

# ***Marine*** **Gas Detection Solutions**



***Crude Oil Carriers***

***LNG / LPG / CNG***

***Bulk Carriers***

***Chemical Tankers***

***Cruise Ships***

***Iron Ore / DRI***

***Coal Carriers***

***Barges***

***Container Ships***

## **WORLDWIDE SERVICE**

- Personal and portable gas monitors designed for marine use
- Drop ship worldwide
- Same day shipments
- Calibration gas same day shipment

## **SOLAS XI-1/7 compliant products Certified instruments:**

- ATEX, MED, CSA, ABS, IECEx, UL



# Gas Monitoring Solutions for Marine Applications



**Crude Oil Carriers**

Model	Features	Cargo Testing				Confined Space Monitoring					Calibration Station		
		Inert Monitoring	High Range H2S	100% Volume HC	40m Sample Range	30m Sample Range	4 Gas LEL/ O2/CO/H2S	PID Capability	PPM Hydrocarbon	40m Sample Range		30m Sample Range	Wearable
GX-2009							•					•	•
GX-2012							•				•	•	•
GX-6000							•	•			•	•	•
EAGLE 2	•	•		•	•		•	•	•	•	•		•
GX-8000					•		•				•		
RX-8000	•		•		•								
RX-515/517	•	•	•		•								



**LNG / LPG**

Model	Confined Space Monitoring						Calibration Station
	4 Gas LEL/ O2/CO/H2S	PID Capability	PPM Hydrocarbon	40m Sample Range	30m Sample Range	Wearable	
GX-2009	•					•	•
GX-2012	•				•	•	•
GX-6000	•	•	•		•	•	•
EAGLE 2	•	•	•	•	•		•
GX-8000	•				•		
RX-8000							
RX-515/517							



**Bulk Carriers**

Model	Features	Cargo Testing				Confined Space Monitoring						Calibration Station	
		Inert Monitoring	High Range H2S	100% Volume HC	40m Sample Range	30m Sample Range	4 Gas LEL/ O2/CO/H2S	PID Capability	PPM Hydrocarbon	40m Sample Range	30m Sample Range		Wearable
GX-2009							•					•	•
GX-2012							•					•	•
GX-6000							•	•	•			•	•
EAGLE 2	•	•		•	•	•	•	•	•	•			•
GX-8000						•					•		
RX-8000	•		•		•						•		
RX-515/517	•	•	•		•								



**Chemical Tanker**

Model	Cargo Testing					Confined Space Monitoring					Calibration Station
	Inert Monitoring	100% Volume HC	40m Sample Range	30m Sample Range	4 Gas LEL/ O2/CO/H2S	PID Capability	PPM Hydrocarbon	40m Sample Range	30m Sample Range	Wearable	
GX-2009					•					•	•
GX-2012					•				•	•	•
GX-6000					•	•	•		•	•	•
EAGLE 2	•		•	•	•	•	•	•	•		•
GX-8000	•	•		•	•				•		
RX-8000	•	•		•							
RX-515/517	•	•		•							



# Personal & Portable Gas Monitors

## GX-2009

### Smallest 4 gas personal monitor



- Simultaneous detection of 4 gases  
° LEL, O<sub>2</sub>, H<sub>2</sub>S & CO
- Dual audible alarm ports (95 db @ 30 cm)
- 3 visual alarm LED's
- Vibration alarm
- Optional motorized or hand pump

#### Certifications

IECEX | ATEX | MED | c CSA us | IP-67

## GX-2012

### 4 gas personal monitor with 30m sample range



- 3 Operating modes: Normal, leak check, & bar hole
- Monitor ppm % LEL, and % volume methane, O<sub>2</sub>, CO and H<sub>2</sub>S
- 0 to 100% volume methane option
- Auto-ranging display of % LEL and % volume
- Alkaline or Li-Ion battery packs

#### Certifications

IECEX | ATEX | CSA | CE | IP-67

## GX-6000

### 6 Gas portable with PID, IR & super toxics



- 5 Operating modes
- 2 Interchangeable smart sensor slots
- Library of over 600 VOCs
- PID library of over 600 VOC's
- Alkaline or Li-Ion battery packs
- 30m sample range without PID

