



Product Catalog



Gas Detection For Life



INSTRUMENTS

Gas Detection for Life

Dear Customer,

RKI Instruments, Inc. is an innovative gas detection company located in Union City, California. RKI was established in 1994 by Sandra Gallagher and myself. We both believe that customers and distributors deserve a reliable source for advanced gas detection equipment as well as solutions to specific gas monitoring applications.

RKI is partnered with Riken Keiki Co. Ltd., the world leader in gas detection and sensor technologies. In business for over 80 years, Riken has sold over 1.8 million portable and fixed gas monitors worldwide with annual sales exceeding \$260 million. They have over 700 employees, a large number of which are engineers and scientists. RKI is the exclusive North American supplier of Riken products.

Every year, RKI has continued to achieve a high level of growth which is attributed to our sales and support of Riken products and the ability to develop our own line of products around Riken's long lasting sensors. This capability of sales, support, and development is made possible by our seasoned professionals. RKI employees average 12 years of gas detection experience, and the top 6 executives combined industry experience totals over 180 years.

This combination of quality products and knowledgeable supportive people provides you with the ability and opportunity to confidently face almost any gas monitoring application, with equipment built to last. When you call RKI, you will get solutions and answers to your gas detection needs.

RKI provides Gas Detection for Life. Not only will our equipment protect your life and property from the hazards of gases and vapors, but with proper care, it may also be the last gas detector you will ever need to purchase.

Sincerely,

Bob Pellissier
President



LEL, O₂, H₂S, CO

Smallest and Lightest 4 & 5 Gas Monitor

GX-3R 4 Gas Confined Space



Standard Confined Space Gases	
Gas Detected	Detection Range
Combustible Gases (Methane as standard)	0 - 100% LEL (1% LEL)
Oxygen (O ₂)	0 - 40.0% vol. (0.1% vol.)
Carbon Monoxide (CO)	0 - 2000 ppm (1 ppm)
Hydrogen Sulfide (H ₂ S)	0 - 200.0 ppm (0.1 ppm)
Carbon Monoxide (CO) H ₂ Compensated	0 - 2000 ppm (1 ppm)



SDM-3R

- Compatible with the GX-3R or GX-3R Pro
- Automate bump tests, calibrations, charging and data retrieval
- Operate up to 10 stations with 1 set of cal equipment



RP-3R

Clip-On Sampling Pump

- Available for the GX-3R and GX-3R Pro
- 100' sampling range
- Independent power supply



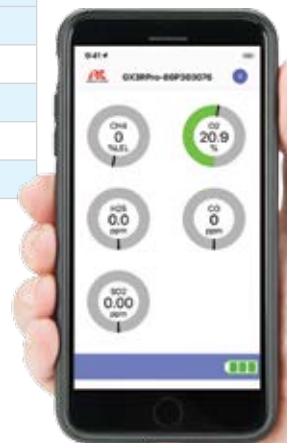
RP-3R Pro

LEL, O₂, H₂S, CO, CO₂, SO₂

GX-3R Pro 5 Gas Confined Space



Standard Confined Space Gases	
Gas Detected	Detection Range
Combustible Gases (Methane as standard)	0 - 100% LEL (1% LEL)
Oxygen (O ₂)	0 - 40.0% Vol. (0.1% vol.)
Carbon Monoxide (CO)	0 - 2000 ppm (1 ppm)
Hydrogen Sulfide (H ₂ S)	0 - 200.0 ppm (0.1 ppm)
Carbon Monoxide (CO) H ₂ Compensated	0 - 2000 ppm (1 ppm)
Sulfur Dioxide (SO ₂)	0 - 100.0% ppm (0.05% ppm)
Carbon Dioxide (CO ₂)	0 - 10.0% Vol (0.01%)
	0 - 10,000 ppm (20 ppm)
Hydrogen Cyanide (HCN)	15, 30 ppm
Nitrogen Dioxide (NO ₂)	9, 15, 20 ppm
Ammonia (NH ₃)	75, 100, 200, 400, 1k ppm
Phosphine (PH ₃)	1, 2, 5 ppm



RKI Link Phone App

- Bluetooth communication with iOS and Android phone app
- Direct readings from instrument
- Configure instrument settings
- Alarm notifications
- Instrument locator

6 Gas Sample Draw With PID, IR And Super Toxics

GX-6000

Monitor up to 6 gases:

- LEL, O₂, H₂S, CO
- 2 Smart sensor slots
 - PID for VOC's
 - IR for CH₄, HC, & CO₂
 - EC for NH₃, Cl₂, HCN, NO₂, & SO₂

6 Operating modes

- Normal
- Leak Check
- Inert
- Bar Hole
- Snap Log
- Benzene Specific Mode

PID Library of more than 600 VOC's

- Accepts 10.6, 11.7, and / or 10.0 PID lamps
- 50,000 ppb / 6,000 ppm ranges
- Easily choose a target VOC
 - User defined VOC list of 30
 - Recently used VOC list of last 8

Glove friendly glow in the dark buttons

Interchangeable battery options

- Lithium-ion pack operates 14 hours
 - Complete recharge in 3 hours
- Alkaline pack operates 8 hours

Weather & dust resistant

- IP-67

9 Languages

- English, Spanish, French, German, Italian, Japanese, Korean, Portuguese, Russian



Alarms

- 2 Adjustable gas alarms per channel
- Man down alarm
- Panic alarm
- 4 Alarm LED's
- Audible and vibration alarms
- Trouble alarms for low flow, sensor connection, low battery, circuit error and calibration

LED Flashlight

- On demand light source

LCD Display

- Auto flip display
- Peak bar graphs
- Adjustable auto backlight
- Customize order of gases
- Single gas view with large font and auto sequence

LEL protection mode

- Shields LEL sensor from damaging high hydrocarbon exposure

Intrinsically Safe

- ATEX / IECEx
- cCSA_{US}

New: Benzene Specific Option



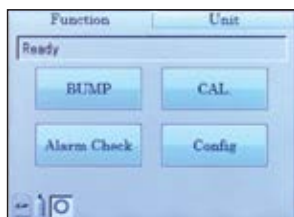
PID Sensors (Smart Sensors)				
	Gas	Measuring Range	Reading Increment	Alarm Set Points
10.6 Lamp	600 VOC's	0 - 50,000 ppb	1 ppb: (< 5000 ppb) 10 ppb: (> 5,000 ppb)	A1: 5,000 ppb A2: 10,000 ppb
		0 - 6,000 ppm	0.1 ppm: (< 600 ppm) 1 ppm: (> 600 ppm)	A1: 400 ppm A2: 1,000 ppm
10.0 Lamp	Benzene Specific	0.1 - 50 ppm	0.01 ppm (0 - 10 ppm) 0.1 ppm (10 - 50 ppm)	No Alarms
	300 VOC's	0 - 100 ppm	0.01 ppm (0 - 10 ppm) 0.1 ppm (10 - 100 ppm)	A1: 5 ppm A2: 10 ppm
11.7 Lamp	600 + VOC's	0 - 1000 ppm	0.1 ppm	A1: 400 ppm A2: 1000 ppm

4 Gas Sensor Slots

Gases & Detectable Ranges		
Gas	Measuring Range	Alarm Set Points
Catalytic		
Hydrocarbons (CH ₄ , std)	0 - 100% LEL	A1: 10% LEL
		A2: 50% LEL
Galvanic		
Oxygen (O ₂)	0 - 40% vol.	A1: 19.5 vol.
		A2: 23.5 vol.
Electro Chemical		
Carbon Monoxide (CO)	0 - 500 ppm	A1: 25 ppm
		A2: 50 ppm
		TWA 25 ppm
		STEL 200 ppm
Hydrogen Sulfide (H ₂ S)	0 - 100 ppm	A1: 5.0 ppm
		A2: 30.0 ppm
		TWA 1.0 ppm
		STEL 5.0 ppm

2 Smart Sensor Slots

Gases & Detectable Ranges		
Gas	Measuring Range	Alarm Set Points
IR Sensors		
Carbon Dioxide (CO ₂)	0 - 10,000 ppm 0 - 10% vol.	A1: 5,000 ppm
		TWA 5,000 ppm
		STEL 30,000
Methane (CH ₄)	0 - 100% LEL / 0 - 100% vol.	A1: 10% LEL
		A2: 50% LEL
Hydrocarbons	0 - 100% LEL / 0 - 30% vol.	A1: 10% LEL
		A2: 50% LEL
Toxics (EC Sensors)		
Ammonia (NH ₃)	0 - 400.0 ppm	A1: 25.0 ppm
		A2: 50.0 ppm
Chlorine (Cl ₂)	0 - 10.00 ppm	A1: 0.50 ppm
		A2: 1.00 ppm
Hydrogen Cyanide (HCN)	0 - 15.0 ppm	A1: 5.0 ppm
		A2: 10.0 ppm
Nitrogen Dioxide (NO ₂)	0 - 20.00 ppm	A1: 3.00 ppm
		A2: 6.00 ppm
Phosphine (PH ₃)	0 - 20.00 ppm	A1: 0.30 ppm
		A2: 1.00 ppm
Sulfur Dioxide (SO ₂)	0 - 99.90 ppm	A1: 2.00 ppm
		A2: 5.00 ppm



SDM-6000 Calibration Station With Touch Screen Display

Confined Space / Leak Detector / Bar Hole Sample Draw Monitor

GX-2012

Monitors

- PPM/LEL/% vol CH₄
- O₂
- CO
- H₂S



- Internal hydrophobic filter
- 3 bright visual alarm LED's (top and sides)
- 95 db audible & vibration alarm
- Status indicators
 - Pump activity
 - Blinking heart (microprocessor status)
 - Battery level
- Time indicator
- Datalogging standard
 - Snapshot logging
 - Bar hole logging
 - Calibration and bump test records
- Combustible display automatically switches between % LEL and % volume
- Peak level bar display
- IP-67
- Glove friendly buttons
- ATEX / IECEx
- CSA

The GX-2012 is RKI's smallest personal 1-5 sensor gas monitor with a built in sample pump. Having 3 operating modes, the GX-2012 can be used for confined space, safety monitoring in it's Normal Operating mode; for leak investigation in Leak Check mode; and for underground leak checking in Bar Hole mode. When equipped with an optional TC sensor, the GX-2012 can measure 100% volume methane and dynamically auto range from % LEL to % volume. This is ideal for line purge testing.



