RIKEN KEIKI

Model
GX-3R
Portable gas monitor

Weights just 100g!

Small & Light

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.

5-year warranty

The instrument and sensors have 5-year warranty*.
*Option.

Intrinsically safe explosion-proof construction and flame - proof enclosures

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!

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

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

Shipyards
Use the suction unit to confirm safety before entering pits.

Steel plants
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	27 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.

Combustible conversion gas list

Conversion gas	Gas name displayed	Calibration gas conversion		Conversion gas	Gas name displayed	Calibration gas conversion	
		CH_4	$i\text{-}C_4H_{10}$			CH_4	$i\text{-}C_4H_{10}$
Methane	CH_4	—	✕	Benzene	C_6H_6	◯	◯
Isobutane	$i\text{-}C_4H_{10}$	◯	—	n-Hexane	$n\text{-}C_6H_{14}$	◯	◯
Hydrogen	H_2	◯	◯	Toluene	C_7H_8	◯	◯
Methanol	CH_3OH	◯	◯	n-Heptane	$n\text{-}C_7H_{16}$	◯	◯
Acetylene	C_2H_2	◯	◯	Xylene	C_8H_{10}	◯	◯
Ethylene	C_2H_4	◯	◯	n-Nonane	$n\text{-}C_9H_{20}$	◯	◯
Ethane	C_2H_6	◯	✕	Ethyl acetate	EtAc	◯	◯
Ethanol	C_2H_5OH	◯	◯	Isopropyl alcohol	IPA	◯	◯
Propylene	C_3H_6	◯	◯	Methyl ethyl ketone	MEK	◯	◯
Acetone	C_3H_6O	◯	◯	Methyl methacrylate	MMA	◯	◯
Propane	C_3H_8	◯	✕	Dimethyl ether	DME	◯	◯
Butadiene	C_4H_6	◯	◯	Methyl isobutyl ketone	MIBK	◯	◯
Cyclopentane	C_5H_{10}	◯	◯	Tetrahydrofuran	THF	◯	◯
				n-Pentane	$n\text{-}C_5H_{12}$	◯	◯

Mounted with the new R sensors, which are long-term consistence sensors

GX-3R mounted with the new R sensor series, which have dramatically improved the performance from the previous sensors.
The sensors have 5-year warranty*.
*Option.

HC or CH_4	O_2	CO&H_2S	CO
Tough construction against poisoning- and impact-resistant!	New electrochemical oxygen sensor, which improved the basic characteristics.	2-in-1 configuration enabled smaller detector!	Significantly reduce H_2 interference with a two-sensor structure!

Wide range of safety functions

Combustible gas conversion function
Eliminates the need for complex calculations. Allows direct readout of 27 different combustible gas types.

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

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.

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.

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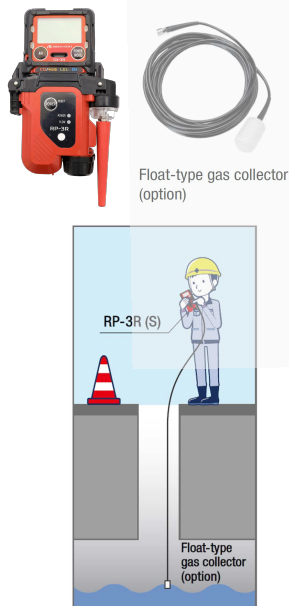
Optional accessories

#	Item		
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 *Photo shows the unit with sampling probe.	
7	Charging cradle		
8	Five-unit AC adapter		
9	Calibration adapter		
10	Data management program		

Model
GX-3R

#	Item	Description	Part No.
1	Heat-resistant case	Case for protection from heat resource. Uses a safety pin.	Part No. 4777 45**76 10**
2	Leather case	Case for protection against dirt. Uses the clip on the unit.	Part No. 4777 45**51 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. (set of 5)	Part No. 4777 9296 50
6	Manual suction unit	External manual pump. Draws in at greater flow rates than electric pump.	(with sampling probe) Part No. 4777 9302 80 (with 8m float-type tube) Part No. 4777 9304 20 (with 30m weighted tube) Part No. 4777 9305 00
7	Charging cradle	Cradle for recharging the unit. Cradles can be interconnected.	Part No. BC-3R 00
8	Five-unit AC adapter	One AC adapter recharges up to five units. *Recharging times remain unchanged.	(with 22.5cm cable) Part No. 4777 9329 70 (with 60cm cable) Part No. 4777 9319 80 (with 120cm cable) Part No. 4777 9333 20
9	Calibration adapter	Adapter for applying gas to GX-3R during bump test and calibration. (with outlet nipple and rubber seal)	Part No. 4777 9311 00
10	Data management program	Software for viewing and managing measurement data.	Part No. 9811 0870 60

11 Pump unit RP-3R（S）

An external electric pump. Allows use for suction sampling.

