

Detect dangerous gas leaks quickly and reliably

Portable Gas Leak Detector

Model SP-230 TYPE SC

CE Marking-compliant/ UKCA Marking-compliant product



- **Easy to recognize by LED**

Newly equipped with LED, it informs the user of alarm points, gas concentration, and operating status by color and scale.

- **Enhanced functions allow for work in dark places**

LED light illuminating the front.

The backlit buttons for easy operation.

- **One-push access to multiple functions**

Frequently used operations such as LED light ON/OFF, alarm/operation sound ON/OFF, and alarm point switching can be operated with single push.

- **Reliable assign for use even in harsh environments**

- Pass 2m drop testing

- Protection rating equivalent to IP67

- Usable across a wide range of temperature (−20°C to +55°C)

- **Allows direct readout of 50 type of different gases**

Model	SP-230
Type	TYPE SC
Detection principle	Hot-wire semiconductor type
Detection target gas	Semiconductor material Gas (Refer to Detection target gas list)
Calibration gas	PH ₃
Concentration display	LCD bar meter + scale + LED
Detection range	Depends on target gas (Refer to Detection target gas list) (PH ₃ : 0.1~2.0ppm)
Detection method	Pump suction type
Alarm setpoints	Default setting: 0.1ppm(PH ₃ : 0.1, 2.0 ppm)
Display items	Operating status icon, flow confirmation icon, operation tone icon, alarm sound icons, alarm setpoint display, battery level icon, bar meter display, mode display, gas name/message display
Response time (for identical conditions)	Within 10 seconds
Gas alarm type	One-step alarm
Gas alarm indication	Lamp flashing, buzzer sounding
Gas alarm pattern	Auto reset
Fault alarm	Sensor abnormality/Low flow rate/Low battery voltage/System abnormality/Adjustment abnormality/Clock abnormality/Pump abnormality
Fault alarm icon	Lamp flashing/buzzer sounding/fault information display
Fault alarm pattern	Self-latching
Power source	AA alkaline batteries × 2
Continuous operating time	Approx. 13 hours (with alkaline dry batteries, at 25°C, no alarm, no lighting)
Operating temperature/humidity range	-20 °C to +55 °C (no sudden fluctuations)/Up to 95 %RH (no condensation)
Protection level	IP67 equivalent
Certifications	CE marking, UKCA marking
External dimensions/weight	Approx. 41 mm (W) × 186 mm (H) × 38 mm (D) (excluding projections)/ Approx. 220 g (excluding dry batteries)

● Detection target gas list

Gas name (standard name)	Display	Scale 1	Scale 2	Gas name (standard name)	Display	Scale 1	Scale 2
Phosphine	PH3	0.1	2.0	Methyl alcohol	CH3OH	1	10
Acetone	C3H6O	1	10	Methyl ethyl ketone	MEK	1	10
Arsine	ASH3	0.2	—	Hydrogen sulfide	H2S	0.1	—
Ammonia	NH3	10	—	Diborane	B2H6	0.1	—
Isobutane	I-C4H10	1	10	Germane	GEH4	0.2	—
Isopropyl alcohol	IPA	1	10	Hydrogen bromide	HBR	10	—
Carbon monoxide	CO	10	30	Hydrogen chloride	HCL	10	—
Ethyl alcohol	C2H5OH	1	10	Freon 407C	R407C	10	50
Ethylene	C2H4	1	10	Hydrogen selenide	H2SE	0.5	—
Vinyl chloride	VCM	1	—	Freon 410A	R410A	10	50
Methyl chloride	CH3CL	1	10	Freon 404A	R404A	10	50
Xylene	C8H10	1	10	HFO-1234yf	R1234YF	10	30
Ethylene oxide	EO	1	10	Acetylene	C2H2	1	10
Silane	SiH4	0.5	—	Dichloromethane	CH2CL2	5	—
Methyl bromide	CH3BR	1	20	Propylene oxide	PO	1	10
Hydrogen	H2	1	10	trans-1,2-dichloroethene	C2H2CL2	1	—
Trichloroethylene	C2HCL3	10	—	Freon 41	R41	1	10
Toluene	C7H8	1	10	Perfluoro Butadiene	C4F6	5	30
1,2-dichloroethane	EDC	1	10	Carbonyl sulfide	COS	0.5	—
Sulfur dioxide	SO2	1	—	Deuterium	D2	1	10
Propane	C3H8	5	20	Freon 245fa	R245FA	10	50
Freon 134a	R134A	50	250	Trans-1,3,3,3-tetrafluoroethene (R-1234ze(E))	R1234ZEE	10	50
Freon 22	R22	10	50				
Freon 32	R32	10	50				
N-hexane	N-C6H14	10	50				
Benzene	C6H6	0.5	10				
Formaldehyde	HCHO	10	50				
Methane	CH4	1	20				

