

# Portable Multi Gas Monitor

## Model GX-6000

Certifications and Approvals: ATEX, UKEX, IECEx, Japan Ex  
CE marking, UKCA marking



HC  
CH<sub>4</sub>

O<sub>2</sub>

H<sub>2</sub>S

CO

VOC

SO<sub>2</sub>

NO<sub>2</sub>

HCN

NH<sub>3</sub>

Cl<sub>2</sub>

CO<sub>2</sub>

### ● Detection of up to six gases

This monitor detects up to six gases of flammable gas, oxygen, hydrogen sulfide, carbon monoxide, other toxic gas, volatile organic solvent gas (VOC), etc. at a time.

### ● Voluntary management of hazardous chemicals

Perfect for safety management of chemicals whose risk assessment is mandatory. Multiple types of gas can be measured with one unit, resulting in improved work efficiency.

### ● Panic alarm & Man-down alarm\*

Two new functions to protect workers' safety.

- ◆ Panic alarm: Alarm is sounded manually to let people know abnormality.
- ◆ Man-down alarm\*: Automatic alarm sound to let people around the worker know the abnormality in case of no sensed operation for a certain period.

\*Normally the man-down alarm function is set to OFF. To use this function, please contact RIKEN KEIKI.

# Diverse target gases! Measurement of up to six gases with one device!!

## 1 Flammable gas (HC or CH<sub>4</sub>)

**New ceramic type**

For prevention of explosion!

- Detection range: 0 to 100% LEL
- 1st: 10% LEL/2nd: 50% LEL

## 3 Hydrogen sulfide (H<sub>2</sub>S)

**Electrochemical type**

For prevention of H<sub>2</sub>S poisoning!  
Compliant to work environment measurement standards (management concentration 1 ppm).

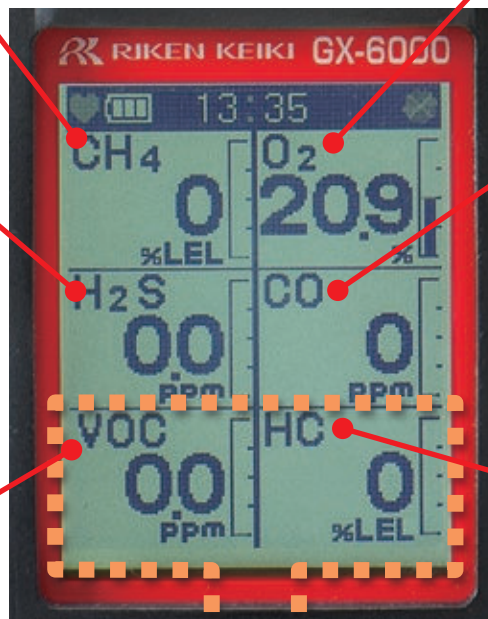
- Detection range: 0 to 30.0 ppm (service range: to 100.0 ppm)
- 1st: 5.0 ppm/2nd: 30.0 ppm
- TWA: 10.0 ppm/STEL 15.0 ppm

## 5 Example: volatile organic compound (VOC)

**PID type**

Direct reading of VOC and other 700 gases concentrations  
For safety management of various types of gas!

- Detection range: 0 to 4000 ppm
- 1st: 400.0 ppm/2nd: 1000 ppm
- Sensor code: P2



## 2 Oxygen (O<sub>2</sub>)

**Galvanic cell type**

For prevention of oxygen deficiency!

- Detection range: 0 to 25.0% (service range: to 40.0 vol%)
- 1st: 19.5 vol% / 2nd: 23.5 vol%

## 4 Carbon monoxide (CO)

**Electrochemical type**

For prevention of CO poisoning due to incomplete combustion!

- Detection range: 0 to 150 ppm (service range: to 500 ppm)
- 1st: 25 ppm/2nd: 50 ppm
- TWA: 25 ppm/STEL 200 ppm

## 6 Example: flammable gas (HC)

**Infrared type**

For detection of flammable gas in inert gas!

Detectable from % LEL to vol%

- Detection range: 0 to 100% LEL (service range: to 30.0 vol%)
- 1st: 10% LEL/2nd: 50% LEL
- Sensor code: D2

Select from 11 types of gas line up!\*1 (up to two types)

