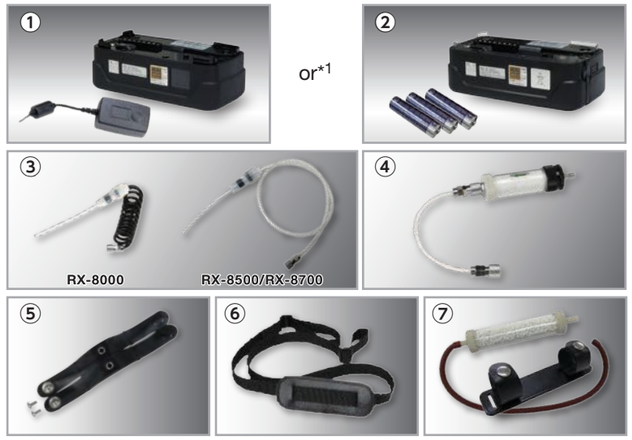
Standard accessories

1. Lithium ion rechargeable battery unit and AC adapter for charging
2. Dry battery unit and AA alkaline batteries (× 3)
3. Gas sampling rod and gas sampling tube
4. Filter cylinder and connecting tube
5. Filter cylinder retaining belts
6. Shoulder strap
7. CO_2 removal filter and retaining belt*2

*1: The dry battery unit is selectable as standard only with the RX-8000.
*2: Provided only with the RX-8500



Optional accessories (sold separately)

- Lithium ion rechargeable battery unit
- AC adapter for charging
- Dry battery unit
- AA alkaline batteries (× 3)
- Sampling rod holder
- Absorbent cotton
- Demand flow valve
- Calibration gas cans
- Gas sampling bag set
- H_2S calibration gas set (CK-82) *RX-8000 only

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★ **Distributed by:**

PCOE-0940-201100

PCOE-0940

RIKEN KEIKI

Portable Gas Detectors

Model RX-8000/RX-8500/RX-8700

ATEX
IECEx
TIIS (Japan Ex)
CE marking
MED *RX-8000 only
ABS Type Approval *RX-8500/RX8700 only
JG (Japan Government Type Approval)
NK (Class NK Type Approval) *RX-8500/RX8700 only

[Target gases]

◆RX-8000
HC or CH_4: 0 - 100.0 %LEL/Up to 100.0 vol%
O_2: 0 - 25.0 vol% (Service range 25.1 - 40.0 vol%)

◆RX-8500
CH_4: 0 - 100.0 %LEL/5 - 100.0 vol%
O_2: 0 - 25.0 vol% (Service range 25.1 - 40.0 vol%)
CO: 0 - 1,000 ppm
CO_2: 0 - 20.0 vol%

◆RX-8700
HC: 0 - 100.0 %LEL/2 - 100.0 vol%
O_2: 0 - 25.0 vol% (Service range 25.1 - 40.0 vol%)
H_2S: Low concentration measurement mode: 0 - 30.0 ppm
(Service range 30.5 - 100.0 ppm)
High concentration measurement mode: 0 - 1,000 ppm

RIKEN KEIKI Co.,Ltd.

Features

○ Capable of measuring combustible gas (HC or CH_4) from low to high concentrations

The easy-to-use auto range switching feature automatically switches to the vol% range if the combustible gas concentration measured exceeds 100 %LEL.

○ Infrared sensor maintains high accuracy even in inert gas or N_2 atmospheres

Features infrared type combustible gas sensor unaffected by oxygen concentrations during measurement. Its high selectivity also means it's virtually unaffected by interference from other coexisting gases or water vapor.