Alkaline Battery Pack

Interchangeable Battery Packs



Lithium-ion Battery Pack

Standard Confined Space Gases

Gas Detected	Detection Range	Detection Principle	Alarm Levels
Combustible Gases (Methane as standard)	0 - 100% LEL 0 - 500 / 1,000 / 2,000 / 5,000 ppm	Catalytic combustion	1st alarm 10% LEL 2nd alarm 50% LEL Over alarm 100% LEL
% volume Methane	0 - 100% vol.	Thermal conductivity	No alarms for % vol. CH ₄
Oxygen (O ₂)	0 - 40.0% vol. (0.1% vol.)	Galvanic cell	Low alarm 19.5% High alarm 23.5% Over alarm 40.0%
Carbon Monoxide (CO)	0 - 500 ppm (1 ppm)	Electrochemical cell	1st 25 ppm 2nd 50 ppm TWA 25 ppm STEL 200 ppm Over 500 ppm
Hydrogen Sulfide (H ₂ S)	0 - 100.0 ppm (0.5 ppm)	Electrochemical cell	1st 5 ppm 2nd 30 ppm TWA 1 ppm STEL 5 ppm Over 100 ppm



SDM 2012 Calibration Station

- Bump test and calibration records copy to USB jump drive
- Save Bump Test and Calibration records
- Stand-alone station (no PC Required)
- Includes PC software for viewing / archiving bump test and calibration records
- Multiple modules connected to a PC (10 max)
- 2 Calibration gas ports

Single Gas Toxic Clip-On Personal Series

04 Series

The 04 Series toxic single gas monitor is designed to operate for many years with field replaceable sensors and filters. The NH₃, HCN, NO₂, PH₃, and SO₂ versions can operate continuously for at least 3,000 hours on (2) AAA size alkaline batteries. The 04 models have 3 preset alarms that are user adjustable. Each version is also equipped with visual, audible, and vibration alarms as standard.

The replacement sensors are inexpensive, easily field replaceable, and are interchangeable with other popular RKI instruments like the GX-3R, GX-3R Pro, and GasWatch 3. Sensors have a life expectancy of over 3 years and are backed by a 3 year warranty.



Personal Monitoring

- NH₃, HCN, NO₂, PH₃, or SO₂
- CO with H₂ elimination
- O₂ / CO combo sensor
- Operates 3,000 hours on alkaline
- 2 Preset alarms user adjustable
- Dust and water resistant with IP-67 approval
- 3 Year warranty

Single Gas Personal Monitor

GasWatch 3 / 03 Series



Gas Detected	Detection Range	Detection Principle	03 Series	GW3
Carbon Monoxide (CO)	0 - 500 ppm (1 ppm)	Electrochemical	◦	
	0 - 300 ppm (1 ppm)	Electrochemical		◦
Hydrogen Sulfide (H ₂ S)	0 - 100 ppm (0.5 ppm)	Electrochemical	◦	◦
Oxygen (O ₂)	0 - 40% vol. (0.1% vol.)	Galvanic cell	◦	◦
Combustibles	0 - 100% LEL (1% LEL)	Catalytic combustion	◦	
CO H ₂ Compensated	0 - 300 ppm (1 ppm)	Electrochemical		◦
O ₂ / CO	0 - 40% vol.	Electrochemical		◦
	0 - 300 ppm			



- 6 Versions to chose from — LEL, CO, H₂S, O₂ CO (-H₂) or dual CO/O₂
- Up to 4,000 hours of operation
- 3-year warranty (2 years for O₂ sensor)
- IP-66/68 dust and water resistant

SDM-03 Series Calibration Station

6 Gas (PID, TC, IR, and Smart EC Sensors)

EAGLE 2



The EAGLE 2 features a PID sensor for detecting high or low ppm levels (0-50 or 0-2,000) of VOC gases; % volume capability for CH4 and H2 using a TC (thermal conductivity) sensor; PPM or LEL hydrocarbon detection at the push of a button; infrared sensors for CO2 (ppm or % volume), methane or hydrocarbons in LEL and % volume ranges; methane elimination feature for environmental applications; and a variety of super toxic gases. The EAGLE 2 has a strong internal pump with a low flow auto pump shut off and alarm, which can draw samples from up to 125 feet. The EAGLE 2 will continuously operate for over 18 hours on alkaline batteries or 20 hours on NiMH. Datalogging is a standard feature for all sensors on all versions.

3 Display modes:

- Display all gases
- Single gas view large type-auto scroll
- Single gas view large type-manual scroll



IDEAL FOR:

- Confined space entry
- VOC monitoring
- Leak investigation
- Line purge testing
- Landfill monitoring
- Transformer gas testing
- EPA Method 21 for fugitive emissions



SDM-E2 Calibration Station

Standard Confined Space Gases

Hydrocarbons (CH4, std)	0 - 100% LEL 0 - 50,000 ppm 0 - 5% vol.
Oxygen (O2)	0 - 40% vol.
Carbon Monoxide (CO)	0 - 500 ppm
Hydrogen Sulfide (H2S)	0 - 100 ppm
Super Toxics and Other Gases	
Ammonia (NH3)	0 - 75 ppm
Arsine (AsH3)	0 - 1.5 ppm
Carbon Dioxide (CO2) (IR Sensor)	0 - 10,000 ppm 0 - 5% vol. 0 - 60% vol.
Chlorine (Cl2)	0 - 3 ppm
Hydrogen Cyanide (HCN)	0 - 30 ppm
Hydrogen Sulfide (H2S)	0 - 30 ppm
Methane (CH4) (IR Sensor)	0 - 100% LEL 0 - 100% vol.
HC IR	0 - 100% LEL 0 - 30% vol.
Phosphine (PH3)	0 - 1 ppm
Sulfur Dioxide (SO2)	0 - 6 ppm

6 Gas (Wide Range of Super Toxics)

EAGLE

FEATURES

- Monitor up to 6 gases
- Electrochemical, catalytic, and infrared sensor technologies
- PPM/LEL hydrocarbon detection
- Low flow alarm
- Powerful long-life internal pump with over 125' range
- Security "Adjustment Lockout" switch
- Up to 30 hours of continuous operation
- Alkaline or Ni-Cad capable
- Will operate in up to 2" of water
- Methane elimination switch for environmental use
- Meets EPA Method 21 protocol for fugitive emissions testing (most applications)
- Transformer gas testing versions available
- Intrinsically safe, CSA, C/US & UL Classified



Super Toxics and Other Gases (additional Toxic gases available)		Super Toxics and Other Gases (additional Toxic gases available)	
Ammonia (NH ₃)	0 - 75 ppm	Methane (CH ₄) (IR Sensor)	0 - 100% LEL 0 - 100% vol.
Arsine (AsH ₃)	0 - 1 ppm 0 - 200 ppb	Isobutane (C ₄ H ₁₀) (IR Sensor)	0 - 100% LEL 0 - 30% vol.
Carbon Dioxide (CO ₂) (IR Sensor)	0 - 5,000 ppm 0 - 10,000 ppm 0 - 5% vol. 0 - 20% vol. 0 - 60% vol.	Nitrogen Dioxide (NO ₂)	0 - 15 ppm
Chlorine (Cl ₂)	0 - 3 ppm	Nitric Oxide (NO)	0 - 100 ppm
Chlorine Dioxide (ClO ₂)	0 - 1 ppm	Phosphine (PH ₃)	0 - 1 ppm
Fluorine (F ₂)	0 - 5 ppm	Silane (SiH ₄)	0 - 15 ppm
Hydrogen Fluoride (HF)	0 - 9 ppm	Sulfur Dioxide (SO ₂)	0 - 10 ppm
Hydrogen Chloride (HCl)	0 - 15 ppm	Standard Confined Space Gases	
Hydrogen Cyanide (HCN)	0 - 30 ppm	Hydrocarbons (CH ₄ , std)	0 - 100% LEL 0 - 50,000 ppm
Hydrogen Sulfide (H ₂ S)	0 - 1 ppm 0 - 30 ppm	Oxygen (O ₂)	0 - 40% vol.
		Carbon Monoxide (CO)	0 - 500 ppm
		Hydrogen Sulfide (H ₂ S)	0 - 100 ppm

AsH₃, B₂H₆, CO, Cl₂, ClF₃, F₂, GeH₄, HCL, HCN, HF, H₂S, H₂O₂, NO, NH₃, NO₂, O₃, PH₃, SiH₄, Si₂H₆, SO₂

Toxic Gas Monitor

SC-8000



The SC-8000 is a sample drawing gas monitor built to provide rugged, reliable portable toxic gas detection. The SC-8000 measures toxic gases in the PPM (Parts Per Million) range, which is useful as a personnel safety monitor in any industry or operation where toxic hazards may exist. When gas levels exceed preset alarm levels, audible and visual alarms are activated. Display functions are all managed through a push button panel. The instrument is available in either an alkaline or rechargeable Li-Ion battery version. The alkaline version will continuously operate for up to 18 hours, while the rechargeable Li-Ion version will operate for up to 25 hours. The SC-8000 is compact, lightweight, water and dust resistant with an IP 67 rating, and has an Intrinsically Safe design.

