



For Semiconductor/LED/Solar Cell plants,  
and Gas/Petro Chemical/Chemical plants.

# PORTABLE TOXIC GAS MONITOR

## Model SC-8000



### ◆ Applications

- Semiconductor/LED/Solar Cell plants
- Petro Chemical/Chemical plants
- Refineries
- Gas plant/Gas supplier services
- Chemical tanker
- Confined space
- Utilities
- Monitoring toxic gas in hazardous zone
- Leak check at maintenance work

### ◆ Features

- Real time detection with ppm range
- Large digital and bar graph display with back light
- Loud alarm buzzer with 95dB
- 2 steps adjustable alarm volume
- Easy and simple operation
- Compact size and light weight
- ATEX Intrinsic safe design Exia IIC T4
- Water and dust resistant IP67
- Ergonomic design with waist strap for hands free operation
- Datalogging standard



ISO 9001-950R-007  
ISO 14001-97ER-005  
TOKYO HEAD OFFICE - KASUKABE PLANT  
HAKODATE PLANT

**RIKEN KEIKI**

# COMPONENT DESIGNATIONS

The SC-8000 sets the new industry standard for rugged, reliable portable toxic gas detection. It's compact, light weight, tough, water proof and intrinsic safe design utilized features based on years of gas detection experience, to assure that the instrument will be operated properly to check gas leak and protect workers and also, properties in toxic gas detection applications.

