RIKEN KEIKI

Model GX-3R

Portable gas monitor

World smallest & Lightest!!

The newly developed dual-sensor configuration reduces size by approximately 30% compared to previous models.
Light weight (about 100g) means it won't interfere with your work.

Weights just 100g!

Three-year sensor warranty

The sensors are covered by a three-year warranty.
*Annual inspection is required once a year.

- Intrinsically safe explosion-proof construction
- Water and dust resistant IP66/68
- Robust design (Withstands 7m drop)

Play the Promotional video from here.
Now on the website!

RIKEN KEIKI Co., Ltd.

Active in various fields!

Compact lightweight design won't impede work in confined spaces.

Tough design to withstand 7m drop, than you can use even when working at heights.

Use the suction unit to confirm safety before entering pits.

The newly developed CO sensor reduces effects of hydrogen interference.

You can understand at a glance! GX-3R

Model	GX-3R
Detection gas	1 to 4 types
Battery	Rechargeable battery
Detection method	Diffusion type *Pump unit available as option (see next page)
Alarm setpoint	Settings can be changed.
Combustible gas conversion function	26 types
Data logger function	Records up to 3,600 data.
Confirmation beep function	Can be changed (see section below for details).
Lunch break function	Can be changed (see section below for details).
Protective cover	Provided as standard
Heat-resistant case, leather case	Optional accessories
Five-component detection	⇒ We recommend the GX-3R Pro model.
Dry battery power	⇒ We recommend the GX-3R Pro model.
Bluetooth	⇒ We recommend the GX-3R Pro model.

Type list

TYPE	Detection gas
TYPE A	LEL, O_2, H_2S, CO
TYPE B	LEL, O_2 ,H_2S
TYPE C	LEL, O_2, CO
TYPE CH	LEL, O_2, CO*
TYPE D	LEL, O_2
TYPE E	O_2, H_2S
TYPE F	O_2, CO
TYPE FH	O_2, CO*
TYPE I	LEL, CO
TYPE IH	LEL, CO*
TYPE K	H_2S

* CO sensor with reduced H_2 interference

Combustible conversion gas list

Conversion gas	Gas name displayed	Calibration gas conversion	
		CH_4	$i\text{-}C_4H_{10}$
Methane	CH_4	—	×
Isobutane	$i\text{-}C_4H_{10}$	○	—
Hydrogen	H_2	○	○
Methanol	CH_3OH	○	○
Acetylene	C_2H_2	○	○
Ethylene	C_2H_4	○	○
Ethane	C_2H_6	○	×
Ethanol	C_2H_5OH	○	○
Propylene	C_3H_6	○	○
Acetone	C_3H_6O	○	○
Propane	C_3H_8	○	×
Butadiene	C_4H_6	○	○
Cyclopentane	C_5H_{10}	○	○
Benzene	C_6H_6	○	○
N-hexane	$n\text{-}C_6H_{14}$	○	○
Toluene	C_7H_8	○	○
N-heptane	$n\text{-}C_7H_{16}$	○	○
Xylene	C_8H_{10}	○	○
N-nonane	$n\text{-}C_9H_{20}$	○	○
Ethyl acetate	EtAc	○	○
Isopropyl alcohol	IPA	○	○
Methyl ethyl ketone	MEK	○	○
Methyl methacrylate	MMA	○	○
Dimethyl ether	DME	○	○
Methyl isobutyl ketone	MIBK	○	○
Tetrahydrofuran	THF	○	○

Wide range of safety functions

Combustible gas conversion function

Eliminates the need for complex calculations. Allows direct readout of 26 different combustible gas types.

Alarm setpoints can be freely adjusted

You can now adjust alarm setpoints on the main unit. Allows monitoring based on the customer's own standards.

Confirmation beep

This function provides audible notification that the device is functioning correctly. Buzzer sounds at preset intervals while measurement is underway.

Lunch break

Enabling this function retains the TWA and peak values and allows integrating measurement whether power is on or off.

Cal. Limit

Indicates the number of days until recommended regular maintenance when the power is turned on. Reminds the user to perform maintenance on the product to ensure safe use.