Float-type gas collector (option)

RP-3R (S)

Float-type gas collector (option)

Specifications

Model	RP-3R (S)
Suction flow rate	High mode: 0.5 L/min or more Low mode: 0.35 L/min or more
Power source	AA alkaline battery × 1
Continuous operating time	High mode: Approx. 10 hours Low mode: Approx. 16 hours
Temperature range	-20ºC~+50ºC (at a constant condition)
Humidity range	0~95%RH (non-condensing)
Explosion-proof class	Inherently safe explosion-proof construction ATEX II 1 G Ex ia IIC T4 Ga IECEx Ex ia IIC T4 Ga Japan Ex Ex ia IIC T4 Ga
Construction	Drip-proof and dust-proof performances compliant to IP67 level
Dimensions / Weight	Approx. 93 mm (W) × 95 mm (H) × 29 mm (D) (excluding projections) / Approx. 130 g
Optional accessories	Float-type gas collector (8 m)

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

12 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 ~ 240 V AC ±10 %, 50/60 Hz
Suction flow rate	Approx. 0.25 L/min
Temperature range	0~40 ºC (at a constant condition)
Humidity range	0~95 %RH (non-condensing)
Dimensions / Weight	Approx. 130 mm (W) × 110 mm (H) × 250 mm (D) / Approx. 800 g
Optional accessories	Connecting fixture, wall-mounting fixture, exhaust tube

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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 **Connects 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.

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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(S))
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. 95 dB (30 cm)
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
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)
Certifications*3	ATEX, IECEx, Japan Ex, INMETRO, China Ex, JG, MED, JIS T 8201, JIS T 8205, EN 50104, EN 45544-1 EN 45544-2, EN 45544-3, EN 60079-29-1, CE marking
Explosion-proof class*3	**ATEX** II 1 G Ex da ia IIC T4 Ga / I M1 Ex da ia I Ma (With combustible gas sensor) II 1 G Ex ia IIC T4 Ga / I M1 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) **Japan Ex** Ex ia IIC T4 Ga
Protection level	Equivalent to IP66/68 (2 m, 1 h)
External dimensions/weight	Approx. 58 mm (W) × 65 mm (H) × 26 mm (D) (excluding protrusions) / Approx.100 g
Warranty	3 years (optional 2 years extension available)

*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)
*3 Applicable standards and certifications vary depending on the specifications of the gas detector. Please specify at the time of purchase.

Detection gas

Detection target gas	Combustible gas (HC or CH4)	Oxygen(O2)	Carbon monoxide(CO)	Hydrogen sulfide(H2S)
Detection principle	New ceramic type	Electrochemical type		
Detection range (service range)	0~100%LEL	0~25.0 vol% (~40.0 vol%)	0~500ppm (~2000ppm)	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 : 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

Standard accessories

Protective cover

Appearance when attached

Protective cover
(Part No. 4777 4161 10)

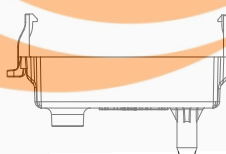
AC adapter
(Part No. 2594 0898 30)
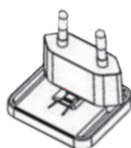
Alligator clip
(Part No. 4777 9203 10)

Hand strap
(Part No. 0888 0605 90)

Calibration adapter (simple type)
(Part No. 4777 9369 30)

EU plug
(Part No. 2594 0933 60)

Type list

TYPE	Detection gas
TYPE A	LEL, O2, H2S, CO
TYPE B	LEL, O2 ,H2S
TYPE C	LEL, O2, CO
TYPE CH	LEL, O2, CO*
TYPE D	LEL, O2
TYPE E	O2, H2S
TYPE F	O2, CO
TYPE FH	O2, CO*
TYPE I	LEL, CO
TYPE IH	LEL, CO*
TYPE K	H2S

* CO sensor with reduced H2 interference

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