FEATURES

- Real time detection with ppm range
- Large digital display with backlight
- Loud alarm buzzer with 95dB
- 2 Steps adjustable alarm volume
- Easy and simple operation
- Compact size and light weight
- Wide variety of long life EC sensors for many applications
- ATEX intrinsically safe design EXia IIC T4
- Water and dust resistant IP67
- Datalogging standard

Formaldehyde Specific Monitor

HCHO

FP-31



The FP-31 is a highly specific gas detector utilizing a proprietary colorimetric paper tablet to detect Formaldehyde. The instrument has a digital readout of the gas concentration on an LCD display. Readings are of average formaldehyde exposure over a selectable 15 minute or 30 minute period. This instrument does not respond to typical interference gases such as acetaldehyde, acetone, alcohols, ammonia, benzene, carbon monoxide, toluene or xylene.

FEATURES

- Specific to formaldehyde
- No interferences
- Built-in sample draw pump
- Colorimetric tablet method
- Stores 99 readings
- Operates for 12 hours
- datalogging

FP-31 Detection Ranges	
30 Minute Test	0 - 0.4 ppm (0.005 ppm increment)
15 Minute Test	0 - 1.0 ppm (0.01 ppm increment)

HC, CH4, O2

Dual Gas IR With Marine Approvals

RX-8000

FEATURES

- Real time detection for 100% LEL/ 100% volume HC and O2
- 3 Bright alarm LED indicators
- Loud alarm buzzer with 95 dB
- 30 meter sample range
- Water and dust resistant IP-67
- Charge display with bar graph and auto backlight
- 3 Bright LED alarm windows
- Lithium-ion rechargeable battery (optional)



Target Gas	Combustibles (i-C4H10 or CH4 calibration)		Oxygen (O2)
Detection Principle	Non-Dispersive Infrared		Galvanic cell
Detection Range (Increments)	0 - 100 vol% (0.5 vol%)	0 - 100 LEL% (0.5% LEL)	0 - 40% (0.1%)
Accuracy	+/- 5 vol%	+/- 5% LEL	Range 0 - 25% +/- 0.7% Range 26 - 40% +/- 3.0%
Response Time	T90 within 30 seconds		T90 within 20 seconds
Sampling Method	Sample Draw: Minimum 0.75L/min		
Power Source	Lithium-ion battery (3 hours for a full charge) Standard AA Alkaline battery (3pcs) Option		
Continuous Operation	Lithium-ion battery: more than 15 hours AA Alkaline battery: more than 10 hours		
Operating Temp & Humidity	-20 - + 50C (-4 - + 122 F) below 95% Rh (Non-condensing)		
Dimensions & Weight	Approx. 154 (W) x 81 (H) x 127 (D) mm Approx. 1.0 Kg Approx. 6.1" (W) x 3.1" (H) x 5.0" (D) Approx. 2.4lb		
Explosion Proof	EX ia II C T4		
Additional Features	Indication to show operation (pilot indicator and pump driving indicator), Activated confirmation beep and LED's flash (every minute), Pump stop function, Bump test function, IrDA communication, Data logger, Password protection		
Standard Accessories	Lithium-ion battery, AC powered charger (100V-240V), Gas sampling probe, Gas sampling hose (3.2 ft), Neck / shoulder strap, Filter tube, Strap for filter tube, Manual		



Certifications:
IECEX, ATEX, TIIS, HK
Complying to IEC60079-29-1, EN50104

H2S, HC, CH4, CO2

3 and 4 Gas IR with Marine Approvals

RX-8500 / 8700

FEATURES

- Dual range detection of % vol. and % LEL for CH4 or HC
- Accurately monitor inert locations for CH4 / HC
- Dual Range H2S 0-100 & 0-1,000 ppm
- High range H2S 0-1,000 ppm available (RX-517)
- Explosion proof / Intrinsically safe design
- Datalogging (Max 30 hours of interval trend)

LNG Carriers

RX-8500: CH4 / O2 (40% vol.) / CO
(1,000 ppm) / CO2 (20% vol.)

Oil Tankers

RX-8700: HC / O2 / H2S (1,000 ppm) & (100 ppm)

Certifications:








ATEX / IECEx approved
(Ex ia IIC T4) / MED

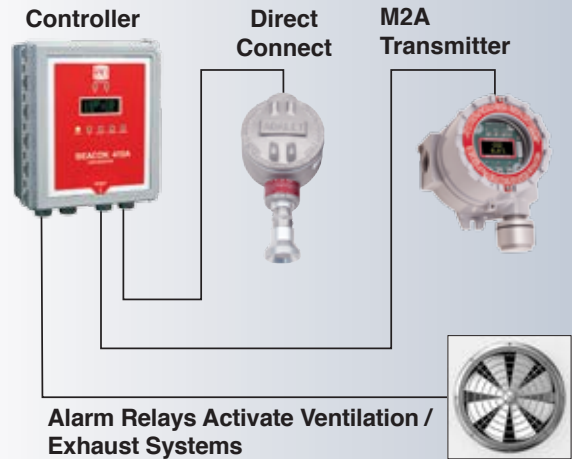


Wall Mount Controllers

FEATURES

- 1-64 Channel fixed system controllers
- Digital display of gas and concentration
- Programmable alarm levels
- Configurable alarm relays per channel
- Programmable common relays — Beacon 410A
- Built-in trouble alarm with relay
- Audible alarm
- Alarm reset button
- Accepts any 4-20 mA transmitter
- Provides 4-20 mA output
- Modbus communication (MC-6400)
- 115/220 VAC or 24 VDC operation
- Optional strobe & battery backup
- Weather proof NEMA 4X enclosure
- RFI / EMI resistant

Instruments	Channels	Alarm levels per channel	Relays per channel	Common relays	Direct connect sensors	
	Beacon 110	1	2	3	N/A	Yes
	Beacon 200	2	2	2	3	Yes
	Beacon 410A	4	3	3	5	Yes
	Beacon 800	8	2	2	3	No
	Beacon 3200	32 Max	3	**	4	Yes
	AC-7400	8/12	4*	0	4*	No
	MC-6400	64	4*	0	4*	No



* 4 Alarm levels with relays total.
 ** Relay module cards, 8 relay per module

LEL, H₂, H₂S, CO, O₂, CO₂, CH₄, HC, NH₃,
ASH₃, Cl₂, ClO₂, PH₃, HCN, SO₂

Explosion / Non Explosion Proof Sensor Stand Alone Transmitter

M2A

The M2A™ model is an explosion proof transmitter that can operate as a stand-alone system or as part of a system connected with an analog or digital signal to a controller, PLC, or DCS. A non explosion proof version is also available for certain gases.

The M2A utilizes a magnetic wand technique for performing non-intrusive calibration. The housing does not need to be opened for zeroing or calibration, making it unnecessary to declassify the area for routine maintenance. It is designed so that a complete field calibration can be performed by one person.

FEATURES

- Direct digital readout
- H₂ Specific version available
- Explosion proof housing
- Operates independently or with any controller, PLC or DCS
- Non intrusive calibration via magnetic wand
- 2 programmable alarm relays, plus fail relay
- Auto zero drift correction
- Remotely mount sensor with calibration adapter
- IR sensors available for LEL & CO₂, % vol. CH₄ & HC



LEL, H₂, H₂S, CO, O₂, CO₂, CH₄, HC, NH₃,
ASH₃, Cl₂, ClO₂, PH₃, HCN, SO₂

Explosion / Non Explosion Proof Sensor / Transmitter

S2

The S2 Series transmitter electronics are encased inside a potted package to avoid damage from mechanical abuse or corrosion, and housed in an explosion-proof enclosure. Some sensors are available as explosion-proof with flame arrestors and approved for use in hazardous atmospheres. S2 transmitters are also available with stainless steel enclosures.

Field calibration can be performed easily and quickly by one person. The only tools required to calibrate the S2 Series are a voltmeter, screwdriver, and cal gas. The amplifier has test jacks for connecting to a voltmeter for calibration purposes.

FEATURES

- Explosion proof housing
- Stainless steel enclosures available
- Patented water repellent sensor coating
- IR sensors available for LEL & CO₂, % vol. CH₄ & HC
- H₂ Specific LEL and ppm versions available
- Remotely mount sensor with calibration adapter



LEL, H₂, H₂S, CO, O₂, CO₂, CH₄, HC, NH₃,
ASH₃, Cl₂, ClO₂, PH₃, HCN, SO₂

Explosion / Non Explosion Proof Sensor

Direct Connect

The Direct Connect sensors can be used in two different ways. The sensors can be mounted directly to the controllers as a complete stand alone system, or they can be mounted to explosion proof junction boxes for remote detection.