Optional accessories

1 **Heat-resistant case**

*not explosion-proof

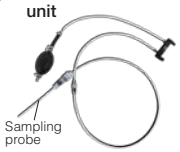
2 **Leather case**

3 **Belt clip**

4 **Arm/Ankle belt**

5 **Protective film**

6 **Manual suction unit**



*Sampling probe not included.

7 **Charging cradle**

8 **Five-unit AC adaptor**

9 **Calibration adapter**

10 **Data management program**

Model GX-3R

1 **Heat-resistant case**	Unit case for hot environment. uses a safety pin.	Part No. 4777 4259 40
2 **Leather case**	Unit case for protection against dirt. uses the clip on the unit.	Part No. 4777 4257 00
3 **Belt clip**	Allows the product to be attached to a belt or pocket.	Part No. 4777 9202 40
4 **Arm/Ankle belt**	Belt for securing the unit to your arm or ankle.	Part No. 4777 9293 30
5 **Protective film**	Protects the display.	Part No. 4777 9296 50
6 **Manual suction unit**	External manual pump. Draws in at greater flow rates than electric pump.	Part No. 4777 9301 10
7 **Charging cradle**	Cradle for recharging the unit. Cradles can be interconnected.	Part No. 4777 21
8 **Five-unit AC adaptor**	One AC adapter recharges up to five units. *Recharging times remain unchanged.	Part No. 4777 9319 80
9 **Calibration adapter**	Adapter for connecting the gas sampling bag to the main unit for calibration.	Part No. 4777 9311 00
10 **Data management program**	Software for viewing and managing measurement data.	Part No. 9811 0870 60

Pump unit RP-3R

An external electric pump.
Allows use for suction sampling.

Specifications

Model	RP-3R
Suction flow rate	High mode: Approx. 0.5 L/min Low mode: Approx. 0.35 L/min
Battery	AA alkaline battery × 1
Continuous operating time	High mode: Approx. 10 hours Low mode: Approx. 16 hours
Temperature range	-20°C~+50°C (at a constant condition)
Humidity range	0~95%RH (non-condensing)
Explosion-proof class	Inherently safe explosion-proof construction TIIS Ex ia IIC T4 Ga ATEX II1G Ex ia IIC T4 Ga IECEx Ex ia IIC T4 Ga
Structure	Drip-proof and dust-proof performances compliant to IP67 level
Dimensions / Weight	Approx. 82mm (W) × 96mm (H) × 29mm (D) / Approx. 120g
Optional accessories	Float-type gas sampling tube Filters (set of 10) Meshes (set of 10)

* Cannot be connected to other models GX-2009, GX-3R Pro and others.

Docking station SDM-3R

Allows the user to perform a simplified pre-work check (bump test) and gas calibration automatically.

Specifications

Model	SDM-3R
Power supply	100 to 240 V AC ±10%, 50/60 Hz
Suction flow rate	Approx. 0.25 L/min
Temperature range	0~40°C (at a constant condition)
Humidity range	0~95%RH (non-condensing)
Dimensions / Weight	Approx. 130mm (W) × 110mm (H) × 250mm (D) / Approx. 810g
Optional accessories	Connecting fixture, wall-mounting fixture, exhaust tube

Also consider the high-spec [GX-3R Pro] model!

① **Up to 5 gases can be detected**
Detects carbon dioxide and sulfur dioxide in addition to combustible gases, O_2, H_2S, and CO.

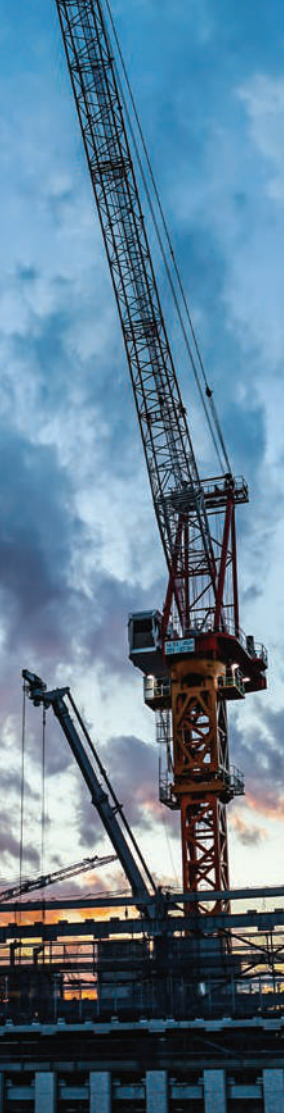
② **Connected with Bluetooth**
Allows connection to a smartphone.
Use the dedicated app iOS, Android to send alarm notifications by email.