## LCD display

Large display with back light

## Audible alarm

Loud distinct tone, 95dB with two openings 2 steps adjustable loud level

## Alarm lamps

Three bright LED indications

## IrDA port

## Switches

Easy operation and control with four switches



## Waist strap fitting

Optional

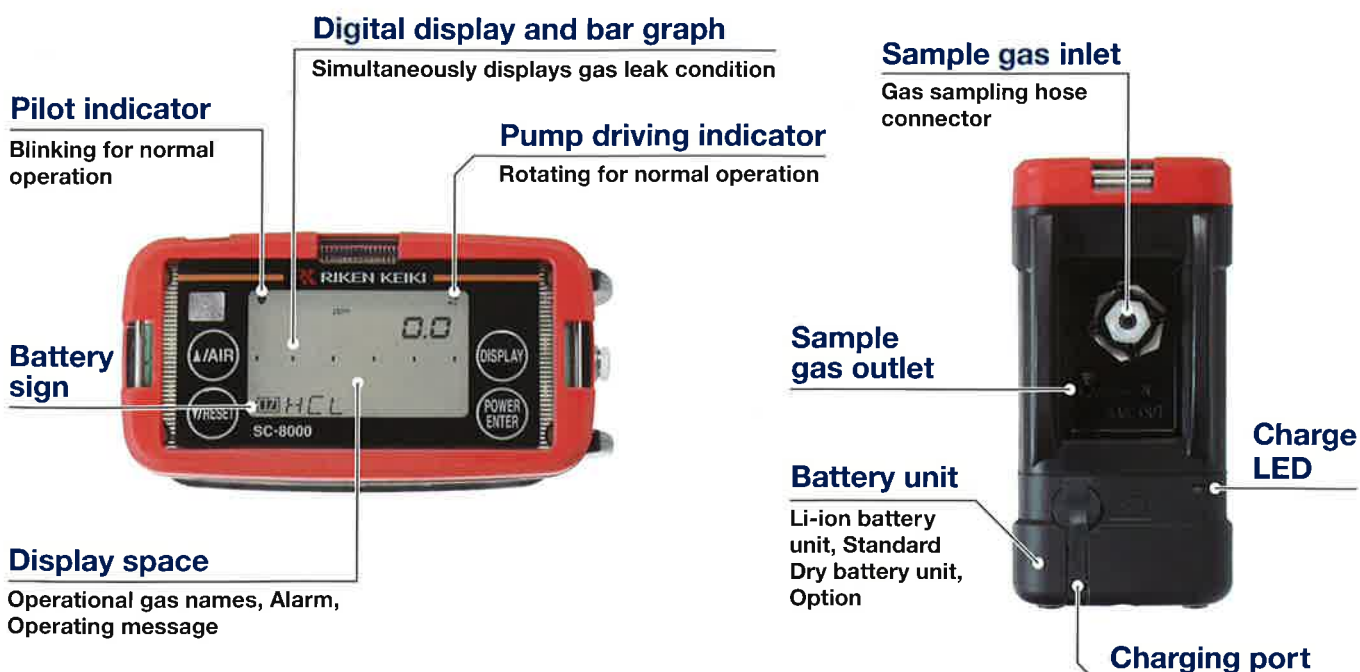
## Sample gas outlet

## Sample gas inlet

Gas sampling hose connection port

## Top view

## Side view



## ◆ Specifications

Model	SC-8000
Target gas Detection range Alarm point	Please refer to the table on the next page. (Specify one detectable gas and range when ordering.)
Detection principle	Electrochemical
Types of alarm	Gas alarm : Latching, 2 alarms Failure alarm : Flow failure, Sensor failure, Battery failure, Circuit failure, Calibration failure, Setting current failure
Display of alarm	Lamp : LED's flash (high definition LED) Buzzer : (Gas alarm) Alternating sound high and low pitch, (Failure alarm) Continuous sound Display : (Gas alarm) Gas concentration on the display flashes. (Failure alarm) Alarm message on the display flashes.
Alarm sound	95dB (A) at 30cm
Sampling method	Sample draw, approx. 0.5L/min
Display	Digital LCD with auto backlight Digital display (7 segments) + digital bargraph (50 segments)
Power source	Rechargeable Lithium-ion battery (3 hours for a full charge) : Standard (BUL-8000) AA Alkaline battery (3 pcs) : Option (BUD-8000)
Continuous operation	Lithium-ion battery : 25 hours AA Alkaline battery : 18 hours
Operating temp & humidity	Operating temp : -20~+50°C, Humidity 20~88%RH (without condensing)
Dimensions & Weight	Dimension : 154(W)×81(H)×164(D)mm, Weight : approx 1.1 kg (with BUL-8000)
Ingress proof rating	IP67
Explosion proof	Intrinsically safe : Exia II C T4
Approvals	IECEX (No.DEK 11.0019), ATEX (No.DEKRA 11ATEX0047), TIIS (NO.TC20086) CE mark
Additional features	Self diagnosis system Zero/Span adjustment (Demand zero/Auto zero selectable) Indication to show energizing (pilot indicator and pump driving indicator) IrDA communication, Data logger (interval, Alarm trend, Station ID control) Peak value/Average value display, Buzzer selector switch (2steps High/Low) Bump test function

Remarks : Specifications subject to change without notice.

# DETECTABLE GAS AND MEASURING RANGE FOR MODEL SC-8000

Detectable gas	Chemical formula	Measuring range (ppm)	Increments (ppm)	Preset alarm (ppm)	
				1st	2nd
Ammonia	NH <sub>3</sub>	0~75.0	0.5	25.0	50.0
Arsine	AsH <sub>3</sub>	0~1.00	0.01	0.30	0.60
		0~0.200	0.001	0.050	0.100
Bromine	Br <sub>2</sub>	0~1.00	0.01	0.30	0.60
Carbon monoxide	CO	0~75.0	0.5	25.0	50.0
		0~150	1	50	100
		0~300	2	100	200
Chlorine	Cl <sub>2</sub>	0~1.50	0.01	0.50	1.00
		0~3.00	0.02	1.00	2.00
Chlorine trifluoride	ClF <sub>3</sub>	0~1.00	0.01	0.30	0.60
Diborane	B <sub>2</sub> H <sub>6</sub>	0~0.300	0.002	0.100	0.200
Dimethylacetamide	DMA	0~15.0	0.1	5.0	10.0
Disilane	Si <sub>2</sub> H <sub>6</sub>	0~15.0	0.1	5.0	10.0
Flourine	F <sub>2</sub>	0~3.00	0.02	1.00	2.00
Germane	GeH <sub>4</sub>	0~0.800	0.005	0.200	0.400
Hydrazine	N <sub>2</sub> H <sub>4</sub>	0~5.00	0.05	1.50	3.00
Hydrogen bromide	HBr	0~6.00	0.05	2.00	4.00
Hydrogen chloride	HCl	0~6.00	0.05	2.00	4.00
		0~15.0	0.1	5.0	10.0
Hydrogen cyanide	HCN	0~15.0	0.1	4.0	10.0
Hydrogen fluoride	HF	0~9.00	0.05	3.00	6.00
Hydrogen iodide	HI	0~5.00	0.05	1.50	3.00
Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub>	0~3.00	0.02	1.00	2.00
Hydrogen selenide	H <sub>2</sub> Se	0~0.200	0.001	0.050	0.100
		0~1.00	0.01	0.30	0.60
		0~3.00	0.02	1.00	2.00
Hydrogen sulfide	H <sub>2</sub> S	0~30.0	0.2	5.0	10.0
		0~1.00	0.01	0.30	0.60
Iodine	I <sub>2</sub>	0~1.00	0.01	0.30	0.60
Nitrogen dioxide	NO <sub>2</sub>	0~15.0	0.1	5.0	10.0
Nitrogen monoxide	NO	0~100	1	25	50
Ozone	O <sub>3</sub>	0~1.00	0.01	0.30	0.60
Phosphine	PH <sub>3</sub>	0~1.00	0.01	0.30	0.60
Phosphorus trifluoride	PF <sub>3</sub>	0~10.0	0.1	2.0	4.0
Silane	SiH <sub>4</sub>	0~15.0	0.1	5.0	10.0
Sulfur dioxide	SO <sub>2</sub>	0~6.00	0.05	2.00	4.00
		0~30.0	0.2	10.0	20.0

Remarks : Specify one detectable gas and range when ordering.  
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## Standard accessories

- Lithium-ion battery unit BUL-8000
- AC powered charger  
(Input : AC100V - AC240V 50/60Hz)  
(Output : DC12V 1.25A)
- Gas sampling hose (1m) with probe

## Optional accessories

- Dry battery unit BUD-8000
- Data-logging software
- Waist strap
- Sampling probe holder on the neck/shoulder strap
- Carrying box (aluminium)

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