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
*Sampling probe not included.

7 **Charging cradle**

8 **Five-unit AC adaptor**

9 **Calibration adapter**

10 **Data management program**

Model
GX-3R Pro
CO/H2S LEL O2 TOXIC

1	Heat-resistant case	Unit case for hot environment. uses a safety pin.	Part No. 4777 4260 80
2	Leather case	Unit case for protection against dirt. uses the clip on the unit.	Part No. 4777 4258 70
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 9298 00
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 9312 70
10	Data management program	Software for viewing and managing measurement data.	Part No. 9811 0870 60

Pump unit RP-3R (Pro)

An external electric pump. Allows use for suction sampling.

Easy to attach and remove!

Specifications

Model	RP-3R(Pro)
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. 82 mm (W) × 96 mm (H) × 29 mm (D)/ Approx. 120 g
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, LAN cap, USB cap

Bluetooth communication*

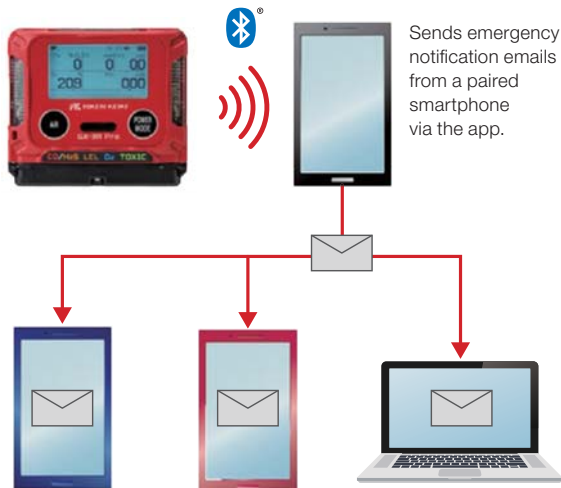*Uses low-energy-consumption Bluetooth (Bluetooth Low Energy).

Bluetooth®

The GX-3R Pro can communicate with smartphones and tablets via Bluetooth. Allows alarms to be issued to remote locations in real time to notify emergency situations using the dedicated RK Link app. Also allows the main unit's settings to be altered.
Download the free RK Link app from Google Play or Apple Store.

GET IT ON
Google Play

Download on the
App Store

Features available by connecting GX-3R Pro with RK Link

Sharing emergency information

Sends emergency notification emails from a paired smartphone via the app.

1   Email alarm information

Emergency notification emails are sent promptly to pre-registered addresses in the event of an alarm.

- Gas alarm
- Man down alarm
- Reminder alert
- Fault alarm
- Panic alarm

Change Setting

Allows easy modification of settings like alarm setpoints, calibration expiration date, and display language.

2   Setting

【Alarm setpoint】   【Calibration】   【Language】

- Allows modification of settings like alarm setpoints, calibration gas concentrations, and display language.
- Also allows detailed settings for types of alarms that trigger email notification.

For example: No email notification for first alarm; email notification from second alarm onward

Model
GX-3R Pro

Displays location information at the touch of a button.

Site

Gas alarm triggered!

Monitoring room

3 Gas concentration and battery level checking

- Displays gas concentrations in real time during measurement.
- Displays current battery levels in three steps.

Battery level icon

*Can only be used in country which achieved radio certification.
*May not be available due to radio wave conditions.

4 Owner information registration

- Allows registration of details such as company and individual name.
- Displayed in emergency notification emails.

Email text (sample)

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Other features available by Bluetooth

GX-3R Pro detection information can be combined with a wide range of wireless devices to enable management on the customer's server and to allow sharing of on-site status in real time with supervisors at remote locations.*

* Your company is responsible for system configurations.

Cloud server

Gas concentration detector information

Worker

Gateway

Site supervisor

Safety manager

Wireless device

温湿度計
30 ℃
85 %

Vital watch   Heat stroke index

Use in combination with a range of wireless devices

Awareness of individual status, environment, and location improves safety management.