The toxic sensors are electrochemical type plug-in sensors, which provide high specificity, fast response, and long life. The plug-in design allows quick replacement in the field with no tools required.

The Direct Connect sensors can be used either indoors or outdoors. The flame arrestors for the explosion-proof versions utilize a patented coating, which make them water repellent. Also, splash-guards are available for use in wet environments. An optional stainless steel junction box is available for corrosive environments.

FEATURES

- Connect directly to a Beacon controller
- Explosion proof housing
- Stainless steel enclosures available
- IR sensors available for LEL & CO₂, % vol. CH₄ & HC
- Patented water repellent sensor coating
- Remotely mount sensor with calibration adapter



2-Wire Explosion Proof Transmitter

T2A



The T2A Series toxic gas detector is a versatile assembly that uses an electrochemical sensor to detect a variety of gases. 2-Wire loop-powered to withstand extreme climatic conditions and harsh environments. Magnetic switches allow for non-intrusive calibration while in the field.

FEATURES

- Electrochemical Sensor
- Loop-Powered (2-Wired), 4-20 mA output
- 3 Character, 7 segment display screen with backlight
- Aluminum device enclosure
- 3 Push-button interface (ADD, MENU, SUB) with corresponding magnetic, non-intrusive switches
- Operating temperature range -40°C to +60°C
- 303 Stainless-steel sensor housing
- 1-Year warranty
- Splash guard and magnetic wand included

3-Wire Explosion Proof Transmitter

T3A



The T3A Series Gas Detector ambient air hazardous gas detector is a versatile assembly that uses an electrochemical, infrared, catalytic bead sensor element to detect a variety of gases. Wired power (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

FEATURES

- Electrochemical, Infrared or catalytic bead sensors
- Wire powered (3-Wire), 12 to 35 VDC operating voltage
- Operating temperature range -40°C to +60°C
- LCD display with LED back-light
- 3 Push-button interface (ADD, MENU, SUB)
- Non-intrusive buttons using magnetic wand
- 2 Individually configurable alarms
- 2 Front panel LED indicators (amber and red)
- 2 Optional fully programmable alarm relays (dry contacts)
- Output options: 4-20mA (3-wire) analog, RS-485
- Splash guard and magnetic wand included

VOC's

PID Explosion Proof Transmitter

VOC Pro



The VOC Pro Series Gas Detector is a versatile assembly that uses a PID sensor to detect a variety of gases. Wired power (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs are standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

FEATURES

- 4 PID sensor options
—10.0 eV lamp / 11.7 eV / 10.6 eV ppb / 10.6 eV ppm
- Wired power (3-Wire), 12 to 35 VDC operating voltage
- Operating temperature range -40°C to +60°C
- Graphical LCD with LED backlight
- 3 Push-button interface (ADD, MENU, SUB) with corresponding magnetic, non-intrusive switches
- 2 Individually configurable alarms
- 2 Front panel LED indicators (amber and red)
- 2 Optional fully programmable alarm relays (dry contacts)
- Output options: 4-20mA (3-wire) analog, RS-485 modbus (4 wire)
- 1-Year warranty (see specifications)
- Splash guard and magnetic wand included

LEL, PPM, HC's, O₂, CO₂, H₂S**Explosion Proof Transmitter****SD-1**

RKI Instrument's model SD-1 Series smart combustible gas, toxic gas, oxygen, and organic vapor detector/transmitter is a robust and reliable explosion proof design for detecting LEL and ppm levels of hazardous atmospheres. In addition to measuring the common % LEL levels of methane, hexane and isobutane, for example, the SD-1 Series also has the capability of measuring a wide variety of toxic organic compounds in a PPM range such as acrylonitrile, ethylene oxide, n-methyl pyrrolidone, methylene chloride and many others. This gives the SD-1 Series a unique niche in RKI's gas detector line-up. The SD-1 has an ATEX/IECEX approval for the explosion class ExdIICT5 and has an IP-65/67 ingress protection rating.

FEATURES

- Wide range of detectable gases
 - % LEL Combustibles, catalytic
 - % LEL Combustibles & CO₂, IR
 - H₂S, CO, & O₂
 - PPM for acrylonitrile, hydrogen, ethylene oxide, n-methyl pyrrolidone, methylene chloride, and many others
- Sensor types include
 - Catalytic, Galvanic Cell, MOS, IR, & Electrochemical
- Direct digital display of gas readings
- HART Communication protocol (no relays)
 - HART over 4-20mA or 4-20mA linear output
- Available with SIL2 approval (IR, EC, OX versions)
- Easy maintenance using a magnetic key
- Self-diagnosis by microprocessor
- Low power operation (Maximum: 3W)
- Explosion proof: ATEX, IECEx, ExdIICT5



ASH₃, CH₄, CL₂, CO, CO₂, F₂, H₂, H₂S, HBr, HCL, HCFC's, HCN, HF, NH₃, NO, NO₂, O₂, O₃, PH₃, SO₂, VOCs

Standalone Non-Explosion Proof Transmitter**Air Alert**

The RKI Air Alert series ambient air toxic gas detector is a versatile assembly that uses an electrochemical, infrared or PID sensor element to detect a variety of gases. Wire powered (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

FEATURES

- Available with 3 color alarm LEDs or 2 alarm relays
- Electrochemical, Infrared, or PID sensor element
- Wire powered (3-wire), 12-35 VDC operating voltage, optional AC power supply
- Operating temperature range of -40°C to +70°C
- 3 Push-button interface (ADD, MENU, SUB) with 3 corresponding magnetic, non-intrusive switches
- Graphical LCD with LED backlight
- Output options: 4-20mA (3-wire) analog, RS-485 Modbus, optional 900 MHz or 2.4 GHz radio
- 1-Year warranty

CO, CO₂, H₂S, LEL, O₂**Sample Draw Sensor / Transmitter****35-3001**

The 35-3001 series is a compact sample draw detector assembly with a built-in pump that accepts a 24VDC input. This unit features a NEMA 4X enclosure making it dust, water and corrosion resistant. It also features a flowmeter with adjustable flow and a low flow alarm which warns of any obstructions or restrictions in the flow system. The 35-3001 is also available in some dual sensor configurations.

The 35-3001 is capable of single person calibrations and remote sampling at up to 5,000 ft. from a controller, and interfacing to any RKI or third party control system (utilizing a 4-20 mA feedback signal).

FEATURES

- NEMA 4X enclosure
- Long life pump
- Low flow indication
- Flowmeter and LED's for operational status
- Operates on 24VDC input
- Multi gas versions available with sensors in one enclosure



Smart Sample Draw Transmitter

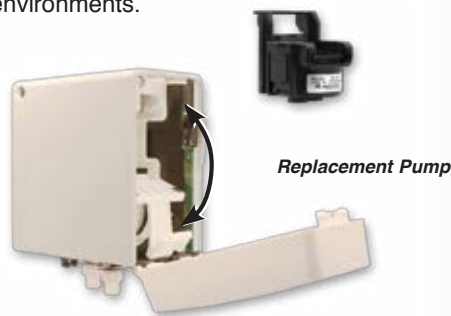
GD-70D

GD-70D Toxic Gases & Ranges	
Measurable Gases	Range
Ammonia	0 - 75 ppm
Arsine	0 - 0.2 or 1.5 ppm
Boron Trichloride	0 - 15 ppm
Boron Trifluoride	0 - 9 ppm
Bromine	0 - 1 ppm
Carbon Monoxide	0 - 75,150,300 ppm
Chlorine	0 - 3 ppm
Chlorine Trifluoride	0 - 0.6 ppm
Diborane	0 - 0.3 ppm
Dichlorosilane	0 - 15 ppm
Diethylamine	0 - 15 ppm
Dimethylamine	0 - 15 ppm
Disilane	0 - 15 ppm
Fluorine	0 - 3 ppm
Germane	0 - 0.8 ppm
Hydrogen Bromide	0 - 6 or 9 ppm
Hydrogen Chloride	0 - 6 or 15 ppm
Hydrogen Cyanide	0 - 15 ppm
Hydrogen Fluoride	0 - 3 or 9 ppm
Hydrogen Selenide	0 - 0.2 ppm
Hydrogen Sulfide	0 - 1 or 30 ppm
Nitric Oxide	0 - 100 ppm
Nitrogen Dioxide	0 - 9 or 15 ppm
Nitrogen Tetraoxide	0 - 15 PPM
Ozone	0 - 0.6 ppm
Phosphine	0 - 1 ppm
Silane	0 - 15 ppm
Silicon Tetrachloride	0 - 15 ppm
Silicon Tetrafluoride	0 - 9 ppm
Sulfur Dioxide	0 - 6 ppm
Sulfur Tetrafluoride	0 - 9 ppm
Tetraethyl Orthosilicate	0 - 15 ppm
Trichlorosilane	0 - 15 ppm
Trimethylamine	0 - 15 ppm
Tungsten Hexafluoride	0 - 9 ppm

The GD-70D smart sample-draw transmitter offers an array of plug and play intelligent sensor technologies, including electrochemical sensors for a wide range of toxic gases and oxygen; MOS for H₂, IPA, and methanol; catalytic sensors for combustibles; and a pyrolyzer sensor for TEOS and NF₃.