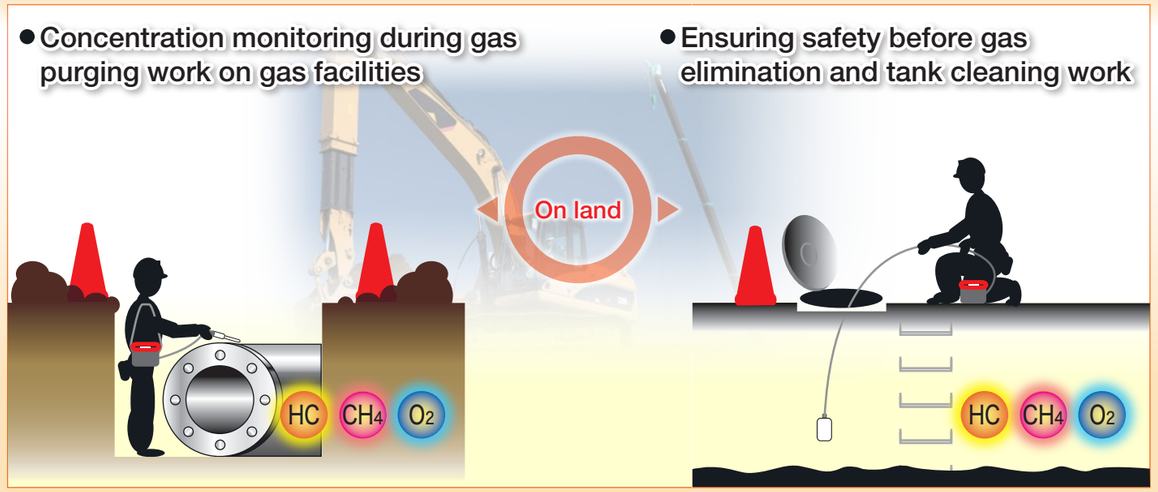
○ Intrinsically safe explosion-proof construction

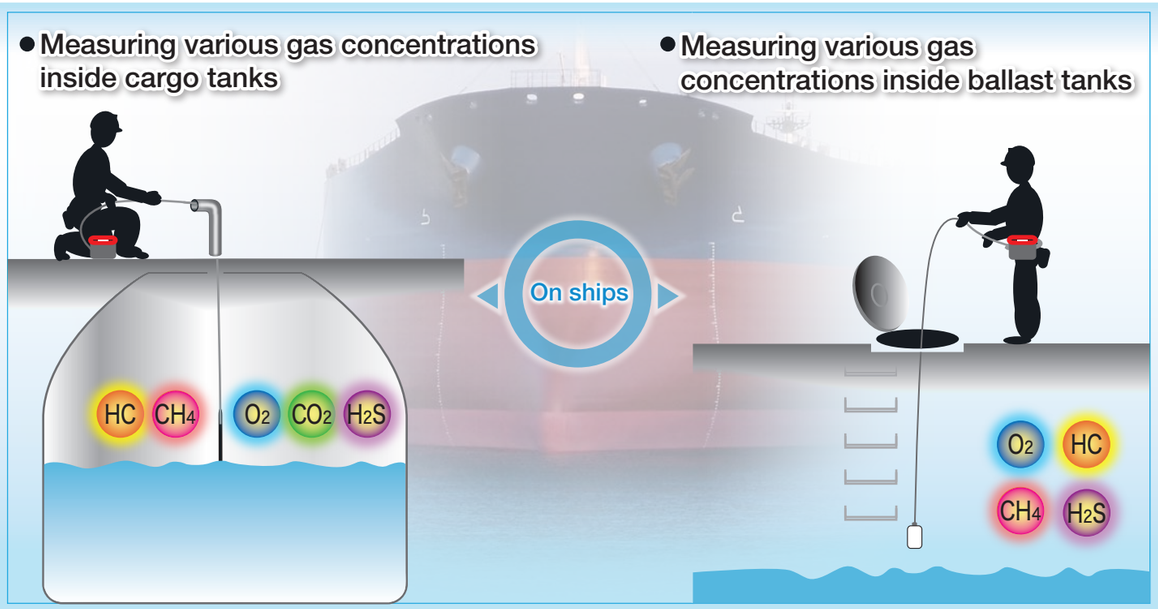
The Ex ia IIC T4 X explosion-proof rating allows use even in Zone 0 hazardous areas. Protection rating equivalent to IP67.