Checking site conditions remotely

Emergency alert notification

Spotting signs of imminent disaster Accurate precautionary warnings

Rapid response in emergencies

Operation in conjunction with your company's safety management procedures

Offers unlimited possibilities!

* Your company is responsible for system configurations.

GX-3R Pro communication specifications

Communication system:
Bluetooth 4.2 (Bluetooth Low Energy)

Profile:
GAP (Peripheral) / GATT

Output/maximum communication distance:
Class 2 / Approx. 10 m
(varies depending on surrounding environment)

Operations:
Acquiring gas concentration/status information; viewing/changing settings

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FAQ

Pairing

How long is the pairing standby time?	5 minutes. After 5 minutes, Bluetooth needs to be turned on again to resume standby.
What happens when a device is paired?	changes from blinking to steady illumination.
What happens when device pairing is lost?	blinks and the product goes to standby. No audible alarm is issued.
Are unpaired connections possible?	No.

Communication

What's the communication system (data access method)?	Read and Write.
What's the GATT profile?	Original.
What's the communication interval?	At least 1 second.

Main unit

What's the continuous operating time when using BLE?	Normal mode: 25 hours Long-life battery mode: 40 hours * Continuous operating time does not change when using BLE.
Is the product GPS-equipped?	No. Acquire location information from a smartphone or beacons.

Others

Can details of the communication specifications be disclosed?	Yes, with the conclusion of a nondisclosure agreement.
Do the product communication specifications need to be altered for connecting with a system?	No. Perform steps to ensure compatibility on the system side.
What are the costs of connecting with a system?	No costs are incurred. However, additional fees may apply if such connection requires changes in product specifications.

Specifications

Model	GX-3R Pro
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
Panic alarm	Two levels: Prealarm and main alarm (after 5-second prealarm) Reset operation: Self-latching
Man down alarm	Three levels: Prealarm 1 (60 seconds), prealarm 2 (75 seconds), main alarm (90 seconds) Reset operation: Self-latching
Display	LCD digital (full-dot), backlight
Displays	Operation status, clock, battery level, temperature, peak reading, calibration notification
Buzzer volume	Approx. 95 dB (30 cm)
Languages	Japanese/English/French/Spanish/Portuguese/German/Italian/Russian/Korean/Chinese (simplified/traditional)
Bluetooth	Bluetooth 4.2 (Bluetooth Low Energy)
Data logger function	Maximum number of items: 3,600 Interval: 5 minutes (adjustable) Communication system: IrDA
Power source	Lithium ion rechargeable battery unit (charging time approx. 3 hours) or dry battery unit (AAA alkaline battery × 2)
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°C~+60°C(no sudden changes), 0~95%RH (non-condensation)
Explosion-proof class	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)
External dimensions/ weight	With rechargeable battery unit: Approx. 73mm(W)×65mm(H)×26mm(D) (excluding protrusions) / Approx. 120 g With dry battery unit: Approx. 73mm(W)×65mm(H)×34mm(D) (excluding protrusions) / Approx. 140 g

*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 CH₄)	Oxygen	Carbon monoxide	Hydrogen sulfide	Sulfur dioxide (SO₂)	Carbon dioxide (CO₂)	
Detection principle	New ceramic type	Electrochemical type				Infrared type	
Detection range (service range)	0~100%LEL	0~25.0vol% (~40.0vol%)	0~500ppm (~2000ppm)	0~100.0ppm (~200.0ppm)	0~20.00ppm (~100.00ppm)	0~5.00vol% (~10.00vol%)	0~10,000ppm
1 digit	1 %LEL	0.1 vol%	1 ppm	0.1 ppm	0.05ppm	0.01 vol%	20 ppm
Gas alarm setpoint (can be set by user)	1st alarm : 10%LEL 2nd alarm : 25%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	1st alarm : 2.00ppm 2nd alarm : 5.00ppm 3rd alarm :100.00ppm TWA alarm : 2.00ppm STEL alarm : 5.00ppm OVER alarm :100.00ppm	1st alarm : 0.50vol% 2nd alarm : 3.00vol% 3rd alarm : 3.00vol% OVER alarm : 0.50vol% STEL alarm : 3.00vol% OVER alarm : 10.00vol%	1st alarm : 5000ppm 2nd alarm : 5000ppm 3rd alarm : 5000ppm TWA alarm : 5000ppm OVER alarm : 10000ppm