These smart sensors retain all calibration and sensor-specific data in non-volatile memory, so sensors can be hot-swapped in the field with no programming required. The sensors also retain calibration information, which means they can be conveniently calibrated separate from the transmitter, avoiding transport of calibration gases to field locations.

The long life high capacity pump and wide variety of sensing elements are replaceable in a few seconds, with no tools required! The GD-70D can be used as a stand-alone device, offering a number of communication protocols to existing PLC systems, or can be integrated with RKI's Beacon series of single and multi-channel controllers. An optional NEMA 4X enclosure is available for harsh environments.



TOOL FREE MAINTENANCE

SENSOR UNIT					
Model	ESU	SGU	SSU	OSU	NCU
Detection principle	Electrochemical cell	Semiconductor	Pyrolysis-particle	Galvanic cell	Catalytic combustion
Gas detected	Refer to table of toxic gases	H ₂ , CH ₄ , IPA, Methanol, R-32	0-15ppm TEOS in air	0-25% O ₂ in air	0-100% LEL H ₂ , CH ₄ , and others
Self diagnosis function	Sensor trouble, system failure				
Date logging function	Event history, alarm history, calibration history, Alarm trend (60 sec. before / after 1st alarm)				

Diffusion Sensor / Transmitter for Toxic Gases

Wide Range of Toxics



- Diffusion Style head
- Digital readout of gas name and concentration
- External control buttons for easy maintenance
- Intrinsically safe design with optional intrinsic safety barrier
- Quick response sensors
- Many toxic sensors available
- 3 to 5 year typical sensor life
- Low cost of ownership
- Weather proof enclosure available



GD-K88Ai

Weather Proof housing for GD-K88-4X

Partial List Of Detectable Gases. Contact RKI for gases or ranges not listed					
Ammonia (NH ₃)	0 - 75.0 ppm	Hydrogen Cyanide (HCN)	0 - 30.0 ppm	Phosphine (PH ₃)	0 - 1.00 ppm
Arsine (AsH ₃)	0 - 0.20 ppm	Hydrogen Sulfide (H ₂ S)	0 - 30.0 ppm	Silane (SiH ₄)	0 - 15.0 ppm
Bromine (Br ₂)	0 - 1.00 ppm	Hydrogen Sulfide (H ₂ S)	0 - 1.00 ppm	Sulfur Dioxide (SO ₂)	0 - 6.00 ppm
Chlorine (Cl ₂)	0 - 3.00 ppm	Nitric Oxide (NO)	0 - 100.0 ppm	Optional Ranges	
Carbon Monoxide (CO)	0 - 150 ppm	Nitrogen Dioxide (NO ₂)	0 - 15.0 ppm		
Diborane (B ₂ H ₆)	0 - 0.30 ppm				

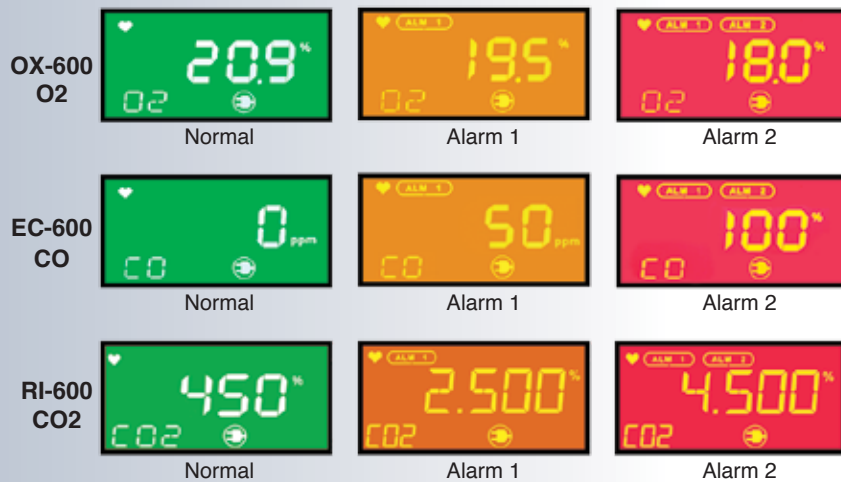
OX-600 / EC-600 / RI-600

The OX-600, EC-600, and RI-600 models are indoor, standalone monitors that detect Oxygen (O₂), Carbon Monoxide (CO), and Carbon Dioxide (CO₂). It's low-profile design is equipped with a unique tri-color display, which changes color as each alarm level is reached.

	OX-600	EC-600	RI-600
Detection Range	0 - 25 vol%	0 - 150 ppm (1ppm / digit)	0 - 2000 / 5000 / 10,000 ppm
			0 - 2% / 0 - 5 vol%

FEATURES

- Operates with or without a controller
- Tri-color visual alarm display: Green=Normal, Yellow=Alarm 1, Red=Alarm 2**
- Large easy to read digital display
- Three power options: 115 VAC, 24 VDC, or 2 AA alkaline**
- Alarm relay
- Operates up to 1 year on one set of AA alkaline batteries*
- Pressure compensation eliminates false alarms caused by pressure change
- Remote mount sensor cable available



Remote Sensor

* Battery option not available on RI-600

** Not available on battery versions

H₂ Specific Sensor / Transmitter

H₂ Specific

Gas monitoring that is specific to hydrogen without any false alarms is now available from RKI Instruments. A low range version is available which is highly sensitive with a range of 0-2,000 ppm. This is 20 times more sensitive than standard LEL detectors. The technology is based on a proprietary hydrogen specific solid state sensor. The second hydrogen specific sensor is for LEL range. A molecular sieve filter is used to make the sensors respond only to hydrogen molecules. False alarms from interfering gases are eliminated. Ideal for semiconductor fab monitoring and fuel cell applications. Production interruptions are minimized by eliminating false alarms from isopropyl alcohol (IPA) or other compounds. LEL is available with Direct Connect, S2 and M2A, 0-2000 ppm available in S2 Series.

IPA historically has caused problems with conventional hydrogen sensors when they mistakenly indicate the presence of hydrogen.

FEATURES

- Explosion proof housing
- H₂ specific solid state sensor (0-2000 PPM), 100, 500, 1,000 PPM ranges also available
- Molecular sieve filter
- Catalytic H₂ specific sensor (0-100 % LEL)
- Eliminates false alarms from IPA and other compounds
- Poison resistant
- 4-20 mA transmitter, 24VDC, or direct connect
- Optional stainless steel enclosure



32 Channel Wireless Hybrid Controller

AirLink 7010



The AirLink 7010 is a wireless controller that supports up to 32 wireless or 4 wired sensor transmitter inputs. Four of the channels can be setup for 4-20 mA wired input, making this hybrid controller compatible with both wireless and wired sensors. Durable, flexible and customizable the AirLink 7010 controller has a 5 button interface, 2 LCD display with LED backlighting, and a NEMA-4X weather proof enclosure.

FEATURES

- 32 Channel hybrid controller - supports wireless transmitters and up to 4 wired transmitters
- Radio options: 900 MHz radio or 2.4 GHz Standard
- 12 to 35 VDC operating voltage with optional AC power supply
- Operating temperature range of -40°C to +70°C
- 5 Push-button interface (ADD, MENU, SUB, SCAN/HOLD and RESET/ESC)
- Two graphical LCD's with LED backlights
- Programmable alarms
 - 4 configurable alarm set-points:
 - 4 front panel ALARM LED indicators (Red)
 - 4 dry-contact relays (4 amps maximum per relay)

32 Channel Touchscreen Controller

AirLink 7032



The AirLink 7032 Controller is a hybrid touchscreen controller that supports up to 32 wireless sensor inputs. Four channels can be setup for 4-20 mA wired input, making the controller compatible with both wireless and wired sensors. Durable, flexible and customizable, this controller can satisfy any wireless application.

FEATURES

- 32 Channel hybrid touchscreen controller - supports wireless transmitters and up to 4 wired transmitters
- Radio options: 900 MHz radio or 2.4 GHz Standard
- 12 to 35 VDC operating voltage with optional AC power supply
- Operating temperature range of -20°C to +50°C
- 7 Inch full color touchscreen
- Adjustable background gas setting
- Programmable alarms
 - 4 configurable alarm set-points:
 - Set points - 4 red alarms
 - Indicators; 4 dry-contact relays (4 amps max per relay)
- Status indicator for fault conditions, Amber indicator for system faults
- Output options: Wet contact fault DC fault terminal, 4 can optionally be configured as a fault relay, RS-485 Modbus
- 2GB USB drive included for datalogging
- 1 Year limited hardware warranty
- NEMA-4X standard fiberglass enclosure with clear window

6 Channel Controller

AirLink 7543



The AirLink 7543 six channel controller with 3 dry contact relays can monitor up to 6 individual wireless gas transmitters. RS-485 Modbus output allows for data communication to a PLC or other system monitoring device. Available with an optional WirelessHART® module that allows the received sensor readings to be viewable on a WirelessHART® network.

