



**INTERNATIONAL** IRVINE, CALIFORNIA

## **SENSOR TECHNOLOGY**

*TOXIC & COMBUSTIBLE GAS MONITORS FOR*

*AREA AIR QUALITY AND SAFETY APPLICATIONS*

*UTILIZING THE FOLLOWING SENSORS:*

- IST'S PATENTED SOLID STATE
- INFRARED (IR)
- PHOTOIONIZATION DETECTOR (PID)
- ELECTROCHEMICAL
- CATALYTIC BEAD

# **PRODUCT CATALOG**





# STATIONARY INSTRUMENTS SENSOR TRANSMITTERS



Located in Irvine, California, International Sensor Technology (IST) manufactures both the sensors and the instrumentation used to detect over 150 different toxic and combustible gases for area air quality and safety applications. Since 1972, IST instruments have served a large and diverse customer base, with users including refineries, chemical plants, semiconductor facilities, hospitals, food and beverage companies, and many others. In fact, our equipment was even chosen by NASA for use in the Space Shuttle program.

IST offers a complete line of instrumentation, including portables, single and multi-point stationary instruments, stand-alone sensor transmitters, and computerized gas monitoring systems. Besides offering a complete line of instrumentation, IST also offers the most comprehensive choice of sensor technologies available today, including:

- *IST's patented Solid-State Sensor*
- *Infrared Sensor (IR)\**
- *Catalytic Bead Sensor*
- *Electrochemical Sensor*
- *Photoionization Detector*

With this vast array of sensor and instrumentation choices, IST has the right solution for your gas monitoring application.

\*Patent Pending



## **STANDARD TRANSMITTER MODEL SM95**

The Model SM95 sensor transmitter is housed in an explosion-proof casing rated for Class 1, Div. 1, Groups B,C,D (UL & CSA approved). It operates on 14-24 VDC power and provides a linear 4-20 mA output proportional to the gas concentration. The SM95 can operate as a stand-alone instrument or can be used in conjunction with any of IST's complete line of control units which display the readings and provide alarm relays. When used with any of IST's MP Series of control units, automated calibration is provided, enabling calibration without the need to adjust potentiometers. The SM95 can be equipped with Solid State, Electrochemical, Catalytic Bead, or Infrared sensors.



## **INTELLIGENT TRANSMITTER MODEL 4-20IQ**

The Model 4-20IQ is a microprocessor based, intelligent sensor transmitter which features a digital display of the gas concentration. Operating on 14-24 VDC power, it also provides a linear 4-20 mA output and, like the SM95, is housed in an explosion proof casing rated for Class 1, Div. 1, Groups B,C,D (UL & CSA approved). It can operate as a stand-alone instrument or can be used with any IST controller, which display the readings and provide alarm relays.

The 4-20IQ comes equipped with a non-intrusive automated calibration feature which allows the unit to be calibrated without adjusting any potentiometers. Simply apply calibration gas and the 4-20IQ will automatically make the necessary calibration adjustments. Operating the 4-20IQ is accomplished by using a magnetic wand to activate magnetic switches located on the front panel. Thus, all functions can be performed without removing any covers, meaning there is no need to declassify areas being monitored. Like the SM95, the 4-20IQ can be equipped with Solid State, Catalytic Bead, Electrochemical, or Infrared sensors.

# STATIONARY INSTRUMENTS CONTROLLERS

## **SINGLE CHANNEL WALL MOUNTED MODEL LC100**

The LC100 is a single channel, wall mounted control unit which is housed in a weatherproof enclosure. It provides a digital display of the gas concentration, 2 alarm relays and a fault relay with corresponding LED's, and a built-in alarm buzzer. Either an SM95 or 4-20IQ transmitter can be connected externally to the unit or, as an option, a Solid State sensor can be internally mounted directly inside the LC100 housing (this option requires sample to be pumped to the unit). A 4-20 mA output is available as an option.