Standard accessories

● Protective cover
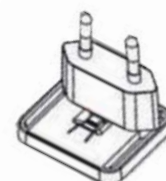

Appearance when attached

Protective cover
(port No. 4777 4161 10)

AC adapter
(Part No. 2594 0898 30)

Alligator clip
(Part No. 4777 9203 10)

Hand strap
(Part No. 0888 0605 90)

EU plug
(Part No. 2594 0933 60)

Ordering guide

▮ Select one combustible gas sensor.

Code	Selection	Sensor model	Detection range
H	Combustible gas (HC) sensor	NCR-6309	0~100%LEL
M	Combustible gas (CH_4) sensor	NCR-6309	0~100%LEL
0	No sensor	—	—

Code ①

▮ Select whether oxygen sensor is required.

Code	Selection	Sensor model	Detection range
1	Oxygen (O_2) sensor	ESR-X13P	0~25.0vol%(~40.0vol%)
0	No sensor	—	—

Code ②

▮ Select one sensor (detection gas type) to be installed.

Code	Selection	Sensor model	Detection range
E1	Carbon monoxide/ hydrogen sulfide (CO/H_2S) sensor	ESR-A1DP	0~500ppm(~2000ppm) 0~100.0ppm(~200.0ppm)
E2	Carbon monoxide (CO) sensor *H_2 interference reduction	ESR-A1CP	0~500ppm(~2000ppm)
E4	Hydrogen sulfide (H_2S) sensor	ESR-A13i	0~100.0ppm(~200.0ppm)
E5	Carbon monoxide (CO) sensor	ESR-A13P	0~500ppm(~2000ppm)
00	No sensor	—	—

Code ③④

▮ Select one sensor (detection gas type) to be installed.

Code	Selection	Sensor model	Detection range
E3	Sulfur dioxide (SO_2) sensor	ESR-A13D	0~20.00ppm(~100.00ppm)
E4	Hydrogen sulfide (H_2S) sensor	ESR-A13i	0~100.0ppm(~200.0ppm)
E5	Carbon monoxide (CO) sensor	ESR-A13P	0~500ppm(~2000ppm)
D1	Carbon dioxide (CO_2) <vol%> sensor	IRR-0409	0~5.00vol%(~10.00vol%)
D2	Carbon dioxide (CO_2) <ppm> sensor	IRR-0433	0~10000ppm
00	No sensor	—	—

Code ⑤⑥

(Note) **Two identical sensors cannot be selected.**

▮ Select the battery type.

Code	Selection	Model
L	Rechargeable lithium ion battery	BUL-3R
D	Alkaline battery	BUD-3R

Code ⑦

▮ Select Bluetooth compatibility.

Code	Selection	Model
1	Bluetooth support	—
0	Bluetooth unsupported	—

Code ⑧

*Can only be used in country which achieved radio certification.
*May not be available due to radio wave conditions.

Write the selected codes in the corresponding boxes on the right.

B [①] [②] [③ | ④] [⑤ | ⑥] [⑦] [⑧]

▮ Optional accessories list

Heat-resistant case	Charging cradle
Leather case	Five-unit AC adaptor
Belt clip	Calibration adapter
Arm/ankle belt	Data management program
Protective film	Pump unit RP-3R(Pro)
Manual suction unit	Docking station SDM-3R