③ **Runs on either dry cell or rechargeable batteries**
Unit system for easy replacement.

④ **Easy-to-read full-dot display**
Supports a total of 11 different languages.

Model GX-3R Pro

* For details, see the GX-3R Pro catalog.



Specifications

Model	GX-3R
Detection method	Diffusion type (Changeable to sampling type by attaching RP-3R)
Gas alarm indication	Lamp flashing, continuous modulating buzzer sounding, gas concentration display blinking, vibration Reset operation: Self-latching
Fault alarm	System abnormality, sensor abnormality, battery voltage drop, calibration failure
Fault alarm indication	Lamp flashing, intermittent buzzer sounding, detail display Reset operation: Self-latching
Displays	LCD digital, backlight, operation status, clock, battery level, temperature, peak reading, calibration notification
Buzzer volume	Approx. 95dB (30cm)
Data logger function	Maximum number of items: 3,600 Interval: 5 minutes (adjustable) Communication system: IrDA
Explosion-proof class	Intrinsically safe explosion-proof construction TIIS Ex ia IIC T4 Ga ATEX II1G Ex da ia IIC T4 Ga / IM1 Ex da ia I Ma (With combustible gas sensor) II1G Ex ia IIC T4 Ga / IM1 Ex ia I Ma (No combustible gas sensor) IECEx Ex da ia IIC T4 Ga / Ex da ia I Ma (With combustible gas sensor) Ex ia IIC T4 Ga / Ex ia I Ma (No combustible gas sensor)
Protection level	Equivalent to IP66/68 (2 m, 1 h)
Power source	Lithium ion rechargeable battery unit Charging time: Approx. 3 hours
Continuous operating time*1	Long-life battery mode on: Approx. 40 hours (25°C, fully charged, no alarm, no lighting) Long-life battery mode off: Approx. 25 hours (25°C, fully charged, no alarm, no lighting)
Temperature range/ humidity range*2	-40℃～+60℃(no sudden changes), 0～95%RH (non-condensation)
External dimensions/weight	Approx. 58mm (W) × 65mm (H) × 26mm (D) (excluding protrusions) / Approx.100g

*1 Varies depending on sensor type installed. Please contact Riken Keiki for more information.
*2 In temporary ambient conditions for approximately 15 minutes. The operating temperature and humidity ranges for continuous ambient conditions are as follows: Temperature: -20 °C to +50 °C (no sudden changes) / Humidity: 10 to 90 %RH (no condensation)

Detection gas

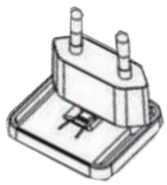
Detection target gas	Combustible gas (HC or CH_4)	Oxygen	Carbon monoxide	Hydrogen sulfide
Detection principle	New ceramic type	Electrochemical type		
Detection range (service range)	0~100%LEL	0~25.0 vol% (~40.0 vol%)	0~500ppm (~2,000ppm)	0~100.0ppm (~200.0ppm)
1 digit	1%LEL	0.1vol%	1ppm	0.1ppm
Gas alarm setpoint (can be set by user)	1st alarm : 10%LEL 2nd alarm : 20%LEL 3rd alarm : 50%LEL OVER alarm : 100%LEL	L alarm : 19.5vol% LL alarm : 18.0vol% H alarm : 23.5vol% OVER alarm : 40.0vol%	1st alarm : 25ppm 2nd alarm : 50ppm 3rd alarm : 1200ppm TWA alarm : 25ppm STEL alarm : 200ppm OVER alarm : 2000ppm	1st alarm : 5.0ppm 2nd alarm : 30.0ppm 3rd alarm : 100.0ppm TWA alarm : 1.0ppm STEL alarm : 5.0ppm OVER alarm : 200.0ppm

Standard accessories

● Protective cover

Appearance when attached

Protective cover
(Part No. 4777 4161 10)



EU plug
(Part No. 2594 0933 60)

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