FEATURES

- 6 Channel controller accepts up to 6 wireless transmitters
- Radio options: 900 MHz or 2.4 GHz radio standard
- 3 Programmable alarm set-points
- 3 Dry-contact alarm relays
- Status indicator for fault conditions: Amber LED indicator for system faults
- Graphical LCD with LED backlight
- 12 to 35 VDC operating voltage with an optional AC power supply
- Operating temperature range of -40°C to +70°C
- NEMA 4X standard fiberglass enclosure with clear lid
- Output options: RS-485 Modbus or optional WirelessHART®
- 1-Year limited hardware warranty

ASH3, Cl2, ClO2, CO, CO2-IR, F2, H2S, HCN,
HF, LEL, NH3, NO, NO2, O2, O3, PH3, SO2

Explosion / Proof Battery Powered Transmitter

AirLink 6900

The AirLink 6900 is a versatile truly wire free transmitter using electrochemical, PID or low-power infrared sensor elements to detect a variety of gases. Wireless, dual battery power (3.6 V Lithium-Thionyl Chloride battery) with 900 MHz or 2.4 GHz radio options. Magnetic switches allow for non-intrusive calibration as well as full system settings and diagnostics, while in the field.

FEATURES

- Electrochemical, PID, or IR sensors available
- Wireless communication
 - 900 MHz radio and 52 networks
 - 2.4 GHz radio and 78 networks
- Dual battery powered
- Battery life
 - 2-year maximum - electrochemical sensors
 - 1-year maximum low-power infrared sensors
- Graphical LCD with LED backlight, readable in sunlight
- 3 Push-button interface (ADD, MENU, SUB) with corresponding magnetic, non-intrusive switches
- Explosion/flame-proof certification for select gases
- 1-Year warranty
- Optional remote-mount sensor kit with enclosure



ASH3, Cl2, ClO2, CO, CO2, F2, H2, H2S, HCN, HBR,
HCL, HF, LEL, NH3, NO, NO2, O2, O3, PH3, SO2

Explosion / Non Explosion Proof 4 Sensor / Transmitter

AirLink 6940 XP / NXP

The AirLink 6940 XP/NXP transmitters are 4 sensor wireless transmitter package available in both explosion proof or non explosion proof. Sensor technologies include IR for combustibles and CO2, PID for VOC's, electrochemical for a wide range of toxics including CO, H2S, SO2, NH3 and more. The AirLink 6940 XP/NXP is battery powered with a 6 month battery life (2 months for PID sensor). The wireless communication is available with 900 MHz or 2.4 GHz radio options. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

FEATURES

- Electrochemical, PID, or low power IR sensors
- Wireless communication
 - 900 MHz radio and 52 networks
 - 2.4 GHz radio and 78 networks
- AC powered with integrated backup battery pack
- Graphical LCD with LED backlight
- Adjustable background gas setting per setting
- 4 Push-button interface (MENU, ADD, SUB, and BACK) with 4 corresponding magnetic, non-intrusive switches
- Sensor warranty subject to factory verification
- 1-Year limited hardware warranty



ASH3, Cl2, ClO2, CO, CO2, F2, H2S, HBr, HCl, HCN,
HCFC's, HF, LEL, NH3, NO, NO2, O2, O3, PH3, SO2

Non-Explosion Proof / Battery Powered Transmitter

AirLink Alert

The AirLink Alert series toxic gas detector is a versatile assembly that uses an electrochemical, infrared or PID sensor element to detect a variety of gases. Battery powered, it communicates wirelessly with controller. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

FEATURES

- Electrochemical, Infrared, or PID sensor element
- Battery life
 - 2-year maximum - electrochemical sensors
 - 1-year maximum low-power infrared sensors
- Operating temperature range of -40°C to +70°C
- 3 Push-button interface (ADD, MENU, SUB) with 3 corresponding magnetic, non-intrusive switches
- Graphical LCD with LED backlight
- Output options: wireless, 900 MHz or 2.4 GHz radio
- 1-Year warranty



Variable Combustible Gas LEL Sensor



Detecting over a dozen combustible gases simultaneously, including Hydrogen, the Molecular Property Spectrometer (MPS) is unsurpassed in reliability, accuracy, and worker safety. No other sensor can match the accuracy of the MPS in reporting 0-100% LEL across multiple gases after a few calibrations per year. The MPS's robust design means it won't drift, decay, or poison over time.

FEATURES

- Responds accurately to over 14 gases, with a calibration to methane
- No conversion factors needed
- Immune to poisons such as H₂S, Silicone, and HCFC's
- Requires only annual field response checks
- Compatible with M2A, S2, Direct Connect
- Can be used in high humidity conditions
- Explosion proof approval CULUS
- Long sensor life

MPS LEL Sensor

Digester Process Gas Monitoring

CO₂, CH₄ Vol, High Range H₂S, O₂



Gas from waste digesters contains high levels of methane, CO₂, and H₂S, with little to no oxygen present. The Digester gas monitor checks for all these gases on a cyclic basis. A powerful air aspirator draws a sample from up to 100 feet away. Since digester gas contains high humidity and high H₂S, both of which can cause damage to sampling systems, the RKI Digester Gas Monitor is designed to handle these with no damage to the sampling system or sensors. The sample is passed through a series of particles, dust, and moisture stopping filters, and these filters are automatically purged with fresh air at the end of each cycle.

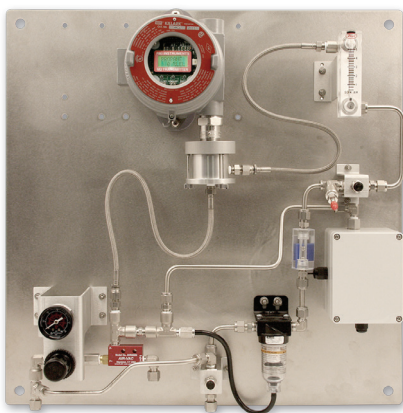
FEATURES

- Corrosion resistant design
 - Housing designed for extreme environments
 - Internal construction for extreme samples
 - Flow system designed to handle corrosive wet samples
- Sample system designed to handle high humidity
- Accurately measures gases with high levels of H₂S present
- 100 ft. sample range
- Up to 4 sensors:
 - CH₄ 0-100% volume
 - CO₂ 0-50% volume
 - O₂ 0-25% volume
 - H₂S 0-1000 PPM (0-3000 or 0-5000 optional)
- Suitable for indoor / outdoor installations
- NEMA 4X enclosure

Digester Gas Monitor

Harsh Environment Aspirator Panel

CO, CO₂, H₂, H₂S, LEL, O₂



Single or dual sensor system is designed to monitor gas atmospheres from extreme conditions with either temperature or pressure challenges. A powerful air aspirator can pull a sample from up to 100 feet away. The filtered and conditioned sample gas is then passed across one or two different detectors. Each detector shares a common calibration and compressed air inlet for aspirated flow. This system is fault tolerant removing the need for expensive downtimes and maintenance. The sample is diluted with air after the gas sensor then returned to a common exhaust reducing the danger of potential hazardous gases entering a safe work space.

System integrity is maintained at all times using a flow fail monitoring device which provides a normally open contact that activates if the sample line becomes blocked or damaged or if the air supply is removed or interrupted.

FEATURES

- Long life air aspirator (no moving parts)
- Extreme sample temperatures
- indoor / outdoor location options
- Corrosion resistant construction for extreme environments / samples
- Uses proven RKI technology
- Modular design easy to maintain
- Self draining moisture trap
- Back flush for sample line
- NEMA 4X enclosure options

Aspirator Panel

CH₄, CO, CO₂, HC, H₂S, NH₃, O₂, SO₂

Explosion Proof Multi Sensor Head

Waste Water Gas Monitoring

This unique tri-sensor head can be used either indoors or outdoors. The flame arrestors for the explosion-proof versions utilize a patented coating which make them water repellent. Also, splash guards are available for use in very wet environments. The tri and quad sensor head is designed to specifically interface with the RKI Beacon 410A controller.

The direct connect series sensors are available for LEL (IR or catalytic), toxics, O₂, H₂S, CO, or CO₂. All sensors are explosion-proof with flame arrestors, and suitable for use in hazardous locations. The enclosure is corrosion resistant NEMA 4X stainless steel.

Recommended for water and wastewater applications including wet wells, dry wells, bar screens, lift stations, digesters, thickeners, pump stations, and confined spaces.

FEATURES

- 2-4 Sensors, 1 explosion proof housing
- Infrared sensors available for combustible or CO₂
- Interfaces with Beacon 410A controller
- Available for combinations of LEL (CH₄ or HC), O₂, CO, H₂S, CO₂, and toxics
- Water repellent patented sensor coating
- Long life sensors (2 + years typical)
- CSA approved NEMA 4X stainless steel enclosure



Semiconductor Gases

FP-300, 300AGZS, 301, and 330



RKI's paper tape monitors utilize highly sensitive colorimetric tapes to achieve interference free detection at low PPB and PPM levels of a wide variety of gases. Each model is equipped with easily replaceable tapes that are specific to the gas being monitored. Each model has a digital display showing the type of gas and concentration in either PPM or PPB, and also displays remaining tape time as well as an end of tape alarm.