○ Complies with SOLAS convention amendments

Meets the requirements of amended SOLAS convention for portable gas detectors carried by vessels.
① Capable of measuring combustible gas (HC or CH_4) and oxygen (O_2) simultaneously
② Intrinsically safe explosion-proof construction ③ Continuous operation for at least 10 hours

Applications





● Monitoring performance of inert gas emitting equipment [HC, CH_4, O_2]

● Measuring residual gas concentrations inside tanks during repair work [CO_2, CO]

● Checking safety before entering enclosed spaces [H_2S, O_2]

Specifications

○ RX-8000

Able to measure HC/CH_4 with high accuracy even in inert gas or N_2 atmospheres

Target gases	Combustible gas (HC*1 or CH_4)	Oxygen (O_2)
Measuring principles	Non-dispersive infrared type	Galvanic cell type
Measurement range (Service range)	0 - 100.0 %LEL/Up to 100.0 vol%*2	0 - 25.0 vol% (25.1 - 40.0 vol%)
1 digit	0.5 %LEL (0 - 100.0 %LEL)/0.5 vol% (Up to 100.0 vol%)	0.1 vol%
Measuring method	Pump suction type (Minimum suction flow rate: 0.75 L/min)	
Display	LCD digital (7-segment + sign + bar meter)	
Fault alarms	System abnormality, sensor abnormality, low battery voltage, calibration failure, low flow rate, clock abnormality	
Fault alarm indications	Lamp flashing, intermittent buzzer sounding, detail display	
Power source*3	Lithium ion battery unit or dry battery unit (AA alkaline batteries × 3)	
Continuous operating time	Lithium ion battery unit: Approx. 15 hours (with full charge, at 25 °C, no alarm, no lighting) Dry battery unit: Approx. 10 hours (with new batteries, at 25 °C, no alarm, no lighting)	
Operating temperature/ humidity range	-20 °C - +50 °C (no sudden changes), up to 95 %RH (no condensation)	
External dimensions	Approx. 154 mm (W) × 81 mm (H) × 127 mm (D) (excluding projections)	
Weight	Approx. 1.1 kg (with lithium ion battery unit), approx. 1.0 kg (with dry battery unit)	
Protection level	IP67 equivalent	
Explosion-proof	Intrinsically safe explosion-proof construction (Ex ia IIC T4 X)	
Certifications	TIIS explosion-proof certified, ATEX explosion-proof certified, IECEx certified, CE marking compliant, MED compliant, JG type approved	
Functions*4	LCD backlight, data logger, peak display, log data display, pump shutdown	

○ RX-8500

A single unit supports all operations within LNG vessels

Target gases	Combustible gas (CH_4)	Oxygen (O_2)	Carbon monoxide (CO)	Carbon dioxide (CO_2)
Measuring principles	Non-dispersive infrared type	Galvanic cell type	Electrochemical type	Non-dispersive infrared type
Measurement range (Service range)	0 - 100.0 %LEL/ 5 - 100.0 vol%*2	0 - 25.0 vol% (25.1 - 40.0 vol%)	0 - 1,000 ppm	0 - 20.0 vol%
1 digit	0.5 %LEL (0 - 100.0 %LEL) 0.5 vol% (5.0 - 100.0 vol%)	0.1 vol%	1 ppm	0.01 vol% (0 - 2.00 vol%) 0.05 vol% (2.00 - 5.00 vol%) 0.1 vol% (5.00 - 20.0 vol%)
Measuring method	Pump suction type (Minimum suction flow rate: 0.75 L/min)			
Display	LCD digital (7-segment + sign + bar meter)			
Fault alarms	System abnormality, sensor abnormality, low battery voltage, calibration failure, low flow rate, clock abnormality			
Fault alarm indications	Lamp flashing, intermittent buzzer sounding, detail display			
Power source*3	Lithium ion battery unit or dry battery unit (AA alkaline batteries × 3) (option)			
Continuous operating time	Lithium ion battery unit: Approx. 15 hours (with full charge, at 25 °C, no alarm, no lighting) Dry battery unit: Approx. 8 hours (with new batteries, at 25 °C, no alarm, no lighting)			
Operating temperature/ humidity range	-20 °C - +50 °C (no sudden changes), up to 95 %RH (no condensation)			
External dimensions	Approx. 154 mm (W) × 81 mm (H) × 163 mm (D) (excluding projections)			
Weight	Approx. 1.2 kg (with lithium ion battery unit), approx. 1.1 kg (with dry battery unit)			
Protection level	IP67 equivalent			
Explosion-proof	Intrinsically safe explosion-proof construction (Ex ia IIC T4 X)			
Certifications	TIIS explosion-proof certified, ATEX explosion-proof certified, IECEx certified, CE marking compliant JG type approved, NK type approved, ABS type approved, MED (pending)			
Functions*4	LCD backlight, data logger, peak display, log data display, pump shutdown			