## **MULTI-CHANNEL WALL MOUNTED MODEL MP202/MP204**

The MP202 and MP204 are wall-mounted control units housed in weatherproof enclosures. The MP202 is a two channel controller which can be used for 1 or 2 sensor channels, while the MP204 is a four channel controller which can be used for up to 4 sensor channels.

These microprocessor based controllers feature a digital display of gas concentration for each sensor channel and a front door keypad which enables convenient operation without opening the enclosure. Low, mid, and high alarm relays as well as a fault relay (with corresponding LED's) are also provided to trigger alarm devices such as lights and horns. Optional 4-20 mA outputs are available.

The MP Series units feature automated calibration which enables the sensor transmitters to be calibrated without removing the cover or adjusting potentiometers. Simply apply gas to the sensor and the control unit will make all the necessary adjustments. It couldn't be easier!

## **MULTI-CHANNEL RACK MOUNTED MODEL MP24**

The MP24 is a rack/panel mounted version of the MP202. It is a compact control unit which accepts 1 or 2 sensor channels. Because of its compact design, up to 12 of these control units will fit side by side into a 19" rack or panel space, for a total of 24 sensor channels. The MP24 also has a modular design which allows for easy expansion and the ability to configure the unit specifically for a particular application. Like the MP202/MP204, the MP24 can be equipped with optional 4-20 mA outputs.

## **DUAL CHANNEL EXPLOSION PROOF MODEL MP220EX**

The MP220EX is a two-channel, explosion proof, wall mounted, control unit rated for use in Class 1, Div. 1, Groups C, & D (B optional) hazardous areas. Operation via magnetic wand allows the unit to be operated without opening the cover, thereby ensuring that hazardous areas do not require declassification. 4-20 mA outputs are available as an option.



**WALL MOUNTED  
MODEL LC100**



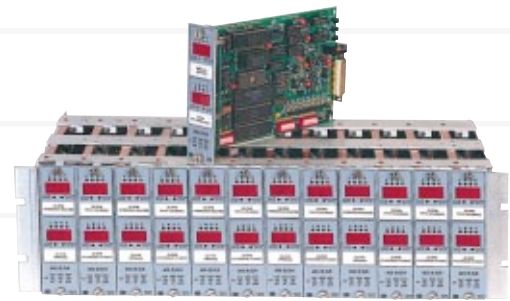
**WALL MOUNTED  
MODEL MP202**



**WALL MOUNTED  
MODEL MP204**



**EXPLOSION PROOF  
MODEL MP220EX**



**RACK/PANEL MOUNTED  
MODEL MP24**

## **FOR GAS CABINETS SINGLE CHANNEL RACK MOUNTED MODEL MP100**

The MP100 is a single channel rack mounted controller designed for installation into semiconductor gas cabinets for detection of Hydrogen. Utilizing a long life Solid State sensor, it can be configured to detect hydrogen in either PPM or %LEL concentrations. The Solid State sensor offers a 10+ year life expectancy and comes with a 3 year warranty, thus offering significant improvements over electrochemical sensors which have commonly been used in these applications. The unit comes standard with a digital display, 2 alarm relays and a 4-20 mA output. Like the other MP Series controllers, the MP100 also features automated calibration. It operates on 24 VDC, and can optionally be configured to operate on 110 or 220 VAC.



# COMPUTERIZED SYSTEMS



## REMOTE-LINK SYSTEM

The Remote-Link System is a state-of-the-art, computer-controlled gas monitoring system which allows sensors to communicate with the Remote-Link Computer over an AC power line, providing a data highway which eliminates the individual sensor wiring associated with conventional monitoring systems. Since 1989, the Remote-Link System has provided customers worldwide with the most advanced monitoring system available, with the capabilities, features, and field proven reliability found on no other system. The Remote-Link's powerful monitoring software includes such features as data archiving and reporting, curve plotting, alarm processing, and fault monitoring. Additionally, computer graphics display your plant and the locations of all sensors within your plant. By using the mouse button to point and click on a sensor, you can view its current reading and alarm status. A separate readings screen lets you view the readings of all sensors simultaneously. When an alarm occurs, audible and visual indications are provided and the graphics display will pinpoint the alarm area. In addition, programmable alarm relays are activated to trip horns, lights, etc.



