

# RIKEN

## FOUR GAS PERSONAL MONITOR

### MODEL GX-2009

NEW



#### World Smallest 4 Gas Monitor

Approx. 70 (H) × 75 (L) × 25 (D) mm, 130g  
[2.76"H × 2.95"L × 1.00"D, 4.6 oz]

#### APPROVALS

- ATEX  $\text{Ex}$  II 1G Ex ia IIC T4
- IECEx Zone 0 Ex ia IIC T4
- CSA Approval (Pending)
- Cc
- JML Approval (Pending)

#### FEATURES

- Simultaneous and real-time detection of 4 gases LEL, O<sub>2</sub>, H<sub>2</sub>S & CO
- Large simultaneous display for 4 gases
- Water and dust resistant, IP67
- Loud alarm buzzer 95dB at 30cm.
- 3 bright LED alarm windows
- Rechargeable Ni-MH battery pack
- Continuous operation for up to 20 hours
- Built in shock-resistant coating
- RFI shielded housing
- Vibration alarm
- Datalogging standard
- Auto-calibration
- STEL and TWA readouts
- Peak hold readout
- Continuously displays current time

#### APPLICATION

- Confined Space
- Refineries/Petrochemical
- Utilities
- Chemical Plants
- Hazardous Material
- Water/Wastewater Treatment
- Fire Services
- Mining
- Pharmaceuticals

RIKEN KEIKI is proud to offer the smallest 4-gas monitor in the world, the Model GX-2009. Weighing only 130g (4.6 ounces) and about the size of a pager (70 (H) × 75 (L) × 25 (D) mm), the GX-2009 simultaneously monitors combustibles, oxygen, carbon monoxide, and hydrogen sulfide. The GX-2009 is armed with standard features like a vibrating alarm, autocalibration, datalogging, and it even tells the time! All of these controls and features are operated through 2 simple buttons. Utilizing the standard charger, the Ni-MH battery pack will operate for 20 hours and fully recharge in 180 minutes. Also available is the datalogging software program which is Windows XP and Vista compatible. The GX-2009 is also compatible with the Data Cal 2000 instrument maintenance system and SM-2009U single calibration station. The GX-2009 is designed around the world's smallest gas sensors. Utilizing catalytic combustion, electrochemical and galvanic sensor technologies, each miniaturized sensor is manufactured by RIKEN KEIKI with the same high quality control that has made our sensors and instruments the most reliable and long lasting monitoring devices in the industry.



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# COMPONENT DESIGNATIONS

Model GX-2009 has advanced features including large LCD which can display 4-gas concentrations, current time, and battery indicator simultaneously. Extra loud alarm buzzer, three bright LED lamps and IP67 water and dust proof construction with built in impact resistant protective cover. All controls and features are operated by 2 buttons.

## LCD display

Large, simultaneous 4 gas display.

LEL

## Alarm lamps

Three bright LED indications with powerful vibration alarm

CO

H<sub>2</sub>S

## Audible alarm

Loud distinct tone with two honeycomb buzzer openings. 95dB at 30cm distance

## Switches

Easy operation with two switches

## Sensor block

O<sub>2</sub>



Top view



Rear view



75mm

70mm

130g

25mm

Solid low profile, 360-degree clip

Side view



Bottom view



## Display screen examples

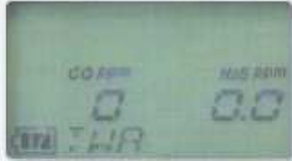
▲ Normal measurement



▲ Peak screen



▲ TWA screen



▲ STEL screen



## GX-2009 gas combination available

Four gases	Type A	LEL / O <sub>2</sub> / H <sub>2</sub> S / CO
Three gases	Type B	LEL / O <sub>2</sub> / H <sub>2</sub> S
	Type C	LEL / O <sub>2</sub> / CO
Two gases	Type D	LEL / O <sub>2</sub>
	Type E	H <sub>2</sub> S / O <sub>2</sub>
	Type F	CO / O <sub>2</sub>

Please specify gas combination when ordering.