FEATURES

- PPB detection for many gases
- PPB or PPM digital display
- Easily transportable
- 115 VAC powered

Paper Tape Toxic Gas Detector

Gas Name	Gas Formula	Range	FP-300	FP-300AGZS	FP-301	FP-330
Ammonia	NH ₃	0 - 4 ppm	•			
Arsine	AsH ₃	0 - 150 ppb	•			
		0 - 15 ppb			•	
Boron Trifluoride	BF ₃	0 - 9 ppm	•			
Chlorine	Cl ₂	0 - 0.5 ppm	•			
		0 - 100 ppb				
Diborane	B ₂ H ₆	0 - 300 ppb	•			
Hydrogen Bromide	HBr	0 - 2 ppm	•			
Hydrogen Chloride	HCl	0 - 1 ppm	•			
		0 - 8 ppm				
Hydrogen Fluoride	HF	0 - 9 ppm	•			
Hydrogen Selenide	H ₂ Se	0 - 200 ppb			•	
Hydrogen Sulfide	H ₂ S	0 - 1000 ppb	•			
		0 - 10 ppm				
Octafluorocyclopentene	C ₅ F ₈	0 - 5 ppm		•		
Perfluorobutadiene	C ₄ F ₆	0 - 5 ppm		•		
Phosphine	PH ₃	0 - 500 ppb	•			
		0 - 900 ppb				
Silane	SiH ₄	0 - 15 ppm	•			
Formaldehyde	HCHO	0 - 0.5 ppm				
		0 - 1 ppm				•
		0 - 5 ppm				

Single Point Stand Alone Monitor

PS 2

A perfect solution for hydrogen detection in battery rooms, methane detection in basements, or in buildings near landfills. The PS 2 also detects a variety of solvent vapors in general industry and is a multipurpose gas monitor utilizing a metal oxide sensor (MOS) for long lasting and low maintenance detection at low LEL level of many gases or vapors. The PS 2 has two alarm levels for increasing gas or vapor levels. This stand alone unit is housed in a durable plastic enclosure with flanges provided for wall mounting and is designed with easy access wiring hubs on the bottom of the unit. The front of the PS 2 contains three lights; Pilot, Alarm 1, and Alarm 2. An internal audible alarm (85 db) signals a gas alarm condition. The sensor is provided on the end of a 30' extension cable as standard and the 115 VAC version is equipped with a power cord, for easy installation.

FEATURES

- LEL detection ranges available for many gases
- 2 alarm levels (typically 10% LEL and 30% LEL)
- Stand alone system
- Input voltages: 115 VAC standard, 24 VDC or 48 VDC (optional)
- Audible and visual alarms
- Compact design
- Simple installation
- AC version equipped with power cord
- Relay contacts rated 12A @ 115 VAC
- Low maintenance



LEL / H2S Detection for Drill Rigs

LEL or H2S

Rig Monitor







Rig monitors are specifically designed for detection of LEL / H2S around drilling rigs. All units include our long-life plug in electrochemical H2S sensor, range 0 - 100 ppm or our catalytic sensor range 0 - 100% LEL. All cable connections are protected by rugged strain relief cord grips, and sensors are mounted in an explosion proof enclosure that includes a convenient mounting bracket. Also included is a powerful horn / strobe mounted directly to the M2A or Beacon controller. The unit is powered by 12 VDC and comes with battery clamps on a 50' Cable.

FEATURES

- Pre-wired for easy installation
- 12 VDC powered with battery clamps
- Sensors wired on 25' cables
- Powerful horn / strobe
- Ideal for use at oil and gas drilling sites
- LEL versions available
- 1-4 channel versions available

Sensor Specification		
	H2S	LEL
Sensor	Electrochemical	Catalytic
Measuring Ranges	0 - 100 ppm H2S	100% LEL.
Resolution	1 ppm	1 LEL
Lower Detectable Limit (LDL)	2% of full scale	
Response Time (T-90)	35 Seconds or less	
Life Expectancy	2 to 3 years with normal service	
Accuracy	± 5% of reading or ± 2 ppm H2S, ± 2% LEL (whichever is greater)	
Weather Resistant	Patented water repellent sensor coating	

	Diffusion Instruments	Sample Draw Instruments
Small Kit	<p>Fixed flow regulators 2 Cylinder Case</p>  <p>34AL 34L Tubing GX-2009 Cal Cup 81-1117RK Cal Cup</p>	<p>Demand flow regulators 2 Cylinder Case</p>  <p>34AL 34L Tubing</p>
	<p>Fixed flow regulator 3 cylinder case 2 cylinder case</p>  <p>58AL 103L Tubing GX-2009 Cal Cup 81-1117RK Cal Cup</p>	<p>Demand flow regulator 3 cylinder case 2 cylinder case</p>  <p>58AL 103L Tubing</p>
Portable Models	GX-3R, GX-3R Pro, GX-2009, 03 Series, GasWatch 3, SC-01	GX-6000, GX-2012, Gas Tracer, Eagle 2, Eagle, RX-8000, RX-516, RX-517
Fixed System Models	Direct Connect Sensors, S2, M2A, GD-A80/GD-A80V, GD-K88Ai, PS2, M Series, OX-600, CO-600	GD-70D, 35-3001 Series