The Remote-Link System can accommodate hundreds, even thousands, of sensors, yet is still an economical choice for systems with as few as 8 sensors. The modular design of the system enables additional sensors to be added with ease at a low incremental cost, allowing you to expand the system according to your needs. Computer assisted calibration takes the hassle out of calibration. Zero every sensor in the system with the press of a button! Then, simply apply gas to each sensor and let the computer do the rest. Calibration just doesn't get any easier!

# PORTABLES

All of IST's portable instruments are designed to operate on either alkaline or nicad batteries, or the AC adapter/charger which is included with every unit. The AC adapter/charger will charge nicad batteries, while bypassing alkaline batteries, and allows portable units to be powered on at all times and ready for use for maximum reliability.



## TLV PANTHER

The TLV Panther is an Industrial Precision Photoionization Detector (PID). Offering fast response and high sensitivity, photoionization is the preferred method for detection of Volatile Organic Compounds (VOC's), and the TLV Panther is the first PID unit of its kind to utilize Precise Response Curves for the detection of individual gases, including ammonia, benzene, and hydrazine, to name a few. No correction factors are used. The actual response curves for 30 gases are preprogrammed into each unit. The TLV Panther's automated calibration feature allows you to calibrate all of these gases by calibrating just one gas, making calibration extremely simple. For maximum precision, you also have the option to individually calibrate gases of interest.

The TLV Panther also provides you with the ability of adding up to 3 additional sensors, either electrochemical or infrared, for more selective detection of individual gases of interest. This allows the TLV Panther to handle a wide variety of applications. The TLV Panther also comes standard with a large, backlit LCD display, built-in sampling pump, and audible and visual alarms. The optional data logging feature lets you store months worth of data which can be downloaded to a computer or printed out via the built-in RS-232 interface. The unit is powered via 6 'D' size batteries (alkaline or nicad), or the AC adapter/charger.



## TLV FALCON

Like the TLV Panther, the TLV Falcon incorporates a photoionization detector (PID) for the detection of Volatile Organic Compounds (VOC's). However, because the TLV Falcon is a single channel unit, it is much more compact. The TLV Falcon comes standard with a digital

display, built-in sample pump, and audible and visual alarms. It operates on 4 'C' size alkaline or nicad cadmium batteries, or the AC adapter/charger. The unit comes standard with 3 ranges which are selectable via a switch on the front panel. While the unit comes standard calibrated to isobutylene, calibration to other gases is also available.



### **100 GAS PORTABLE – MODEL IQ-1000**

IST's Model IQ-1000 is the most unique and versatile portable gas detector on the market today. Using IST's Mega-Gas sensor, this remarkable unit can detect OVER 100 toxic and combustible gases. Three alarm setpoints are provided for each gas, and audible as well as visual indicators alert you if any of these alarm limits have been exceeded. A "Gas Search" feature allows you to scan an area for any of these hazardous gases.

Besides the Mega-Gas sensor, the IQ-1000 also accepts electrochemical, catalytic bead, solid state, or infrared sensors. A total of four sensors of varying types can be used, giving the IQ-1000 the flexibility to meet a wide range of applications. A large, 8 line, 40 character per line display allows you to simultaneously view the readings of all 4 sensors.

The standard unit includes a built-in sample pump, sample wand, and carrying case. Calibration is simple and automated, and optional datalogging enables storage of months of data. An RS-232 port provides interface to a computer or printer. Power is provided by six 'D' size alkaline or nicad batteries, or the AC adapter/charger. The IQ 1000 weighs approximately 6 lbs., including batteries.