“—”(bar display) indicate no scale

※This product is used for detecting ultra-low gas leaks, so the gas concentration values are approximations.

Even easier to see!

In addition to the conventional LCD display screen, an LED display is mounted. The current gas alarm point, gas concentration, and operating status are notified in color and on a scale.



Normal

Gas alarm

Work in dark places is also safe!

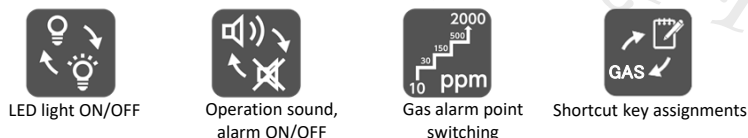
Enhanced functions ensures safety even when working in dark places, LED light illuminating the front, the backlit buttons for easy operation.



LED light

Button backlit

One-push access to multiple functions



LED light ON/OFF

Operation sound, alarm ON/OFF

Gas alarm point switching

Shortcut key assignments

Standard accessories

Numbers in parentheses are part NO.

Protective cover (4126 9248 30)	Tapered nozzle (4126 9249 10)	Hand strap (0888 0605 90)
AA Alkaline batteries (2753 3007 80) ※One battery	Replacement waterproof filters 5 pcs (4126 9189 30)	

Optional accessories

Numbers in parentheses are part NO.

Tertiary filters 5 pcs (4126 9199 20)	Inspection gas (0800 0904 10)	Humidifier tube (4126 9227 80)
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Detect dangerous gas leaks quickly and reliably

Portable Gas Leak Detector

Model SP-230 TYPE H2

CE Marking-compliant/ UKCA Marking-compliant product



● Easy to recognize by LED

Newly equipped with LED, it informs the user of alarm points, gas concentration, and operating status by color and scale.

● Enhanced functions allow for work in dark places

LED light illuminating the front.

The backlit buttons for easy operation.

● One-push access to multiple functions

Frequently used operations such as LED light ON/OFF, alarm/operation sound ON/OFF, and alarm point switching can be operated with single push.

● Reliable assign for use even in harsh environments

○ Pass 2m drop testing

○ Protection rating equivalent to IP67

○ Usable across a wide range of temperature (−20°C to +55°C)

Model	SP-230
Type	TYPE H2
Detection principle	Hot-wire semiconductor type
Detection target gas	Hydrogen Gas (Refer to Detection target gas list)
Calibration gas	H ₂ /CH ₄
Concentration display	LCD bar meter + scale + LED
Detection range	Depends on target gas (Refer to Detection target gas list) (H ₂ /CH ₄ : 10~2000ppm)
Detection method	Pump suction type
Alarm setpoints	Default setting: 30ppm(H ₂ /CH ₄ : 10, 30, 150, 500, 2000ppm)
Display items	Operating status icon, flow confirmation icon, operation tone icon, alarm sound icons, alarm setpoint display, battery level icon, bar meter display, mode display, gas name/message display
Response time (for identical conditions)	Within 3 seconds
Gas alarm type	One-step alarm
Gas alarm indication	Lamp flashing, buzzer sounding
Gas alarm pattern	Auto reset
Fault alarm	Sensor abnormality/Low flow rate/Low battery voltage/System abnormality/Adjustment abnormality/Clock abnormality/Pump abnormality
Fault alarm icon	Lamp flashing/buzzer sounding/fault information display
Fault alarm pattern	Self-latching
Power source	AA alkaline batteries × 2
Continuous operating time	Approx. 13 hours (with alkaline dry batteries, at 25 °C, no alarm, no lighting)
Operating temperature/humidity range	-20 °C to +55 °C (no sudden fluctuations)/Up to 95 %RH (no condensation)
Protection level	IP67 equivalent
Certifications	CE marking, UKCA marking
External dimensions/weight	Approx. 41 mm (W) × 186 mm (H) × 38 mm (D) (excluding projections)/ Approx. 220 g (excluding dry batteries)