○ RX-8700

Capable of high-concentration H_2S measurement
(Measurement mode switching with one push of a button)

Target gases	Combustible gas (HC)*1	Oxygen (O_2)	Hydrogen sulfide (H_2S)	
Measuring principles	Non-dispersive infrared type	Galvanic cell type	Electrochemical type	
Measurement range (Service range)	0 - 100.0 %LEL/ 2 - 100.0 vol%*2	0 to 25.0 vol% (25.1 - 40.0 vol%)	Low concentration: 0 - 30.0 ppm (30.5 - 100.0 ppm)	High concentration: 0 - 1,000 ppm
1 digit	0.5 %LEL (0 - 100.0 %LEL) 0.5 vol% (5.0 - 100.0 vol%)	0.1 vol%	0.5 ppm	1 ppm
Measuring method	Pump suction type (Minimum suction flow rate: 0.75 L/min)			
Display	LCD digital (7-segment + sign + bar meter)			
Fault alarms	System abnormality, sensor abnormality, low battery voltage, calibration failure, low flow rate, clock abnormality			
Fault alarm indications	Lamp flashing, intermittent buzzer sounding, detail display			
Power source*3	Lithium ion battery unit or dry battery unit (AA alkaline batteries × 3) (option)			
Continuous operating time	Lithium ion battery unit: Approx. 15 hours (with full charge, at 25 °C, no alarm, no lighting) Dry battery unit: Approx. 8 hours (with new batteries, at 25 °C, no alarm, no lighting)			
Operating temperature/ humidity range	-20 °C - +50 °C (no sudden changes), up to 95 %RH (no condensation)			
External dimensions	Approx. 154 mm (W) × 81 mm (H) × 163 mm (D) (excluding projections)			
Weight	Approx. 1.3 kg (with lithium ion battery unit), approx. 1.2 kg (with dry battery unit)			
Protection level	IP67 equivalent			
Explosion-proof	Intrinsically safe explosion-proof construction (Ex ia IIC T4 X)			
Certifications	TIIS explosion-proof certified, ATEX explosion-proof certified, IECEx certified, CE marking compliant JG type approved, NK type approved, ABS type approved, MED (pending)			
Functions*4	LCD backlight, data logger, peak display, log data display, pump shutdown			

*1: HC calibration gas is isobutane. Contact Riken Keiki if you intend to measure a gas other than the calibration gas. *2: This product automatically switches measurement ranges. The product will automatically switch to the vol% range if the combustible gas concentration measured exceeds 100 %LEL. *3: The RX-8500 and RX-8700 standard versions use the lithium ion battery unit. The dry battery version is optional. For the dry battery version, use dry batteries specified in the certificate of conformity for electrical equipment used in potentially explosive atmospheres to meet explosion-proof performance requirements. *4: Contact Riken Keiki if you require the optional gas alarm function.