### **IQ-350 EAGLE**

The IQ-350 Eagle is a portable instrument which comes equipped with an Infrared (IR) sensor for detection of Carbon Dioxide (CO<sub>2</sub>), Carbon Monoxide (CO), or Hydrocarbons (HC's). The unit can be optionally equipped with an additional sensor for the detection of Oxygen. The unit provides a digital display of gas

concentration, built-in sample pump, and audible and visual alarms. It operates on 4 'C' size alkaline or nicad batteries, or the AC adapter/charger. The Eagle comes standard with 3 ranges which are selectable via a switch on the front panel.



### **SINGLE GAS PORTABLE MODEL IQ-250**

IST's Model IQ-250 is a single gas portable instrument which can be equipped with either a solid state, or electrochemical sensor. Any one of over 150 toxic and combustible gases can be chosen. A digital display indicates the gas concentration, and an alarm buzzer and alarm LED's alert you to the presence of hazardous levels. The IQ-250 does not incorporate a sample pump, and samples by diffusion only. User adjustable setpoints are provided for low, mid, and high alarm levels. The unit operates on 4 'AA' size alkaline or nicad batteries, or the AC adapter/charger. The IQ-250 weighs approximately 22 ounces, including batteries.



### **SINGLE GAS PORTABLE WITH SAMPLE PUMP – MODEL IQ-350**

IST's Model IQ-350 is a single gas portable instrument which provides all of the features of the IQ-250 and in addition comes standard with a built-in sampling pump. Like the IQ-250, it can be equipped with either a solid state or electrochemical sensor and can be configured to detect any one of over 150 toxic and combustible gases. The unit operates 20 hours on 4 'C' size alkaline or nicad batteries, or the AC adapter/charger. The IQ-350 weighs approximately 30 ounces, including batteries.



# PORTABLES

## 4 GAS, CONFINED SPACE ENTRY PORTABLE MODEL IQ-200

IST's Model IQ-200 requires just two sensors for confined space entry applications, a single solid state sensor for CO, H<sub>2</sub>S, and combustible gases, and an electrochemical sensor for oxygen. This makes the IQ-200 much more affordable than comparable confined space entry portables. Additionally, both the solid state and oxygen sensors used in the IQ-200 are long-life sensors. Typical life expectancy is 5 years for the O<sub>2</sub> sensor and over 10 years for the solid state sensor. This results in a tremendous savings in long term operating costs associated with sensor replacement.

The IQ-200 has an audible alarm buzzer, and alarm LED's indicate low, mid, and high alarm levels for the solid state sensor, and low and high alarms for the O<sub>2</sub> sensor. The IQ-200 does not incorporate a sample pump and samples by diffusion only. It is small and lightweight, weighing just 22 ounces, including batteries. It operates on 4 size 'AA' alkaline or nicad batteries, or the AC adapter/charger. Carrying case is included.



from ppm to 20% by volume, with the lower ranges offering better resolution. CO is available in % volume ranges, and hydrocarbon ranges are available from %LEL up to 100% by volume, depending upon the gas.

## PHOTOIONIZATION DETECTOR (PID)

Photoionization detectors (PID) operate by ionizing the target gas with ultra-violet radiation, and then collecting the ions across a high voltage plate which produces an electrical signal proportional to the gas present. PID's offer fast response for many Volatile Organic Compounds (VOC's), including, among others, benzene, vinyl chloride, phosphine, and hexane.

## ELECTROCHEMICAL

Electrochemical sensors operate by producing a chemical reaction with the gas of interest. Sensors are available for certain toxic gases in ppm ranges, including NH<sub>3</sub>, CO, Cl<sub>2</sub>, H<sub>2</sub>, HCl, HCN, H<sub>2</sub>S, NO, NO<sub>2</sub>, O<sub>2</sub>, O<sub>3</sub>, and SO<sub>2</sub>. For some of these gases, electrochemical sensors can offer a fairly high degree of selectivity. Electrochemical sensors have a life expectancy of 1 to 2 years and come with a 1 year warranty.

