	100 ppm

Plus Series sensors are compatible with SensAlert ASI, SensAlert Plus, and SensAlarm Plus

SENSIDYNE®
Industrial Health & Safety Instrumentation

SENSAIR®

Industrial Fixed Point Gas Detector

- **Combustible, Toxic, and Oxygen Versions Available**
- **U.S./Canada/IECEx/ATEX Hazardous Area Approved**
- **Rugged, Industrial, Cost Effective Design Meeting a Wide Range of Application and Project Requirements**
- **Robust, Fast Responding Sensors**
- **Bright LED Display or Blind Models**
- **Non-Intrusive Zero & Span Adjustments**
- **Easy Installation and Maintenance, Ideal for Retrofit or New Applications**
- **3-wire Design with 4-20mA Output, Options for Modbus or BACnet—Both include 3 Additional Relays**
- **Horizontal or Vertical Installation**
- **Remote Combustible Sensor Option†**
- **Field Replaceable Sensor**

FM APPROVED * | CSA Group ** | Ex | IEC | IECEx

Reduced Cost of Ownership

SensAir provides options for the instrument enclosure, display, and installation orientation. When combined with premium grade gas sensors, this platform becomes a configurable and reliable solution to meet target installation and application requirements. Its feature set and value make SensAir the ultimate solution for OEM, high-volume, and price-sensitive gas detection applications.

SensAir Gas Detector

SensAir provides a sensible and easy to use platform for detection of gases and vapors in gas monitoring applications. Each SensAir gas detector employs a high-performance sensor for rapid detection in a broad range of target gases and detectable limits.

SensAir Sensor Options

Combustible Catalytic Bead*
Oxygen (O2) with SensAir ^{O2}

Hydrogen Sulfide (H2S) 50ppm
Hydrogen Sulfide (H2S) 100ppm
Carbon Monoxide (CO) 100ppm
Carbon Monoxide (CO) 250ppm
Carbon Monoxide (CO) 500ppm
Carbon Monoxide (CO) 1000ppm
Nitric Oxide (NO) 100 ppm
Hydrogen (H2) 1000ppm
Consult Factory for Other Gases

* Highly Robust, Poison Resistant

MADE IN U.S.A.

1000 112th Circle North, Suite 100 • St. Petersburg, Florida 33716 • U.S.A.
N. America 800-451-9444 / Intl +1 727-530-3602 • Fax: +1 727-539-0550
info@Sensidyne.com • www.SensidyneGasDetection.com

SCHAUENBURG
A Member of the Schauenburg Group