## Extendable charging station



Up to 5 chargers

## Data logger download via IrDA communication



## Accessories

### Standard accessories



Alligator clip

Wrist-strap

### Optional accessories

Charger BC-2009  
AC adaptor for charger BC-2009



Joint for charger extension



Pump unit  
Model RP-6



Hand aspirator  
sampling kit



GX-2009 data logger  
management program

# MODEL GX-2009

<b>Gas detected</b>	All combustible gases	Oxygen (O <sub>2</sub> )	Hydrogen sulfide (H <sub>2</sub> S)	Carbon monoxide (CO)
<b>Detection principle</b>	Catalytic combustion	Galvanic cell	Electro-chemical cell	
<b>Detection range (Increments)</b>	0-100%LEL (1%LEL)	0-40%VOL (0.1%VOL)	0-100.0ppm (0.5ppm)	0-500ppm (1ppm)
<b>Sampling method</b>	Diffusion			
<b>Display</b>	Simultaneous display. Digital LCD with segments, auto backlight at alarm display.			
<b>Alarm sounds</b>	95dB at 30cm			
<b>Preset alarms (User adjustable)</b>	1st alarm 10%LEL 2nd alarm 50%LEL Over alarm 100%LEL	Low alarm 19.5%Vol High alarm 23.5%Vol Over alarm 40.0%Vol	1st alarm 10.0ppm 2nd alarm 30.0ppm TWA alarm 10.0ppm STEL alarm 15.0ppm Over alarm 100.0ppm	1st alarm 25.0ppm 2nd alarm 50.0ppm TWA alarm 25.0ppm STEL alarm 200ppm Over alarm 500ppm
<b>Types of alarms</b>	Gas alarms : 2 preset alarms, STEL, TWA, overscale alarm Trouble alarms : Sensor disconnection, low battery, circuit error, calibration range error			
<b>Display of alarm</b>	Gas alarms : Flashing LEDs, intermittent buzzer, Flashing gas value, vibration Trouble alarms : Flashing LEDs, intermittent buzzer, display of error message			
<b>Functions</b>	Manual backlight LCD (Automatic at alarm)    Data logging (40hours) STEL, TWA    Peak hold    Alarm trend    Direct charging Continuous display of current time    Autocalibration			
<b>Output signal type</b>	IrDA for Data logger			
<b>Operating temp.&amp;humidity</b>	-20°C to +50°C (-4 to 122°F), 0 to 95%RH, non-condensing			
<b>Response time</b>	Within 30 seconds (T90)			
<b>Continuous operation</b>	Up to 20 hours after full charge (Up to 14 hours after 90 min charge)			
<b>Power source</b>	Direct charging Ni-MH battery pack, (can be fast charged in just 180 min)			
<b>Case materials</b>	Rubber coated polycarbonate			
<b>Ingress Proof Rating</b>	IP67			
<b>Safety design/Approvals</b>	<ul style="list-style-type: none"> <li>· ATEX (Ex) II 1G Ex ia IIC T4</li> <li>· IECEx Zone 0 Ex ia IIC T4</li> <li>· CSA Approval (Pending)</li> <li>· CE</li> <li>· JML Approval (Pending)</li> </ul>			
<b>Dimensions &amp; Weight</b>	Approx. 70(H) × 75(L) × 25(D) mm (2.76"H × 2.95" L × 1.00"D) Approx. 130g (4.6 ounces)			
<b>Controls</b>	Two buttons : POWER/MODE, AIR			
<b>Warranty</b>	One year material and workmanship			
<b>Standard accessories</b>	(1) Wrist strap (2) Alligator clip			
<b>Optional accessories</b>	(1) Battery charger (3) Sample-draw pump model RP-6 (5) Extension connector for chargers		(2) Hand aspirator sampling kit (4) Data logger management program	

Specifications subject to change without notice.

**NOTE :**

STEL=Short Term Exposure Limit  
TWA=Time Weighted Average  
LEL=Lower Explosive Limit  
ppm=Parts Per Million



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