## CATALYTIC BEAD

Catalytic Bead sensors operate by burning combustible gases, raising the temperature of the sensor. This temperature rise changes the resistance of the sensor and produces a signal proportional to the gas concentration. They detect combustible gases in higher concentrations (above 1000 ppm) only. They are not selective and will respond to a wide range of combustible gases. However, since they only detect higher gas concentrations, they are not prone to interference from many toxic gases. Catalytic Bead sensors have a life expectancy of 2 years and come with a 1 year warranty.

# GAS SENSORS

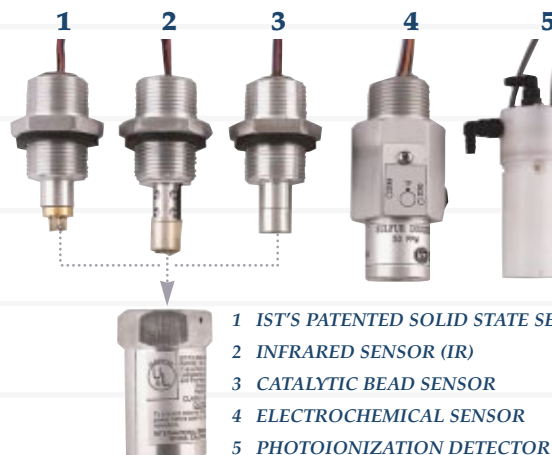
IST offers 5 different types of sensors: Solid State, Infrared, Photoionization, Catalytic Bead, and Electrochemical. This gives you the flexibility to choose the best sensor(s) for your particular application. A brief description of each sensor type follows:

## SOLID STATE

Solid State sensors are made of a heated metal oxide material which temporarily changes resistance in the presence of gas. Solid State sensors are available for the detection of over 150 different toxic and combustible gases, in ranges from low ppm %LEL. A list of gases and ranges appears on the back of this brochure. Solid State sensors come with a 3 year warranty, and have a life expectancy in excess of 10 years.

## INFRARED SENSOR (IR)

Infrared (IR) sensors detect gases that absorb light in the infrared spectrum. Sensors for carbon dioxide (CO<sub>2</sub>), carbon monoxide, and hydrocarbons (such as Methane, etc.) are currently available. IR sensors offer good selectivity and good lifetimes. Ranges for CO<sub>2</sub> are available



- 1 IST'S PATENTED SOLID STATE SENSOR
- 2 INFRARED SENSOR (IR)
- 3 CATALYTIC BEAD SENSOR
- 4 ELECTROCHEMICAL SENSOR
- 5 PHOTOIONIZATION DETECTOR (PID)

To help you select the most appropriate sensor for your application, contact IST to receive additional assistance and a copy of IST's Sensor Selection Guide.

The following gases are available for detection using IST's Solid State Sensors. The full-scale ranges listed are standard ranges available. For toxic gas monitoring, ranges are typically chosen which are higher than the TLV so that hazardous levels will be detected (TLV is defined as a SAFE level). For combustible gases, the typical range is 0-100 % LEL. Other ranges can also be provided—please contact IST for information. The following information is valid as of 11/97.