● Detection target gas list

Gas name (standard name)	Display	Scale 1 (ppm)	Scale 2 (ppm)	Scale 3 (ppm)	Scale 4 (ppm)	Scale 5 (ppm)
Methane (calibration gas)	CH ₄	10	30	150	500	2000
Hydrogen (calibration gas)	H ₂	10	30	150	500	2000
Acetylene	C ₂ H ₂	10	30	150	500	2000
Ethylene	C ₂ H ₄	10	30	150	500	2000
Ethane	C ₂ H ₆	10	30	150	500	2000
Propylene	C ₃ H ₆	10	30	150	500	2000
Propane	C ₃ H ₈	10	30	150	500	2000
Butadiene	C ₄ H ₆	10	30	150	500	2000
Isobutylene	C ₄ H ₈	10	30	150	500	2000
Normal butane	N-C ₄ H ₁₀	10	30	150	500	2000
Isobutane	I-C ₄ H ₁₀	10	30	150	500	2000
Cyclopentane	C ₅ H ₁₀	10	30	150	500	2000
N-hexane	N-C ₆ H ₁₄	10	30	150	500	2000
Freon 22	R22	10	50	200	1000	3000
Freon 134a	R134A	20	100	500	2000	5000
HFO-1234yf	R1234YF	10	50	200	500	1000

※This product is used for detecting ultra-low gas leaks, so the gas concentration values are approximations.

Even easier to see!

In addition to the conventional LCD display screen, an LED display is mounted. The current gas alarm point, gas concentration, and operating status are notified in color and on a scale.



Normal

Gas alarm

Work in dark places is also safe!

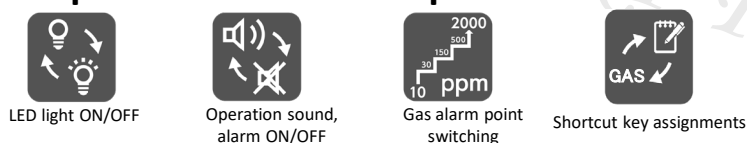
Enhanced functions ensures safety even when working in dark places, LED light illuminating the front, the backlit buttons for easy operation.



LED light

Button backlit

One-push access to multiple functions



Standard accessories

Numbers in parentheses are part NO.

Protective cover (4126 9248 30)	Tapered nozzle (4126 9249 10)	Hand strap (0888 0605 90)
AA Alkaline batteries (2753 3007 80) ※One battery	Replacement waterproof filters 5 pcs (4126 9189 30)	

Optional accessories

Numbers in parentheses are part NO.

Tertiary filters 5 pcs (4126 9199 20)	Inspection gas (0800 0904 10)	Humidifier tube (4126 9227 80)
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Detect dangerous gas leaks quickly and reliably

Portable Gas Leak Detector

Model SP-230 TYPE FUM

CE Marking-compliant/ UKCA Marking-compliant product



- **Easy to recognize by LED**

Newly equipped with LED, it informs the user of alarm points, gas concentration, and operating status by color and scale.

- **Enhanced functions allow for work in dark places**

LED light illuminating the front.

The backlit buttons for easy operation.

- **One-push access to multiple functions**

frequently used operations such as LED light ON/OFF, alarm/operation sound ON/OFF, and alarm point switching can be operated with single push.