Detectable Gases

Measurable Gases	Symbol	TLV/TWA	Range	Diffusion Detector	Sample Draw	Portable Detector
Acetic Acid	CH ₃ COOH	1.5 PPM	30 PPM	–	GD-70D	–
Ammonia	NH ₃	25 PPM	75, 100, 200, 400, 1k PPM	GD-K88Ai / DC / S2 / M2A / T3A*	GD-70D	GX-6000 / EAGLE / EAGLE 2 / SC-04 / SP-220 / SC-8000
Ammonia	NH ₃	25 PPM	1, 4 PPM	–	FP-311 / FP-310	–
Arsine	AsH ₃	5 PPB	0.2, 1.5 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D	EAGLE / EAGLE 2 / SP-220 / SC-8000
Benzene	C ₆ H ₆	0.5 PPM	various PPM	SD-1GH	GD-70D	EAGLE / EAGLE 2 / GX-6000
Boron Trichloride	BCl ₃	HCl C 0.7 PPM	15 PPM	GD-K88Ai	GD-70D	EAGLE
Boron Trifluoride	BF ₃	HF 0.1 PPM	9 PPM	–	GD-70D	EAGLE
Bromine	Br ₂	0.1 PPM	1 PPM	GD-K88Ai	GD-70D	EAGLE / SC-8000
Butane	C ₄ H ₁₀	LEL = 1.9%	100% LEL	DC / S2 / M2A / SD-1GP / PS2	35-3001 / GD-D58GH / GD-70D	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer / RX-8000
Carbon Dioxide PPM	CO ₂	5,000 PPM	2k, 5k, 10k PPM	RI-600 / DC / S2 / M2A	35-3001	GX-3R Pro / GX-6000 / EAGLE / EAGLE 2
Carbon Dioxide %Vol.	CO ₂	5,000 PPM	1.5, 5, 20, 50, 60, 100%	RI-600 / DC / S2 / M2A / T3A*	35-3001	GX-3R Pro / GX-6000 / EAGLE / EAGLE 2
Carbon Monoxide	CO	25 PPM	30, 75, 150 PPM	GD-K88Ai	GD-70D	SC-04 / SP-220 / SC-8000
Carbon Monoxide	CO	25 PPM	300, 500 PPM	EC-600 / DC / S2 / M2A / M Series / T3A*	35-3001-CO	GX-3R / GX-3R Pro / CO-04 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer
Chlorine	Cl ₂	0.1 PPM	3, 10, 20 PPM	GD-K88Ai / DC / S2 / M2A / T3A*	GD-70D	EAGLE / EAGLE 2 / GX-6000 / SC-04 / SC-8000
Chlorine Dioxide	ClO ₂	0.1 PPM	1, 5 PPM	DC / M2A / T3A*	–	EAGLE
Chlorine Trifluoride	ClF ₃	C 0.1 PPM	0.6 PPM	–	GD-70D	EAGLE / SC-8000
Combustibles LEL	LEL	–	100% LEL	DC / S2 / M2A / T3A* / SD-1GP / PS2	35-3001 / GD-D58 / GD-70D	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer
Combustibles PPM	PPM	–	various PPM	SD-1GH	GD-70D, GD-D58GH	EAGLE / EAGLE 2
Diborane	B ₂ H ₆	0.1 PPM	0.3 PPM	GD-K88Ai	GD-70D	EAGLE / SP-220 / SC-8000
Dimethylamine	DMA	5 PPM	15 PPM	GD-K88Ai	GD-70D	EAGLE
Dichlorosilane	DCS	HCl C 2 PPM	15 PPM	GD-K88Ai	GD-70D	EAGLE
Disilane	Si ₂ H ₆	C 2 PPM	15 PPM	GD-K88Ai	GD-70D	EAGLE
Fluorine	F ₂	0.1 PPM	3 PPM	–	GD-70D	EAGLE / SC-8000
Formaldehyde	HCHO	C 0.3 PPM	1, 10, 500 PPM	T3A*	FP-330	FP-31 / SP-220
Germane	GeH ₄	0.2 PPM	0.2, 0.8 PPM	–	GD-70D	SP-220 / SC-8000
Halocarbons	HCFC	Various	0 - 5,000 (typ)	–	RI-257, GD-70D	–
Hexane	C ₆ H ₁₄	–	2,000 PPM	SD-1GH	GD-70D, GD-D58GH	EAGLE / EAGLE 2 / GX-6000
Hexane	C ₆ H ₁₄	LEL = 1.1%	100% LEL	S2 / SD-1GP / DC / M2A / PS2	35-3001 / GD-D58	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer
Hydrazine	N ₂ H ₄	0.1 PPM	4 PPM	–	GD-70D	–
Hydrocarbon LEL	HC	–	100% LEL	M2A / S2 / SD-1GP / DC / PS2	35-3001-LEL / GD-D58 / GD-70D	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / RX-8000 / GX-2012 / Gas Tracer
Hydrocarbon PPM	HC	–	various PPM	SD-1GH	GD-70D / GD-D58GH	EAGLE / EAGLE 2 / GX-6000
Hydrocarbon %Vol.	HC	–	5%, 2%, 30%	DC / S2 / M2A / SD-1 / T3A* / H2 Specific / PS2	GD-70D	GX-2012 / GX-6000 / EAGLE / EAGLE 2
Hydrogen LEL	H ₂	LEL = 4%	100% LEL	DC / S2 / M2A / SD-1GP / H2 Specific / PS2	GD-70D / GD-D58	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer
Hydrogen PPM	H ₂	–	4, 10, 2,000 PPM	H2 Specific / SD-1GH / T3A*	GD-70D / GD-D58GH	EAGLE / EAGLE 2 / SP-220
Hydrogen Bromide	HBr	C 2 PPM	9, 10 PPM	–	GD-70D	EAGLE / SP-220 / SC-8000
Hydrogen Chloride	HCl	C 2 PPM	10, 15, 30 PPM	T3A*	GD-70D	EAGLE / SP-220 / SC-8000
Hydrogen Cyanide	HCN	STEL C 4.7 PPM	15, 30 PPM	DC / S2 / M2A / GD-K88Ai / T3A*	GD-70D	GX-3R Pro / EAGLE / EAGLE 2 (0-15 ppm) / SC-04 / GX-6000 / SC-8000
Hydrogen Fluoride	HF	0.5 PPM	9, 10 PPM	T3A*	GD-70D	EAGLE / SC-8000
Hydrogen Iodide	HI	–	5 PPM	–	GD-70D	EAGLE / SC-8000
Hydrogen Peroxide	H ₂ O ₂	1 PPM	400 PPB	–	GD-70D	EAGLE / SC-8000
Hydrogen Peroxide	H ₂ O ₂	1 PPM	3 PPM	–	GD-70D	EAGLE / SC-8000
Hydrogen Selenide	H ₂ Se	0.05 PPM	.2 PPM	–	GD-70D	EAGLE / SC-8000
Hydrogen Sulfide	H ₂ S	0.1, 1 PPM	1, 30 PPM	GD-K88Ai-H ₂ S	GD-70D	EAGLE / SC-04 / SC-8000
Hydrogen Sulfide	H ₂ S	1 PPM	100, 2k PPM	DC / S2 / M2A / M-Series / T3A*	35-3001-H ₂ S	GX-3R / GX-3R Pro / HS-04 / EAGLE / EAGLE 2 / GX-6000 / GX-2012
Iodine	I ₂	STEL C 0.1 PPM	1 PPM	–	GD-70D	EAGLE
Isobutane	C ₄ H ₁₀	LEL = 1.8%	100% LEL	DC / S2 / M2A / GD-A80 / PS2	35-3001 / GD-D58 / GD-70D	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer / RX-8000
Isopropyl Alcohol	IPA	400 PPM	10, 2k PPM	SD-1GH	GD-70D / GD-D58GH	EAGLE / EAGLE 2 / GX-6000 / SP-220
Methane	CH ₄	LEL = 5%	100% LEL	DC / S2 / M2A / SD-1GP / PS2	GD-70D / GD-D58	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer / RX-8000
Nitric Acid	HNO ₃	2 PPM	20 PPM	–	GD-70D	EAGLE
Nitric Oxide	NO	25 PPM	100 PPM	GD-K88Ai / T3A*	GD-70D	EAGLE
Nitrogen Dioxide	NO ₂	0.2 PPM	9, 15, 20 PPM	GD-K88Ai / T3A*	GD-70D	GX-3R Pro / EAGLE / GX-6000 / SC-8000 / SC-04
Nitrogen Tetraoxide	N ₂ O ₄	NO ₂ 0.2 PPM	15 PPM	–	GD-70D	EAGLE
Nitrogen Trifluoride	NF ₃	10 PPM	30 PPM	–	GD-70D	–
Octafluorocyclopentene	C ₅ F ₈	–	5 PPM	–	FP-300AGZS	–
Oxygen	O ₂	–	25%, 40%	OX-600 / DC / S2 / M2A / T3A*	35-3001-OXY / GD-70D	GX-3R / GX-3R Pro / OX-04 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer / RX-8000
Ozone	O ₃	0.1 PPM	0.6, 5, 100 PPM	T3A*	GD-70D	EAGLE / SC-8000
Pentane	C ₅ H ₁₂	LEL = 1.5%	100% LEL	DC / S2 / M2A / SD-1GP / PS2	35-3001 / GD-D58	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer
Perfluorobutadiene	C ₄ F ₆	–	5 PPM	–	FP-300AGZS	–
Phosphine	PH ₃	0.05 PPM	1, 2, 5 PPM	GD-K88Ai / DC / S2 / M2A / T3A*	GD-70D	GX-3R Pro / EAGLE / EAGLE 2 / SC-04 / SP-220 / SC-8000
Propane	C ₃ H ₈	LEL = 2.1%	10 PPM, 100% LEL	DC / S2 / M2A / SD-1GP / PS2	35-3001 / GD-D58 / GD-70D	GX-3R / GX-3R Pro / GP-03 / EAGLE / EAGLE 2 / GX-6000 / GX-2012 / Gas Tracer / SP-220
Silane	SiH ₄	5 PPM	0.5, 15 PPM	GD-K88Ai	GD-70D	EAGLE / SP-220 / SC-8000
Silicon Tetrachloride	SiCl ₄	HCl C 2 PPM	15 PPM	GD-K88Ai	GD-70D	EAGLE
Silicon Tetrafluoride	SiF ₄	HF 0.5 PPM	9 PPM	–	GD-70D	EAGLE
Sulfur Dioxide	SO ₂	0.25 PPM	1, 6, 10, 20, 15, 30 PPM	DC / S2 / M2A / GD-K88Ai / T3A*	GD-70D	GX-3R Pro / EAGLE / EAGLE 2 / GX-6000 / SC-04 / SP-220 / SC-8000
Sulfur Tetrafluoride	SF ₄	HF 0.5 PPM	9 PPM	–	GD-70D	EAGLE
Tetraethyl Orthosilicate	TEOS	10 PPM	15 PPM	–	GD-70D	–
Trichlorosilane	TCS	HCl C 2 PPM	15 PPM	–	GD-70D	EAGLE
Trimethoxy Phosphate	TMP	2 PPM	15 PPM	–	GD-70D	–
Trimethoxyboron	TMB	–	500 PPM	–	GD-70D	–
Toluene	C ₆ H ₅ CH ₃	20 PPM	various PPM	SD-1GH	GD-70D / GD-D58GH	EAGLE / EAGLE 2 / GX-6000
Tungsten Hexafluoride	WF ₆	HF 0.5 PPM	9 PPM	–	GD-70D	EAGLE
1,1,1-Trichloroethane	C ₂ H ₃ Cl ₃	350 PPM	0 - 2,000 PPM	SD-1GH	GD-D58GH	–
Volatile Organic Compound	VOCs	–	50, 100, 1k, 2k, 6k PPM	SD-1GH / VOC Pro / Air Alert	GD-D58GH	EAGLE 2 / GX-6000

T3A* = T2A / T3A / Air Alert / AirLink 6900 / AirLink T3A / AirLink Alert
Note: Other gases and ranges also available. Please call RKI Instruments at (800) 754-5165. DC = Direct Connect Sensors.

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GasWatch 3



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OX-03



HS-03



CO-03



SC-04

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GX-3R



GX-3R Pro



GX-2009



GX-2012



GX-6000



Eagle 2



Eagle

Fixed Solutions

Controllers



Beacon 110



Beacon 200



Beacon 410A



Beacon 800

Detector Heads



Direct Connect



S2



M2A



GD-70D



SD-1



600 Series



Air Alert

Wireless Solutions
AirLink



Hybrid Controllers



Quad Heads



Transmitters



Signal Meter

Who Is RKI Instruments?

A world leader in gas detection and sensor technology for over 75 years.

Design, Consultations, and Engineering

Our technical fixed gas detection representatives are ready to help you design the safest and most cost-effective fixed gas detection system possible. RKI's qualified fixed system specialists can set up a virtual meeting or visit your facility to identify your exact hazards, determine site-specific requirements, and offer the optimal fixed system solution.

Training

RKI or select partner's professional instructors are ready to provide you and your team training designed for your specific products and application. Training can include programming, calibration, testing relay logic, and maintenance.

System Maintenance

Let RKI help you develop a plan to maintain your fixed gas detection system to keep you OSHA compliant. From calibration to relay functions, we can help make sure your fixed gas detection system does what it is intended to do—**SAVE LIVES.**

Installation

RKI's certified technicians and select partners can install the equipment in its entirety. Turn-key means you never have to touch a screwdriver. RKI and select partners can do it all – explosion proof, non-explosion proof, hang conduit, pull wiring, use advanced relay logic, programming, connect ancillary equipment, low voltage, high voltage, calibrations, etc.

Start-Up

RKI or select partner confirms wire termination, programs system per customer's requirements, calibrates, tests relay function, and trains end user.

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