## SOLID STATE SENSOR GAS LIST

GAS	FULL-SCALE RANGES	GAS	FULL-SCALE RANGES
Acetic Acid	100, 200 ppm	Hexane	50, 100, 200, 2000, 2500, 3000 ppm, % LEL
Acetone	100, 200, 500, 1000, 5000 ppm, % LEL	Hexene	% LEL
Acetonitrile	100 ppm	Hydrazine	5, 10, 20, 100, 1000 ppm, 1% by Volume
Acetylene	50 ppm, % LEL, 3% by Volume	Hydrogen	50, 100, 200, 500, 1000, 2000, 5000 ppm, 3%, 5% by Vol., 2% to 100% LEL
Acrolein (Acrylaldehyde)	50 ppm	Hydrogen Bromide	50 ppm
Acrylic Acid	100 ppm	Hydrogen Chloride	50, 100, 200, 400, 500, 1000 ppm
Acrylonitrile	50, 60, 80, 100, 200, 500 ppm, % LEL	Hydrogen Cyanide	20, 30, 50, 100, 200, 1000, 10000 ppm
Allyl Alcohol	% LEL	Hydrogen Fluoride	20, 50, 100, 200 ppm
Allyl Chloride	200 ppm	Hydrogen Sulfide	5, 10, 20, 30, 50, 100, 300, 1000 ppm, % LEL
Ammonia	50, 70, 75, 100, 150, 200, 300, 400, 500, 1000, 2000, 2500, 4000, 5000 ppm, 1%, 2%, 10% by Vol., 10%, 25%, 100% LEL	Isobutane	1000, 3000 ppm, % LEL
Anisole	100 ppm	Isobutylene	% LEL
Arsenic Pentafluoride	5 ppm	Isopentane	1000 ppm
Arsine	1, 10 ppm	Isoprene	% LEL
Benzene	50, 75, 100, 1000 ppm, % LEL	Isopropanol	200, 400, 500, 1000 ppm, % LEL
Biphenyl	50%, 100% LEL	JP4	1000 ppm, % LEL
Boron Trichloride	500 ppm	JP5	1000, 5000 ppm, % LEL
Boron Trifluoride	500 ppm	Methane	100, 200, 1000, 1500, 2000, 5000 ppm, 1%, 2% by Volume, 100%, 200% LEL
Bromine	20 ppm	Methanol	200, 300, 400, 500, 1000, 2000, 5000 ppm, 15%, 30%, 100% LEL
Butadiene	50, 100, 3000 ppm, % LEL	Methyl Acetate	30 ppm
Butane	400, 1000 ppm, 100%, 200% LEL	Methyl Acrylate	60 ppm
Butanol	1000 ppm, 100% LEL	Methyl Bromide	20, 50, 60, 100, 500, 1000, 10000, 40,000 ppm
Butene	100% LEL	Methyl Butanol	% LEL
Butyl Acetate	100 ppm, % LEL	Methyl Cellosolve	% LEL
Carbon Disulfide	50, 60, 100 ppm, 5% by Volume	Methyl Chloride	100, 200, 300, 2000, 10000 ppm, % LEL
Carbon Monoxide	50, 100, 150, 200, 250, 300, 500, 1000, 3000, 5000 ppm, 3%, 5% by Volume, % LEL	Methyl Ethyl Ketone	100, 500, 1000, 4000 ppm, 100% LEL
Carbon Tetrachloride	50, 100, 10000 ppm	Methyl Hydrazine	5 ppm
Cellosolve Acetate	100 ppm	Methyl Isobutyl Ketone	200, 500, 2000 ppm, 50%, 100% LEL
Chlorine	10, 20, 50, 100, 200 ppm	Methyl Mercaptan	30 ppm
Chlorine Dioxide	10, 20 ppm	Methyl Methacrylate	100 ppm, % LEL
Chlorobutadiene	100% LEL	Methyl-Tert Butyl Ether	100% LEL
Chloroethanol	200 ppm	Methylene Chloride	20, 100, 200, 300, 400, 500, 600, 1000, 2000, 3000, 5000 ppm, % LEL
Chloroform	50, 100, 200 ppm	Mineral Spirits	200, 3000 ppm, % LEL
Chlorotrifluoroethylene	100% LEL	Monochlorobenzene	100% LEL
Cumene	100% LEL	Monoethylamine	30, 100, 1000 ppm
Cyanogen Chloride	20 ppm	Morpholine	500 ppm