Gas to be detected	Detection range (service range)	1 digit	Alarm setpoint value				Sensor code ⑤~⑥
			1st	2nd	TWA	STEL	
● Volatile organic compound (VOC)	0~40000ppb	~4000 : 1ppb 4000~ : 10ppb	5000ppb	10000ppb	—	—	P1
	0~4000ppm	~400.0 : 0.1ppm 400~ : 1ppm	400.0ppm	1000ppm	—	—	P2
	VOC : 0~100ppm	~10ppm : 0.01ppm	5ppm	10ppm	—	—	P3
	Benzene : 0~50ppm	10ppm~ : 0.1ppm	—	—	—	—	
● Sulfur dioxide (SO <sub>2</sub> )	0~99.90ppm	0.05ppm	2.00ppm	5.00ppm	2.00ppm	5.00ppm	E1
● Nitrogen dioxide (NO <sub>2</sub> )	0~20.00ppm	0.05ppm	3.00ppm	6.00ppm	3.00ppm	—	E2
● Hydrogen cyanide (HCN)	0~15.0ppm	0.1ppm	5.0ppm	10.0ppm	—	4.7ppm	E3
● Ammonia (NH <sub>3</sub> )	0~400.0ppm	0.5ppm	25.0ppm	50.0ppm	25.0ppm	35.0ppm	E4
● Chlorine (Cl <sub>2</sub> )	0~10.00ppm	0.05ppm	0.50ppm	1.00ppm	0.50ppm	1.00ppm	E5
● Phosphine (PH <sub>3</sub> )	0~20.00ppm	0.01ppm	0.30ppm	1.00ppm	0.30ppm	1.00ppm	E6
● Flammable gas (HC)	0~100%LEL(~30.0vol%)*2	1%LEL(0.5vol%)	10%LEL	50%LEL	—	—	D2
● Flammable gas (CH <sub>4</sub> )	0~100%LEL/~100.0vol%*2	1%LEL/0.5vol%	10%LEL	50%LEL	—	—	D3
● Carbon dioxide (CO <sub>2</sub> )	0~10.00vol%	0.02vol%	0.50vol%	3.00vol%	0.50vol%	3.00vol%	D1
● Carbon dioxide (CO <sub>2</sub> )	0~10000ppm	20ppm	5000ppm	—	5000ppm	—	D4

\*1 Caution in use might be necessary in the case of specific combination. Please contact RIKEN KEIKI.

\*2 The display automatically changes into vol% when gas of 100% LEL or more is detected.

### Product code

Selected gas types are included in product codes as shown below.

Select with/without sensor.

Sensor	Sensor code
With	1(① is H (HC) or M (CH <sub>4</sub> ))
Without	0

A ① ② ③ ④ ⑤ ⑥ ⑦

Select sensor codes from the above table.

(up to two types)

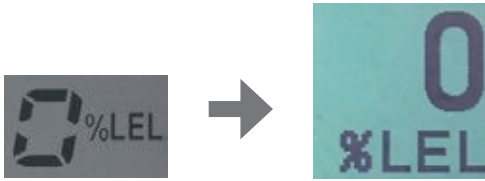
Select power source.

Power source	Power cord
Lithium-ion battery	L
Dry battery	D

# Easier to use, more sophisticated

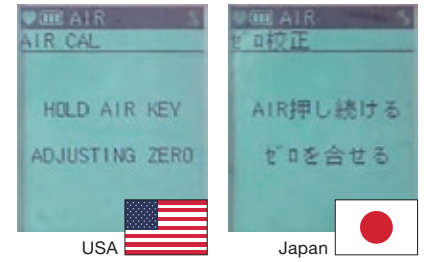
## Full dot display

New full dot display has achieved more clear and more various displays than conventional one.



## Display language

Display in English/Japanese other 7 languages are supported.



## Panic alarm function

Panic alarm is a function in which the holder manually sounds alarm to seek help of people nearby or let them know abnormality in case of trouble.



## Man-down alarm function

GX-6000 has a motion sensor to sense the movement of the holder. Man-down alarm is a function to let people around the holder know the abnormality by automatically sounding alarm with no sensed operation for a certain period.



\*Normally the man-down alarm function is set to OFF. To use this function, please contact RIKEN KEIKI.

## The screen is inverted.

Automatic 180-degree rotation of the display along with the holder's movement. The screen can be fixed by switching ON/OFF.



## LED Flashlight to light up the front

LED Flashing light secures work in the dark. Just hold down the button. The backlight of the screen improves work efficiency in the dark.



# Detect Benzene selectively in low concentration

## New 10.0eV PID sensor & Pre-filter tube make it possible to detect benzene selectively!

Benzene increases the risk of cancer and other illnesses. The average allowable amount in workroom air during an 8-hour workday, 40-hour workweek (TLV-TWA) is **0.5 ppm**. GX-6000 Benzene Select Mode can measure benzene from **0.01ppm**.

### Pre-filter tube

- \* does not include RoHS directive chemical substance.
- \* removes most interference gases longer time.

Measurement time: 45seconds (at 20°C~29.9°C)

\* Measurement time is determined automatically by temperature.