- **Reliable assign for use even in harsh environments**

- Pass 2m drop testing

- Protection rating equivalent to IP67

- Usable across a wide range of temperature (−20°C to +55°C)

- **Allows direct readout of 7 type of fumigant gases**

Model	SP-230
Type	TYPE FUM
Detection principle	Hot-wire semiconductor type
Detection target gas	Fumigant Gas (Refer to Detection target gas list)
Calibration gas	PH ₃
Concentration display	LCD bar meter + scale + LED
Detection range	Depends on target gas (Refer to Detection target gas list) (PH ₃ : 0.1~4.5ppm)
Detection method	Pump suction type
Alarm setpoints	Default setting: 0.1ppm (PH ₃ : 0.1, 2.0, 4.5ppm)
Display items	Operating status icon, flow confirmation icon, operation tone icon, alarm sound icons, alarm setpoint display, battery level icon, bar meter display, mode display, gas name/message display
Response time (for identical conditions)	Within 10 seconds
Gas alarm type	One-step alarm
Gas alarm indication	Lamp flashing, buzzer sounding
Gas alarm pattern	Auto reset
Fault alarm	Sensor abnormality/Low flow rate/Low battery voltage/System abnormality/Adjustment abnormality/Clock abnormality/Pump abnormality
Fault alarm icon	Lamp flashing/buzzer sounding/fault information display
Fault alarm pattern	Self-latching
Power source	AA alkaline batteries × 2
Continuous operating time	Approx. 13 hours (with alkaline dry batteries, at 25 °C, no alarm, no lighting)
Operating temperature/humidity range	-20 °C to +55 °C (no sudden fluctuations)/Up to 95 %RH (no condensation)
Protection level	IP67 equivalent
Certifications	CE marking, UKCA marking
External dimensions/weight	Approx. 41 mm (W) × 186 mm (H) × 38 mm (D) (excluding projections)/ Approx. 220 g (excluding dry batteries)

※ This product is used for detecting ultra-low gas leaks, so the gas concentration values are approximations.

● Detection target gas list

Gas name (standard name)	Display	scale 1	Scale 2	Scale 3
Phosphine	PH ₃	0.1	2.0	4.5
Methyl bromide	CH ₃ BR	1	20	100
Carbon disulfide	CS ₂	0.1	—	—
Methyl iodide	CH ₃ I	1	10	30
Hydrogen cyanide	HCN	1	—	—
Sulfuryl fluoride	SO ₂ F ₂	—	—	800
Ethylene dibromide	C ₂ H ₄ Br ₂	1	10	30

“—” (bar display) indicate no scale

Even easier to see!

In addition to the conventional LCD display screen, an LED display is mounted. The current gas alarm point, gas concentration, and operating status are notified in color and on a scale.



Normal

Gas alarm

Work in dark places is also safe!

Enhanced functions ensure safety even when working in dark places, LED light illuminating the front, the backlit buttons for easy operation.



LED light

Button backlit

One-push access to multiple functions



LED light ON/OFF



Operation sound, alarm ON/OFF



Gas alarm point switching



Shortcut key assignments

Standard accessories

Numbers in parentheses are part NO.

Protective cover
(4126 9248 30)



Tapered nozzle
(4126 9249 10)



Hand strap
(0888 0605 90)



AA Alkaline batteries
(2753 3007 80) ※ One battery



Replacement waterproof filters
5 pcs
(4126 9189 30)



Optional accessories

Numbers in parentheses are part NO.

Tertiary filters
5 pcs
(4126 9199 20)



Inspection gas
(0800 0904 10)



Humidifier tube
(4126 9227 80)



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Detect dangerous gas leaks quickly and reliably

Portable Gas Leak Detector

Model SP-230 TYPE F

CE Marking-compliant/ UKCA Marking-compliant product



- **Easy to recognize by LED**

Newly equipped with LED, it informs the user of alarm points, gas concentration, and operating status by color and scale.

- **Enhanced functions allow for work in dark places**

LED light illuminating the front.

The backlit buttons for easy operation.

- **One-push access to multiple functions**

Frequently used operations such as LED light ON/OFF, alarm/operation sound ON/OFF, and alarm point switching can be operated with single push.