Cyclohexane	100 ppm, 100% LEL	Naptha	1000 ppm, 100% LEL
Cyclopentane	50 ppm	Natural Gas	1000, 2000 ppm, 2%, 4% by Volume, % LEL
Deuterium	50%, 100% LEL	Nitric Oxide	20, 50 ppm
Diborane	10, 50 ppm	Nitrogen Dioxide	20, 50, 100 ppm
Dibromoethane	50 ppm	Nitrogen Trifluoride	50, 500, 1000 ppm
Dibutylamine	100% LEL	Nonane	2000 ppm
Dichlorobutene	1% by Volume	Pentane	200, 1000 ppm, % LEL
Dichloroethane (EDC)	50, 100 ppm, % LEL	Perchloroethylene	200, 1000, 2000, 20000 ppm
Dichlorofluoroethane	100, 1000 ppm	Phenol	100 ppm
Dichloropentadiene	50 ppm	Phosgene	50 ppm
Dichlorosilane	50, 100 ppm	Phosphine	3, 5, 10, 20, 30, 50 ppm
Diesel Fuel	50 ppm, 100% LEL	Phosphorus Oxychloride	200 ppm
Diethyl Benzene	100% LEL	Picoline	% LEL
Diethyl Sulfide	10 ppm	Propane	100, 1000 ppm, 100% LEL
Difluorochloroethane	100% LEL	Propylene	100, 200, 1000, 5000 ppm, %LEL
Difluoroethane (152A)	100% LEL	Propylene Oxide	100 ppm, % LEL
Dimethyl Ether	100% LEL	Silane	10, 20, 50 ppm
Dimethylamine (DMA)	30, 50 ppm	Silicon Tetrachloride	1000 ppm
Epichlorohydrin	50, 100, 500, 1000 ppm	Silicon Tetrafluoride	1000 ppm
Ethane	1000 ppm	Styrene	200, 300 ppm, % LEL
Ethanol	200, 1000, 2000 ppm, % LEL	Sulfur Dioxide	50, 100 ppm
Ethyl Acetate	200, 1000 ppm, % LEL	Tetrahydrofuran	200, 300, 1000 ppm, % LEL
Ethyl Benzene	200 ppm, % LEL	Tetraline	100 ppm
Ethyl Chloride	100 ppm, % LEL	Toluene	50, 100, 200, 500, 2000, 5000 ppm, % LEL
Ethyl Chlorocarbonate	1% by Volume	Toluene Diisocyanate	15 ppm
Ethyl Ether	100, 800, 1000 ppm, % LEL	Trichloroethane	50, 100, 500, 1000 ppm, 1% by Volume
Ethylene	100, 1000, 1200 ppm, % LEL	Trichloroethylene	50, 100, 200, 300, 500, 1000, 2000 ppm, %LEL
Ethylene Oxide	5, 10, 20, 30, 50, 75, 100, 150, 200, 300, 1000, 1500, 2000, 3000 ppm, % LEL	Triethylamine (TEA)	100 ppm
Fluorine	20, 100 ppm	Trifluoroethanol	25, 100 ppm
Formaldehyde	15, 50, 100, 500, 1000 ppm	Trimethylamine (TMA)	50 ppm
Freon-11	1000, 2000, 5000 ppm	Tungsten Hexafluoride	50 ppm
Freon-12	1000, 2000, 3000 ppm	Turpentine	% LEL
Freon-22	100, 200, 500, 1000, 2000 ppm	Vinyl Acetate	1000 ppm, % LEL
Freon-113	100, 200, 500, 1000, 2000 ppm, 1% by Vol.	Vinyl Chloride	20, 50, 100, 200, 400, 500, 1000, 4000, 10000 ppm, 10%, 100% LEL
Freon-114	1000, 2000, 20000 ppm	Vinylidene Chloride	50 ppm
Freon-123	1000 ppm	Xylene	100, 200, 300, 1000 ppm, 1% by Volume
Fuel Oil or Kerosene	100% LEL		
Gasoline	100, 1000, 2000, 20000 ppm, % LEL		
Germane	10, 50 ppm		
Heptane	1000 ppm, % LEL		

*For further information on any product,  
please contact IST or our authorized representative.*

*Represented By:*



**INTERNATIONAL  
SENSOR TECHNOLOGY**

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