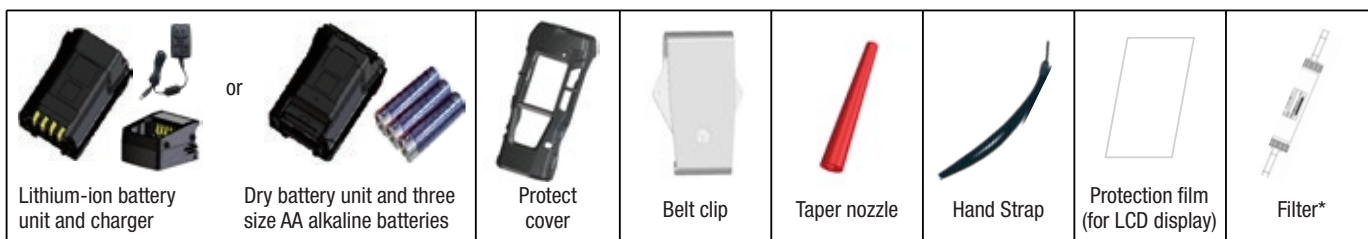
# Product Specification

Model	GX-6000
Alarm type	Gas alarm: 2-step alarm, TWA, STEL, OVER alarm Fault alarm: system error, sensor error, battery voltage drop, calibration defect, decreased flow Other: Panic alarm, Man-down alarm*1
Alarm display	Gas alarming: blinking lamp, buzzer continuous modulated sound, gas concentration display and blinking alarm details, vibration Fault alarming: blinking lamp, buzzer on and off, displayed fault details Other: blinking lamp, buzzer continuous modulated sound
Warning buzzer sound pressure	95 dB(A) or higher (30 cm) (with the protection cover)
Detection method	Pump drawing type
Drawing flow rate	0.45 L/min or more (open flow rate)
Display	LCD digital (full dot display)
Display language	English / Japanese / French / Spanish / Portuguese / German / Italian / Russian / Korean
Power supply	Lithium-ion battery unit or dry battery unit <Three size AA alkaline batteries*2>
Continuous operating time	Lithium-ion battery unit: approx. 14 hours (25°C, fully charged, without alarm nor illumination) Dry battery unit: approx. 8 hours (25°C, new dry battery, without alarm nor illumination)
Range of operating temperature	-20 ~ +50°C
Range of operating relative humidity	Below 95% RH (non-condensing)
External dimension	Approx. 70(W) × 201(H) × 54(D) mm (projection portions excluded)
Weight	Approx. 500 g (lithium-ion battery unit is used) / Approx. 450 g (dry battery unit is used)
Protection level	IP67 equivalent
Explosion proof class	II 1G Ex ia II C / II B T4/T3 Ga (ATEX/UKEX) / Ex ia II C / II B T4/T3 Ga (IECEX), Ex ia II C T4 X (Japan Ex)
Certifications and Approvals	ATEX, UKEX, IECEx, Japan Ex, CE marking, UKCA marking
Function	LCD backlight, data logger, peak value display, log data display, several languages displayed, screen inversion, LED light

\*1 Normally the man-down alarm function is set to OFF. To use this function, please contact RIKEN KEIKI.

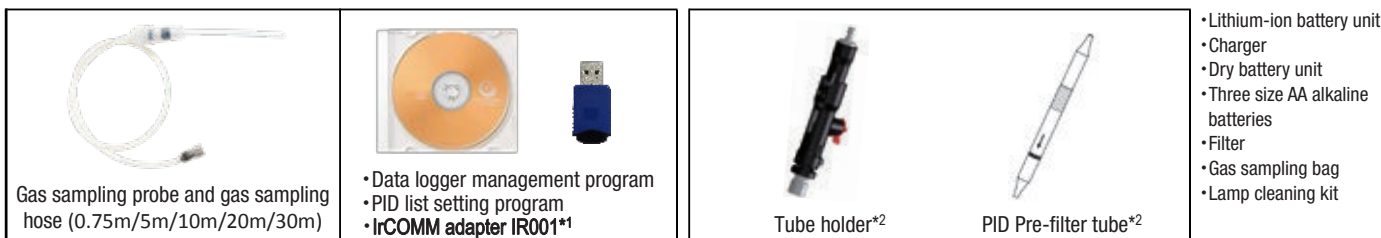
\*2 To meet requirements of explosion-proof capabilities, use dry batteries described in Certificates of Conformity of the Explosion-proof Construction of Electric Equipment and Devices.

## Accessories



\* Included only when VOC sensor or CO<sub>2</sub> sensor is purchased

## Optional Accessories



- Lithium-ion battery unit
- Charger
- Dry battery unit
- Three size AA alkaline batteries
- Filter
- Gas sampling bag
- Lamp cleaning kit

\*1 "IrCOMM adapter (IR001)" is required to use "Data logger management program" and "PID list setting program".

\*2 Attached when using Benzene Select Mode

## RIKEN KEIKI Co., Ltd.

2-7-6 Azusawa, Itabashi-ku, Tokyo 174-8744, Japan

Phone : +81-3-3966-1113

Telefax : +81-3-3558-9110

E-mail : [intdept@rikenkeiki.co.jp](mailto:intdept@rikenkeiki.co.jp)

Web site : <https://www.rikenkeiki.co.jp/english>

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