- **Reliable assign for use even in harsh environments**

○ Pass 2m drop testing

○ Protection rating equivalent to IP67

○ Usable across a wide range of temperature (−20°C to +55°C)

- **Allows direct readout of 14 type of freon gases**

Model	SP-230
Type	TYPE F
Detection principle	Hot-wire semiconductor type
Detection target gas	Freon Gas (Refer to Detection target gas list)
Calibration gas	R600a (isobutane)
Concentration display	LCD bar meter + scale + LED
Detection range	Depends on target gas (Refer to Detection target gas list) (R600a: 10~2000ppm)
Detection method	Pump suction type
Alarm setpoints	Default setting: 30ppm (R600a: 10, 30, 150, 500, 2000 ppm)
Display items	Operating status icon, flow confirmation icon, operation tone icon, alarm sound icons, alarm setpoint display, battery level icon, bar meter display, mode display, gas name/message display
Response time (for identical conditions)	Within 3 seconds
Gas alarm type	One-step alarm
Gas alarm indication	Lamp flashing, buzzer sounding
Gas alarm pattern	Auto reset
Fault alarm	Sensor abnormality/Low flow rate/Low battery voltage/System abnormality/Adjustment abnormality/Clock abnormality/Pump abnormality
Fault alarm icon	Lamp flashing/buzzer sounding/fault information display
Fault alarm pattern	Self-latching
Power source	AA alkaline batteries × 2
Continuous operating time	Approx. 13 hours (with alkaline dry batteries, at 25 °C, no alarm, no lighting)
Operating temperature/humidity range	-20 °C to +55 °C (no sudden fluctuations)/Up to 95 %RH (no condensation)
Protection level	IP67 equivalent
Certifications	CE marking, UKCA marking
External dimensions/weight	Approx. 41 mm (W) × 186 mm (H) × 38 mm (D) (excluding projections)/ Approx. 220 g (excluding dry batteries)

※ This product is used for detecting ultra-low gas leaks, so the gas concentration values are approximations.

● Detection target gas list

Gas name (standard name)	Display	Scale 1 (ppm)	Scale 2 (ppm)	Scale 3 (ppm)	Scale 4 (ppm)	Scale 5 (ppm)	Unit conversion (guide) (g/year)
R600a (Isobutane)	R600A	10	30	150	500	2000	Approx. 2.7
R290 (Propane)	R290	10	50	200	500	2000	Approx. 2.1
Freon 123	R123	20	100	500	2000	5000	Approx. 14.4
Freon 134a	R134A	20	100	500	2000	5000	Approx. 9.58
Freon 142b	R142B	10	50	100	200	500	Approx. 4.7
Freon 22	R22	10	50	200	1000	3000	Approx. 4.1
Freon 32	R32	10	50	200	500	2000	Approx. 2.4
Freon 23	R23	10	50	200	500	2000	Approx. 3.3
Freon 407C	R407C	10	50	200	500	2000	Approx. 4.0
Freon 410A	R410A	10	50	200	500	2000	Approx. 3.4
Freon 404A	R404A	10	50	200	500	2000	Approx. 4.6
2,3,3,3- Tetrafluoro propene (HFO- 1234yf)	R1234Y F	10	50	200	500	1000	Approx. 5.3
Freon 507A	R507A	10	50	200	500	1000	Approx. 4.6
Freon 407A	R407A	10	50	200	500	2000	Approx. 4.2

※ The unit conversion value (g/year) represents the approximate value at "scale 1" concentration when assuming a pump flow rate of approximately 200 mL/min (constant).

Even easier to see!

In addition to the conventional LCD display screen, an LED display is mounted. The current gas alarm point, gas concentration, and operating status are notified in color and on a scale.



Normal



Gas alarm

Work in dark places is also safe!

Enhanced functions ensures safety even when working in dark places, LED light illuminating the front, the backlit buttons for easy operation.



LED light



Button backlit

One-push access to multiple functions



LED light ON/OFF



Operation sound,
alarm ON/OFF



Gas alarm point
switching



Shortcut key assignments

Standard accessories

Numbers in parentheses are part NO.

Protective cover
(4126 9248 30)



Tapered nozzle
(4126 9249 10)



Hand strap
(0888 0605 90)



AA Alkaline batteries
(2753 3007 80) ※One battery

Replacement
waterproof filters
5 pcs
(4126 9189 30)



Optional accessories

Numbers in parentheses are part NO.

Tertiary filters
5 pcs
(4126 9199 20)



Inspection gas
(0800 0904 10)



Humidifier tube
(4126 9227 80)



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