#### Certifications

IECEX | ATEX | (CSA) pending | CE | IP-67

## Eagle 2

### 6 Gas portable monitor with 40m sample range



- Monitor HC gas from inerted tanks
- HC ranges include 100% LEL and 30% volume
- Auto-ranging display between % volume and % LEL HC or CH<sub>4</sub>
- PID sensor for VOC testing
- Alkaline or NiMH batteries

#### Certifications

CSA | CE | ABS

## GX-8000/RX-8000

### Portable HC / O<sub>2</sub> gas detector with 30m sample range



- Real-time detection for combustibles 100% LEL/100% Vol, O<sub>2</sub> (RX-8000)
- Large simultaneous display with auto backlighting
- 3 bright LED alarm windows
- Lithium ion rechargeable battery pack

#### Certifications

ATEX | IECEX | MED | IP-67

## RX-515/RX-517

### 3 & 4 Gas IR portable HC / O<sub>2</sub> with 30m sample range



- Dual range detection of % Vol. and % LEL for CH<sub>4</sub> or HC
- Accurately monitor inert locations for CH<sub>4</sub> / HC
- Dual Range H<sub>2</sub>S 0-100 & 0-1000 ppm
- High range H<sub>2</sub>S 0-1,000 ppm available (RX-517)

#### Certifications

ATEX | MED

## Calibration Station

### SDM-2009



- Simultaneously bump / calibrate, charge, and collect data up to 10 instruments
- Stand-alone station (no PC Required)
- On board calibration certificates
- Multiple modules connected to a PC (10 max)
- 2 Gas inlets

## Calibration Station

### SDM-2012



- Simultaneously bump / calibrate, charge, and collect data up to 10 instruments
- Stand-alone station or PC connect
- Charging (Li-Ion Battery Pack)
- On board calibration certificates
- Multiple modules connected to a PC (10 max)
- 2 Gas inlets

## Calibration Station

### SDM-6000



- Simultaneously bump / calibrate, charge, and collect data up to 10 instruments
- Touch screen control display
- On board calibration certificates
- One power source for multiple units
- 3 Gas inlets with 6 gas option

## Calibration Station

### SDM-E2



- Simultaneously bump / calibrate, charge, and collect data up to 10 instruments
- Stand-alone station or PC connect
- Charging (NiMH batteries)
- 2 Calibration gas ports

Portables

Personal

# Global Partners in Marine Monitors



## USA

510-441-5656  
www.rkiinstruments.com



## Japan

81-3-3966-1113  
www.rikenkeiki.co.jp



Authorized Distributor:



Datrex Miami  
3525 NW 33rd Street  
Miami, FL 33142  
305-638-8220  
datrexmia@datrex.com

Datrex Jacksonville  
618 Talleyrand Ave.  
Jacksonville, FL 32202  
904-355-1401  
datrexxjax@datrex.com



## SOLAS XI-1/7 COMPLIANT GAS MONITORS

### New SOLAS XI-1/7 Regulation Defines Atmospheric Test Instruments for Confined Spaces Pre-entry Measurement

Many vessels are constructed with enclosed spaces (also known as confined spaces) which can pose hazards to personnel required to enter these spaces to perform work: Toxic gases, lack of oxygen and risk of explosion from flammable or combustible gases and vapors. Some examples of this type of space include, but are not limited to, cargo and ballast tanks, hulls, and holds. These risks can be mitigated by conducting pre-entry tests with appropriate multi-gas detector.

#### Pre-entry measurement: Requirements for a portable multi-gas detector

SOLAS XI-1/7 defines the requirements for gas detectors to be used for this testing:

- Explosion protection: The device must meet be certified to relevant explosion protection standards. There are several standards that exist around the world, including ATEX, IECEx, CSA, UL, etc.

- Durability: A robust housing protects against impact, and intrusion of particulates or water (IP rating).
- Pre-entry sampling: the gas detector must have a means of sampling from the confined space prior to entry, by inserting a hose or probe and observing test results in a safe area before entering.
- Calibration and testing: All gas detectors require periodic testing to ensure reliability. Proper calibration equipment must be provided, and records of testing maintained on board the vessel.
- Electromagnetic compatibility: The gas detector must not be adversely affected by other electronic devices or equipment in the area, nor can they cause interference with said equipment.